UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2022

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Commission file number 001-37702

Amgen Inc.

(Exact name of registrant as specified in its charter)

Delaware	**95-3540776**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
One Amgen Center Drive	
Thousand Oaks	
California	**91320-1799**
(Address of principal executive offices)	(Zip Code)

(805) 447-1000

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol (s)	Name of each exchange on which registered
Common stock, $0.0001 par value	**AMGN**	**The Nasdaq Stock Market LLC**
2.00% Senior Notes due 2026	**AMGN26**	**The Nasdaq Stock Market LLC**

Securities registered pursuant to Section 12(g) of the Act: **None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or Section 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	Accelerated filer	Non-accelerated filer	Smaller reporting company	Emerging growth company
☒	☐	☐	☐	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act) Yes ☐ No ☒

The approximate aggregate market value of voting and non-voting stock held by non-affiliates of the registrant was $129,940,091,621 as of June 30, 2022.(A)

(A) Excludes 818,128 shares of common stock held by directors and executive officers, and any stockholders whose ownership exceeds ten percent of the shares outstanding, at June 30, 2022. Exclusion of shares held by any person should not be construed to indicate that such person possesses the power, directly or indirectly, to direct or cause the direction of the management or policies of the registrant, or that such person is controlled by or under common control with the registrant.

533,976,238

(Number of shares of common stock outstanding as of February 6, 2023)

DOCUMENTS INCORPORATED BY REFERENCE

Specified portions of the registrant's Proxy Statement with respect to the 2023 Annual Meeting of Stockholders to be held May 19, 2023, are incorporated by reference into Part III of this annual report.

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Defined Terms and Products

Defined terms

We use several terms in this Form 10-K, including but not limited to those that are finance, regulation and disease-state related as well as names of other companies, which are given below.

Term	Description
2017 Tax Act	Tax Cuts and Jobs Act of 2017
AbbVie	AbbVie Inc.
Amended 2009 Plan	Amended and Restated 2009 Equity Incentive Plan
ANDA	Abbreviated New Drug Application
AOCI	accumulated other comprehensive income (loss)
ASCVD	atherosclerotic cardiovascular disease
ASR	Accelerated Share Repurchase
AstraZeneca	AstraZeneca plc
BeiGene	BeiGene, Ltd.
Bergamo	Laboratorio Quimico Farmaceutico Bergamo Ltda
BiTE®	bispecific T-cell engager
BPCIA	Biologics Price Competition and Innovation Act of 2009
CCPA	California Consumer Privacy Act of 2018
Celgene	Celgene Corporation
CGRP	calcitonin gene-related peptide
ChemoCentryx	ChemoCentryx, Inc.
chemotherapy	anticancer medicines
CHMP	Committee for Medicinal Products for Human Use
CMS	Centers for Medicare & Medicaid Services
COSO	Committee of Sponsoring Organizations of the Treadway Commission
COVID-19	coronavirus disease 2019
CV	cardiovascular
DLL3	delta-like ligand 3
DOJ	U.S. Department of Justice
EC	European Commission
Eczacıbaşı	EIS Eczacıbaşı İlaç, Sınai ve Finansal Yatırımlar Sanayi ve Ticaret A.Ş.
EMA	European Medicines Agency
EPS	earnings per share
ESG	environmental, social and governance
EU	European Union
FASB	Financial Accounting Standards Board
FCPA	U.S. Foreign Corrupt Practices Act
FDA	U.S. Food and Drug Administration
FDCA	Federal Food, Drug, and Cosmetic Act
Fitch	Fitch Ratings, Inc.
Five Prime	Five Prime Therapeutics, Inc.
FTC	Federal Trade Commission
GAAP	U.S. generally accepted accounting principles
GDPR	General Data Protection Regulation
GEJ	gastroesophageal junction
Gensenta	Gensenta İlaç Sanayi ve Ticaret A.Ş.
HHS	U.S. Department of Health & Human Services
Horizon	Horizon Therapeutics plc

Term	Description
IL	interleukin
IND	Investigational New Drug Application
IPR&D	in-process research and development
IRA	Inflation Reduction Act
IRS	Internal Revenue Service
Janssen	Janssen Biotech, Inc.
K-A	Kirin-Amgen, Inc.
KKC	Kyowa Kirin Co., Ltd.
KRAS	Kirsten rat sarcoma viral oncogene
LDL-C	low-density lipoprotein cholesterol
LIBOR	London Interbank Offered Rate
Lilly	Eli Lilly and Company
Lp(a)	lipoprotein(a)
MD&A	management's discussion and analysis
Moody's	Moody's Investors Service, Inc.
MRD	minimal residual disease
Neumora	Neumora Therapeutics, Inc.
NOL	net operating loss
Novartis	Novartis Pharma AG
NSCLC	non-small cell lung cancer
OECD	Organisation for Economic Co-operation and Development
OIG	Office of Inspector General
OLE	open label extension
ORR	objective response rate
PBM	pharmacy benefit manager
PCSK9	proprotein convertase subtilisin/kexin type 9
PDE4	phosphodiesterase 4
PFS	progression-free survival
PNH	paroxysmal nocturnal hemoglobinuria
Profit Sharing Plan	Amgen Profit Sharing Plan for Employees in Ireland
R&D	research and development
RANKL	receptor activator of nuclear factor kappa-B ligand
RAR	Revenue Agent Report
REMS	risk evaluation and mitigation strategy
ROU	right-of-use
ROW	rest of world
RSUs	restricted stock units
S&P	Standard & Poor's Financial Services LLC
SEC	U.S. Securities and Exchange Commission
SG&A	selling, general and administrative
siRNA	small interfering RNA
SOFR	Secured Overnight Financing Rate
Teneobio	Teneobio, Inc.
U.S. Treasury	U.S. Department of Treasury
USPTO	U.S. Patent and Trademark Office
UTB	unrecognized tax benefit

Products

The brand names of our products, our delivery devices and certain of our product candidates and their associated generic names are given below.

Term	Description
Acapatamab	Acapatamab (formerly AMG 160)
Aimovig	Aimovig® (erenumab-aooe)
AMGEVITA	AMGEVITA™ (adalimumab)
AMJEVITA	AMJEVITA™ (adalimumab-atto)
Aranesp	Aranesp® (darbepoetin alfa)
AutoTouch	AutoTouch®
AVSOLA	AVSOLA® (infliximab-axxq)
BLINCYTO	BLINCYTO® (blinatumomab)
Corlanor	Corlanor® (ivabradine)
Efavaleukin alfa	Efavaleukin alfa (formerly AMG 592)
Emirodatamab	Emirodatamab (formerly AMG 427)
ENBREL	Enbrel® (etanercept)
ENBREL Mini	ENBREL Mini®
EPOGEN	EPOGEN® (epoetin alfa)
EVENITY	EVENITY® (romosozumab-aqqg)
IMLYGIC	IMLYGIC® (talimogene laherparepvec)
KANJINTI	KANJINTI® (trastuzumab-anns)
KYPROLIS	KYPROLIS® (carfilzomib)
LUMAKRAS/LUMYKRAS	LUMAKRAS® / LUMYKRAS™ (sotorasib)
MVASI	MVASI® (bevacizumab-awwb)
Neulasta	Neulasta® (pegfilgrastim)
NEUPOGEN	NEUPOGEN® (filgrastim)
Nplate	Nplate® (romiplostim)
Olpasiran	Olpasiran (formerly AMG 890)
Onpro	Onpro®
Ordesekimab	Ordesekimab (formerly AMG 714)
Otezla	Otezla® (apremilast)
Parsabiv	Parsabiv® (etelcalcetide)
Prolia	Prolia® (denosumab)
Repatha	Repatha® (evolocumab)
RIABNI	RIABNI® (rituximab-arrx)
Rocatinlimab	Rocatinlimab (formerly AMG 451)
Rozibafusp alfa	Rozibafusp alfa (formerly AMG 570)
Sensipar/Mimpara	Sensipar®/Mimpara™ (cinacalcet)
SureClick	SureClick®
Tarlatamab	Tarlatamab (formerly AMG 757)
TAVNEOS	TAVNEOS® (avacopan)
TEZSPIRE	TEZSPIRE® (tezepelumab-ekko)
Vectibix	Vectibix® (panitumumab)
XGEVA	XGEVA® (denosumab)

Products referenced in this report that are not included in the above list are trademarks of their respective owners. They are Avastin®, Cosentyx®, DARZALEX®, EYLEA®, Fulphila®, Herceptin®, HUMIRA®, POMALYST®/IMNOVID®, PRALUENT®, PROCRIT®, PROMACTA®/REVOLADE™, Remicade®, REVLIMID®, RINVOQ®, Rituxan®/MabThera®, Skyrizi®, SOLIRIS®, STELARA®, Taltz®, Teribone™, Tremfya®, UDENYCA®, VELCADE® and Xeljanz®.

PART I

Item 1. BUSINESS

Amgen Inc. (including its subsidiaries, referred to as "Amgen," "the Company," "we," "our" or "us") is a biotechnology company committed to unlocking the potential of biology for patients suffering from serious illnesses by discovering, developing, manufacturing and delivering innovative human therapeutics. This approach begins by using tools like advanced human genetics to unravel the complexities of disease and understand the fundamentals of human biology.

Amgen focuses on areas of high unmet medical need and leverages its expertise to strive for solutions that improve health outcomes and dramatically improve people's lives. A biotechnology pioneer, Amgen has grown to be one of the world's leading independent biotechnology companies, has reached millions of patients around the world and is developing a pipeline of medicines with breakaway potential.

Amgen was incorporated in California in 1980 and became a Delaware corporation in 1987. We have a presence in approximately 100 countries worldwide. Amgen operates in one business segment: human therapeutics.

Significant Developments

Following is a summary of significant developments affecting our business that have occurred and that we have reported since the filing of our Annual Report on Form 10-K for the year ended December 31, 2021.

Acquisitions

Proposed acquisition of Horizon Therapeutics plc

- On December 12, 2022, we announced that we entered into a transaction agreement under which Amgen will acquire all shares of Horizon for $116.50 per share in cash for a transaction equity value of approximately $27.8 billion. In connection with the proposed acquisition of Horizon, in December 2022 we entered into a bridge credit agreement and a term loan credit agreement with an aggregate principal amount of $28.5 billion. Horizon is a global biotechnology company headquartered in Dublin, Ireland and is focused on the discovery, development and commercialization of medicines that address critical needs for people impacted by rare, autoimmune and severe inflammatory diseases. Horizon has 12 marketed medicines and a pipeline with more than 20 development programs. The closing of this transaction is contingent upon satisfaction of certain regulatory (including FTC review) and other customary closing conditions.
    - On January 30, 2023, the Company and Horizon each received a request for additional information and documentary materials (Second Request) from the FTC in connection with the FTC's review of the Company's proposed acquisition of Horizon. The effect of the Second Request is to extend the waiting period imposed by the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, until 30 days after the Company and Horizon have substantially complied with the Second Request, unless that period is extended voluntarily by the Company and Horizon or terminated sooner by the FTC.

ChemoCentryx, Inc.

- On October 20, 2022, we completed our acquisition of ChemoCentryx for $52.00 per share in cash totaling approximately $3.8 billion, net of cash acquired.

Products/Pipeline

Cardiometabolic

Repatha

- In 2022, we presented results from the Repatha FOURIER-OLE studies, two open label extension (OLE) studies (with 6,635 patients) to the Phase 3 FOURIER cardiovascular (CV) outcomes trial. FOURIER-OLE was designed to assess the long-term safety and tolerability of Repatha in adults with clinically evident atherosclerotic cardiovascular disease (ASCVD). In these studies, an exploratory analysis demonstrated that earlier initiation of Repatha resulted in a lower risk of cardiovascular outcomes as defined by the composite endpoint of cardiovascular death, myocardial infarction (MI) and stroke, and the incidence of serious adverse events did not increase over time.

Olpasiran

- In November 2022, we presented positive end-of-treatment results from the Phase 2 OCEAN(a)-DOSE study evaluating olpasiran in adult patients with lipoprotein(a), or Lp(a), levels over 150 nmol/L and a history of ASCVD. Olpasiran is a small interfering RNA (siRNA) designed to lower the body's production of apolipoprotein(a), a key component of Lp(a) that has been associated with an increased risk of CV events. In the double-blind placebo-controlled treatment period, olpasiran was administered up to 225 mg subcutaneously every 12 weeks to patients with a median baseline Lp(a) of approximately 260 nmol/L. Patients who received a 75 mg or higher dose every 12 weeks had a 95% or greater reduction in Lp(a) compared to placebo at week 36. Overall, the rates of adverse events were similar in the olpasiran and placebo arms.

Inflammation

TEZSPIRE

- In September 2022, the EC approved TEZSPIRE in the EU as an add-on therapy in patients 12 years and older with severe asthma who are inadequately controlled with high dose inhaled corticosteroids plus another medicinal product for maintenance treatment. The approval follows the recommendation by the CHMP of the EMA in July 2022.

ABP 654

- In April 2022, we announced preliminary results from a Phase 3 study evaluating the efficacy and safety of ABP 654 compared to STELARA (ustekinumab) in adult patients with moderate-to-severe plaque psoriasis. The study met the primary efficacy endpoint, demonstrating no clinically meaningful differences between ABP 654 and STELARA.

Oncology/Hematology

LUMAKRAS/LUMYKRAS

- In April 2022, we announced long-term efficacy and safety data from the CodeBreaK 100 Phase 1/2 trial in patients with KRAS G12C–mutated advanced non-small cell lung cancer (NSCLC) who received LUMAKRAS/LUMYKRAS. In 174 heavily pre-treated patients (172 with baseline measurable lesion(s)), LUMAKRAS/LUMYKRAS demonstrated a centrally confirmed objective response rate (ORR) of 40.7%, disease control rate of 83.7% and median duration of response (DOR) of 12.3 months. The results also showed median progression-free survival (PFS) of 6.3 months and overall survival of 12.5 months, with 32.5% of patients still alive at two years. No new safety signals for LUMAKRAS/LUMYKRAS were identified with the long-term follow-up.

- In September 2022, we announced results from the global Phase 3 CodeBreaK 200 trial, which showed once-daily oral LUMAKRAS/LUMYKRAS led to significantly superior PFS (primary endpoint) and a significantly higher ORR (a key secondary endpoint) in patients with KRAS G12C–mutated NSCLC, compared with intravenous chemotherapy, docetaxel. LUMAKRAS/LUMYKRAS significantly improved PFS compared to docetaxel in heavily pre-treated patients. The proportion of patients with PFS at one year was 25% for LUMAKRAS/LUMYKRAS versus 10% for docetaxel. LUMAKRAS/LUMYKRAS demonstrated a significantly higher ORR than docetaxel with double the response rates in the LUMAKRAS/LUMYKRAS arm (28% versus 13%, respectively).

ABP 959

- In August 2022, we announced positive top-line results from the DAHLIA study, a randomized, double-blind, active-controlled, two-period crossover Phase 3 study evaluating the efficacy and safety of ABP 959, a biosimilar candidate to SOLIRIS (eculizumab), compared with SOLIRIS in adult patients with paroxysmal nocturnal hemoglobinuria (PNH). The study met its primary endpoints, demonstrating no clinically meaningful differences between ABP 959 and SOLIRIS. The safety and immunogenicity profile of ABP 959 was comparable to that of SOLIRIS.

New manufacturing facility

- In March 2022, we broke ground to build a drug substance plant in North Carolina that will increase our manufacturing network capacity.

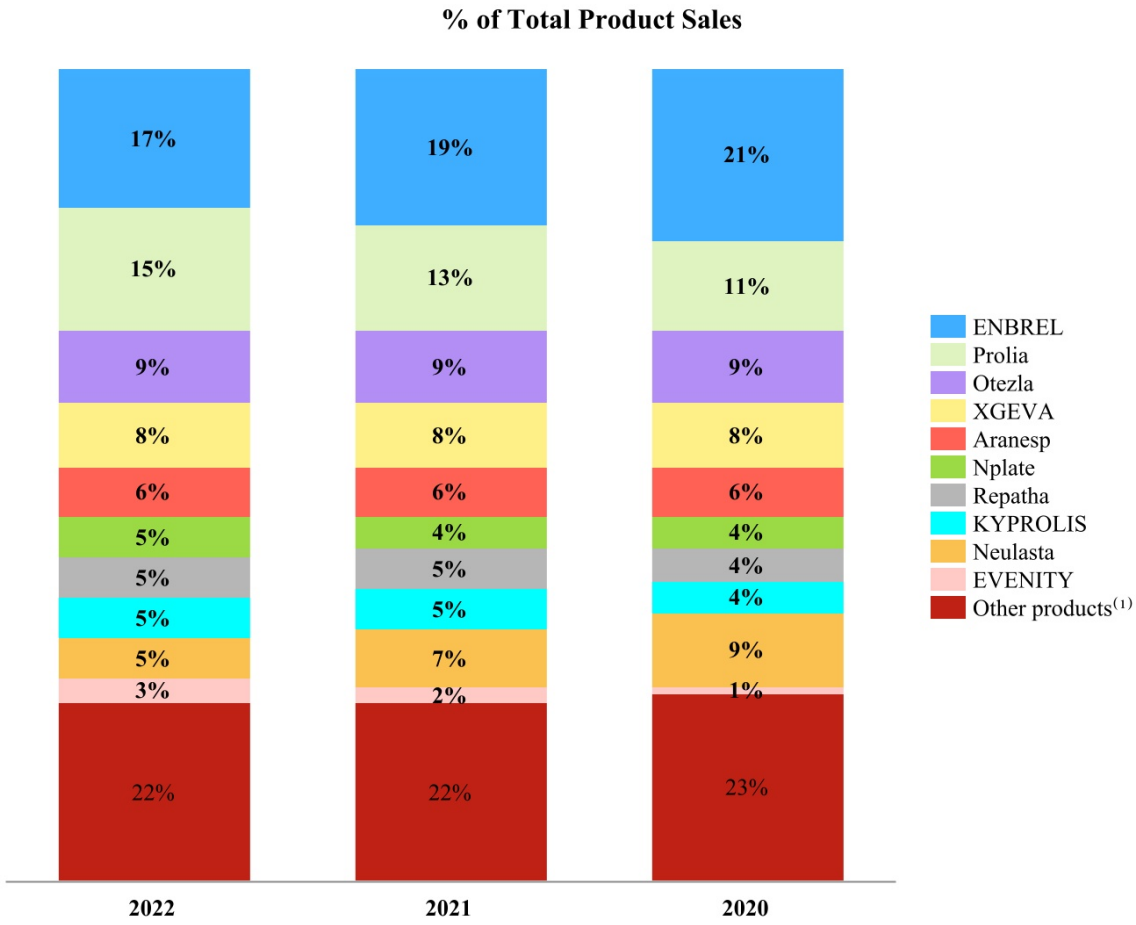
Marketing, Distribution and Selected Marketed Products

The largest concentration of our sales and marketing forces is based in the United States and Europe. In recent years, we have expanded the commercialization and marketing of our products into other geographic territories, including Japan, China and other parts of Asia; Latin America; and the Middle East. This expansion has occurred, and is expected to continue to occur, by establishing our own affiliates, by acquiring existing third-party businesses or product rights or by collaborating with third parties. See Business Relationships for our significant alliances. Whether we use our own sales and marketing forces or a third party's services varies across these markets. Such use typically depends on several factors, including the nature of entry into the new market, the size of an opportunity and operational capabilities. Together with our collaborators, we market our products to healthcare providers, including physicians or their clinics, dialysis centers, hospitals and pharmacies.

In the United States, substantially all of our sales are to pharmaceutical wholesale distributors, which are the principal means of distributing our products to healthcare providers. We also market certain products through direct-to-consumer channels, including print, television and online media. For further discussion, see Government Regulation—Regulation in the United States—Regulation of Product Marketing and Promotion. Outside the United States, we sell principally to healthcare providers and/or pharmaceutical wholesale distributors depending on the distribution practice in each country. In the Asia Pacific region, we also sell our products in partnership with other companies, including Astellas Pharma Inc., BeiGene, KKC, Takeda Pharmaceutical Company Limited and Daiichi Sankyo Co., Ltd.

Our product sales to three large wholesalers, McKesson Corporation, AmerisourceBergen Corporation and Cardinal Health, Inc., each individually accounted for more than 10% of total revenues for each of the years 2022, 2021 and 2020. On a combined basis, these wholesalers accounted for 82%, 82% and 83% of worldwide gross revenues for 2022, 2021 and 2020, respectively. We monitor the financial condition of our larger customers and limit our credit exposure by setting credit limits and, in certain circumstances, by requiring letters of credit or obtaining credit insurance.

Our products are marketed around the world, with the United States as our largest market. The following chart shows our product sales by principal product, and the table below (dollar amounts in millions) shows product sales by geography for the years 2022, 2021 and 2020.



	2022		2021		2020	
Product Sales by Geography:						
U.S.	$ 17,743	72 %	$ 17,286	71 %	$ 17,985	74 %
ROW	7,058	28 %	7,011	29 %	6,255	26 %
Total	$ 24,801	100 %	$ 24,297	100 %	$ 24,240	100 %

(1) Consists of product sales of our non-principal products, as well as our Gensenta and Bergamo subsidiaries.

ENBREL

We market ENBREL, a tumor necrosis factor blocker, in the United States and Canada. ENBREL was launched in 1998 and is used primarily in indications for the treatment of adult patients with moderately to severely active rheumatoid arthritis, patients with chronic moderate-to-severe plaque psoriasis who are candidates for systemic therapy or phototherapy and patients with active psoriatic arthritis.

Prolia

We market Prolia in many countries around the world. Prolia contains the same active ingredient as XGEVA but is approved for different indications, patient populations, dose and frequency of administration. Prolia was launched in the United States and Europe in 2010. In the United States, it is used primarily in the indication for the treatment of postmenopausal women with osteoporosis at high risk of fracture, defined as a history of osteoporotic fracture, or multiple risk factors for fracture; or in patients who have failed or are intolerant to other available osteoporosis therapy. In Europe, Prolia is used primarily for the treatment of osteoporosis in postmenopausal women at increased risk of fracture.

Otezla

We market Otezla, a small molecule that inhibits phosphodiesterase 4 (PDE4), in many countries around the world. Otezla was acquired from Bristol Myers Squibb Company in November 2019 after their acquisition of Celgene. Otezla is an oral therapy approved for the treatment of adults with plaque psoriasis across all severities (United States and Japan) and moderate-to-severe plaque psoriasis (other global markets including Europe), for adults with active psoriatic arthritis and for adults with oral ulcers associated with Behçet's disease.

XGEVA

We market XGEVA in many countries around the world. XGEVA was launched in 2010 and is used primarily in the indication for prevention of skeletal-related events (pathological fracture, radiation to bone, spinal cord compression or surgery to bone) in patients with bone metastases from solid tumors and multiple myeloma.

Aranesp

We market Aranesp primarily in the United States and Europe. Aranesp was launched in 2001 and is indicated to treat a lower-than-normal number of red blood cells (anemia) caused by chronic kidney disease (CKD) in both patients on dialysis and patients not on dialysis. Aranesp is also indicated for the treatment of anemia due to concomitant myelosuppressive chemotherapy in certain patients with nonmyeloid malignancies and when chemotherapy will be used for at least two months after starting Aranesp.

Nplate

We market Nplate in many countries around the world. Nplate was launched in 2008 and is indicated to treat thrombocytopenia in patients with chronic immune thrombocytopenia (ITP) who have had an insufficient response to corticosteroids, immunoglobulins or splenectomy.

Repatha

We market Repatha, a PCSK9 inhibitor, in many countries around the world. Repatha was launched in 2015 and is indicated to reduce the risks of myocardial infarction, stroke and coronary revascularization in adults with established CV disease. Repatha is also indicated to reduce low-density lipoprotein cholesterol (LDL-C) in adults with primary hyperlipidemia, including heterozygous familial hypercholesterolemia (HeFH).

KYPROLIS

We market KYPROLIS primarily in the United States and Europe. KYPROLIS was launched in 2012 and is indicated in combination with (i) dexamethasone, (ii) lenalidomide plus dexamethasone and (iii) DARZALEX plus dexamethasone for the treatment of patients with relapsed or refractory multiple myeloma who have received one to three prior lines of therapy. It is also approved as a single agent for patients with relapsed or refractory multiple myeloma who have received one or more previous therapies.

Neulasta

We market Neulasta, a pegylated protein based on the filgrastim molecule, primarily in the United States and Europe. Neulasta was launched in 2002 and is used primarily in the indication to help reduce the chance of infection due to a low white blood cell count in patients with certain types of cancer (nonmyeloid) who receive anticancer medicines (chemotherapy) that can cause fever and a low blood cell count. In 2015, the Neulasta Onpro kit became available in the United States. The Neulasta Onpro kit provides physicians the opportunity to initiate administration of Neulasta on the same day as chemotherapy, with drug delivery of the recommended dose of Neulasta at home the day after chemotherapy, thereby saving the patient a trip back to the doctor.

EVENITY

Together with our collaboration partners, we market EVENITY in many countries around the world. EVENITY was launched in the United States and Japan in 2019. In the United States, it is used in the indication for the treatment of osteoporosis in postmenopausal women at high risk for fracture. In Japan, EVENITY is used primarily in the indication for the treatment of osteoporosis in postmenopausal women and men at high risk of fracture.

Other Marketed Products

We also market a number of other products in various markets worldwide, including MVASI, Vectibix, BLINCYTO, EPOGEN, AMGEVITA, Aimovig, Parsabiv, KANJINTI, LUMAKRAS/LUMYKRAS, TEZSPIRE, NEUPOGEN, Sensipar/Mimpara and TAVNEOS.

Patents

The following table lists our outstanding material patents for the indicated product by territory, general subject matter and latest expiry date. Certain of the European patents are subjects of supplemental protection certificates that provide additional protection for the products in certain European countries beyond the dates listed in the table. See footnotes to the patent table below.

One or more patents with the same or earlier expiry dates may fall under the same general subject matter and are not listed separately.

Product	Territory	General subject matter	Expiration
Enbrel® (etanercept)	U.S.	Methods of treatment using aqueous formulations	6/8/2023
	U.S.	Formulations and methods of preparing formulations	10/19/2037
	U.S.	Fusion protein and pharmaceutical compositions	11/22/2028
	U.S.	DNA encoding fusion protein and methods of making fusion protein	4/24/2029
Prolia®/XGEVA® (denosumab)	U.S.	Nucleic acids encoding RANKL antibodies and methods of producing RANKL antibodies	11/30/2023
	U.S.	RANKL antibodies, including sequences	2/19/2025
	Europe	RANKL antibodies, including sequences[1]	6/25/2022
Otezla® (apremilast)	U.S.	Compositions and compounds	2/16/2028
	U.S.	Crystalline form	12/9/2023
	U.S.	Methods of treatment[2]	5/29/2034
	Europe	Compositions, compounds and methods of treatment[1]	3/20/2023
Aranesp® (darbepoetin alfa)	U.S.	Glycosylation analogs of erythropoietin proteins	5/15/2024
Nplate® (romiplostim)	U.S.	Polynucleotides encoding fusion protein	7/25/2023
	U.S.	Formulation	2/12/2028
	Europe	Thrombopoietic compounds[1]	10/22/2019
	Europe	Formulation	4/20/2027
Repatha® (evolocumab)	U.S.	Antibodies[3]	10/25/2029
	U.S.	Methods of treatment	10/8/2030
	Europe	Compositions[1]	8/22/2028
	Europe	Methods of treatment	5/10/2032
	Europe	Formulation	5/3/2033
KYPROLIS® (carfilzomib)	U.S.	Compositions and compounds	12/7/2027
	U.S.	Methods of treatment	4/14/2025
	U.S.	Methods of making	5/8/2033
	Europe	Compositions, compounds and methods of treatment[1]	12/7/2025

Product	Territory	General subject matter	Expiration
EVENITY® (romosozumab-aqqg)	U.S.	Antibodies	4/25/2026
	U.S.	Methods of treatment	4/9/2033
	U.S.	Formulation and methods of using formulation	5/11/2031
	Europe	Antibodies[1]	4/28/2026
	Europe	Methods of treatment	4/18/2032
	Europe	Formulation and methods of using formulation	5/11/2031
BLINCYTO® (blinatumomab)	U.S.	Pharmaceutical compositions and bifunctional polypeptides	4/6/2030
	U.S.	Method of administration	9/28/2027
	Europe	Bifunctional polypeptides[1]	11/26/2024
	Europe	Method of administration	11/6/2029
Aimovig® (erenumab-aooe)	U.S.	CGRP receptor antibodies	5/17/2032
	U.S.	Methods of treatment	4/22/2036
	U.S.	Compositions and pharmaceutical formulations	4/1/2039
	Europe	CGRP receptor antibodies[1]	12/18/2029
	Europe	Methods of treatment	8/10/2035
Parsabiv® (etelcalcetide)	U.S.	Compound and pharmaceutical composition	2/7/2031
	U.S.	Formulation	6/27/2034
	U.S.	Methods of making	8/9/2035
	Europe	Compound and pharmaceutical composition[1]	7/29/2030
	Europe	Formulation	6/27/2034
LUMAKRAS® /LUMYKRAS™ (sotorasib)	U.S.	Compounds and pharmaceutical compositions	5/21/2038
	U.S.	Crystalline form, pharmaceutical compositions and methods of treatment	5/20/2040
	U.S.	Methods of treatment	8/11/2040
	Europe	Compounds, pharmaceutical compositions and methods of treatment	5/21/2038
TEZSPIRE® (tezepelumab-ekko)	U.S.	Polypeptides[3]	2/3/2029
	U.S.	Methods of treatment	8/23/2038
	Europe	Polypeptides	9/9/2028
TAVNEOS® (avacopan)	U.S.	Compounds and pharmaceutical compositions[3]	2/3/2031

[1] A European patent with this subject matter may also be entitled to supplemental protection in one or more countries in Europe, and the length of any such extension will vary by country. For example, supplementary protection certificates have been issued related to the indicated products for patents in at least the following countries:

- denosumab — France, Germany, Italy, Spain and the United Kingdom, expiring in 2025
- apremilast — France, Germany, Italy, Spain and the United Kingdom expiring in 2028
- carfilzomib — France, Germany, Italy, Spain and the United Kingdom expiring in 2030
- evolocumab — France, Spain and the United Kingdom, expiring in 2030
- romiplostim — France, Germany, Italy, Spain and the United Kingdom, expiring in 2024
- romosozumab — France, Italy, Spain and the United Kingdom, expiring in 2031
- blinatumomab — France, Germany, Italy and Spain, expiring in 2029
- erenumab — France, Italy, Spain and the United Kingdom, expiring in 2033
- etelcalcetide — France, Germany, Italy, Spain and the United Kingdom, expiring in 2031

[2] U.S. Patent No. 10,092,541 was held invalid by the New Jersey District Court. We disagree with the court's holding and we are in the process of appealing this judgment. See Part IV—Note 19, Contingencies and commitments, to the Consolidated Financial Statements, Amgen Inc. v. Sandoz Inc., et al.

[3] A patent with this subject matter may be entitled to patent term extension in the United States.

Competition

We operate in a highly competitive environment. A number of our marketed products are indicated for disease areas in which other products or treatments are currently available or are being pursued by our competitors through R&D activities. Additionally, some competitor-marketed products target the same genetic pathways as our recently launched marketed products or are currently in development. This competition could impact the pricing and market share of our products. We continue to pursue ways of increasing the value of our medicines through innovations during their life cycles, which can include expanding the disease areas for which our products are indicated and finding new methods to make the delivery of our medicines easier and less costly. Such activities can offer important opportunities for differentiation. For example, we market the Neulasta Onpro kit, which provides physicians the opportunity to initiate administration of the recommended dose of Neulasta on the same day as chemotherapy, with drug delivery at home the day after chemotherapy, thereby saving the patient a trip back to the doctor. We plan to continue pursuing innovation efforts to strengthen our competitive position. Such position may be based on, among other things, safety, efficacy, reliability, availability, patient convenience, delivery devices, price, reimbursement, access to and timing of market entry and patent position and expiration.

Certain of the existing patents on our principal products have expired, and we face new and increasing competition, including from biosimilars and generics. A biosimilar is another version of a biological product for which marketing approval is sought or has been obtained based on a demonstration that it is "highly similar" to the original reference product. We have experienced adverse effects from biosimilar competition on our originator product sales. Companies have launched biosimilar versions of EPOGEN, NEUPOGEN and Neulasta and have approved biosimilars for ENBREL. Once multiple biosimilar versions of one of our originator products have launched, competition has intensified rapidly, resulting in greater net price declines for both reference and biosimilar products and a greater effect on product sales. See also Government Regulation—Regulation in the United States—Approval of Biosimilars. Although competitor biosimilars compete on price, we believe many patients, providers and payers will continue to place high value on the reputation, supply reliability and safety of our products. As additional biosimilar competitors come to market, we will continue to leverage our global experience to distinguish against both branded and biosimilar competition.

We also have our own biosimilar products both in the United States and outside of U.S. markets that are competing against branded and biosimilar versions of our competitors' products. In 2019, Amgen launched MVASI, a biosimilar to Avastin, and KANJINTI, a biosimilar to Herceptin; and in 2018, Amgen launched AMGEVITA, a biosimilar to HUMIRA in markets outside the United States. We have also received FDA approval of AMJEVITA, a biosimilar to HUMIRA for the U.S. market, which launched in January 2023. In 2020, we launched AVSOLA, a biosimilar to Remicade; and in 2021 we launched RIABNI, a biosimilar to Rituxan. We expect additional biosimilar competition against both our branded and biosimilar products in the future across markets.

Although most of our products are biologics, some are small molecule products. Because the FDA approval process permits generic manufacturers to rely on the safety and efficacy data of the innovator product rather than having to conduct their own costly and time-consuming clinical trials, generic manufacturers can often develop and market their competing versions of our small molecule products at much lower prices. For example, following loss of exclusivity of patents directed to cinacalcet, the active ingredient in our small molecule calcimimetic Sensipar, we lost a significant share of the market and corresponding revenues in a very short period of time. See Part IV—Note 19, Contingencies and commitments, to the Consolidated Financial Statements.

The introduction of new products, the development of new processes or technologies by competitors or the emergence of new information about existing products may result in (i) increased competition for our marketed products, even for those protected by patents and/or (ii) reductions in the prices we receive from selling our products. In addition, the development of new treatment options or standards of care may reduce the use of our products or may limit the utility and application of ongoing clinical trials of our product candidates. (As used in this document, the term *clinical trials* may include prospective clinical trials, observational studies, registries and other studies.) See Item 1A. Risk Factors—*Our products face substantial competition and our product candidates are also likely to face substantial competition* and Item 1A. Risk Factors—*We currently face competition from biosimilars and generics and expect to face increasing competition from biosimilars and generics in the future*.

The following table reflects our significant competitors and is not exhaustive.

Product	Territory	Competitor-marketed product	Competitors
ENBREL	U.S. & Canada	HUMIRA	AbbVie
	U.S.	Xeljanz	Pfizer Inc.
	U.S. & Canada	RINVOQ	AbbVie
Prolia	U.S., Europe & Asia Pacific	Alendronate, raloxifene and zoledronate generics	Various
Otezla	U.S. & Europe	HUMIRA†	AbbVie
	U.S. & Europe	Cosentyx	Novartis
	U.S. & Europe	Taltz	Lilly
	U.S. & Europe	Tremfya	Janssen(1)
	U.S. & Europe	Skyrizi	AbbVie
	U.S. & Europe	Methotrexate generics	Various
XGEVA	U.S. & Europe	Zoledronate generics	Various
Aranesp	U.S.	PROCRIT(2)	Janssen(1)
	U.S. & Europe	Epoetin alfa biosimilars	Various
Nplate	U.S. & Europe	PROMACTA/REVOLADE	Novartis
Repatha	U.S., Europe & Asia Pacific	PRALUENT	Regeneron Pharmaceuticals, Inc. Sanofi
KYPROLIS	U.S.	VELCADE	Millennium Pharmaceuticals, Inc.(4)
	U.S. & Europe	REVLIMID(3)	Various
	U.S. & Europe	POMALYST/IMNOVID	Celgene(5)
	U.S. & Europe	DARZALEX	Janssen(1)
Neulasta(6)	U.S. & Europe	UDENYCA	Coherus BioSciences, Inc.
	U.S. & Europe	Fulphila	Mylan Institutional Inc.
	U.S. & Europe	Filgrastim biosimilars	Various
EVENITY	U.S.	Alendronate, raloxifene and zoledronate generics	Various
	Japan	Teribone	Asahi Kasei Pharma

† Approved biosimilars available in Europe and Canada.

(1) A subsidiary of Johnson & Johnson.

(2) PROCRIT competes with Aranesp in supportive cancer care and predialysis settings.

(3) REVLIMID also includes generics.

(4) A subsidiary of Takeda Pharmaceutical Company Limited.

(5) A subsidiary of Bristol Myers Squibb Company.

(6) Other biosimilars under regulatory review in the United States and Europe.

Reimbursement

Sales of our products are dependent on the availability and extent of coverage and reimbursement from third-party payers. In many markets around the world, these payers, including government health systems, private health insurers and other organizations, remain focused on reducing the cost of healthcare; and their efforts have intensified as a result of rising healthcare costs, economic pressures and broader challenges generated by the COVID-19 pandemic. Drugs remain heavily scrutinized for cost containment. As a result, payers are becoming more restrictive regarding the use of biopharmaceutical products and are scrutinizing the prices of these products while requiring a higher level of clinical evidence to support the benefits such products bring to patients and the broader healthcare system. These pressures become intensified when our products become subject to competition, including from biosimilars.

In the United States, healthcare providers and other entities such as pharmacies and PBMs are reimbursed for covered services and products they deliver through both private-payer and government healthcare programs such as Medicare and Medicaid. We provide negotiated rebates to healthcare providers, private payers, government payers and PBMs. In addition, we are required to (i) provide rebates or discounts on our products that are reimbursed through certain government programs, including Medicare and Medicaid, and (ii) provide discounts to qualifying healthcare providers under the federal 340B Drug Pricing Program.

Both private and some government payers use formularies to manage access to and utilization of drugs. A drug's inclusion and favorable positioning on a formulary are essential to ensure patients have access to a particular drug. Even when access is available, some patients abandon their prescriptions for economic reasons. Payers continue to institute cost reduction and containment measures that lower drug utilization and/or spending altogether and/or shift a greater portion of the costs to patients. Such measures include, but are not limited to, more-limited benefit plan designs, higher patient co-pays or coinsurance obligations, limitations on patients' use of commercial manufacturer co-pay payment assistance programs (including through co-pay accumulator adjustment or maximization programs), stricter utilization management criteria before a patient may get access to a drug, higher-tier formulary placement that increases the level of patient out-of-pocket costs and formulary exclusion, which effectively encourages patients and providers to seek alternative treatments or pay 100% of the cost of a drug. The use of such measures by PBMs and insurers has continued to intensify and has thereby limited Amgen product usage and sales. Furthermore, during the past few years, many PBMs and insurers have consolidated, resulting in a smaller number of PBMs and insurers overseeing a large portion of total covered lives in the United States. As a result, PBMs and insurers have greater market power and negotiating leverage to mandate stricter utilization criteria and/or exclude drugs from their formularies in favor of competitor drugs or alternative treatments. In highly competitive treatment markets such as the markets for ENBREL, Otezla, Repatha and Aimovig, PBMs are also able to exert negotiating leverage by requiring incremental rebates from manufacturers in order for them to gain and/or maintain their formulary position.

In addition to market actions taken by private and government payers in the United States, policy makers in both of the major U.S. political parties have supported policies to lower drug costs. See Item 1A. Risk Factors—*Our sales depend on coverage and reimbursement from government and commercial third-party payers, and pricing and reimbursement pressures have affected, and are likely to continue to affect, our profitability*. In August 2022, the Inflation Reduction Act (IRA) was enacted and includes provisions requiring that (1) beginning in 2026, mandatory price setting be introduced in Medicare for certain drugs paid for under Parts B and D, whereby manufacturers must accept a price established by the government or face penalties on all U.S. sales (starting with 10 drugs in 2026, adding 15 in 2027 and 2028, and adding 20 in 2029 and subsequent years such that by 2031 approximately 100 drugs could be subject to such set prices); (2) starting in 2024, Medicare Part D be redesigned to cap beneficiary out-of-pocket costs and, beginning January 1, 2025, Federal reinsurance be reduced in the catastrophic phase (resulting in a shift and increase of such costs to Part D plans and manufacturers, including by requiring manufacturer discounts on certain drugs); and (3) beginning October 1, 2022, manufacturers now owe rebates on drugs reimbursed under Medicare Part D if price increases outpace inflation, and beginning January 1, 2023, now owe rebates on drugs reimbursed under Medicare Part B if price increases outpace inflation. Although the IRA has passed, the environment remains dynamic, and the Administration and Congress are continuing to consider drug pricing reforms.

Other potential policies cover a wide range of areas, including allowing the importation of drugs from other countries; increasing transparency in drug pricing; and using third-party value assessments to determine drug prices. The Infrastructure Investment and Jobs Act, signed into law on November 15, 2021, requires manufacturers of certain Part B–covered drugs packaged in single-use containers to give refunds to the government starting in 2023 for discarded amounts.

In many countries other than the United States, government-sponsored healthcare systems are the primary payers for drugs and biologics. With increasing budgetary constraints and/or difficulty in understanding the value of medicines, governments and payers in many countries are applying a variety of measures to exert downward price pressure. These measures can include mandatory price controls, price referencing, therapeutic-reference pricing, increases in mandates, incentives for generic substitution and biosimilar usage and government-mandated price cuts. In this regard, many countries have health technology assessment organizations that use formal economic metrics such as cost-effectiveness to determine prices, coverage and reimbursement of new therapies; and these organizations are expanding in both established and emerging markets. Many countries also limit coverage to populations narrower than those specified on our product labels or impose volume caps to limit utilization. We expect that countries will continue taking aggressive actions to seek to reduce expenditures on drugs and biologics. Similarly, fiscal constraints may also affect the extent to which countries are willing to approve new and innovative therapies and/or allow access to new technologies. The EU is currently undergoing a review and possible revision of its pharmaceutical legislation, now scheduled to end in the first half of 2023, with implementation by 2025 or 2026. It is likely that this review will lead to proposals that will reduce intellectual property protection for new products, as well as change the reimbursement and regulatory landscape in ways that are difficult to predict at this point.

The dynamics and developments discussed above create pressures on the pricing and potential usage of our products and on the industry. Given the diverse interests in play between payers, biopharmaceutical manufacturers, policy makers, healthcare providers and independent organizations, if and whether the parties involved can achieve alignment on the matters discussed above remain unclear, and the outcome of any such alignment is difficult to predict. We remain focused on pricing our products responsibly and delivering breakthrough treatments for unmet medical needs. Amgen is committed to working with the entire healthcare community to ensure continued innovation and to facilitate patient access to needed medicines. We do this by:

- investing billions of dollars annually in R&D;
- pricing our medicines to reflect the value they provide;
- developing more affordable therapeutic choices in the form of high-quality and reliably supplied biosimilars;
- partnering with payers to share risk and accountability for health outcomes;
- providing patient support and education programs;
- helping patients in financial need access our medicines; and
- working with policy makers, patients and other stakeholders to establish a sustainable healthcare system with access to affordable care and in which patients and their healthcare professionals are the primary decision makers.

See Item 1A. Risk Factors—*Our sales depend on coverage and reimbursement from government and commercial third-party payers, and pricing and reimbursement pressures have affected, and are likely to continue to affect, our profitability* and Item 1A. Risk Factors—*Guidelines and recommendations published by various organizations can reduce the use of our products.*

Manufacturing, Distribution and Raw Materials

Manufacturing

We believe we are a leader in the manufacture of biologics and that our manufacturing capabilities represent a competitive advantage. The products we manufacture consist of both biologics and small molecule drugs. The majority of our products are biologics that are produced in living cells and that are inherently complex due to naturally occurring molecular variations. Highly specialized knowledge and extensive process and product characterization are required to transform laboratory-scale processes into reproducible commercial manufacturing processes. Further, our expertise in the manufacture of biologics positions us well for leadership in the global biosimilars market. For additional information regarding manufacturing facilities, see Item 2. Properties.

We have been innovating our manufacturing facilities designed to extend our manufacturing advantage by optimizing our manufacturing network and/or by mitigating risks while continuing to ensure adequate supply of our products. For example, our licensed next-generation biomanufacturing plants operating in Singapore and West Greenwich, Rhode Island, incorporate multiple innovative technologies into a single facility. Next-generation biomanufacturing plants require smaller manufacturing footprints and offer greater environmental benefits, including reduced consumption of water and energy and lower levels of carbon emissions. Within such plants, the equipment is portable and smaller, which provides greater flexibility and speed in the manufacture of different medicines simultaneously. This enables Amgen to respond to changing demands for its medicines with increased agility. The Singapore site also has a plant that has been approved by several agencies, including the FDA and EMA, to produce small molecule drugs for commercial manufacturing.

Our internal manufacturing network has commercial production capabilities for bulk manufacturing, formulation, fill, finish, tableting and device assembly. These activities are performed within the United States and its territory in our Puerto Rico, Rhode Island and California facilities as well as internationally in our Ireland, Netherlands and Singapore facilities. In addition, we use third-party contract manufacturers to supplement the capacity or capability of our commercial manufacturing network.

To support our clinical trials, we manufacture product candidates primarily at our California facilities. We also use third-party contract manufacturers to supplement the capacity or capability of our overall clinical manufacturing network.

See Item 1A. Risk Factors for a discussion of the factors that could adversely impact our manufacturing operations and the global supply of our products.

Distribution

We operate distribution centers in Puerto Rico, Kentucky, California and the Netherlands for worldwide distribution of the majority of our commercial and clinical products. We also use third-party distributors to supplement distribution of our products worldwide.

Other

In addition to the manufacturing and distribution activities noted above, each of our manufacturing locations includes key manufacturing support functions such as quality control, process development, engineering, procurement, production scheduling and warehousing. Certain of those manufacturing and distribution activities are highly regulated by the FDA as well as international regulatory agencies. See Government Regulation—Regulation in the United States—Regulation of Manufacturing Standards.

Manufacturing Initiatives

As discussed above, we have been expanding capacity and advancing new innovations with multiple ongoing projects.

Our next-generation biomanufacturing plant at our West Greenwich, Rhode Island, campus, the first of its kind in the United States, has been approved by the FDA and EMA. This plant expands our capacity to manufacture certain products for U.S. and global markets, as we receive regulatory approval in those markets.

In November 2021, we broke ground for our newest biomanufacturing plant located in New Albany, Ohio. This final product assembly and packaging plant will support the growing demand for Amgen's medicines in the United States and will use state-of-the-art technologies.

In March 2022, we broke ground for our new multi-product drug substance manufacturing facility in Holly Springs, North Carolina. The new plant will support both traditional stainless steel-fed batch manufacturing and next-generation single-use technologies, allowing flexibility in the production of multiple products in one plant.

Amgen continues to embed environmental sustainability into the upfront design, development and execution of our new facilities. The new facilities under construction in North Carolina and Ohio contain many examples of environmental advances, including on-site photovoltaic renewable energy generation at both sites. We expect our North Carolina facility's carbon, waste and water footprints to be substantially lower than those at a traditional drug substance manufacturing plant, and we expect lower footprints per unit produced as well at our Ohio facility compared with existing similar facilities.

See Item 1A. Risk Factors—*Manufacturing difficulties, disruptions or delays could limit supply of our products and limit our product sales.*

Raw Materials and Medical Devices

Certain raw materials, medical devices (including companion diagnostics) and components necessary for the commercial and/or clinical manufacturing of our products are provided by and are the proprietary products of unaffiliated third-party suppliers, certain of which may be our only sources for such materials. We currently attempt to manage the risk associated with such suppliers by means of inventory management, relationship management and evaluation of alternative sources when feasible. We also monitor the financial condition of certain suppliers and their ability to supply our needs. See Item 1A. Risk Factors —*We rely on third-party suppliers for certain of our raw materials, medical devices and components.*

We perform various procedures to help authenticate the sources of raw materials, including intermediary materials used in the manufacture of our products; the procedures include verification of country of origin and are incorporated into the manufacturing processes we and our third-party contract manufacturers perform.

To better ensure supply, Amgen has a risk mitigation strategy that uses a combination of methods, including multiple sources or backup inventory of critical raw materials. In response to the COVID-19 pandemic and as part of our ongoing business continuity efforts, we continue to closely monitor our inventory levels and have taken additional measures to mitigate against raw material supply interruption. See Item 1A. Risk Factors for a discussion of the factors that could adversely impact our manufacturing operations and the global supply of our products.

Government Regulation

Regulation by government authorities in the United States and other countries is a significant factor in the production and marketing of our products and our ongoing R&D activities. To clinically test, manufacture and market products for therapeutic use, we must satisfy mandatory procedures and safety and effectiveness standards established by various regulatory bodies. Compliance with these standards is complex, and failure to comply with any of these standards can result in significant implications. See Item 1A. Risk Factors for a discussion of factors, including global regulatory implications, that can adversely impact our development and marketing of commercial products.

Regulation in the United States

In the United States, the Public Health Service Act; the FDCA; and the regulations promulgated thereunder as well as other federal and state statutes and regulations govern, among other things, the production, research, development, testing, manufacture, quality control, labeling, storage, record keeping, approval, advertising, promotion and distribution of our products in addition to the reporting of certain payments and other transfers of value to healthcare professionals and teaching hospitals.

Clinical Development and Product Approval. Drug development in our industry is complex, challenging and risky, and failure rates are high. Product development cycles are typically very long—approximately 10 to 15 years from discovery to market. A potential new medicine must undergo many years of preclinical and clinical testing to establish its safety and efficacy for use in humans at appropriate dosing levels and with an acceptable risk–benefit profile. We continue to work toward reducing cycle times by applying our expertise in human genetics and innovation in technology, clinical trials and real-world evidence.

After laboratory analysis and preclinical testing in animals, we file an IND with the FDA to begin human testing. Typically, we undertake an FDA-designated three-phase human clinical testing program.

- In phase 1, we conduct small clinical trials to investigate the safety and proper dose ranges of our product candidates in a small number of human subjects.
- In phase 2, we conduct clinical trials to investigate side-effect profiles and the efficacy of our product candidates in a patient population larger than phase 1 but still relatively small, who have the disease or condition under study.
- In phase 3, we conduct clinical trials to investigate the short- and long-term safety and efficacy of our product candidates, compared to commonly used treatments, in a large number of patients who have the disease or condition under study.

The FDA monitors the progress of each trial conducted under an IND and may, at its discretion, reevaluate, alter, suspend or terminate the testing based on data accumulated to that point and the FDA's risk–benefit assessment with regard to the patients enrolled in the trial. The results of preclinical and clinical trials are submitted to the FDA in the form of either a Biologics License Application for biologic products or a New Drug Application for small molecule products. We are not permitted to market or promote a new product until the FDA has approved our marketing application.

Approval of Biosimilars. The Affordable Care Act authorized the FDA to approve biosimilars via a separate, abbreviated pathway. The pathway allows sponsors of a biosimilar to seek and obtain regulatory approval based in part on the nonclinical-trial and clinical-trial data of an originator product to which the biosimilar has been demonstrated to be "highly similar" and to have no clinically meaningful differences with regard to safety, purity and potency. The relevance of demonstrating "similarity" is that in many cases, biosimilars can be brought to market without conducting the full suite of clinical trials typically required of originators, because risk–benefit has previously been established. To preserve incentives for future innovation, the law establishes a period of exclusivity for originators' products, which in general prohibits biosimilars from gaining FDA approval based in part on reliance on or reference to the originator's data in their application to the FDA for 12 years after initial FDA approval of the originator product. The law does not change the duration of patents granted on biologic products. As part of the implementation of the abbreviated approval pathway for biosimilars, the FDA released a number of guidance documents, some of which remain in draft form. See Item 1A. Risk Factors—*We currently face competition from biosimilars and generics and expect to face increasing competition from biosimilars and generics in the future*.

Regulation of Product Marketing and Promotion. The FDA regulates the marketing and promotion of drug products. Our product promotions for approved product indications must comply with the statutory standards of the FDCA and the FDA's implemented regulations and guidance. The FDA's review of marketing and promotional activities encompasses but is not limited to direct-to-consumer advertising, healthcare-provider-directed advertising and promotion, sales representative communications to healthcare professionals, promotional programming and promotional activities involving electronic media. The FDA may also review industry-sponsored scientific and educational activities that make representations regarding product safety or efficacy in a promotional context. The FDA may take enforcement action against a company for promoting unapproved uses of a product or for other violations of the FDA's advertising and labeling laws and regulations. Enforcement action may include product seizures, injunctions, civil or criminal penalties or regulatory letters, which may require corrective advertising or other corrective communications to healthcare professionals. Failure to comply with the FDA's regulations also can result in adverse publicity or increased scrutiny of company activities by the U.S. Congress or other legislators. Additionally, as described below, such failure may lead to additional liability under U.S. healthcare fraud and abuse laws.

Regulation of Manufacturing Standards. The FDA regulates and inspects the equipment, facilities, laboratories and processes used in the manufacturing and testing of products prior to granting approval to market products. If after receiving approval from the FDA we make a material change in manufacturing equipment, location or process, additional regulatory review may be required. We also must adhere to current Good Manufacturing Practice regulations and product-specific regulations enforced by the FDA through its facilities inspection program. The FDA conducts regular, periodic visits to reinspect our equipment, facilities, laboratories and processes following an initial approval.

Regulation of Combination Products. Combination products are defined by the FDA as products composed of two or more regulated components (e.g., a biologic and/or drug and a device). Biologics/drugs and devices each have their own regulatory requirements, and combination products may have additional requirements. A number of our marketed products meet this definition and are regulated under this framework, and we expect that a number of our pipeline product candidates will be evaluated for regulatory approval under this framework as well.

Regulation outside the United States

In EU countries as well as in the United Kingdom, Switzerland, Canada, Australia and Japan, regulatory requirements and approval processes are similar in principle to those in the United States.

In the EU, there are currently two potential tracks for seeking marketing approval for a product not authorized in any EU member state: a decentralized procedure and a centralized procedure. In the *decentralized procedure*, identical applications for marketing authorization are submitted simultaneously to the national regulatory agencies. Regulatory review is led by one member state (the reference-member state), and its assessment—based on safety, quality and efficacy—is reviewed and approved (assuming there are no concerns that the product poses a serious risk to public health) by the other member states from which the applicant is seeking approval (the concerned-member states). The decentralized procedure leads to a series of single national approvals in all relevant countries. In the *centralized procedure*, which is required of all products derived from biotechnology, a company submits a single Marketing Authorisation Application to the EMA, which conducts an evaluation of the dossier, drawing upon its scientific resources across Europe. If the drug product is proven to fulfill requirements for quality, safety and efficacy, the EMA's CHMP adopts a positive opinion, which is transmitted to the EC for final decision on granting of the marketing authorization. Even though the EC generally follows the CHMP's opinion, it is not bound to do so. Subsequent commercialization is enabled by country-by-country reimbursement approval.

In the EU, biosimilars are approved under a specialized pathway of the centralized procedure. As with the U.S. pathway, an applicant seeks and obtains regulatory approval for a biosimilar once the data exclusivity period for the original reference product has expired, relying in part on the data submitted for the originator product together with data evidencing that the biosimilar is "highly similar" with regard to quality, safety and efficacy to the original reference product authorized in the European Economic Area. See Item 1A. Risk Factors—*We currently face competition from biosimilars and generics and expect to face increasing competition from biosimilars and generics in the future*.

Other countries such as those in Latin America and the Middle East have review processes and data requirements similar to those of the EU and in some cases can rely on prior marketing approval from U.S. or EU regulatory authorities. The regulatory process in these countries may include manufacturing/testing facility inspections, testing of drug product upon importation and other domestic requirements.

In Asia Pacific, a number of countries such as China, Japan, South Korea and Taiwan may require local clinical-trial data for bridging purposes as part of the drug registration process in addition to global clinical trials, which can add to overall drug development and registration timelines. In most of the Asian markets, registration timelines depend on marketing approval in the United States or the EU. In some markets in Asia, such as China, Indonesia and Thailand, regulatory timelines can be less predictable. The regulatory process may also include manufacturing/testing facility inspections, testing of drug product upon importation and other domestic requirements. Countries such as Australia and Japan have more-mature systems that would allow for submissions under more-competitive time frames. With regard to biosimilars, several of these countries have pathways to register biosimilars (e.g., Australia, India, Singapore, South Korea and Taiwan), and biosimilar products are already present on the markets (e.g., Australia and South Korea).

In some countries, such as Japan and those in the EU, medical devices may be subject to regulatory regimes whereby manufacturers must establish that their medical devices conform to essential requirements set out in the law for the particular device category. For example, in the EU, with limited exceptions, medical devices placed on the market must bear the Conformité Européenne marking to indicate their conformity with legal requirements.

Postapproval Phase

After approval, we continue to monitor adverse events and product complaints reported following the use of our products through routine postmarketing surveillance and studies when applicable. We report such events to the appropriate regulatory agencies as required by local regulations for individual cases and aggregate reports. We proactively monitor (according to good pharmacovigilance practices) and ensure the implementation of signal detection, assessment and the communication of adverse events that may be associated with the use of our products. We also proactively monitor product complaints through our quality systems, which includes assessing our drug delivery devices for device complaints, adverse events and malfunctions. We may also be required by regulatory agencies to conduct further clinical trials on our marketed products as a condition of their approval or to provide additional information on safety and efficacy. Health regulators, including the FDA, have authority to mandate labeling changes to products at any point in a product's life cycle based on new safety information or as part of an evolving label change to a particular class of products.

Health regulators, including the FDA, also have authority both before and after approval to require that a company implement a risk management program for a product to ensure that the benefits of the drug outweigh the risks. Each risk management program is unique and varies depending on the specific factors required. In the United States, such a risk management program is known as a REMS, and we currently have REMSs for Prolia, Nplate and BLINCYTO.

Other Regulation

We are also subject to various laws pertaining to healthcare fraud and abuse, including antikickback laws and false-claims laws. Antikickback laws make it illegal to solicit, offer, receive or pay any remuneration in exchange for or to induce the referral of business, including the purchase or prescribing of a particular drug that is reimbursed by a state or federal program. False-claims laws prohibit knowingly and willingly presenting or causing to be presented for payment to third-party payers (including Medicare and Medicaid) any claims for reimbursed drugs or services that are false or fraudulent, claims for items or services not provided as claimed or claims for medically unnecessary items or services. Violations of fraud and abuse laws may be punishable by criminal and/or civil sanctions, including fines and civil monetary penalties, as well as by the possibility of exclusion from federal healthcare programs (including Medicare and Medicaid). Liability under false-claims laws may also arise when violation of certain laws or regulations related to the underlying product (e.g., a violation regarding improper promotional activity or unlawful payments) contributes to the submission of a false claim.

On April 25, 2019, we entered into a settlement agreement with the DOJ and the OIG of the HHS to settle certain allegations related to our support of independent charitable organizations that provide patients with financial assistance to access medicines. Additionally, we entered into a corporate integrity agreement that requires us to both maintain a corporate compliance program and undertake a set of defined corporate integrity obligations for a period of five years. Due to the breadth of the statutory provisions and the absence of guidance in the form of regulations or court decisions addressing some of our practices, it is possible that in the future, our practices might be further challenged under antikickback or similar laws.

The FCPA prohibits U.S. corporations and their representatives from offering, promising, authorizing or making payments to any foreign government official, government staff member, political party or political candidate in an attempt to obtain or retain business abroad. The scope of the FCPA arguably includes interactions with certain healthcare professionals in many countries. Other countries have enacted similar anticorruption laws and/or regulations. Failure by our employees, agents, contractors, vendors, licensees, partners or collaborators to comply with the FCPA and other anticorruption laws and/or regulations could result in significant civil or criminal penalties.

We are subject to various laws and regulations globally with regard to privacy and data protection. These laws and regulations involve the collection, storage, handling, use, disclosure, transfer and security of personal data. The legislative and regulatory environments regarding privacy and data protection are continually evolving and developing because these issues are subjects of increasing amounts of attention in countries globally. For example, we are subject to the EU's GDPR, which became effective on May 25, 2018; the CCPA, which became effective on January 1, 2020; the California Privacy Rights Act of 2020, which amended the CCPA and became effective on January 1, 2023; and China's Personal Information Protection Law, which became effective on November 1, 2021. Other jurisdictions where we operate have enacted or proposed similar legislation and/or regulations. For example, Virginia, Colorado, Utah and Connecticut have all subsequently passed similar consumer privacy laws, which went into effect in Virginia as of January 1, 2023, and will go into effect in Colorado, Utah and Connecticut later in 2023. Failure to comply with these laws could result in significant penalties.

Our business has been and will continue to be subject to various other U.S. and foreign laws, rules and regulations, including provisions of the IRA. See Reimbursement section above.

Research and Development and Selected Product Candidates

We focus our R&D on novel human therapeutics for the treatment of serious illness. We capitalize on our strengths in human genetics, novel biology and protein engineering. We leverage our biologic expertise and seek to choose the optimal modality for a drug target and disease. And we use cutting-edge science and technology to study subtle biological mechanisms in search of therapies that will improve the lives of those who suffer from diseases.

Our discovery research programs may therefore yield targets that lead to the development of human therapeutics delivered as large molecules, small molecules, other combination modalities or new modalities. We have reshaped our portfolio and have increasingly focused our efforts on human genetics when possible to enhance the likelihood of success.

Since early 2021, efforts have been under way to control the COVID-19 pandemic. However, uncertainty remains as to the efficacy of these activities with respect to the ongoing trajectory of the pandemic. Challenges to vaccination efforts, new variants and other causes of virus spread may require governments to change restrictions and/or shutdown requirements in various geographies. As a result, we expect to see continued volatility for at least the duration of the pandemic as governments respond to current local conditions. With regard to our clinical trial activities, we are continuously monitoring COVID-19 infection rates, including changes from new variants; we are working to mitigate effects on future study enrollment in our clinical trials; and we are evaluating the impact in all relevant countries. We remain focused on supporting our active clinical sites in their providing care for patients and in our providing investigational drug supply.

For the years ended December 31, 2022, 2021 and 2020, our R&D expenses were $4.4 billion, $4.8 billion and $4.2 billion, respectively.

We have major R&D centers in Thousand Oaks and San Francisco, California; Iceland; and the United Kingdom, as well as smaller research centers and development facilities globally. See Item 2. Properties.

Our clinical trial activities are conducted by both our internal staff and third-party contract clinical trial service providers. To increase the number and diversity of patients available for enrollment in our clinical trials, we have opened clinical sites and will continue opening clinical sites and enrolling patients in a number of geographic locations. See Government Regulation—Regulation in the United States—Clinical Development and Product Approval for a discussion of government regulation over clinical development. Also see Item 1A. Risk Factors—*We must conduct clinical trials in humans before we commercialize and sell any of our product candidates or existing products for new indications.*

Some of our competitors are actively engaged in R&D in areas in which we have products or in which we are developing product candidates or new indications for existing products. For example, we compete with other clinical trials for eligible patients, which may limit the number of available patients who meet the criteria for certain clinical trials. The competitive marketplace for our product candidates is greatly dependent on the timing of entry into the market. Early entry may have important advantages in gaining product acceptance, thereby contributing to a product's eventual success and profitability. Accordingly, we expect that in some cases, the relative speed with which we can develop products, complete clinical testing, receive regulatory approval and supply commercial quantities of a product to the market will be important to our competitive position.

In addition to product candidates and marketed products generated from our internal R&D efforts, we acquire companies, acquire and license certain product and R&D technology rights and establish R&D arrangements with third parties to enhance our strategic position within our industry by strengthening and diversifying our R&D capabilities, product pipeline and marketed product base. In pursuing these R&D arrangements and licensing or acquisition activities, we face competition from other pharmaceutical and biotechnology companies that also seek to license or acquire technologies, product candidates or marketed products from those entities performing the R&D.

The following table shows a selection of certain of our product candidates by phase of development in our therapeutic areas of focus as of January 31, 2023, unless otherwise indicated. Additional product candidate information can be found on our website at www.amgen.com. (The website address is not intended to function as a hyperlink, and the information contained on our website is not intended to be a part of this filing.) The information in this section does not include other, nonregistrational clinical trials that we may conduct for purposes other than for submission to regulatory agencies for their approval of a new product indication.

We may conduct nonregistrational clinical trials for various reasons, including to evaluate real-world outcomes or to collect additional safety information with regard to the use of products.

Molecule	Investigational indication
Phase 3 programs	
AMJEVITA	Interchangeability
Bemarituzumab	GEJ adenocarcinoma
BLINCYTO	Ph-negative B-cell precursor acute lymphoblastic leukemia
EVENITY	Male osteoporosis
KYPROLIS	Weekly dosing for relapsed multiple myeloma
LUMAKRAS/LUMYKRAS	Advanced colorectal cancer
Nplate	Chemotherapy-induced thrombocytopenia
Olpasiran	Cardiovascular disease
Otezla	Genital psoriasis; Palmoplantar pustulosis
Repatha	Cardiovascular disease
Rocatinlimab	Atopic dermatitis
TEZSPIRE	Chronic rhinosinusitis with nasal polyps; Eosinophilic esophagitis; Severe asthma
ABP 654	Investigational biosimilar to STELARA (ustekinumab)
ABP 938	Investigational biosimilar to EYLEA (aflibercept)
ABP 959	Investigational biosimilar to SOLIRIS (eculizumab)
Phase 2 programs	
Efavaleukin alfa	Systemic lupus erythematosus; Ulcerative colitis
LUMAKRAS/LUMYKRAS	NSCLC monotherapy; Other solid tumors with KRAS *G12C* mutations
Ordesekimab	Celiac disease
Rozibafusp alfa	Systemic lupus erythematosus
Tarlatamab	Small cell lung cancer
TEZSPIRE	Chronic obstructive pulmonary disease; Chronic spontaneous urticaria
AMG 133	Obesity
Phase 1 programs	
Acapatamab	Prostate cancer
Bemarituzumab	NSCLC and other tumors
Emirodatamab	Acute myeloid leukemia
Latikafusp	Solid tumors
Tarlatamab	Neuroendocrine prostate cancer
AMG 104	Asthma
AMG 119	Small-cell lung cancer
AMG 176	Hematologic malignancies
AMG 193	Solid tumors
AMG 199	Solid tumors
AMG 340	Prostate cancer
AMG 404	Solid tumors
AMG 509	Prostate cancer
AMG 609	Nonalcoholic steatohepatitis
AMG 650	Solid tumors
AMG 651	Colorectal cancer
AMG 786	Obesity
AMG 794	Solid tumors
AMG 994	Solid tumors

Phase 3	Clinical trials investigate the short- and long-term safety and efficacy of our product candidates, compared to commonly used treatments, in a large number of patients who have the disease or condition under study.
Phase 2	Clinical trials investigate side-effect profiles and efficacy of product candidates in a larger patient population than phase 1, but still relatively small, who have the disease or condition under study.
Phase 1	Clinical trials investigate the safety and proper dose ranges of product candidates in a small number of human subjects.

Phase 3 Product Candidate Program Changes

As of February 8, 2022, we had 13 phase 3 programs. As of January 31, 2023, we have 18 phase 3 programs, as five programs initiated phase 3 studies. These changes are set forth in the following table.

Molecule	Investigational indication	Program change
LUMAKRAS/LUMYKRAS	Advanced colorectal cancer	Initiated phase 3 study
Olpasiran	Cardiovascular disease	Initiated phase 3 study
Otezla	Palmoplantar pustulosis	Initiated phase 3 study
Rocatinlimab	Atopic dermatitis	Initiated phase 3 study
TEZSPIRE	Eosinophilic esophagitis	Initiated phase 3 study

Phase 3 Product Candidate Patent Information

The following table describes our composition-of-matter patents that have been issued thus far for our product candidates in phase 3 development that have yet to be approved for any indication in the United States or the EU. Patents for products already approved for one or more indications in the United States or the EU but that are currently undergoing phase 3 clinical trials for additional indications have been previously described. See Marketing, Distribution and Selected Marketed Products—Patents.

Molecule	Territory	General subject matter	Estimated expiration*
Bemarituzumab	U.S.	Polypeptides	2029
	Europe	Polypeptides	2029
Olpasiran	U.S.	Compounds	2036
	Europe	Compounds	2036
Rocatinlimab	U.S.	Polypeptides	2027
	Europe	Polypeptides	2026

* Patent expiration estimates are based on issued patents, which may be challenged, invalidated or circumvented by competitors. The estimates do not include any term adjustments, extensions or supplemental protection certificates that may be obtained in the future and thereby extend these dates. Corresponding patent applications are pending in other jurisdictions. Additional patents may be filed or issued and may provide additional exclusivity for the product candidate or its use.

Phases 3 and 2 Program Descriptions

The following provides additional information about selected product candidates that have advanced into human clinical trials.

AMJEVITA

AMJEVITA is a biosimilar to HUMIRA, which is a monoclonal antibody that inhibits binding of tumor necrosis factor (TNF) alpha to cell surface TNF receptor / TNF-alpha.

Bemarituzumab

Bemarituzumab is a monoclonal antibody that inhibits fibroblast growth factor receptor 2b (FGFR2b). It is being investigated for the treatment of advanced gastroesophageal junction (GEJ) adenocarcinoma.

BLINCYTO

BLINCYTO is an anti-CD19 x anti-CD3 BiTE® molecule. It is being investigated in newly diagnosed adults aged 40 and older with Ph negative B-Cell precursor acute lymphoblastic leukemia (ALL).

Efavaleukin alfa

Efavaleukin alfa is an interleukin (IL)-2 mutein Fc fusion protein. It is being investigated for the treatment of systemic lupus erythematosus and ulcerative colitis.

EVENITY

EVENITY is a monoclonal antibody that inhibits the action of sclerostin. It is being evaluated as a treatment for male osteoporosis. EVENITY is being developed in collaboration with UCB.

KYPROLIS

KYPROLIS is a small molecule proteasome inhibitor. It is being investigated for weekly dosing in combinations with lenalidomide and dexamethasone for relapsed multiple myeloma.

LUMAKRAS/LUMYKRAS

LUMAKRAS/LUMYKRAS is a $KRAS^{G12C}$ small molecule inhibitor. It is being investigated as treatment for a variety of solid tumors, including NSCLC, colorectal cancer and other solid tumor cancers.

In February 2022, we announced the presentation of efficacy and safety data from the CodeBreaK 100 Phase 1/2 trial in patients with KRAS G12C–mutated advanced pancreatic cancer who received LUMAKRAS/LUMYKRAS.

In April 2022, we announced the presentation of long-term efficacy and safety data from the CodeBreaK 100 Phase 1/2 trial in patients with KRAS G12C–mutated advanced NSCLC who received LUMAKRAS/LUMYKRAS.

In August 2022, we announced that the global Phase 3 CodeBreaK 200 trial evaluating once daily oral LUMAKRAS/LUMYKRAS met its primary endpoint of PFS, demonstrating statistical significance and superiority over standard-of-care chemotherapy, intravenous docetaxel. The first randomized clinical trial for a $KRAS^{G12C}$ inhibitor assessed the efficacy and safety of LUMAKRAS/LUMYKRAS in 345 previously treated patients with KRAS G12C–mutated NSCLC who had received at minimum, prior platinum-based doublet chemotherapy and checkpoint inhibitor therapy.

In September 2022, we announced detailed results from the global Phase 3 CodeBreaK 200 trial, which showed once-daily oral LUMAKRAS/LUMYKRAS led to significantly superior PFS (primary endpoint) and a significantly higher ORR (a key secondary endpoint) in patients with KRAS G12C–mutated NSCLC, compared with intravenous chemotherapy, docetaxel. We also announced updated data from its Phase 1b CodeBreaK 101 study, one of the most comprehensive global clinical development programs in patients with KRAS G12C–mutated colorectal cancer. These data show that combining LUMAKRAS/LUMYKRAS with Vectibix, Amgen's monoclonal anti-epidermal growth factor receptor (anti-EGFR) antibody, demonstrated encouraging efficacy and safety.

Nplate

Nplate is a thrombopoietin receptor agonist (TPO-RA). It is being investigated for the treatment of chemotherapy-induced thrombocytopenia (CIT).

Olpasiran

Olpasiran is an siRNA that lowers Lp(a). It is being investigated in phase 3 for the treatment of ASCVD.

In November 2022, we announced positive end-of-treatment data from the Phase 2 OCEAN(a)-DOSE study evaluating olpasiran in adult patients with Lp(a) levels over 150 nmol/L and a history of ASCVD. The study was designed to assess safety, tolerability and optimal dose of olpasiran in adults with established ASCVD to reduce Lp(a).

Ordesekimab

Ordesekimab is a monoclonal antibody that inhibits the action of IL-15. It is being investigated for the treatment of celiac disease and is being developed in collaboration with Provention Bio, Inc.

Otezla

Otezla is a small molecule that inhibits PDE4. It is being investigated in phase 3 studies for the treatment of patients with moderate-to-severe genital psoriasis. It is also being investigated in a phase 2 study for treatment of palmoplantar pustulosis.

In September 2022, we announced results from two significant Phase 3 clinical studies of oral Otezla, demonstrating efficacy in pediatric patients with moderate-to-severe plaque psoriasis and in adults with moderate-to-severe genital psoriasis.

Repatha

Repatha is a human monoclonal antibody that inhibits PCSK9. It is being investigated as a treatment for ASCVD in high-risk patients with high LDL-C without prior heart attack or stroke.

In 2022, we presented results from the Repatha OLE studies to the Phase 3 FOURIER CV outcomes trial. The studies were designed to assess the long-term safety and tolerability of Repatha in adults with clinically evident ASCVD.

Rocatinlimab

Rocatinlimab is a monoclonal antibody that inhibits OX-40. It is being investigated for the treatment of moderate-to-severe atopic dermatitis. Rocatinlimab is being developed in collaboration with KKC.

Rozibafusp alfa

Rozibafusp alfa is a novel antibody-peptide conjugate that simultaneously blocks the B-cell activating factor (BAFF) and inducible costimulatory ligand (ICOSL) activity. It is being investigated as a treatment for systemic lupus erythematosus.

Tarlatamab

Tarlatamab is a half-life extended (HLE) anti- DLL3 x anti-CD3 BiTE® molecule. It is being investigated for the treatment of small cell lung cancer.

TEZSPIRE

TEZSPIRE is a human monoclonal antibody that inhibits the action of thymic stromal lymphopoietin. It is being evaluated in phase 3 studies as a treatment for severe asthma and chronic rhinosinusitis with nasal polyps. It is also being investigated in phase 2 studies as a treatment for chronic obstructive pulmonary disease and chronic spontaneous urticaria. TEZSPIRE is being developed jointly in collaboration with AstraZeneca.

In February 2022, we announced results from a pooled post hoc analysis of the pivotal NAVIGATOR Phase 3 and PATHWAY Phase 2b trials that showed TEZSPIRE demonstrated reductions in the annualized asthma exacerbation rate (AAER) across biomarker subgroups of patients with severe asthma.

A Phase 3 study of TEZSPIRE in patients with eosinophilic esophagitis has started.

AMG 133

AMG 133 is a gastric inhibitory polypeptide receptor (GIPR) antagonist and glucagon-like peptide 1 (GLP-1) receptor agonist. It is being investigated for the treatment of obesity.

ABP 654

ABP 654, a biosimilar candidate to STELARA, is a monoclonal antibody that inhibits IL-12 and IL-23. It is being investigated in a phase 3 study for biosimilarity to STELARA. The reference-product primary conditions are psoriasis, psoriatic arthritis and Crohn’s disease.

In April 2022, we announced preliminary results from a Phase 3 study evaluating the efficacy and safety of ABP 654 compared to STELARA in adult patients with moderate-to-severe plaque psoriasis. The study met the primary efficacy endpoint, demonstrating no clinically meaningful differences between ABP 654 and STELARA.

ABP 938

ABP 938, a biosimilar candidate to EYLEA, is a vascular endothelial growth factor receptor (VEGFR) Fc fusion protein. It is being investigated in a phase 3 study for biosimilarity to EYLEA. The reference-product primary conditions are wet age-related macular degeneration (AMD), macular edema following retinal vein occlusion, diabetic macular edema and diabetic retinopathy.

ABP 959

ABP 959, a biosimilar candidate to SOLIRIS, is a monoclonal antibody that specifically binds to the complement protein C5. It is being investigated in a phase 3 study for biosimilarity to SOLIRIS. The reference-product primary conditions are PNH and atypical hemolytic uremic syndrome (aHUS).

In August 2022, we announced positive top-line results from the DAHLIA study, a randomized, double-blind, active-controlled, two-period crossover Phase 3 study evaluating the efficacy and safety of ABP 959, a biosimilar candidate to SOLIRIS, compared with SOLIRIS in adult patients with PNH.

Business Relationships

From time to time, we enter into business relationships, including joint ventures and collaborative arrangements, for the R&D, manufacture and/or commercialization of products and/or product candidates. In addition, we acquire product and R&D technology rights and establish R&D collaborations with third parties to enhance our strategic position within our industry by strengthening and diversifying our R&D capabilities, product pipeline and marketed-product base. These arrangements generally provide for nonrefundable upfront license fees, development and commercial-performance milestone payments, cost sharing, royalties and/or profit sharing. The activities under these collaboration agreements are performed with no guarantee of either technological or commercial success, and each is unique in nature.

Trade secret protection for our unpatented confidential and proprietary information is important to us. To protect our trade secrets, we generally require counterparties to execute confidentiality agreements upon commencement of a business relationship with us. However, others could either develop independently the same or similar information or unlawfully obtain access to our information.

BeiGene, Ltd.

In January 2020, we acquired an equity stake in BeiGene for approximately $2.8 billion in cash as part of a collaboration to expand our oncology presence in China. For additional information regarding our equity investment in BeiGene, see Part IV—Note 9, Investments, to the Consolidated Financial Statements. Under the collaboration, BeiGene began selling XGEVA in 2020, BLINCYTO in 2021 and KYPROLIS in 2022 in China, and Amgen shares profits and losses equally during the initial product-specific commercialization periods; thereafter, product rights may revert to Amgen, and Amgen will pay royalties to BeiGene on sales in China of such products for a specified period. Amgen manufactures and supplies the collaboration products to BeiGene.

In addition, we jointly develop a portion of our oncology portfolio with BeiGene, which shares in global R&D costs by providing cash and development services of up to $1.25 billion. Upon regulatory approval, BeiGene will assume commercialization rights in China for a specified period, and Amgen and BeiGene will share profits equally until certain of these product rights revert to Amgen. Upon return of the product rights, Amgen will pay royalties to BeiGene on sales in China for a specified period. For product sales outside China, Amgen will also pay royalties to BeiGene.

AstraZeneca plc

We are in a collaboration with AstraZeneca for the development and commercialization of TEZSPIRE. Under our collaboration, both companies share global costs, profits and losses equally after payment by AstraZeneca of a mid-single-digit royalty to Amgen. AstraZeneca leads global development, and both Amgen and AstraZeneca jointly commercialize TEZSPIRE in North America. In North America, Amgen, as the principal, recognizes product sales of TEZSPIRE in the United States, and AstraZeneca, as the principal, recognizes product sales of TEZSPIRE in Canada. AstraZeneca leads commercialization for TEZSPIRE outside North America. Amgen manufactures and supplies TEZSPIRE worldwide.

UCB

We are in a collaboration with UCB for the development and commercialization of EVENITY. Under our collaboration, UCB has rights to lead commercialization for EVENITY in most countries in Europe and China (excluding Hong Kong). Amgen, as the principal, leads commercialization for EVENITY and recognizes product sales in all other territories, including the United States. Global development costs and commercialization profits and losses related to the collaboration are shared equally. Amgen manufactures and supplies EVENITY worldwide.

For financial information about our significant collaborative arrangements, see Part IV—Note 8, Collaborations, to the Consolidated Financial Statements.

Human Capital Resources

Overview

Amgen's approach to human capital resource management starts with our mission to serve patients. We strive to serve patients by transforming the promise of science and biotechnology into therapies that have the power to restore health or save lives. The way we approach our business is guided by our Amgen Values:

Amgen Values			
Be Science-Based	Compete Intensely and Win	Create Value for Patients, Staff and Stockholders	Be Ethical
Trust and Respect Each Other	Ensure Quality	Work in Teams	Collaborate, Communicate and Be Accountable

Our staff are also guided by the Company's Code of Conduct, which is designed to help every person who does business on our behalf worldwide (including all staff, management, consultants, contract workers and temporary workers) to understand what is expected of them.

Our industry exists in a complex regulatory and reimbursement environment. The unique demands of our industry, together with the challenges of running an enterprise focused on the discovery, development, manufacture and commercialization of innovative medicines, requires a highly engaged and committed workforce.

As of December 31, 2022, Amgen had approximately 25,200 staff members in over 50 countries, and we have had relatively low global turnover rates compared to available industry information. We also supplement our workforce with independent contractors, contingent workers and temporary workers, as needed. Outside of the United States, some of our employees are represented by unions or works councils. We consider our staff relations to be good, supported by regular assessments of staff engagement surveys on a wide range of topics (including flexible work environments, diversity, inclusion and belonging, and maintaining a culture of compliance). We discuss the results of these surveys with our workforce and our Board of Directors. Reflecting our staff members' desire to retain flexibility to work virtually as COVID-19 related restrictions eased and sites became more accessible, we implemented a flexible workspace initiative that enables many employees to work together with their manager to determine the location that best enables their work at hand, supporting virtual work as well as coming on site.

Compensation, Benefits and Development

Our approach to employee compensation and benefits is designed to deliver cash, equity and benefit programs that are competitive with those offered by leading companies in the biotechnology and pharmaceutical industries, and to attract, motivate and retain talent with a focus on encouraging performance, promoting accountability and adherence to Company values and alignment with the interests of the Company's shareholders.

Our base pay program aims to compensate staff members relative to the value of the contributions of their role, which takes into account the skills, knowledge and abilities required to perform each position, as well as the experience brought to the job. We also provide annual incentive programs to reward our staff in alignment with achievement of Company-wide goals that are established annually and designed to drive aspects of our strategic priorities that support and advance our strategy across our Company. The majority of our staff members are also eligible for the grant of equity awards under our long-term incentive program that are designed to align the interests of our staff members with those of our shareholders. For senior level staff, a significant proportion of equity award value is based on company performance.

All staff also participate in a regular performance measurement process through which staff receive performance and development feedback, and pay is aligned to performance. The Amgen Values and leadership behaviors are an integral part of the performance assessments of our staff members, and these evaluations serve as an important information tool and basis for compensation decisions.

To support the development of our staff, we provide a variety of programs, including leadership development programs, classroom-based and virtual instructor-led courses, and self-paced learning options as well as mentoring, networking and coaching opportunities.

Our benefit programs are also generally broad-based, promote health and overall well-being and emphasize saving for retirement. All regular U.S. staff members are eligible to participate in the same core health and welfare and retirement savings plans. Other U.S. employee benefits include medical plans, dental plans, adoption assistance, paid parental leave programs, access to childcare, employee assistance programs, employee stock purchase plan, flexible spending accounts, life, long-term care and business travel accident insurance, short and long-term disability benefits, wellness benefits and work-life resources and referrals. Comparable programs and benefits are available globally, with the same health and well-being intent, consistent with statutory requirements.

Our Compensation and Management Development Committee provides oversight of our compensation plans, policies and programs.

Safety and Wellness and Our Response to the Evolving COVID-19 Pandemic

Creating a safe and healthy workplace for our staff is an important priority at Amgen. Our goal is to have a world class safety record through safety leadership, risk management practices and integrating safety throughout our business processes. To foster our safety culture, we implement a comprehensive safety program and reinforce desired safety behaviors, driving to understand and mitigate the root cause of safety incidents and manage and control variability. We use leading indicators to assess the effectiveness of our safety programs and make course corrections as needed. Additionally, we perform formal executive management review of functional safety performance for Operations, Global Commercial Operations and R&D on a quarterly basis with a focus on identifying early signals and taking action to drive continuous improvement.

In 2022, in response to the evolving requirements of the COVID-19 pandemic, to continue to maintain staff safety while enabling greater flexibility for Amgen sites and enhance efficiencies, we began shifting to a decentralized model for COVID-19 decision-making, empowering our local teams to adjust COVID-19 safety guidance for their individual sites or regions (such as the use of masks and other personal protective equipment, occupancy limits, and temperature check and testing, based on local regulations and risk assessments of local epidemiology criteria). We will continue to learn and adapt this approach as needed for the future.

Our Corporate Responsibility and Compliance Committee provides general oversight of our safety programs and initiatives, while our Board of Directors, as a whole, has overseen our specific responses to the COVID-19 pandemic.

Diversity, Inclusion and Belonging

We believe that a diverse and inclusive culture fosters innovation, which supports our ability to serve patients. Further, we also believe our global presence is strengthened by having a workforce that reflects the diversity of the patients we serve. It is with these beliefs in mind that we have continued to strengthen and grow our culture of diversity, inclusion and belonging. Our Diversity, Inclusion and Belonging Council is led by our executive leadership and is responsible for overseeing our strategy to further a diverse and inclusive workplace. We offer a variety of diversity, inclusion and belonging training and learning programs and have continued to launch enhanced tools and resources that guide staff on the role they play in creating diversity, inclusion and belonging throughout the organization. Further, we continue to incorporate diversity, inclusion and belonging considerations into our business operations, including clinical trial design, procurement and site selection.

Each of Amgen’s Employee Resource Groups is sponsored by senior executive leadership. Our Employee Resource Groups promote leadership, development and belonging for members while also working to impact our business by leading business initiatives and providing diverse perspectives and experience. In 2022, Amgen launched its newest global Employee Resource Group called Recognition of Indigenous Peoples, Values and Environmental Resources, or RIVER, to share and continue the traditions, values and culture of Indigenous people.

Global Employee Resource Groups	
Amgen Asian Association (AAA)	Amgen Black Employee Network (ABEN)
Ability Bettered through Leadership and Education (ABLE), a resource group for those with disabilities, visible and invisible, including those conditions also experienced by the patients that Amgen serves	
Amgen Early Career Professionals (AECP)	Amgen International Network (AIN)
Amgen Latin Employee Network (ALEN)	Amgen LGBTQ and Allies Network (PRIDE)
Amgen South Asian Network (ASAN)	Amgen Veterans Employees Network (AVEN)
Recognition of Indigenous Peoples, Values and Environmental Resources (RIVER)	
Women Empowered to be Exceptional (WE2)	Women in STEM Enrichment (WISE)

Building on the successful adoption of our 2021 ESG goal under our annual incentive plan, we are driving leadership ownership and accountability for diversity, inclusion and belonging deeper in the organization with an enhanced ESG goal for 2022 designed to advance our progress on key ESG initiatives, including by expanding the number of leaders accountable for establishing, documenting and executing on diversity, inclusion and belonging action plans.

As of December 31, 2022, women comprised over 52% of our global workforce, and ethnic minorities accounted for approximately 52% of our U.S. and Puerto Rico-based workforce. In areas of underrepresentation, we develop plans with a goal of bringing our representation in line with availability. We engage in outreach efforts to attract, retain and advance more women and minorities in our workforce. For example, we have worked to enhance our diverse candidate recruiting pool by developing relationships with organizations that can serve as a source of diverse candidates, such as the National Black MBA Association and Society of Women in Engineering, as well as historically black colleges and universities. In 2021, a fellowship program between Amgen and Howard University was established to expand the talent pool and diversify ranks in research and development.

Additionally, we are a founding member of OneTen, a coalition of the world's largest, best-known companies, that aims to hire one million Black Americans (with a specific focus on those without four-year college degrees) into good-paying, family-sustaining jobs over the next ten years. Amgen is taking a leadership role in the greater Los Angeles region, where the company is headquartered, to help expand the coalition of OneTen organizations that share our desire to offer opportunities to diverse talent, and we developed an in-house apprenticeship program in support of our OneTen commitment. Other examples of actions that we are taking in this area include increased investment and participation in the Healthcare Businesswomen's Association (a global organization focused on development and business networking for women in healthcare) and the UCLA Anderson School of Management leadership advancement programs for women and underrepresented talent.

Our 2021 Consolidated EEO-1 Report can be viewed on our website at www.amgen.com (the website address is not intended to function as a hyperlink, and the information contained in our website is not intended to be a part of this filing).

For 2022, our Compensation and Management Development Committee oversaw our labor and employment policies, programs and initiatives, including those relating to diversity, inclusion and belonging.

Information about Our Executive Officers

The executive officers of the Company as of February 9, 2023, are set forth below.

Mr. Robert A. Bradway, age 60, has served as a director of the Company since 2011 and Chairman of the Board of Directors since 2013. Mr. Bradway has been the Company's President since 2010 and Chief Executive Officer since 2012. From 2010 to 2012, Mr. Bradway served as the Company's President and Chief Operating Officer. Mr. Bradway joined the Company in 2006 as Vice President, Operations Strategy, and served as Executive Vice President and Chief Financial Officer from 2007 to 2010. Prior to joining the Company, Mr. Bradway was a Managing Director at Morgan Stanley in London, where, beginning in 2001, he had responsibility for the firm's banking department and corporate finance activities in Europe. Mr. Bradway has been a director of The Boeing Company, an aerospace company and manufacturer of commercial airplanes, defense, space and securities systems, since 2016. He has served on the board of trustees of the University of Southern California since 2014. From 2011 to 2017, Mr. Bradway was a director of Norfolk Southern Corporation, a transportation company.

Mr. Murdo Gordon, age 56, became Executive Vice President, Global Commercial Operations, in 2018. Prior to joining the Company, Mr. Gordon was Chief Commercial Officer at Bristol Myers Squibb Company (BMS), a pharmaceutical company, from 2016 to 2018. Mr. Gordon served as Head of Worldwide Markets at BMS from 2015 to 2016. Prior to this, Mr. Gordon served in a variety of leadership roles at BMS for more than 25 years.

Mr. Jonathan P. Graham, age 62, became Executive Vice President, General Counsel and Secretary in 2019. Mr. Graham joined the Company in 2015. From 2015 to 2019, Mr. Graham was Senior Vice President, General Counsel and Secretary. Prior to joining Amgen, from 2006 to 2015, Mr. Graham was Senior Vice President and General Counsel at Danaher Corporation. From 2004 to 2006, Mr. Graham was Vice President, Litigation and Legal Policy, at General Electric Company (GE). Prior to GE, Mr. Graham was a partner at Williams & Connolly LLP.

Mr. Peter H. Griffith, age 64, became Executive Vice President and Chief Financial Officer in 2020. Mr. Griffith joined the Company in 2019 as Executive Vice President, Finance. Prior to joining Amgen, Mr. Griffith was President of Sherwood Canyon Group, LLC, a private equity firm. From 1997 to 2019, Mr. Griffith was a partner at EY, an accounting and professional services firm, and served in a variety of senior leadership roles, with his last position being Global Vice Chair, Corporate Development. Prior to EY, Mr. Griffith was a Managing Director and head of the investment banking division of Wedbush Securities Inc.

Ms. Nancy A. Grygiel, age 55, became Senior Vice President and Chief Compliance Officer in 2020. Ms. Grygiel joined the Company in 2015. From 2016 to 2020, Ms. Grygiel was Vice President, Compliance. Prior to joining Amgen, from 2011 to 2015, Ms. Grygiel served as Vice President, Compliance, Corporate & International, at Allergan, Inc. (Allergan). Prior to Allergan, Ms. Grygiel held several management positions at Mylan Pharmaceuticals, Inc.

Ms. Rachna Khosla, age 50, became Senior Vice President, Business Development, in 2021. Ms. Khosla joined the Company in 2013 as Corporate Development Director. From 2018 to 2021, Ms. Khosla was Vice President, Business Development, and from 2016 to 2018, was Executive Director, Business Development. Prior to joining the Company, Ms. Khosla was a Director at Lazard Ltd. (Lazard) responsible for healthcare mergers and acquisitions. Prior to Lazard, Ms. Khosla had various roles at Credit Suisse Group AG, Sanofi Aventis, Aventis Capital, J.P. Morgan Chase & Co., and Salomon Brothers, Inc.

Mr. Derek Miller, age 50, became Senior Vice President, Human Resources, in 2022. Mr. Miller joined the Company in 2003 and has held human resources leadership roles supporting each of the Company's major business functions. From 2020 to 2022, Mr. Miller was Vice President, Global Total Rewards, and from 2018 to 2020, was Vice President, Human Resources. From 2015 to 2018, Mr. Miller was an Executive Director, Human Resources. Prior to 2015, Mr. Miller served as a Senior Manager in the Human Resources organization, before his promotion to Director, Human Resources, and then to Strategy Director.

Dr. David M. Reese, age 60, became Executive Vice President, R&D, in 2018. Dr. Reese joined the Company in 2005 and has held leadership roles in development, medical sciences and discovery research. Dr. Reese was Senior Vice President, Translational Sciences and Oncology, from 2017 to 2018 and Senior Vice President, Translational Sciences, from 2015 to 2017. Prior to joining Amgen, Dr. Reese was director of Clinical Research at the Breast Cancer International Research Group from 2001 to 2003 and a cofounder, president and chief medical officer of Translational Oncology Research International, a not-for-profit academic clinical research organization, from 2003 to 2005. Dr. Reese previously served on the faculty at the University of California, Los Angeles and the University of California, San Francisco.

Mr. Esteban Santos, age 55, became Executive Vice President, Operations, in 2016. Mr. Santos joined the Company in 2007 as Executive Director, Manufacturing Technologies. From 2013 to 2016, Mr. Santos was Senior Vice President, Manufacturing. From 2008 to 2013, Mr. Santos held a number of Vice President roles at the Company in engineering, manufacturing, site operations and drug product. Prior to joining the Company, Mr. Santos served as Site General Manager of Johnson & Johnson's (J&J) Cordis operation in Puerto Rico. Prior to J&J, Mr. Santos held several management positions in GE's industrial and transportation businesses.

Geographic Area Financial Information

For financial information concerning the geographic areas in which we operate, see Part IV—Note 3, Revenues, and Note 11, Property, plant and equipment, to the Consolidated Financial Statements.

Investor Information

Financial and other information about us is available on our website at www.amgen.com. We make available on our website, free of charge, copies of our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after we electronically file such material with or furnish it to the U.S. Securities and Exchange Commission (SEC). In addition, we have previously filed registration statements and other documents with the SEC. Any document we file may be inspected without charge at the SEC's website at www.sec.gov. (These website addresses are not intended to function as hyperlinks, and the information contained in our website and in the SEC's website is not intended to be a part of this filing.)

Item 1A. RISK FACTORS

This report and other documents we file with the SEC contain forward-looking statements that are based on current expectations, estimates, forecasts and projections about us, our future performance, our business, our beliefs and our management's assumptions. These statements are not guarantees of future performance and involve certain risks, uncertainties and assumptions that are difficult to predict. You should carefully consider the risks and uncertainties our business faces. The risks described below are not the only ones we face. Our business is also subject to the risks that affect many other companies, such as employment relations, general economic conditions, geopolitical events and international operations. Further, additional risks not currently known to us or that we currently believe are immaterial may in the future materially and adversely affect our business, operations, liquidity and stock price.

SUMMARY

Risks Related to Economic Conditions and Operating a Global Business, Including During the COVID-19 Pandemic

- The COVID-19 pandemic, and the public and governmental effort to mitigate against the spread of the disease, have had, and are expected to continue to have, an adverse effect, and may have a material adverse effect, on our clinical trials, operations, manufacturing, supply chains, distribution systems, product development, product sales, business and results of operations.
- A breakdown of our information technology systems, cyberattack or information security breach could compromise the confidentiality, integrity and availability of our information technology systems, network-connected control systems and/or our data, interrupt the operation of our business and/or affect our reputation.
- Our sales and operations are subject to the risks of doing business internationally, including in emerging markets.

Risks Related to Government Regulations and Third-Party Policies

- Our sales depend on coverage and reimbursement from government and commercial third-party payers, and pricing and reimbursement pressures have affected, and are likely to continue to affect, our profitability.
- Guidelines and recommendations published by various organizations can reduce the use of our products.
- The adoption and interpretation of new tax legislation or exposure to additional tax liabilities could affect our profitability.
- Our business may be affected by litigation and government investigations.

Risks Related to Competition

- Our products face substantial competition and our product candidates are also likely to face substantial competition.

- Our intellectual property positions may be challenged, invalidated or circumvented, or we may fail to prevail in current and future intellectual property litigation.
- We currently face competition from biosimilars and generics and expect to face increasing competition from biosimilars and generics in the future.
- Concentration of sales at certain of our wholesaler distributors and consolidation of private payers may negatively affect our business.

Risks Related to Research and Development

- We may not be able to develop commercial products despite significant investments in R&D.
- We must conduct clinical trials in humans before we commercialize and sell any of our product candidates or existing products for new indications.
- Our current products and products in development cannot be sold without regulatory approval.
- Some of our products are used with drug delivery or companion diagnostic devices that have their own regulatory, manufacturing and other risks.
- Some of our pharmaceutical pipeline and our commercial product sales rely on collaborations with third parties, which may adversely affect the development and sales of our products.
- Our efforts to collaborate with or acquire other companies, products, or technology, and to integrate the operations of companies or to support the products or technology we have acquired, may not be successful, and may result in unanticipated costs, delays or failures to realize the benefits of the transactions.

Risks Related to Operations

- We perform a substantial majority of our commercial manufacturing activities at our facility in the U.S. territory of Puerto Rico and a substantial majority of our clinical manufacturing activities at our facility in Thousand Oaks, California; significant disruptions or production failures at these facilities could significantly impair our ability to supply our products or continue our clinical trials.
- We rely on third-party suppliers for certain of our raw materials, medical devices and components.
- Manufacturing difficulties, disruptions or delays could limit supply of our products and limit our product sales.
- Our business and operations may be negatively affected by the failure, or perceived failure, of achieving our environmental, social and governance objectives.
- The effects of global climate change and related natural disasters could negatively affect our business and operations.

General Risk Factors

- Global economic conditions may negatively affect us and may magnify certain risks that affect our business.
- Our stock price is volatile.
- We may not be able to access the capital and credit markets on terms that are favorable to us, or at all.

RISKS RELATED TO ECONOMIC CONDITIONS AND OPERATING A GLOBAL BUSINESS, INCLUDING DURING THE COVID-19 PANDEMIC

The COVID-19 pandemic, and the public and governmental effort to mitigate against the spread of the disease, have had, and are expected to continue to have, an adverse effect, and may have a material adverse effect, on our clinical trials, operations, manufacturing, supply chains, distribution systems, product development, product sales, business and results of operations.

The novel coronavirus identified in late 2019, SARS-CoV-2, which causes the disease known as COVID-19, is an ongoing global pandemic that has resulted in public and governmental efforts to contain or slow the spread of the disease, including widespread shelter-in-place orders, social distancing interventions, quarantines, travel restrictions and various forms of operational shutdowns. The COVID-19 pandemic and the resulting measures implemented in response to the pandemic are adversely affecting, and are expected to continue to adversely affect, our business (including our R&D, clinical trials, operations, manufacturing, supply chains, distribution systems, product development and sales activities), the business activities

of our suppliers, customers, third-party payers and our patients. See *Our current products and products in development cannot be sold without regulatory approval*; see also *We must conduct clinical trials in humans before we commercialize and sell any of our product candidates or existing products for new indications*. Due to the pandemic and these measures and their effects, we have experienced, and expect to continue to experience, unpredictable reductions in demand for certain of our products, exacerbated by COVID-19 surges resulting in repeated shutdowns and/or disruptions in certain geographies.

Federal, state and local, and international governmental policies and initiatives designed to reduce the transmission of COVID-19 also have resulted in the cancellation or delay of diagnostic, elective, specialty and other procedures and appointments to avoid non-essential patient exposure to medical environments and potential infection with COVID-19 and to focus limited resources and personnel capacity toward the treatment of COVID-19. For example, an NPR/Harvard poll in 2021 found that, with hospitals crowded from COVID-19, one in five U.S. households had to delay care for serious illnesses. These measures and challenges will likely continue to varying degrees and have significantly reduced patient access to, and administration of, certain of our drugs. For example, Prolia requires administration by a healthcare provider in doctors' offices or other healthcare settings that are affected by COVID-19. The U.S. label for Prolia instructs healthcare professionals who discontinue Prolia to transition the patient to an alternative antiresorptive, including oral treatments that do not require administration by a healthcare provider. Further, as a result of COVID-19, oncology patients, in consultation with their doctors, may be selecting therapies that are less immunosuppressive or therapies that do not require administration in a hospital setting, potentially adversely affecting sales of certain of our products. Also, new patients have been, and are expected to continue to be, less likely to be diagnosed and/or to start therapeutics during the pandemic, and these effects, together with the lower treatment rates during the pandemic, have had, and are expected to continue to have, a cumulative negative effect on the commercial performance of our business. The decrease in diagnoses over the course of the pandemic has suppressed the volume of new patients starting treatment, which we expect to continue to impact our business. As COVID-19 infection rates ebb and flow, we anticipate there could be periodic backlogs of patients seeking appointments with physicians relating to a variety of medical conditions, and as a result, patients seeking treatment with certain of our products may have to navigate lower provider capacity, and this lower provider capacity could have a continued adverse effect on our sales. Further, the effects of the COVID-19 pandemic may result in long-term shifts in preferences among healthcare professionals and patients toward treatments that do not require administration by healthcare professionals or visits to medical facilities.

As the pandemic continues, and if conditions worsen or if the duration of the pandemic extends significantly, we expect to experience additional adverse effects on our development, operational and commercial activities, customer purchases and our collections of accounts receivable. It remains uncertain the degree to which these adverse effects would impact our future operational and commercial activities, customer purchases and our collections as conditions begin to improve. There was a resurgence in COVID-19 infections in numerous jurisdictions in 2022, resulting in the reinstatement of stricter restrictions and shutdowns in a number of jurisdictions, including in the United States, Europe and Asia Pacific regions. It is expected that the pandemic will continue to ebb and flow, with different jurisdictions having higher levels of infections than others over the course of the pandemic. New variants of the SARS-CoV-2 virus have emerged, including the delta and omicron variants and its subvariants, and have been shown to be present in many geographies and appear to spread more easily and quickly than other variants. Further, although some studies suggest that antibodies generated with currently authorized vaccines may be effective against these variants, it remains uncertain whether currently available vaccines will retain their efficacy against future variants of the virus. Further, even while vaccine booster shots are available for certain patients, persistent vaccine hesitancy may result in under-vaccinated populations which may prolong the duration of the COVID-19 pandemic and continue to disrupt the availability of healthcare services to the patients we serve. Jurisdictions may implement, continue or reinstate border closures, impose or reimpose prolonged quarantines and further restrict travel and business activity. These measures could significantly affect our ability to support our operations and customers and the ability of our employees to get to their workplaces to discover, study, develop and produce our product candidates and products, disrupt the movement of our products through the supply chain, and further prevent or discourage patients from participating in our clinical trials, seeking healthcare services and the administration of certain of our products. The increased availability of remote working arrangements in response to the COVID-19 pandemic has expanded the pool of companies that can compete for our employees and employment candidates. Further, in connection with the global outbreak and spread of COVID-19 and in an effort to increase the wider availability of needed medical products, we or our suppliers may elect to, or governments may require us or our suppliers to, allocate manufacturing capacity (for example pursuant to the U.S. Defense Production Act) in a way that adversely affects our regular operations, customer relationships and financial results. In the United States, on January 21, 2021, President Biden issued an Executive Order instructing federal agencies to use all available legal authorities, including the Defense Production Act, to improve current and future pandemic response and biological threat preparedness. The rapid reallocation of resources for the treatment and prevention of COVID-19 (including the production of COVID-19 vaccines or related therapies, such as our agreement to contribute to the production of COVID-19 antibody therapies for Lilly) and/or disruptions and shortages in the global supply chain caused by the pandemic, could also result in increased competition for, or reduced availability of, materials or components used in the development, manufacturing, distribution or administration of our products. For example, during the second quarter of 2021, an industry-wide shortage of certain lab kit supplies necessary for some activities that support our

clinical trials has developed that we are actively monitoring and managing. We have also experienced challenges in obtaining certain COVID-19-related supplies, including COVID-19 antigen rapid test kits for our staff, as a result of high demand and limited supplies during the omicron variant surge. In addition, unpredictable increases in demand for certain of our products could exceed our capacity to meet such demand, which could adversely affect our financial results and customer relationships.

The COVID-19 pandemic and the volatile global economic conditions stemming from it may precipitate or amplify the other risks described in this "Risk Factors" section, which could materially adversely affect our business, operations and financial condition and results. For example, if a natural disaster or other potentially disruptive event occurs concurrently with the COVID-19 pandemic, such disaster or event could deplete our inventory levels and we could experience a disruption to our manufacturing or ability to supply our products.

The rapid development and fluidity of the pandemic precludes any prediction as to the ultimate effect of COVID-19 on us. The duration of the measures being taken by the authorities to mitigate against the spread of COVID-19 (including the distribution and/or availability of vaccines and boosters), and the extent to which such measures are effective, if at all, remain highly uncertain. The magnitude and degree of COVID-19's adverse effect on our business (including our product development, product sales, operating results and resulting cash flows) and financial condition will be driven by the severity and duration of the pandemic, the pandemic's effect on the United States and global economies and the timing, scope and effectiveness of federal, state, local and international governmental responses to the pandemic. If mitigation of the pandemic continues to require further shelter-in-place and shutdown orders and/or restrictions on individual and/or group conduct, any adverse effects of the COVID-19 pandemic will likely grow and could be enduring, and our business and financial position could be materially adversely affected.

A breakdown of our information technology systems, cyberattack or information security breach could compromise the confidentiality, integrity and availability of our information technology systems, network-connected control systems and/or our data, interrupt the operation of our business and/or affect our reputation.

To achieve our business objectives, we rely on sophisticated information technology systems, including software, mobile applications, cloud services and network-connected control systems, some of which are managed, hosted, provided or serviced by third parties. Internal or external events that compromise the confidentiality, integrity and availability of our systems and data may significantly interrupt the operation of our business, result in significant costs and/or adversely affect our reputation.

Our information technology systems are highly integrated into our business, including our R&D efforts, our clinical and commercial manufacturing processes and our product sales and distribution processes. Further, as the majority of our employees work remotely for some portion of their jobs in our hybrid work environment, our reliance on our and third-party information technology systems has increased substantially and is expected to continue to increase. The complexity and interconnected nature of our systems makes them potentially vulnerable to breakdown or other service interruptions. Upgrades or changes to our systems or the software that we use may result in the introduction of new cybersecurity vulnerabilities and risks. In 2022 we identified a number of security vulnerabilities introduced into our information systems as a result of flaws that we subsequently identified in software that we purchased and installed, and these flaws required that we apply emergency patches to certain of our systems. While we did not experience any significant adverse effects as a result of these vulnerabilities, there can be no assurance that we will timely identify and address any future vulnerabilities. Our systems are also subject to frequent perimeter network reconnaissance and scanning, phishing and other cyberattacks. As the cyber-threat landscape evolves, these attacks are growing in frequency, sophistication and intensity, and are becoming increasingly difficult to detect. Such attacks could include the use of harmful and virulent malware, including ransomware or other denials of service, that can be deployed through various means, including the software supply chain, e-mail, malicious websites and/or the use of social engineering. We have also experienced denial of service attacks against our network, and although such attacks did not succeed, there can be no assurance that our efforts to guard against the wide and growing variety of potential attack techniques will be successful in the future. Attacks such as those experienced by governmental entities (including those that approve and/or regulate our products, such as the EMA) and other multi-national companies, including some of our peers, could leave us unable to utilize key business systems or access or protect important data and could have a material adverse effect on our ability to operate our business, including developing, gaining regulatory approval for, manufacturing, selling and/or distributing our products. For example, in 2017, a pharmaceutical company experienced a cyberattack involving virulent malware that significantly disrupted its operations, including its research and sales operations and the production of some of its medicines and vaccines. As a result of the cyberattack, its orders and sales for certain products in certain markets were negatively affected. In late 2020, SolarWinds Corporation, a leading provider of software for monitoring and managing information technology infrastructure, disclosed that it had suffered a cybersecurity incident whereby attackers had inserted malicious code into legitimate software updates for its products that were installed by myriad private and government customers, enabling the attackers to access a backdoor to such systems. In 2022, Okta, Inc., a provider of software that helps companies manage user authentication, disclosed that several hundred of its corporate customers were vulnerable to a security breach that allowed

attackers to access Okta's internal network. Although this breach did not have a significant effect on our business, there can be no assurance that a similar future breach would not result in a material adverse effect on our business or results of operations.

Our systems also contain and utilize a high volume of sensitive data, including intellectual property, trade secrets, financial information, regulatory information, strategic plans, sales trends and forecasts, litigation materials and/or personal information belonging to us, our staff, our patients, customers and/or other parties. In some cases, we utilize third-party service providers to process, store, manage or transmit such data, which may increase our risk. Intentional or inadvertent data privacy or security breaches (including cyberattacks) resulting from attacks or lapses by employees, service providers (including providers of information technology-specific services), business partners, nation states (including groups associated with or supported by foreign intelligence agencies), organized crime organizations, "hacktivists" or others, create risks that our sensitive data may be exposed to unauthorized persons, our competitors or the public. System vulnerabilities and/or cybersecurity breaches experienced by our third-party service providers have constituted a substantial share of the information security risks that have affected us. For example, in the first half of 2021, a supplier experienced a data breach in which an unauthorized third party acquired access to certain information provided to the supplier in the course of its provision of services to us, including business documents and certain personally identifiable patient information (not including social security or other financial or health insurance information). As required, we promptly notified the applicable state attorneys general and the individuals whose personally identifiable information was affected of this data breach at the supplier. In the third quarter of 2022, another service provider experienced a similar cybersecurity breach in which an attacker exfiltrated certain data (including non-significant Amgen data) from the service provider's systems. Although these supplier data breaches have not resulted in material adverse effects on our business, there can be no assurance that a similar future cybersecurity incident would not result in a material adverse effect on our business or results of operations. Further, the timeliness of our awareness of a cybersecurity incident affects our ability to respond to and work to mitigate the severity of such events. For example, in 2020 and 2022, two of our vendors experienced cyberattacks and each initially reported to us that neither event involved our data. However, upon further investigation, they each subsequently informed us that the attackers had accessed limited, non-significant Amgen information. Although neither of these breaches had a significant adverse effect on our business, in the future we may again not receive timely reporting of cybersecurity events and such events could have a material adverse effect on our business.

Cyberattackers are also increasingly exploiting vulnerabilities in commercially available software from shared or open-source code. We rely on third party commercial software that may have such vulnerabilities, but as use of open-source code is frequently not disclosed, our ability to fully assess this risk to our systems is limited. For example, in December 2021, a remote code execution vulnerability was discovered in a widely used software library that is used in a variety of commercially available software and services. Although this vulnerability has not resulted in any significant adverse effects on us, there can be no assurances that a similar future vulnerability in the software and services that we use would not result in a material adverse effect on our business or results of operations.

Domestic and global government regulators, our business partners, suppliers with whom we do business, companies that provide us or our partners with business services and companies we have acquired or may acquire face similar risks, and security breaches of their systems or service outages could adversely affect our security, leave us without access to important systems, products, raw materials, components, services or information or expose our confidential data or sensitive personal information. For example, in 2019, two vendors that perform testing and analytical services that we use in developing and manufacturing our products experienced cyberattacks, and in April and September of 2020, vendors that provide us with information technology services and clinical data services, respectively, each experienced ransomware attacks. Although there was no breach of our systems, each of these incidents required us to disconnect our systems from those vendors' systems. While we were able to reconnect our systems following restoration of these vendors' capabilities without significantly affecting product availability, a more extended service outage affecting these or other vendors, particularly where such vendor is the single source from which we obtain the services, could have a material adverse effect on our business or results of operations. In addition, we distribute our products in the United States primarily through three pharmaceutical wholesalers, and a security breach that impairs the distribution operations of our wholesalers could significantly impair our ability to deliver our products to healthcare providers and patients.

Although we have experienced system breakdowns, attacks and information security breaches, we do not believe such breakdowns, attacks and breaches have had a material adverse effect on our business or results of operations. We continue to invest in the monitoring, protection and resilience of our critical and/or sensitive data and systems. However, there can be no assurances that our efforts will detect, prevent or fully recover systems or data from all breakdowns, service interruptions, attacks and/or breaches of our systems that could adversely affect our business and operations and/or result in the loss or exposure of critical, proprietary, private, confidential or otherwise sensitive data, which could result in material financial, legal, business or reputational harm to us or negatively affect our stock price. While we maintain cyber-liability insurance, our insurance is not sufficient to cover us against all losses that could potentially result from a service interruption, breach of our systems or loss of our critical or sensitive data.

We are also subject to various laws and regulations globally regarding privacy and data protection, including laws and regulations relating to the collection, storage, handling, use, disclosure, transfer and security of personal data. The legislative and regulatory environment regarding privacy and data protection is continuously evolving and developing and the subject of significant attention globally. For example, we are subject to the EU's GDPR, which became effective in May 2018, and the CCPA, which became effective in January 2020, both of which provide for substantial penalties for noncompliance. The CCPA was amended in late 2020, to create the California Privacy Rights Act to create opt in requirements for the use of sensitive personal data and the formation of a new dedicated agency for the enforcement of the law, the California Privacy Protection Agency. Virginia, Colorado, Utah and Connecticut have all subsequently passed similar consumer privacy laws, which went into effect in Virginia as of January 1, 2023, and will go into effect in Colorado, Utah and Connecticut later in 2023. Other jurisdictions where we operate have passed, or continue to propose, similar legislation and/or regulations. For example, in China, the Personal Information Protection Law and the Data Security Law, which regulate data processing activities associated with personal and nonpersonal data, are in effect and build upon the existing Cybersecurity Law. Failure to comply with these current and future laws could result in significant penalties and reputational harm and could have a material adverse effect on our business and results of operations.

Our sales and operations are subject to the risks of doing business internationally, including in emerging markets.

As we continue our expansion efforts in emerging markets around the world, through acquisitions and licensing transactions as well as through the development and introduction, both independently and through collaborations such as our collaboration with BeiGene, of our products in new markets, we face numerous risks to our business. There is no guarantee that our efforts and strategies to expand sales in emerging markets will succeed. Our international business, including in China and emerging market countries, may be especially vulnerable to periods of global and local political, legal, regulatory and financial instability, including issues of geopolitical relations, the imposition of international sanctions in response to certain state actions and/or sovereign debt issues. Further, in 2022 and continuing through early 2023, the Asia Pacific region also experienced a surge of COVID-19 infections. While one country in the region initially responded to the surge by activating strict containment measures, in late 2022 that country abruptly reversed those measures, resulting in a significant COVID-19 outbreak, causing issues such as lack of capacity at hospitals that could lead to a local health emergencies. If relations between the United States and other governments deteriorate, our business and investments in such markets may also be adversely affected. We may also be required to increase our reliance on third-party agents and unfamiliar operations and arrangements including those previously utilized by companies we partner with or acquire in emerging markets. See *We must conduct clinical trials in humans before we commercialize and sell any of our product candidates or existing products for new indications*. Our expansion efforts in China and emerging markets around the world are dependent upon the establishment of an environment that is predictable, navigable and supportive of biopharmaceutical innovation, sustained access for our products and predictable pricing controls. For example, China continues to strengthen regulations on the collection, use and transmission of Chinese human genetic resources, and has expanded regulations on the conduct of biotechnology R&D activities in China. Between 2020 and 2022, we experienced delays in our applications to the Human Genetic Resources Administration of China that sought approval to conduct clinical trials in China. Our international operations and business may also be subject to less protective intellectual property or other applicable laws, diverse data privacy and protection requirements, changing tax laws and tariffs, trade restrictions or other barriers designed to protect industry in the home country against foreign competition, far-reaching antibribery and anticorruption laws and regulations and/or evolving legal and regulatory environments.

In response to the ongoing armed conflict in Ukraine, the U.S. government, numerous state governments, the EU and other countries in which we conduct business have imposed a wide range of economic sanctions that restrict commerce and business dealings with Russia, certain regions of Ukraine and certain entities and individuals. This conflict may also precipitate or amplify the other risks described herein, including risks relating to cybersecurity, global economic conditions, clinical trials and supply chains, which could adversely affect our business, operations and financial condition and results.

As we expand internationally, we are subject to fluctuations in foreign currency exchange rates relative to the U.S. dollar. While we have a program in place that is designed to reduce our exposure to foreign currency exchange rate fluctuations through foreign currency hedging arrangements, our hedging efforts do not completely offset the effect of these fluctuations on our revenues and earnings. Overall, the legal and operational challenges of our international business operations, along with government controls, the challenges of attracting and retaining qualified personnel and obtaining and/or maintaining necessary regulatory or pricing approvals of our products, may result in material adverse effects on our international product sales, business and results of operations.

RISKS RELATED TO GOVERNMENT REGULATIONS AND THIRD-PARTY POLICIES

Our sales depend on coverage and reimbursement from government and commercial third-party payers, and pricing and reimbursement pressures have affected, and are likely to continue to affect, our profitability.

Sales of our products depend on the availability and extent of coverage and reimbursement from third-party payers, including government healthcare programs and private insurance plans. Governments and private payers continue to pursue initiatives to manage drug utilization and contain costs. Further, pressures on healthcare budgets from the pandemic, the economic downturn and inflation continue and are likely to increase across the markets we serve. Payers are increasingly focused on costs, which have resulted, and are expected to continue to result, in lower reimbursement rates for our products or narrower populations for which payers will reimburse. Continued intense public scrutiny of the price of drugs and other healthcare costs, together with payer dynamics, have limited, and are likely to continue to limit, our ability to set or adjust the price of our products based on their value, which can have a material adverse effect on our business. In the United States, particularly over the past few years, a number of legislative and regulatory proposals have been introduced and/or signed into law that attempt to lower drug prices. These include legislation promulgated by the IRA that enables the U.S. government to set prices for certain drugs in Medicare, redesigns Medicare Part D benefits to shift a greater portion of the costs to manufacturers and enables the U.S. government to impose penalties if drug prices are increased at a rate faster than inflation. Additional proposals focused on drug pricing continue to be debated, and additional executive orders focused on drug pricing and competition are likely to be adopted and implemented in some form. Government actions or ballot initiatives at the state level also represent a highly active area of policymaking and experimentation, including pursuit of proposals that limit drug reimbursement under state run Medicaid programs based on reference prices or permitting importation of drugs from Canada. Such state policies may also eventually be adopted at the federal level.

We are unable to predict which or how many policy, regulatory, administrative or legislative changes may ultimately be, or effectively estimate the consequences to our business if, enacted and implemented. However, to the extent that payer actions further decrease or modify the coverage or reimbursement available for our products, require that we pay increased rebates or shift other costs to us, limit or affect our decisions regarding the pricing of or otherwise reduce the use of our products, such actions could have a material adverse effect on our business and results of operations.

—Changing U.S. federal coverage and reimbursement policies and practices have affected and are likely to continue to affect access to, pricing of and sales of our products

A substantial portion of our U.S. business relies on reimbursement from federal government healthcare programs and commercial insurance plans regulated by federal and state governments. See Part I, Item 1. Business—Reimbursement. Our business has been and will continue to be affected by legislative actions changing U.S. federal reimbursement policy. For example, in August 2022, the IRA was enacted and includes provisions requiring that: (1) beginning in 2026, mandatory price setting be introduced in Medicare for certain drugs paid for under Parts B and D, whereby manufacturers must accept a price established by the government or face penalties on all U.S. sales (starting with 10 drugs in 2026, adding 15 in 2027 and 2028, and adding 20 in 2029 and subsequent years such that by 2031 approximately 100 drugs could be subject to such set prices); (2) starting in 2024, Medicare Part D be redesigned to cap beneficiary out-of-pocket costs and, beginning January 1, 2025, Federal reinsurance be reduced in the catastrophic phase (resulting in a shift and increase of such costs to Part D plans and manufacturers, including by requiring manufacturer discounts on certain drugs); and (3) beginning October 1, 2022, manufacturers will owe rebates on drugs reimbursed under Medicare Part D if price increases outpace inflation, and beginning January 1, 2023, will owe rebates on drugs reimbursed under Medicare Part B if price increases outpace inflation. The IRA's drug pricing controls and Medicare redesign is likely to have a material adverse effect on our sales (particularly for our products that are more substantially reliant on Medicare reimbursement), our business and our results of operations. However, as the degree of impact from this legislation on our business depends on a number of implementation decisions, the extent of the IRA's impact on our sales and, in turn, our business remains unclear. Further, following the passage of the IRA, the environment remains dynamic, and in October 2022, the Administration issued an Executive Order on Lowering Prescription Drug Costs for Americans that calls for the HHS to issue a report within 90 days on Innovation Center models that would lower drug costs and promote access to innovative drug therapies for Medicare and Medicaid beneficiaries. This Executive Order follows a 2021 Executive Order that included a timeline designed to increase competition in the healthcare sector, including by calling for the FDA to develop prescription drug importation programs and the FTC to apply greater scrutiny of anticompetitive activity. Responses to this order, including by the HHS, which released a report with drug pricing proposals that seek to promote competition, and by the USPTO, which has taken steps to strengthen coordination with the FDA to address impediments to generic drug and biosimilar competition. CMS policy changes and demonstration projects to test new care, delivery and payment models can also significantly affect how drugs, including our products, are covered and reimbursed. In September 2021, HHS released a plan to address drug pricing that included potential future mandatory models that link payment for prescription drugs and biologics to certain factors, including the overall cost of care.

We also face risks related to the reporting of pricing data that affects reimbursement of and discounts provided for our products. U.S. government price reporting regulations are complex and may require biopharmaceutical manufacturers to update certain previously submitted data. If our submitted pricing data are incorrect, we may become subject to substantial fines and penalties or other government enforcement actions, which could have a material adverse effect on our business and results of operations. In addition, as a result of restating previously reported price data, we may be required to pay additional rebates and provide additional discounts.

—Changing reimbursement and pricing actions in various states have negatively affected and may continue to negatively affect access to and have affected and may continue to affect sales of our products

At the state level, government actions or ballot initiatives can also affect how our products are covered and reimbursed and/or create additional pressure on our pricing decisions. Existing and proposed state pricing laws have added complexity to the pricing of drugs and may already be affecting industry pricing decisions. A number of states have adopted, and many other states are considering, drug importation programs or other pricing actions, including proposals designed to require biopharmaceutical manufacturers to report to the state proprietary pricing information or provide advance notice of certain price increases. For example, a California law requires biopharmaceutical manufacturers to notify health insurers and government health plans at least 60 days before scheduled prescription drug price increases that exceed certain thresholds. Similar laws exist in Oregon and Washington. Additional proposals directed at Medicaid seek to penalize manufacturers for pricing drugs above a certain threshold or limit spending on biopharmaceutical products. States are also seeking to change the way they pay for drugs for patients covered by state programs. New York has established a Medicaid drug spending cap, and Massachusetts implemented a new review and supplemental rebate negotiation process. Six states (Colorado, Maine, New Hampshire, Maryland, Oregon and Washington) have enacted laws that establish Prescription Drug Affordability Boards (PDABs) to study drug prices and identify drugs that pose affordability challenges, and in three states (Colorado, Maryland and Washington) include authority for the state PDAB to set upper payment limits on certain drugs in state regulated plans. Other states may consider implementing similar policies and laws. Additionally, Colorado, Florida, Maine, New Hampshire, New Mexico and Vermont have enacted laws, and several other states have proposed bills, to implement importation of drugs from Canada. The FDA has met with representatives from Colorado, Florida, Maine and New Mexico to discuss those states' proposed importation programs, and the FDA may be working towards approving such plans. Other states could adopt similar approaches or could pursue different policy changes in a continuing effort to reduce their costs. Ultimately, as with U.S. federal government actions, existing or future state government actions or ballot initiatives may also have a material adverse effect on our product sales, business and results of operations.

—U.S. commercial payer actions have affected and may continue to affect access to and sales of our products

Payers, including healthcare insurers, PBMs, integrated healthcare delivery systems (vertically-integrated organizations built from consolidations of healthcare insurers and PBMs) and group purchasing organizations, increasingly seek ways to reduce their costs. With increasing frequency, payers are adopting benefit plan changes that shift a greater proportion of drug costs to patients. Such measures include more limited benefit plan designs, high deductible plans, higher patient co-pay or coinsurance obligations and more significant limitations on patients' use of manufacturer commercial co-pay assistance programs. Further, government regulation of payers may affect these trends. For example, CMS finalized a policy for plan years starting on or after January 1, 2021 that has caused commercial payers to more widely adopt co-pay accumulator adjustment programs. Payers, including PBMs, have sought, and continue to seek, price discounts or rebates in connection with the placement of our products on their formularies or those they manage, and to also impose restrictions on access to or usage of our products (such as Step Therapy), require that patients receive the payer's prior authorization before covering the product, and/or chosen to exclude certain indications for which our products are approved. For example, some payers require physicians to demonstrate or document that the patients for whom Repatha has been prescribed meet their utilization criteria, and these requirements have served to limit and may continue to limit patient access to Repatha treatment. In an effort to reduce barriers to access, we reduced the net price of Repatha by providing greater discounts and rebates to payers (including PBMs that administer Medicare Part D prescription drug plans), and in response to a very high percentage of Medicare patients abandoning their Repatha prescriptions rather than paying their co-pay, we introduced a set of new National Drug Codes to make Repatha available at a lower list price. However, affordability of patient out-of-pocket co-pay cost has limited and may continue to limit patient use. Further, despite these net and list price reductions, some payers have restricted, and may continue to restrict, patient access and may seek further discounts or rebates or take other actions, such as changing formulary coverage for Repatha, that could reduce our sales of Repatha. These factors have limited, and may continue to limit, patient affordability and use, negatively affecting Repatha sales.

Further, significant consolidation in the health insurance industry has resulted in a few large insurers and PBMs, which places greater pressure on pricing and usage negotiations with biopharmaceutical manufacturers, significantly increasing discount and rebate requirements and limiting patient access and usage. For example, in the United States, as of the beginning of 2023, the top five integrated health plans and PBMs controlled about 92% of all pharmacy prescriptions. This high degree of

consolidation among insurers and PBMs and other payers, including through integrated healthcare delivery systems and/or with specialty or mail-order pharmacies and pharmacy retailers, has increased the negotiating leverage such entities have over us and other biopharmaceutical manufacturers and has resulted in greater price discounts, rebates and service fees realized by those payers from our business. Each of CVS, Express Scripts and United Health Group (among the top five integrated health plans and PBMs), each have Rebate Management Organizations that further increase their leverage to negotiate deeper discounts. Ultimately, additional discounts, rebates, fees, coverage changes, plan changes, restrictions or exclusions imposed by these commercial payers could have a material adverse effect on our product sales, business and results of operations. Policy reforms advanced by Congress or the Administration that refine the role of PBMs in the U.S. marketplace could have downstream implications or consequences for our business and how we interact with these entities. For example, on June 7, 2022, the FTC launched an inquiry into the business practices of PBMs, and the results of such inquiry could have an effect on manufacturer interactions with PBMs, resulting in changes to access for certain medicines. See our *—Concentration of sales at certain of our wholesaler distributors and consolidation of private payers may negatively affect our business.*

Our business is also affected by policies implemented by private healthcare entities that process Medicare claims, including Medicare Administrative Contractors. For example, in the second quarter of 2022, several Medicare Administrative Contractors issued notice, in contravention of TEZSPIRE's FDA approved labeling, that TEZSPIRE would be added to their "self-administered drug" exclusion lists. Although the Medicare Administrative Contractors subsequently removed TEZSPIRE from their exclusion lists, these exclusions, if reintroduced and/or implemented, would result in Medicare beneficiaries with severe asthma losing access to TEZSPIRE coverage under Medicare Part B and potentially also under Medicare Advantage.

—Government and commercial payer actions outside the United States have affected and will continue to affect access to and sales of our products

Outside the United States, we expect countries will also continue to take actions to reduce their drug expenditures. See Part I, Item 1. Business—Reimbursement. Pressures to decrease drug expenditures may further intensify as the COVID-19 pandemic has strained government budgets and as economic conditions continue to worsen in certain regions, including in Europe where high inflation and the energy crisis relating to the Russia–Ukraine conflict are challenging the economies in that region. International reference pricing has been widely used by many countries outside the United States to control costs based on an external benchmark of a product's price in other countries. International reference pricing policies can change quickly and frequently and may not reflect differences in the burden of disease, indications, market structures or affordability differences across countries or regions. Other expenditure control practices, including but not limited to the use of revenue clawbacks, rebates and percentage caps on price increases, are used in various foreign jurisdictions as well. In addition, countries may refuse to reimburse or may restrict the reimbursed population for a product when their national health technology assessments do not consider a medicine to demonstrate sufficient clinical benefit beyond existing therapies or to meet certain cost effectiveness thresholds. For example, despite the EMA's approval of Repatha for the treatment of patients with established atherosclerotic disease, prior to 2020, the reimbursement of Repatha in France was limited to a narrower patient population (such as those with homozygous familial hypercholesterolemia (HoFH)) following a national health technology assessment. Many countries decide on reimbursement between potentially competing products through national or regional tenders that often result in one product receiving most or all of the sales in that country or region. Failure to obtain coverage and reimbursement for our products, a deterioration in their existing coverage and reimbursement or a decline in the timeliness or certainty of payment by payers to physicians and other providers has negatively affected, and may further negatively affect, the ability or willingness of healthcare providers to prescribe our products for their patients and otherwise negatively affect the use of our products or the prices we realize for them. Such changes have had, and could in the future have, a material adverse effect on our product sales, business and results of operations.

Guidelines and recommendations published by various organizations can reduce the use of our products.

Government agencies promulgate regulations and guidelines directly applicable to us and to our products. Professional societies, practice management groups, insurance carriers, physicians' groups, private health and science foundations and organizations involved in various diseases also publish guidelines and recommendations to healthcare providers, administrators and payers, as well as patient communities. Recommendations by government agencies or other groups and organizations may relate to such matters as usage, dosage, route of administration and use of related therapies. In addition, a growing number of organizations are providing assessments of the value and pricing of biopharmaceutical products, and even organizations whose guidelines have historically been focused on clinical matters have begun to incorporate analyses of the cost effectiveness of various treatments into their treatment guidelines and recommendations. Value assessments may come from private organizations that publish their findings and offer recommendations relating to the products' reimbursement by government and private payers. Some companies and payers have announced pricing and payment decisions based in part on the assessments of private organizations. In addition, government health technology assessment organizations in many countries make reimbursement recommendations to payers in their jurisdictions based on the clinical effectiveness, cost-effectiveness and service effects of new, emerging and existing medicines and treatments. Such health technology assessment organizations have

recommended, and may in the future recommend, reimbursement for certain of our products for a narrower indication than was approved by applicable regulatory agencies or may recommend against reimbursement entirely. See *Our sales depend on coverage and reimbursement from government and commercial third-party payers, and pricing and reimbursement pressures have affected, and are likely to continue to affect, our profitability.* Such recommendations or guidelines may affect our reputation, and any recommendations or guidelines that result in decreased use, dosage or reimbursement of our products could have a material adverse effect on our product sales, business and results of operations. In addition, the perception by the investment community or stockholders that such recommendations or guidelines will result in decreased use and dosage of our products could adversely affect the market price of our common stock.

The adoption and interpretation of new tax legislation or exposure to additional tax liabilities could affect our profitability.

We are subject to income and other taxes in the United States and other jurisdictions in which we do business. As a result, our provision for income taxes is derived from a combination of applicable tax rates in the various places we operate. Significant judgment is required for determining our provision for income tax.

One or more of our legal entities file income tax returns in the U.S. federal jurisdiction, various U.S. state jurisdictions and certain foreign jurisdictions. Our income tax returns are routinely examined by tax authorities in those jurisdictions. Significant disputes can and have arisen with tax authorities involving issues regarding the timing and amount of deductions, the use of tax credits and allocations of income and expenses among various tax jurisdictions because of differing interpretations of tax laws, regulations and relevant facts, and such tax authorities (including the IRS) are becoming more aggressive in their audits and are particularly focused on such matters. In 2017, we received an RAR and a modified RAR from the IRS for the years 2010–2012, proposing significant adjustments that primarily relate to the allocation of profits between certain of our entities in the United States and the U.S. territory of Puerto Rico. We disagreed with the proposed adjustments and calculations and pursued resolution with the IRS administrative appeals office but were unable to reach resolution. In July 2021, we filed a petition in the U.S. Tax Court to contest two duplicate Statutory Notices of Deficiency (Notices) for the years 2010–2012 that we received in May and July 2021 which seek to increase our U.S. taxable income for the years 2010–2012.

In 2020, we received an RAR and a modified RAR from the IRS for the years 2013–2015, also proposing significant adjustments that primarily relate to the allocation of profits between certain of our entities in the United States and the U.S. territory of Puerto Rico similar to those proposed for the years 2010–2012. We disagreed with the proposed adjustments and calculations and pursued resolution with the IRS appeals office but were unable to reach resolution. In July 2022, we filed a petition in the U.S. Tax Court to contest a Notice for the years 2013–2015 that we previously reported receiving in April 2022 that seeks to increase our U.S. taxable income for the years 2013–2015 and asserts penalties.

We firmly believe that the IRS positions set forth in the 2010–2012 and 2013–2015 Notices are without merit. We are contesting the 2010–2012 and 2013–2015 Notices through the judicial process. The cases were consolidated on December 19, 2022.

We are currently also under examination by the IRS for the years 2016–2018 with respect to issues similar to those for the 2010 through 2015 period. In addition, we are under examination by a number of state and foreign tax jurisdictions.

Final resolution of these complex tax matters is not likely within the next 12 months. We continue to believe our accrual for income tax liabilities is appropriate based on past experience, interpretations of tax law, application of the tax law to our facts and judgments about potential actions by tax authorities; however, due to the complexity of the provision for income taxes and uncertain resolution of these matters, the ultimate outcome of any tax matters may result in payments substantially greater than amounts accrued and could have a material adverse effect on the results of our operations.

See Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Results of Operations, Income Taxes, and Part IV—Note 6, Income taxes, to the Consolidated Financial Statements.

Our provision for income taxes and results of operations in the future could be adversely affected by changes to our operating structure, changes in the mix of income and expenses in countries with differing tax rates, changes in the valuation of deferred tax assets and liabilities and changes in applicable tax laws, regulations or administrative interpretations thereof. The 2017 Tax Act is complex and a large volume of regulations and guidance has been issued and could be subject to different interpretations. We could face audit challenges to our application of the 2017 Tax Act. In addition, there are several upcoming provisions in the 2017 Tax Act, including increases in the tax rates on foreign earnings and export income scheduled to take effect at the end of 2025, that could result in an increase in our effective tax rate.

The Administration and Congress continue to discuss changes to existing tax law that could substantially increase the taxes we pay in the United States. Further, the OECD reached an agreement to align countries on a minimum corporate tax rate and an expansion of the taxing rights of market countries. Some individual countries, including those in the EU, have proposed

legislation to implement the global minimum tax agreement. In other countries such as the United States, however, the implementation of the OECD agreement remains highly uncertain. If enacted, either by all OECD participants or unilaterally by individual countries, the agreement could result in tax increases or double taxation that could affect our United States or foreign tax liabilities. Changes to existing tax law in the United States, the U.S. territory of Puerto Rico or other jurisdictions, including the changes and potential changes discussed above, could result in tax increases where we do business and could have a material adverse effect on the results of our operations.

Our business may be affected by litigation and government investigations.

We and certain of our subsidiaries are involved in legal proceedings. See Part IV—Note 19, Contingencies and commitments, to the Consolidated Financial Statements. Civil and criminal litigation is inherently unpredictable, and the outcome can result in costly verdicts, fines and penalties, exclusion from federal healthcare programs and/or injunctive relief that affect how we operate our business. Defense of litigation claims can be expensive, time consuming and distracting, and it is possible that we could incur judgments or enter into settlements of claims for monetary damages or change the way we operate our business, which could have a material adverse effect on our product sales, business and results of operations. In addition, product liability is a major risk in testing and marketing biotechnology and pharmaceutical products. We may face substantial product liability exposure in human clinical trials and for products we sell after regulatory approval. Product liability claims, regardless of their merits, could be costly and divert management's attention and could adversely affect our reputation and the demand for our products. We and certain of our subsidiaries have previously been named as defendants in product liability actions for certain of our products.

We are also involved in government investigations that arise in the ordinary course of our business. In recent years, there has been a trend of increasing government investigations and litigations against companies operating in our industry, both in the United States and around the world. See *Our sales depend on coverage and reimbursement from government and commercial third-party payers, and pricing and reimbursement pressures have affected, and are likely to continue to affect, our profitability.* Our business activities outside of the United States are subject to the FCPA and similar antibribery or anticorruption laws, regulations or rules of other countries in which we operate, including the U.K. Bribery Act. We cannot ensure that all our employees, agents, contractors, vendors, licensees, partners or collaborators will comply with all applicable laws and regulations. On April 25, 2019, we entered into a settlement agreement with the DOJ and the OIG of the HHS to settle certain allegations relating to our support of independent charitable organizations that provide patients with financial assistance to access their medicines. As a result, we entered into a corporate integrity agreement with the OIG that requires us to maintain a corporate compliance program and to undertake a set of defined corporate integrity obligations for a period of five years. While we expect to fully comply with all of our obligations under the corporate integrity agreement, failure to do so could result in substantial penalties and potential exclusion from government healthcare programs. We may also see new government investigations of or actions against us citing novel theories of recovery. For example, prosecutors are placing greater scrutiny on patient support programs, including commercial copay assistance programs, and further enforcement actions and investigations regarding such programs could limit our ability to provide co-pay assistance to commercial patients. Greater scrutiny has also been placed on sponsorships, speaker programs and other arrangements where healthcare professionals receive remuneration, travel or other value to participate in certain events, and further enforcement actions could limit our ability to participate in such arrangements. Any of these results could have a material adverse effect on our business and results of operations.

RISKS RELATED TO COMPETITION

Our products face substantial competition and our product candidates are also likely to face substantial competition.

We operate in a highly competitive environment. See Item 1. Business—Marketing, Distribution and Selected Marketed Products—Competition. We expect that our products and product candidates will compete with existing drugs, new drugs currently in development, drugs currently approved for other indications that may later be approved for the same indications as those of our products and drugs approved for other indications that are used off-label. Large pharmaceutical companies and generics manufacturers of pharmaceutical products have expanded into, and are expected to continue expanding into, the biotechnology field, and some pharmaceutical companies and generics manufacturers have formed partnerships to pursue biosimilars. With the proliferation of companies pursuing biopharmaceuticals, several of our biosimilar products have entered, and a number of our product candidates may enter, markets with one or more competitors or with competitors soon to arrive. In addition, some of our competitors may have technical, competitive or other advantages over us for the development of technologies and processes or greater experience in particular therapeutic areas, and consolidation among pharmaceutical and biotechnology companies can enhance such advantages. These advantages may make it difficult for us to compete with them successfully to discover, develop and market new products and for our current products to compete with new products or new product indications they may bring to market. As a result, our products have been competing and may continue to compete, and our product candidates may compete, against products or product candidates that offer higher rebates or discounts, lower prices, equivalent or superior efficacy, better safety profiles, easier administration, earlier market availability or other competitive

features. If we are unable to compete effectively, this could reduce our sales, which could have a material adverse effect on our business and results of operations.

Our intellectual property positions may be challenged, invalidated or circumvented, or we may fail to prevail in current and future intellectual property litigation.

Our success depends in part on our ability to obtain and defend patent rights and other intellectual property rights that are important to the commercialization of our products and product candidates. The patent positions of pharmaceutical and biotechnology companies can be highly uncertain and often involve complex legal, scientific and factual questions. Driven by cost pressures, efforts to limit or weaken patent protection for our industry are increasing. For example, the COVID-19 pandemic has resulted in increased interest in compulsory licenses, march-in rights or other governmental interventions, both in the United States and internationally, related to the procurement of drugs, and the World Trade Organization has agreed to a waiver of COVID-19 vaccine intellectual property protections through the Trade-Related Aspects of Intellectual Property Rights waiver process. See *The COVID-19 pandemic, and the public and governmental effort to mitigate against the spread of the disease, have had, and are expected to continue to have, an adverse effect, and may have a material adverse effect, on our clinical trials, operations, manufacturing, supply chains, distribution systems, product development, product sales, business and results of operations.* Third parties have challenged and may continue to challenge, invalidate or circumvent our patents and patent applications relating to our products, product candidates and technologies. Challenges to patents may come from potential competitors or from parties other than those who seek to market a potentially-infringing product. In addition, our patent positions might not protect us against competitors with similar products or technologies because competing products or technologies may not infringe our patents. For certain of our product candidates, there are third parties who have patents or pending patent applications that they may claim necessitate payment of a royalty or prevent us from commercializing these product candidates in certain territories. Patent disputes are frequent, costly and can preclude, delay or increase the cost of commercialization of products. We have been in the past, are currently and expect to be in the future, involved in patent litigation. These matters have included, and may in the future include, litigation with manufacturers of products that purport to be biosimilars of certain of our products for patent infringement and for failure to comply with certain provisions of the BPCIA. A determination made by a court, agency or tribunal concerning infringement, validity, enforceability, injunctive or economic remedy, or the right to patent protection, for example, are typically subject to appellate or administrative review. Upon review, such initial determinations may be afforded little or no deference by the reviewing tribunal and may be affirmed, reversed or made the subject of reconsideration through further proceedings. A patent dispute or litigation has not discouraged, and may not in the future discourage, a potential violator from bringing the allegedly infringing product to market prior to a final resolution of the dispute or litigation. The period from inception until resolution of a patent dispute or litigation is subject to the availability and schedule of the court, agency or tribunal before which the dispute or litigation is pending. We have been, and may in the future be, subject to competition during this period and may not be able to recover fully from the losses, damages and harms we incur from infringement by the competitor product even if we prevail. Moreover, if we lose or settle current or future litigations at certain stages or entirely, we could be subject to competition and/or significant liabilities, be required to enter into third-party licenses for the infringed product or technology or be required to cease using the technology or product in dispute. In addition, we cannot guarantee that such licenses will be available on terms acceptable to us, or at all.

Further, under the Hatch–Waxman Act, our products approved by the FDA under the FDCA have been, and may in the future be, the subject of patent litigation with generics competitors before expiry of the five-year period of data exclusivity provided for under the Hatch-Waxman Act and prior to the expiration of the patents listed for the product. Likewise, our innovative biologic products have been, and may in the future be, the subject of patent litigation prior to the expiration of our patents and, with respect to competitors seeking approval as a biosimilar or interchangeable version of our products, prior to the 12-year exclusivity period provided under the BPCIA. In addition, we have faced, and may in the future face, patent litigation involving claims that the biosimilar product candidates we are working to develop infringe the patents of other companies, including those that manufacture, market or sell the applicable reference products or who are developing or have developed other biosimilar versions of such products. Alternatively, patents held by other entities have contributed, and may in the future contribute, to a decision by us to not pursue all of the same labeled indications as are held by these companies. While we have attempted, and expect to continue to attempt, to challenge the patents held by other companies, our efforts may be unsuccessful. For examples of and information related to our patent litigation, see Part IV—Note 19, Contingencies and commitments, to the Consolidated Financial Statements.

Certain of the existing patents on our products have expired or will soon expire. See Item 1. Business—Marketing, Distribution and Selected Marketed Products—Patents. As our patents expire, competitors are able to legally produce and market similar products or technologies, including biosimilars, which has had, and may continue to have, a material adverse effect on our product sales, business and results of operations. In addition, competitors have been, and may continue to be, able to invalidate, design around or otherwise circumvent our patents and sell competing products.

We currently face competition from biosimilars and generics and expect to face increasing competition from biosimilars and generics in the future.

We currently face competition from biosimilars and generics in most of the territories in which we operate, including the United States and Europe, and we expect to face increasing biosimilar and/or generics competition this year and beyond. Expiration or successful challenge of applicable patent rights or expiration of an applicable exclusivity period has accelerated such competition, and we expect to face more litigation regarding the validity and/or scope of our patents. Our products have also experienced greater competition from lower cost biosimilars or generics that come to market when branded products that compete with our products lose their own patent protection. To the extent that governments adopt more permissive regulatory approval standards and competitors are able to obtain broader or expedited marketing approval for biosimilars and generics, the rate of increased competition for our products could accelerate.

In the EU, biosimilars are evaluated for marketing authorization pursuant to a set of general and product class-specific guidelines. In addition, in an effort to spur biosimilar utilization and/or increase potential healthcare savings, some EU countries and some Canadian provinces have adopted, or are considering the adoption of, biosimilar uptake measures such as physician prescribing quotas or automatic pharmacy substitution of biosimilars for the corresponding reference products. Some EU countries impose automatic price reductions upon market entry of one or more biosimilar competitors. In September 2022, the EMA and the EU Heads of Medicines' Agencies (HMA) issued a joint statement providing that biosimilar medicines approved in the EU are "interchangeable" with their reference products and other biosimilars of the same reference product. This EMA-HMA statement could further contribute to the prescribing of biosimilars and to greater competition in Europe. While the degree of competitive effects of biosimilar competition differs between EU countries and between products, in the EU the overall use of biosimilars and the rate at which product sales of innovative products are being affected by biosimilar competition is increasing.

In the United States, the BPCIA authorizes the FDA to approve biosimilars via a separate, abbreviated pathway. See Item 1. Business—Government Regulation—Regulation in the United States—Approval of Biosimilars. In the United States, the FDA has approved numerous biosimilars, including biosimilar versions of Neulasta, EPOGEN and ENBREL, and a growing number of companies have announced that they are also developing biosimilar versions of our products. For example, six biosimilar versions of Neulasta are now approved in the United States, and we expect that other biosimilar versions of Neulasta may be marketed or receive approval in the future. Impact to our Neulasta sales has accelerated as additional competitors have launched. See Item 1. Business—Marketing, Distribution and Selected Marketed Products—Competition. Manufacturers of biosimilars have attempted, and may in the future attempt, to compete with our products by offering lower list prices, greater discounts or rebates, or contracts that offer longer-term pricing or a broader portfolio of other products. Companies pursuing development of biosimilar versions of our products have challenged and may continue to challenge our patents well in advance of the expiration of our material patents. For examples of and information related to our biosimilars and generics patent litigation, see Part IV—Note 19, Contingencies and commitments, to the Consolidated Financial Statements. See *Our intellectual property positions may be challenged, invalidated or circumvented, or we may fail to prevail in current and future intellectual property litigation.*

The U.S. biosimilar pathway includes the option for biosimilar products that meet certain criteria to be approved as interchangeable with their reference products. Some companies currently developing or already marketing biosimilars may seek to obtain interchangeable status from the FDA, which could potentially allow pharmacists to substitute those biosimilars for our reference products without prior approval from the prescriber in most states under state law. The FDA approved the first interchangeable biosimilar in 2021 and has subsequently granted interchangeability designations to three additional biosimilars. In 2019, the FDA issued draft guidance that provides that comparative immunogenicity studies will not generally be expected for biosimilar and interchangeable insulin products. This has opened the door for other product-specific guidance development and the removal of the expectation for certain studies, which may contribute to increased biosimilar competition for our innovative products. For example, in August 2022, the FDA designated a monoclonal antibody biosimilar as interchangeable without requiring a switching study to support the interchangeability determination. Further, in September 2022, the FDA indicated that while comparative clinical trials will continue to be a requirement for many biosimilar development programs, the agency is focused on reducing the need for them in the future through a range of statistical, analytical and pharmacologic approaches.

In addition, critics of the 12-year exclusivity period in the biosimilar pathway law will likely continue to seek to shorten the data exclusivity period and/or to encourage the FDA to interpret narrowly the law's provisions regarding which new products receive data exclusivity. In 2019, the Administration agreed to remove from the United States-Mexico-Canada Agreement a requirement for at least 10 years of data exclusivity for biologic products. Also, the FDA is considering whether subsequent changes to a licensed biologic would be protected by the remainder of the reference product's original 12-year exclusivity period (a concept known in the generic drug context as "umbrella exclusivity"). If the FDA were to decide that umbrella exclusivity does not apply to biological reference products or were to make other changes to the exclusivity period,

this could expose us to biosimilar competition at an earlier time. There also have been, and may continue to be, legislative and regulatory efforts to promote competition through policies enabling easier generic and biosimilar approval and commercialization, including efforts to lower standards for demonstrating biosimilarity or interchangeability, limit patents that may be litigated and/or patent settlements, implement preferential reimbursement policies for biosimilars and pass new laws requiring more disclosure in the FDA's Orange and Purple Books. For example, in 2021 the FDA sent a letter to the USPTO describing ways to strengthen coordination between the two agencies, offered training to help identify prior art, and seeking USPTO's views on practices that extend market exclusivities, whether pharmaceutical patent examiners need additional resources, and the effect of post-grant challenges at the Patent Trial and Appeal Board on drug patents. The USPTO responded in July 2022 with a letter to the FDA stating that it is prepared to create formal mechanisms to collaborate with the FDA on patent issues that may affect the timing of generic and biosimilar entry. In January 2023, the USPTO held a joint listening session with the FDA on USPTO-FDA collaboration efforts.

Upon the expiration or loss of patent protection and/or applicable exclusivity for one of our products, we can lose the majority of revenues for that product in a very short period of time. See Item 1. Business—Marketing, Distribution and Selected Marketed Products—Competition. Additionally, if one of our products is the subject of an FDA Written Request for pediatric studies and we are unable to adequately complete these studies, we may not obtain the pediatric exclusivity award that extends unexpired regulatory exclusivity for the product (and existing patents for a small molecule product) by an additional six months.

While we are unable to predict the precise effects of biosimilars and generics on our products, we are currently facing and expect to face greater competition in the United States, Europe and elsewhere as a result of biosimilar and generic competition and, in turn, downward pressure on our product prices and sales. This competition has had, and could increasingly have, a material adverse effect on our product sales, business and results of operations. State laws may also have an impact on our business. For example, California is the first state to have passed legislation, effective on January 1, 2020, against "pay for delay" settlements of patent infringement claims filed by manufacturers of generics or biosimilars where anything of value is given in exchange for settlement. Under this law, such settlement agreements are presumptively anticompetitive. The law may result in prolonged litigation and fewer settlements. Other states, including Connecticut, New York, Illinois and Minnesota, may adopt similar laws or a similar law could be adopted at the federal level.

Concentration of sales at certain of our wholesaler distributors and consolidation of private payers may negatively affect our business.

Certain of our distributors, customers and payers have substantial purchasing leverage, due to the volume of our products they purchase or the number of patient lives for which they provide coverage. The substantial majority of our U.S. product sales is made to three pharmaceutical product wholesaler distributors: McKesson Corporation, AmerisourceBergen Corporation and Cardinal Health, Inc. These distributors, in turn, sell our products to their customers, which include physicians or their clinics, dialysis centers, hospitals and pharmacies. Similarly, as discussed above, there has been significant consolidation in the health insurance industry, including that a small number of PBMs now oversee a substantial percentage of total covered lives in the United States. See *Our sales depend on coverage and reimbursement from government and commercial third-party payers, and pricing and reimbursement pressures have affected, and are likely to continue to affect, our profitability.* The three largest PBMs in the United States are now part of major health insurance providers. The growing concentration of purchasing and negotiating power by these entities has, and may continue to, put pressure on our pricing due to their ability to extract price discounts on our products, fees for other services or rebates, negatively affecting our bargaining position, sales and/or profit margins. In addition, decisions by these entities to purchase or cover less or none of our products in favor of competing products could have a material adverse effect on our product sales, business and results of operations due to their purchasing volume. Further, if one of our significant wholesale distributors encounters financial or other difficulties and becomes unable or unwilling to pay us all amounts that such distributor owes us on a timely basis, or at all, it could negatively affect our business and results of operations. In addition, if one of our significant wholesale distributors becomes insolvent or otherwise unable to continue its commercial relationship with us in its present form, it could significantly disrupt our business and adversely affect our product sales, our business and results of operations unless suitable alternatives are timely found or lost sales are absorbed by another distributor.

RISKS RELATED TO RESEARCH AND DEVELOPMENT

We may not be able to develop commercial products despite significant investments in R&D.

Amgen invests heavily in R&D. Successful product development in the biotechnology industry is highly uncertain, and very few R&D projects yield approved and commercially viable products. Product candidates, including biosimilar product candidates, or new indications for existing products (collectively, product candidates) that appear promising in the early phases of development have failed to reach the market for a number of reasons, such as:

- the product candidate did not demonstrate acceptable clinical trial results even though it achieved its primary endpoints and/or demonstrated positive preclinical or early clinical trial results, for reasons that could include changes in the standard of care of medicine or expectations of health authorities;
- the product candidate was not effective or not more effective than currently available or potentially competitive therapies in treating a specified condition or illness;
- the product candidate was not cost effective in light of existing or potentially competitive therapeutics;
- the product candidate had harmful side effects in animals or humans;
- the necessary regulatory bodies, such as the FDA or EMA, did not approve the product candidate for an intended use;
- reimbursement for the product candidate is limited despite regulatory approval;
- the product candidate was not economical for us to manufacture and commercialize;
- other parties had or may have had proprietary rights relating to our product candidate, such as patent rights, and did not let us sell it on reasonable terms, or at all;
- we and certain of our licensees, partners, contracted organizations or independent investigators failed to effectively conduct clinical development or clinical manufacturing activities;
- the pathway to regulatory approval or reimbursement for product candidates was uncertain or not well-defined;
- the biosimilar product candidate failed to demonstrate the requisite biosimilarity to the applicable reference product, or was otherwise determined by a regulatory authority to not meet applicable standards for approval; and
- a companion diagnostic device that is required with the use of a product candidate is not approved by the necessary regulatory authority.

We have spent considerable time, energy and resources developing our expertise in human genetics and acquiring access to libraries of genetic information with the belief that genetics could meaningfully aid our search for new medicines and help guide our R&D decisions and investments. We have focused our R&D strategy on drug targets validated by genetic or other compelling human evidence. However, product candidates based on genetically validated targets remain subject to the uncertainties of the drug development process and may not reach the market for a number of reasons, including the factors listed above.

We must conduct clinical trials in humans before we commercialize and sell any of our product candidates or existing products for new indications.

Before a product may be sold, we must conduct clinical trials to demonstrate that our product candidates are safe and effective for use in humans. The results of those clinical trials are used as the basis to obtain approval from regulatory authorities such as the FDA and EMA. See *Our current products and products in development cannot be sold without regulatory approval*. We are required to conduct clinical trials using an appropriate number of trial sites and patients to support the product label claims. The length of time, number of trial sites and number of patients required for clinical trials vary substantially, and we may spend several years and incur substantial expense in completing certain clinical trials. In addition, we may have difficulty finding a sufficient number of clinical trial sites and/or patients to participate in our clinical trials, particularly if competitors are conducting clinical trials in similar patient populations. See *The COVID-19 pandemic, and the public and governmental effort to mitigate against the spread of the disease, have had, and are expected to continue to have, an adverse effect, and may have a material adverse effect, on our clinical trials, operations, supply chains, distribution systems, product development, product sales, business and results of operations.* Patients may withdraw from clinical trials at any time, and privacy laws and/or other restrictions in certain countries may restrict the ability of clinical trial investigators to conduct further follow-up on such patients, which may adversely affect the interpretation of study results. Delays and complications in

planned clinical trials can result in increased development costs, associated delays in regulatory approvals and in product candidates reaching the market and revisions to existing product labels.

Further, to increase the number of patients available for enrollment in our clinical trials, we have opened, and will continue to open, clinical sites and enroll patients in a number of locations where our experience conducting clinical trials is more limited, including India, China, South Korea, the Philippines, Singapore and some Central and South American countries, either through utilization of third-party contract clinical trial providers entirely or in combination with local staff. Conducting clinical trials in locations where we have limited experience requires substantial time and resources to understand the unique regulatory environments of individual countries. For other examples of the risks of conducting clinical trials in China, see also *Our sales and operations are subject to the risks of doing business internationally, including in emerging markets*. Further, we must ensure the timely production, distribution and delivery of the clinical supply of our product candidates to numerous and varied clinical trial sites. Additionally, regional disruptions, including natural and man-made disasters, health emergencies (such as novel viruses or pandemics such as the one we are currently experiencing with COVID-19), or geopolitical conflicts (such as the ongoing armed conflict in Ukraine) have significantly disrupted the timing of clinical trials, and in the future could disrupt the timing, execution and outcome of clinical trials. If we fail to adequately manage the design, execution and diverse regulatory aspects of our clinical trials or to manage the production or distribution of our clinical supply, or such sites experience disruptions as a result of a natural/man-made disaster, health emergency or geopolitical conflict, corresponding regulatory approvals may be delayed or we may fail to gain approval for our product candidates or could lose our ability to market existing products in certain therapeutic areas or altogether. For example, our clinical trials have been adversely affected by the COVID-19 pandemic. See *The COVID-19 pandemic, and the public and governmental effort to mitigate against the spread of the disease, have had, and are expected to continue to have, an adverse effect, and may have a material adverse effect, on our clinical trials, operations, supply chains, distribution systems, product development, product sales, business and results of operations.* If we are unable to market and sell our products or product candidates or to obtain approvals in the timeframe needed to execute our product strategies, our business and results of operations could be materially and adversely affected.

We rely on independent third-party clinical investigators to recruit patients and conduct clinical trials on our behalf in accordance with applicable study protocols, laws and regulations. Further, we rely on unaffiliated third-party vendors to perform certain aspects of our clinical trial operations. In some circumstances, we enter into co-development arrangements with other pharmaceutical and medical devices companies that provide for the other company to conduct certain clinical trials for the product we are co-developing or to develop a diagnostic test used in screening or monitoring patients in our clinical trials. See *Some of our pharmaceutical pipeline and our commercial product sales rely on collaborations with third parties, which may adversely affect the development and sales of our products.* We also may acquire companies that have past or ongoing clinical trials or rights to products or product candidates for which clinical trials have been or are being conducted. These trials may not have been conducted to the same standards as ours; however, once an acquisition has been completed we assume responsibility for the conduct of these trials, including any potential risks and liabilities associated with the past and prospective conduct of those trials. If regulatory authorities determine that we or others, including our licensees or co-development partners, or the independent investigators or vendors selected by us, our co-development partners or by a company we have acquired or from which we have acquired rights to a product or product candidate, have not complied with regulations applicable to the clinical trials, those authorities may refuse or reject some or all of the clinical trial data or take other actions that could delay or otherwise negatively affect our ability to obtain or maintain marketing approval of the product or indication. In addition, delays or failures to develop diagnostic tests for our clinical trials can affect the timely enrollment of such trials and lead to delays or inability to obtain marketing approval. If we were unable to market and sell our products or product candidates, our business and results of operations could be materially and adversely affected.

In addition, some of our clinical trials utilize drugs manufactured and marketed by other pharmaceutical companies. These drugs may be administered in clinical trials in combination with one of our products or product candidates or in a head-to-head study comparing the products' or product candidates' relative efficacy and safety. In the event that any of these vendors or pharmaceutical companies have unforeseen issues that negatively affect the quality of their work product or create a shortage of supply, or if we are otherwise unable to obtain an adequate supply of these other drugs, our ability to complete our applicable clinical trials and/or evaluate clinical results may also be negatively affected. As a result, such quality or supply problems could adversely affect our ability to timely file for, gain or maintain regulatory approvals worldwide.

Clinical trials must generally be designed based on the current standard of medical care. However, in certain diseases, such as cancer, the standard of care is evolving rapidly. In some cases, we may design a clinical trial based on the standard of care we anticipate will exist at the time our study is completed. The duration of time needed to complete certain clinical trials may result in the design of such clinical trials being based on standards of medical care that are no longer or that have not become the current standards by the time such trials are completed, limiting the utility and application of such trials. Additionally, the views of regulatory agencies relating to the requirements for accelerated approval may change over time, and trial designs that were sufficient to support accelerated approvals for some oncology products may not be considered sufficient

for later candidates. We may not obtain favorable clinical trial results and therefore may not be able to obtain regulatory approval for new product candidates or new indications for existing products and/or maintain our current product labels. Participants in clinical trials of our products and product candidates may also suffer adverse medical events or side effects that could, among other factors, delay or terminate clinical trial programs and/or require additional or longer trials to gain approval.

Even after a product is on the market, safety concerns may require additional or more extensive clinical trials as part of a risk management plan for our product or for approval of a new indication. Additional clinical trials we initiate, including those required by the FDA, could result in substantial additional expense, and the outcomes could result in further label restrictions or the loss of regulatory approval for an approved indication, each of which could have a material adverse effect on our product sales, business and results of operations. Additionally, any negative results from such trials could materially affect the extent of approvals, the use, reimbursement and sales of our products, our business and results of operations.

Our current products and products in development cannot be sold without regulatory approval.

Our business is subject to extensive regulation by numerous state and federal government authorities in the United States, including the FDA, and by foreign regulatory authorities, including the EMA. We are required in the United States and in the other regions and countries in which we, or our partners and affiliates, sell to obtain approval from regulatory authorities before we manufacture, market and sell our products. Once our products are approved, the FDA and other U.S. and ex-U.S. regulatory agencies have substantial authority to require additional testing and reporting, perform inspections, change product labeling or mandate withdrawals of our products. Failure to comply with applicable regulatory requirements may subject us to administrative and/or judicially imposed sanctions or monetary penalties as well as reputational and other harms. The sanctions could include the FDA's or ex-U.S. regulatory authorities' refusals to approve pending applications, delays in obtaining or withdrawals of approvals, delays or suspensions of clinical trials, warning letters, product recalls or seizures, total or partial suspensions of our operations, injunctions, fines, civil penalties and/or criminal prosecutions.

Obtaining and maintaining regulatory approvals have been, and will continue to be, increasingly difficult, time-consuming and costly. Legislative bodies or regulatory agencies could enact new laws or regulations, change existing laws or regulations or change their interpretations of laws or regulations at any time, which could affect our ability to obtain or maintain approval of our products or product candidates. The rate and degree of change in existing laws and regulations and regulatory expectations have accelerated in established markets, and regulatory expectations continue to evolve in emerging markets. We are unable to predict whether and when any further changes to laws or regulatory policies affecting our business could occur, such as changes to laws or regulations governing manufacturer communications concerning drug products and drug product candidates and whether such changes could have a material adverse effect on our product sales, business and results of operations. Further, we are reliant on regulators having the resources necessary to evaluate and approve our products. In the United States, a partial federal government shutdown halted the work of many federal agencies and their employees from late December 2018 through late January 2019. A subsequent extended shutdown could result in reductions or delays of FDA's activities, including with respect to our ongoing clinical programs, our manufacturing of our products and product candidates and our product approvals.

Regulatory authorities have questioned, and may in the future question, the sufficiency for approval of the endpoints we select for our clinical trials. A number of our products and product candidates have been evaluated in clinical trials using surrogate endpoints that measure an effect that is known to correlate with an ultimate clinical benefit. For example, a therapeutic oncology product candidate may be evaluated for its ability to reduce or eliminate minimal residual disease (MRD), or to extend the length of time during and after the treatment that a patient lives without the disease worsening, measured by PFS. Demonstrating that the product candidate induces MRD-negative responses or produces a statistically significant improvement in PFS does not necessarily mean that the product candidate will show a statistically significant improvement in overall survival or the time that the patients remain alive. In the CV setting, a heart disease therapeutic candidate may be evaluated for its ability to reduce LDL-C levels, as an elevated LDL-C level has been a surrogate endpoint for CV events such as death, heart attack and stroke. The use of surrogate endpoints such as PFS and LDL-C reduction, in the absence of other measures of clinical benefit, may not be sufficient for broad usage or approval even when such results are statistically significant. Regulatory authorities could also add new requirements, such as the completion of enrollment in a confirmatory study or the completion of an outcomes study or a meaningful portion of an outcomes study, as conditions for obtaining approval or obtaining an indication. For example, despite demonstrating that Repatha reduced LDL-C levels in a broad patient population, only after our large phase 3 outcomes study evaluating the ability of Repatha to prevent CV events met certain of its primary composite endpoint and key secondary composite endpoint did the FDA grant a broader approval of Repatha to reduce the risk of certain CV events. There may also be situations in which demonstrating the efficacy and safety of a product candidate may not be sufficient to gain regulatory approval unless superiority to other existing treatment options can be shown. The imposition of additional requirements or our inability to meet them in a timely fashion, or at all, has delayed, and may in the future delay, our clinical development and regulatory filing efforts, delay or prevent us from obtaining regulatory approval for new product candidates or new indications for existing products, or prevent us from maintaining our current product labels.

Some of our products have been approved by U.S. and ex-U.S. regulatory authorities on an accelerated or conditional basis with full approval conditioned upon fulfilling the requirements of regulators. For example, in May 2021, we announced that the FDA approved LUMAKRAS under accelerated approval for the treatment of adult patients with KRAS G12C-mutated local advanced or metastatic NSCLC, as determined by an FDA-approved test, who have received at least one prior systemic therapy. Continued approval for this indication is contingent upon verification and description of clinical benefit in confirmatory trials, including a requirement by the FDA that we complete a post-marketing trial to investigate whether a lower dose will have a similar clinical effect to the results demonstrated in our pre-marketing trial. We have since received the data from such post-marketing trial and intend to submit it to the FDA, as required. Regulatory authorities are placing greater focus on monitoring products originally approved on an accelerated or conditional basis and on whether the sponsors of such products have met the conditions of the accelerated or conditional approvals. If we are unable to fulfill the regulators' requirements that were conditions of a product's accelerated or conditional approval and/or if regulators reevaluate the data or risk-benefit profile of our product, the conditional approval may not result in full approval or may be revoked or not renewed. Alternatively, we may be required to change the product's labeled indications or even withdraw the product from the market.

Regulatory authorities can also impose post-marketing pediatric study requirements. Failure to fulfill such requirements may result in regulatory or enforcement action, including financial penalties or the invalidation of a product's marketing authorization.

Safety problems or signals can arise as our products and product candidates are evaluated in clinical trials, including investigator sponsored studies, or as our marketed products are used in clinical practice. We are required continuously to collect and assess adverse events reported to us and to communicate to regulatory agencies these adverse events and safety signals regarding our products. Regulatory agencies periodically perform inspections of our pharmacovigilance processes, including our adverse event reporting. In the United States, for our products with approved REMS (see Item 1. Business—Government Regulation—Postapproval Phase), we are required to submit periodic assessment reports to the FDA to demonstrate that the goals of the REMS are being met. REMS and other risk management programs are designed to help ensure that a drug's benefits outweigh the risks and vary in the elements they contain. If the FDA is not satisfied with the results of the periodic assessment reports we submit for any of our REMS, the FDA may also modify our REMS or take other regulatory actions, such as implementing revised or restrictive labeling. The drug delivery devices approved for use in combination with our products are also subject to regulatory oversight and review for safety and malfunctions. See *Some of our products are used with drug delivery or companion diagnostic devices that have their own regulatory, manufacturing and other risks.* If regulatory agencies determine that we or other parties (including our clinical trial investigators, those operating our patient support programs or licensees of our products) have not complied with the applicable reporting, other pharmacovigilance or other safety or quality assessment requirements, we may become subject to additional inspections, warning letters or other enforcement actions, including fines, marketing authorization withdrawal and other penalties. Our product candidates and marketed products can also be affected by safety problems or signals occurring with respect to products that are similar to ours or that implicate an entire class of products. Further, as a result of clinical trials, including sub-analyses or meta-analyses of earlier clinical trials (a meta-analysis involves the use of various statistical methods to combine results from previous separate but related studies) performed by us or others, concerns may arise about the sufficiency of the data or studies underlying a product's approved label. Such actual or perceived safety problems or concerns can lead to:

- revised or restrictive labeling for our products, or the potential for restrictive labeling that has resulted, and may in the future result, in our decision not to commercialize a product candidate;
- requirement of risk management or minimization activities or other regulatory agency compliance actions related to the promotion and sale of our products;
- post-marketing commitments, mandated post-marketing requirements or pharmacovigilance programs for our approved products;
- product recalls of our approved products;
- required changes to the processes used in the manufacture of our products, which could increase our manufacturing costs and affect the availability of contract manufacturers we may utilize to assist in such manufacturing;
- revocation of approval for our products from the market completely, or within particular therapeutic areas or patient types;
- increased timelines or delays in being approved by the FDA or other regulatory bodies; and/or
- treatments or product candidates not being approved by regulatory bodies.

For example, after an imbalance in positively adjudicated CV serious adverse events was observed in one of the phase 3 clinical trials for EVENITY but not in another, larger phase 3 study, in April 2019 the FDA approved EVENITY for the

treatment of osteoporosis in postmenopausal women at high risk for fracture, along with a post-marketing requirement. The requirement includes a five-year observational feasibility study that could be followed by a comparative safety study or trial.

In addition to our innovative products, we are working to develop and commercialize biosimilar versions of a number of products currently manufactured, marketed and sold by other pharmaceutical companies. In some markets, there is not yet a legislative or regulatory pathway for the approval of biosimilars. In the United States, the BPCIA provided for such a pathway. Discussions within the FDA and other regulatory authorities, and between regulatory authorities and sponsors, continue as to the evidence needed to demonstrate biosimilarity or interchangeability for specific products. See *We currently face competition from biosimilars and generics and expect to face increasing competition from biosimilars and generics in the future.* Delays or uncertainties in the development or implementation of such pathways, or changes in existing regulatory pathways, including degradation of regulatory standards, could result in delays or difficulties in getting our biosimilar products approved by regulatory authorities, subject us to unanticipated development costs or otherwise reduce the value of the investments we have made in the biosimilars area. Further, we cannot predict the extent to which any potential legislative or policy initiatives would affect the biosimilar pathway or have a material adverse effect on our development of biosimilars or on our marketed biosimilars. In addition, if we are unable to bring our biosimilar products to market on a timely basis and secure "first-to-market" or other advantageous positions, our future biosimilar sales, business and results of operations could be materially and adversely affected.

Some of our products are used with drug delivery or companion diagnostic devices that have their own regulatory, manufacturing and other risks.

Many of our products and product candidates may be used in combination with a drug delivery device, such as an injector or other delivery system. For example, Neulasta is available as part of the Neulasta Onpro kit, and our AutoTouch reusable autoinjector is used with ENBREL Mini single-dose prefilled cartridges. In addition, some of our products or product candidates, including many of our oncology product candidates and products, including LUMAKRAS/LUMYKRAS and bemarituzumab, may also require the use of a companion or other diagnostic device such as a device that determines whether the patient is eligible to use our drug or that helps ensure its safe and effective use. In some regions, including the United States, regulatory authorities may require contemporaneous approval of the companion diagnostic device and the therapeutic product; in others the regulatory authorities may require a separate study of the companion diagnostic device. Our product candidates or expanded indications of our products used with such devices may not be approved or may be substantially delayed in receiving regulatory approval if development or approval of such devices is delayed, such devices do not also gain or maintain regulatory approval or clearance, or if such devices do not remain commercially available. When approval of the product and device is sought under a single marketing drug application, the increased complexity of the review process may delay receipt of regulatory approval. In addition, some of these devices may be provided by single-source unaffiliated third-party companies. We are dependent on the sustained cooperation and effort of those third-party companies to supply and/or market the devices and, in some cases, to conduct the studies required for approval or clearance by the applicable regulatory agencies. We are also dependent on those third-party companies continuing to meet applicable regulatory or other requirements. Failure to successfully develop, modify, or supply the devices, delays in or failures of the Amgen or third-party studies, or failure of us or the third-party companies to obtain or maintain regulatory approval or clearance of the devices could result in increased development costs; delays in, or failure to obtain or maintain, regulatory approval; and/or associated delays in a product candidate reaching the market or in the addition of new indications for existing products. We are also required to collect and assess user complaints, adverse events and malfunctions regarding our devices, and actual or perceived safety problems or concerns with a device used with our product can lead to regulatory actions and adverse effects on our products. See *Our current products and products in development cannot be sold without regulatory approval*. Additionally, regulatory agencies conduct routine monitoring and inspections to identify and evaluate potential issues with our devices. For example, in 2017, the FDA reported on its adverse event reporting system that it was evaluating our Neulasta Onpro kit. Subsequently, we implemented device and labeling enhancements to address product complaints received on this device. We continuously monitor complaints and adverse events and implement additional enhancements as needed. Loss of regulatory approval or clearance of a device that is used with our product may also result in the removal of our product from the market. Further, failure to successfully develop, supply, or gain or maintain approval for these devices could adversely affect sales of the related approved products.

Some of our pharmaceutical pipeline and our commercial product sales rely on collaborations with third parties, which may adversely affect the development and sales of our products.

We depend on alliances with other companies, including pharmaceutical and biotechnology companies, vendors and service providers, for the development of a portion of the products in our pharmaceutical pipeline and for the commercialization and sales of certain of our commercial products. For example, we have collaborations with third parties under which we share development rights, obligations and costs and/or commercial rights and obligations. See Item 1. Business—Business Relationships.

Failures by these parties to meet their contractual, regulatory, or other obligations to us or any disruption in the relationships between us and these third parties, could have a material adverse effect on our pharmaceutical pipeline and business. In addition, our collaborative relationships for R&D and/or commercialization and sales often extend for many years and have given, and may in the future give, rise to disputes regarding the relative rights, obligations and revenues of us and our collaboration partners, including the ownership or prosecution of intellectual property and associated rights and obligations. This could result in the loss of intellectual property rights or protection, delay the development and sale of potential pharmaceutical products, affect the sale and delivery of our commercialized products and lead to lengthy and expensive litigation, administrative proceedings or arbitration.

Our efforts to collaborate with or acquire other companies, products, or technology, and to integrate the operations of companies or to support the products or technology we have acquired, may not be successful, and may result in unanticipated costs, delays or failures to realize the benefits of the transactions.

We seek innovation through significant investment in both internal R&D and external transactions, including collaborations, partnerships, alliances, licenses, joint ventures, mergers and acquisitions (collectively, acquisition activity). Acquisition activities may be subject to regulatory approvals or other requirements that are not within our control. There can be no assurance that such regulatory or other approvals will be obtained or that all closing conditions required in connection with our acquisition activities will be satisfied or waived, which could result in us being unable to complete the planned acquisition activities. In addition, antitrust scrutiny by regulatory agencies and changes to regulatory approval process in the U.S. and foreign jurisdictions may cause approvals to take longer than anticipated to obtain, not be obtained at all, or contain burdensome conditions, which may jeopardize, delay or reduce the anticipated benefits of acquisitions to us and could impede the execution of our business strategy.

Acquisition activities are complex, time consuming and expensive and may result in unanticipated costs, delays or other operational or financial problems related to integrating the acquired company and business with our company, which may divert our management's attention from other business issues and opportunities and restrict the full realization of the anticipated benefits of such transactions within the expected timeframe or at all. We may pay substantial amounts of cash, incur debt or issue equity securities to pay for acquisition activities, which could adversely affect our liquidity or result in dilution to our stockholders, respectively. Further, failures or difficulties in integrating or retaining new personnel or in integrating the operations of the businesses, products or assets we acquire (including related technology, commercial operations, compliance programs, manufacturing, distribution and general business operations and procedures and ESG activities) may affect our ability to realize the benefits of the transaction and grow our business and may result in us incurring asset impairment or restructuring charges. These and other challenges may arise in connection with our acquisitions of Otezla, Five Prime, Teneobio, ChemoCentryx, Horizon and/or our collaborations with BeiGene and KKC, or with other acquisition activities, which could have a material adverse effect on our business, results of operations and stock price.

RISKS RELATED TO OPERATIONS

We perform a substantial majority of our commercial manufacturing activities at our facility in the U.S. territory of Puerto Rico and a substantial majority of our clinical manufacturing activities at our facility in Thousand Oaks, California; significant disruptions or production failures at these facilities could significantly impair our ability to supply our products or continue our clinical trials.

The global supply of our products and product candidates for commercial sales and for use in our clinical trials is significantly dependent on the uninterrupted and efficient operation of our manufacturing facilities, in particular those in the U.S. territory of Puerto Rico and Thousand Oaks, California. See *Manufacturing difficulties, disruptions or delays could limit supply of our products and limit our product sales.*

We currently perform a substantial majority of our clinical manufacturing that supports our product candidates at our facility in Thousand Oaks, California. A substantial disruption in our ability to operate our Thousand Oaks manufacturing facility could materially and adversely affect our ability to supply our product candidates for use in our clinical trials, leading to delays in development of our product candidates.

In addition, we currently perform a substantial majority of our commercial manufacturing activities at our facility in the U.S. territory of Puerto Rico. In recent years, Puerto Rico has been affected by a number of natural disasters, including Hurricane Maria (2017), earthquakes (2020) and Hurricane Fiona (2022). These natural disasters have affected, and may continue to affect, public and private properties and Puerto Rico's electric grid and communications networks. While the critical manufacturing areas of our commercial manufacturing facility were not significantly affected by these natural disasters, the restoration of electrical service on the island after Hurricane Maria was a slow process, and our facility relied on backup diesel powered generators for some time. We also operated on backup generators for a few weeks after the early 2020 earthquakes in Puerto Rico. In 2021, the baseload power generation units of the Puerto Rico Electric Power Authority malfunctioned due to the

lack of adequate maintenance for over a decade, leading to selective outages across the island. In September 2022, Hurricane Fiona caused further damage to the island's utility infrastructure which again resulted in widespread power outages and water supply issues. Although these events did not directly have a material effect on our business, they have resulted in disruptions to our third-party suppliers on the island. Further instability of the electric grid could require us to increase our use of our generators or to use them exclusively. In addition, future storms, earthquakes or other natural or man-made disasters or events (including political unrest or labor shortages) could have a more significant effect on our manufacturing operations. The COVID-19 pandemic has also resulted in disruptions to activities on the island. In March 2020, the Governor of Puerto Rico issued Executive Orders requiring the lockdown of businesses and government facilities, imposing restrictions on business operations and a curfew on residents in response to COVID-19. Additionally, during the summer of 2021, a labor dispute arose between the maritime terminal operation company and its employees, represented by the International Longshoremen's Association (ILA), which resulted in a strike that delayed cargo movement from the San Juan Port Zone for several days. Hurricanes Maria and Fiona, the 2020 earthquakes, the COVID-19 pandemic and the ILA strike have also placed greater stress on the island's already challenged economy. Beginning in 2016, the government of Puerto Rico defaulted on its roughly $72 billion of debt. In response, the U.S. Congress passed the Puerto Rico Oversight, Management, and Economic Stability Act, which established a financial oversight board for Puerto Rico. After years of negotiations with bondholders and other creditors, this financial oversight board reached an agreement with the same, which was confirmed by the U.S. District Court for the District of Puerto Rico effective March 2022. Although our ability to manufacture and supply our products has not, to date, been significantly affected by natural disasters, unreliable electric utility services, strikes, pandemic lockdowns or the island's economic challenges, these, or a combination of these challenges, or other issues that create a substantial disruption to our ability to operate our Puerto Rico manufacturing facility or get supplies and manufactured products transported to and from that location, could make it more expensive or difficult for us to operate in Puerto Rico, and could materially and adversely affect our ability to supply our products and affect our product sales. See *Manufacturing difficulties, disruptions or delays could limit supply of our products and limit our product sales*.

We rely on third-party suppliers for certain of our raw materials, medical devices and components.

We rely on unaffiliated third-party suppliers for certain raw materials, medical devices and components necessary for the manufacturing of our commercial and clinical products. Certain of those raw materials, medical devices and components are proprietary products of those unaffiliated third-party suppliers and are specifically cited in our drug applications with regulatory agencies so that they must be obtained from that specific sole source or sources and could not be obtained from another supplier unless and until the regulatory agency approved such supplier. For example, we rely on a single source for the SureClick autoinjectors used in the drug delivery of Repatha, ENBREL, Aimovig, AMGEVITA and Aranesp. Also, certain of the raw materials required in the commercial and clinical manufacturing of our products are sourced from other countries and/or derived from biological sources, including mammalian tissues, bovine serum and human serum albumin.

Among the reasons we may be unable to obtain these raw materials, medical devices and components include:

- regulatory requirements or action by regulatory agencies or others;
- adverse financial or other strategic developments at or affecting the supplier, including bankruptcy;
- unexpected demand for or shortage of raw materials, medical devices or components;
- failure to comply with our quality standards which results in quality and product failures, product contamination and/or recall;
- a material shortage, contamination, recall and/or restrictions on the use of certain biologically derived substances or other raw materials;
- discovery of previously unknown or undetected imperfections in raw materials, medical devices or components;
- cyberattacks on supplier systems;
- natural or other disasters, including hurricanes, earthquakes, volcanoes or fires;
- labor disputes or shortages, including from the effects of health emergencies (such as novel viruses or pandemics such as the one we are currently experiencing with COVID-19) or natural disasters; and
- geopolitical conflicts.

For example, in prior years we have experienced shortages in certain components necessary for the formulation, fill and finish of certain of our products in our Puerto Rico facility, and we have also experienced shortages related to single use systems and packaging which has caused disruptions to our manufacturing plans. Further quality issues that result in

unexpected additional demand for certain components have resulted in shortages and in the future may lead to shortages of required raw materials or components (such as we have experienced with EPOGEN glass vials). We may experience similar or other shortages in the future resulting in delayed shipments, supply constraints, clinical trial delays, contract disputes and/or stock-outs of our products. These or other similar events could negatively affect our ability to satisfy demand for our products or conduct clinical trials, which could have a material adverse effect on our product sales, business and results of operations.

Manufacturing difficulties, disruptions or delays could limit supply of our products and limit our product sales.

Manufacturing biologic and small molecule human therapeutic products is difficult, complex and highly regulated. We manufacture many of our commercial products and product candidates internally. In addition, we currently use third-party contract manufacturers to produce, or assist in the production of, a number of our products, and we currently use contract manufacturers to produce, or assist in the production of, a number of our late-stage product candidates and drug delivery devices. See Item 1. Business—Manufacturing, Distribution and Raw Materials—Manufacturing. Our ability to adequately and timely manufacture and supply our products (and product candidates to support our clinical trials) is dependent on the uninterrupted and efficient operation of our facilities and those of our third-party contract manufacturers, which may be affected by:

- capacity of manufacturing facilities;
- contamination by microorganisms or viruses, or foreign particles from the manufacturing process;
- natural or other disasters, including hurricanes, earthquakes, volcanoes or fires;
- labor disputes or shortages, including the effects of health emergencies (such as novel viruses or pandemics such as the one we are currently experiencing with COVID-19) or natural disasters;
- compliance with regulatory requirements;
- changes in forecasts of future demand;
- timing and actual number of production runs and production success rates and yields;
- updates of manufacturing specifications;
- contractual disputes with our suppliers and contract manufacturers;
- timing and outcome of product quality testing;
- power failures and/or other utility failures;
- cyberattacks on supplier systems;
- breakdown, failure, substandard performance or improper installation or operation of equipment (including our information technology systems and network-connected control systems or those of our contract manufacturers or third-party service providers);
- delays in the ability of the FDA or foreign regulatory agencies to provide us necessary reviews, inspections and approvals, including as a result of a subsequent extended U.S. federal or other government shutdowns; and/or
- geopolitical conflicts.

If any of these or other problems affect production in one or more of our facilities or those of our third-party contract manufacturers, or if we do not accurately forecast demand for our products or the amount of our product candidates required in clinical trials, we may be unable to start or increase production in our unaffected facilities to meet demand. If the efficient manufacture and supply of our products or product candidates is interrupted, we may experience delayed shipments, delays in our clinical trials, supply constraints, stock-outs, adverse event trends, contract disputes and/or recalls of our products. From time to time, we have initiated recalls of certain lots of our products. For example, in July 2014 we initiated a voluntary recall of an Aranesp lot distributed in the EU after particles were detected in a quality control sample following distribution of that lot, and in April 2018 we initiated a precautionary recall of two batches of Vectibix distributed in Switzerland after potential crimping defects were discovered in the metal seals on some product vials. If we are at any time unable to provide an uninterrupted supply of our products to patients, we may lose patients and physicians may elect to prescribe competing therapeutics instead of our products, which could have a material adverse effect on our product sales, business and results of operations.

Our manufacturing processes, those of our third-party contract manufacturers and those of certain of our third-party service providers must undergo regulatory approval processes and are subject to continued review by the FDA and other regulatory authorities. It can take longer than five years to build, validate and license another manufacturing plant, and it can take longer than three years to qualify and license a new contract manufacturer or service provider. If we elect or are required to make changes to our manufacturing processes because of new regulatory requirements, new interpretations of existing requirements or other reasons, this could increase our manufacturing costs and result in delayed shipments, delays in our clinical trials, supply constraints, stock-outs, adverse event trends or contract negotiations or disputes. Such manufacturing challenges may also occur if our existing contract manufacturers are unable or unwilling to timely implement such changes, or at all.

In addition, regulatory agencies conduct routine monitoring and inspections of our manufacturing facilities and processes as well as those of our third-party contract manufacturers and service providers. If regulatory authorities determine that we or our third-party contract manufacturers or certain of our third-party service providers have violated regulations, they may mandate corrective actions and/or issue warning letters, or even restrict, suspend or revoke our prior approvals, prohibiting us from manufacturing our products or conducting clinical trials or selling our marketed products until we or the affected third-party contract manufacturers or third-party service providers comply, or indefinitely. See also *Our current products and products in development cannot be sold without regulatory approval*. Such issues may also delay the approval of product candidates we have submitted for regulatory review, even if such product candidates are not directly related to the products, devices or processes at issue with regulators. Because our third-party contract manufacturers and certain of our third-party service providers are subject to the FDA and foreign regulatory authorities, alternative qualified third-party contract manufacturers and third-party service providers may not be available on a timely basis, or at all. If we or our third-party contract manufacturers or third-party service providers cease or interrupt production or if our third-party contract manufacturers and third-party service providers fail to supply materials, products or services to us, we may experience delayed shipments, delays in our clinical trials, supply constraints, contract disputes, stock-outs and/or recalls of our products. Additionally, we distribute a substantial volume of our commercial products through our primary distribution centers in Louisville, Kentucky for the United States and in Breda, Netherlands for Europe and much of the rest of the world. We also conduct most of the labeling and packaging of our products distributed in Europe and much of the rest of the world in Breda. Our ability to timely supply products is dependent on the uninterrupted and efficient operations of our distribution and logistics centers, our third-party logistics providers and our labeling and packaging facility in Breda. Further, we rely on commercial transportation, including air and sea freight, for the distribution of our products to our customers, which has been negatively affected by the ongoing COVID-19 pandemic and may be negatively affected by natural disasters or geopolitical security threats.

There have also been legislative and administrative proposals seeking to incentivize greater drug manufacturing in the United States with the stated goal of improving supply reliability in the United States. For example, on August 6, 2020, the previous Administration issued an Executive Order aimed at boosting domestic production of essential medicines, medical countermeasures, and critical inputs titled “Executive Order on Ensuring Essential Medicines, Medical Countermeasures, and Critical Inputs are Made in the United States.” Additionally, one legislative proposal would have prohibited the U.S. Department of Veterans Affairs from purchasing certain drugs that have active pharmaceutical ingredients manufactured outside the United States. While we perform a substantial majority of our commercial manufacturing activities in the United States, including in the U.S. territory of Puerto Rico, and a substantial majority of our clinical manufacturing activities at our facility in Thousand Oaks, California, the passage of such legislation could result in foreign governments enacting retaliatory legislation or regulatory actions, which may have an adverse effect on our product sales, business and results of operations.

Our business and operations may be negatively affected by the failure, or perceived failure, of achieving our environmental, social and governance objectives.

We continue to work towards operating our business in an environmentally responsible and socially inclusive manner. Stakeholders, including our investors and our employees, have increasingly focused on, and are expected to continue to focus on, our ESG practices. If our ESG practices fail to meet these stakeholders’ expectations and standards, there could be a material adverse effect on our reputation, business and, ultimately, our stock price.

Our ESG report is made available on our website and describes our ESG goals and the progress we have made on the ESG issues deemed most important to our external and internal stakeholders, based on surveys, interviews and certain frameworks for corporate responsibility. Achieving our ESG goals requires long-term investments and broad, coordinated activity, and we may be required to incur additional costs or allocate additional resources towards monitoring, reporting and implementing our ESG practices. Further, we may fail to accurately assess our stakeholders’ ESG priorities, as such priorities have evolved and will continue to evolve. While we have achieved most of our goals set in prior years, whether we can achieve our current and future ESG goals continues to be uncertain and remains subject to numerous risks, including evolving regulatory requirements and social expectations affecting ESG practices, our ability to recruit, develop and retain a diverse workforce, the availability of suppliers and collaboration partners that can meet our ESG goals, the effects of the organic growth of our business and potential

acquisitions of other businesses on our ESG performance, and the availability and cost of technologies or resources, such as carbon credits, that support our goals. For example, impacts on the commodity market and supply chains caused by the armed conflict in Ukraine could limit the availability of electric vehicle components, impairing our ability to meet some of our environmental sustainability goals. Any failure or perceived failure to meet our ESG program priorities could result in a material adverse effect on our reputation, business and stock price.

The effects of global climate change and related natural disasters could negatively affect our business and operations.

Many of our operations and facilities, including those essential to our manufacturing, R&D and distribution activities, are in locations that are subject to natural disasters, including droughts, fires, extreme temperatures, hurricanes, tropical storms and/or floods. For example, in 2017 Hurricane Maria caused catastrophic damage, compounded in 2022 by Hurricane Fiona, to the U.S. territory of Puerto Rico, where we perform a substantial majority of our commercial manufacturing activities. Although our site was well-protected and suffered minimal damage, there can be no assurances that we would have similar results in the face of future natural disasters. The severity and frequency of weather-related natural disasters has been amplified, and is expected to continue to be amplified by, global climate change. Such natural disasters have caused, and in the future may cause, damage to and/or disrupt our operations, which may result in a material adverse effect on our product sales, business and results of operations. Our suppliers, vendors and business partners also face similar risks, and any disruption to their operations could have an adverse effect on our supply and manufacturing chain. Further, many of our key facilities are located on islands, including Puerto Rico, Singapore and Ireland, which rely on essential port facilities that may be vulnerable to climate change-related or other natural disasters. Although we have detailed business continuity plans in place and periodic assessments of our natural disaster risk, any natural disaster may also result in prolonged interruption to our critical operational and business activities, and we may be required to incur significant costs to remedy the effects of such natural disasters and fully resume operations, which may result in a material adverse effect on our product sales, business and results of operations. See *We perform a substantial majority of our commercial manufacturing activities at our facility in the U.S. territory of Puerto Rico and a substantial majority of our clinical manufacturing activities at our facility in Thousand Oaks, California; significant disruptions or production failures at these facilities could significantly impair our ability to supply our products or continue our clinical trials* and *Manufacturing difficulties, disruptions or delays could limit supply of our products and limit our product sales.*

GENERAL RISK FACTORS

Global economic conditions may negatively affect us and may magnify certain risks that affect our business.

Our operations and performance have been, and may continue to be, affected by global economic conditions. The economic downturn resulting from the COVID-19 pandemic precipitated a global recession, and together with high rates of inflation and energy supply issues experienced in certain regions, have led to regional and/or global macroeconomic challenges, the effects of which may be of an extended duration. In particular, acute rising energy costs may further adversely affect productivity and economic conditions in Europe. Additionally, financial pressures may cause government or other third-party payers to more aggressively seek cost containment measures in healthcare and other settings. See *Our sales depend on coverage and reimbursement from government and commercial third-party payers, and pricing and reimbursement pressures have affected, and are likely to continue to affect, our profitability.* As a result of global economic conditions, some third-party payers may delay or be unable to satisfy their reimbursement obligations. Job losses or other economic hardships (including inflation) may also affect patients' ability to afford healthcare as a result of increased co-pay or deductible obligations, greater cost sensitivity to existing co-pay or deductible obligations, lost healthcare insurance coverage or for other reasons. We believe such conditions have led and could continue to lead to reduced demand for our products, which could have a material adverse effect on our product sales, business and results of operations. The current inflationary environment related to increased aggregate demand, supply chain constraints and the effects from the armed conflict in Ukraine (including the effects of the sanctions that were implemented in response to the conflict and the resulting impacts on the commodity market and supply chains) have also increased our operating expenses and may continue to affect our operating expenses. Our operational costs, including the cost of energy, materials, labor, distribution and our other operational and facilities costs are subject to market conditions and are being adversely affected by inflationary pressures. Economic conditions may also adversely affect the ability of our distributors, customers and suppliers to obtain the liquidity required to buy inventory or raw materials and to perform their obligations under agreements with us, which could disrupt our operations. Although we monitor our distributors', customers' and suppliers' financial condition and their liquidity to mitigate our business risks, some of our distributors, customers and suppliers may become insolvent, which could have a material adverse effect on our product sales, business and results of operations. A significant worsening of global economic conditions could precipitate or materially amplify the other risks described herein.

We maintain a significant portfolio of investments disclosed as cash equivalents and marketable securities on our consolidated balance sheets. The global spread of COVID-19 has also led to disruption and volatility in the global capital markets. We have certain assets, including equity investments, that are exposed to market fluctuations that could, in a sustained

or recurrent series of market disruptions, result in impairments. The value of our investments may also be adversely affected by interest rate fluctuations, inflation, downgrades in credit ratings, illiquidity in the capital markets and other factors that may result in other-than-temporary declines in the value of our investments. Any of those events could cause us to record impairment charges with respect to our investment portfolio or to realize losses on sales of investments.

Our stock price is volatile.

Our stock price, like that of our peers in the biotechnology and pharmaceutical industries, is volatile. Our revenues and operating results may fluctuate from period to period for a number of reasons. Events such as a delay in product development, changes to our expectations or strategy or even a relatively small revenue shortfall may cause financial results for a period to be below our expectations or projections. As a result, our revenues and operating results and, in turn, our stock price may be subject to significant fluctuations. Announcements or discussions, including via social media channels, of possible restrictive actions by government or private payers that would negatively affect our business or industry if ultimately enacted or adopted may also cause our stock price to fluctuate, whether or not such restrictive actions ever actually occur. Similarly, actual or perceived safety issues with our products or similar products or unexpected clinical trial results can have an immediate and rapid effect on our stock price, whether or not our operating results are materially affected.

We may not be able to access the capital and credit markets on terms that are favorable to us, or at all.

The capital and credit markets may experience extreme volatility and disruption, which may lead to uncertainty and liquidity issues for both borrowers and investors. For example, early in 2020, there were significant disruptions in the commercial paper market and several borrowers were unable to obtain funding at normal rates or maturities, which resulted in a significant increase in draws of corporate credit lines with banks. Similarly, the bond markets experienced extreme volatility in terms of interest rates and credit spreads, with several days without new issuances of corporate bonds. We expect to access the capital markets, from time to time, to supplement our existing funds and cash generated from operations to satisfy our needs for working capital; capital expenditure and debt service requirements; our plans to pay dividends and repurchase stock; and other business initiatives we strategically plan to pursue, including acquisitions (such as our acquisition of Horizon) and licensing activities. In the event of adverse capital and credit market conditions, we may be unable to obtain capital market financing on similar favorable terms, or at all, which could have a material adverse effect on our business and results of operations or our ability to complete business acquisitions. Changes in credit ratings issued by nationally recognized credit-rating agencies could adversely affect our ability to obtain capital market financing and the cost of such financing and have an adverse effect on the market price of our securities.

Item 1B. UNRESOLVED STAFF COMMENTS

None.

Item 2. PROPERTIES

As of December 31, 2022, we owned or leased approximately 150 properties. The locations and primary functions of significant properties are summarized in the following tables:

U.S. Location:	Manufacturing	Administrative	R&D	Sales & marketing	Warehouse	Distribution center
Thousand Oaks, CA*	P	P	P	P	P	P
San Francisco, CA			P			
Louisville, KY					P	P
Cambridge, MA			P			
Juncos, Puerto Rico	P	P			P	P
West Greenwich, RI	P	P			P	
Tampa, FL		P				
Other U.S. cities		P		P		

* Corporate headquarters

ROW Location:	Manufacturing	Administrative	R&D	Sales & marketing	Warehouse	Distribution center
Brazil	P	P		P	P	P
Canada		P	P	P		
China		P		P		
Denmark		P	P	P		
Germany		P	P	P		
Iceland		P	P			
Ireland	P	P		P	P	P
Japan		P		P		
Netherlands	P	P		P	P	P
Singapore	P	P		P	P	
Switzerland		P		P		
United Kingdom		P	P	P		
Other countries		P	P	P	P	

Excluded from the information above are (i) undeveloped land and leased properties that have been abandoned and (ii) certain buildings we still own but that are no longer used in our business. There are no material encumbrances on our owned properties.

We believe our facilities are suitable for their intended uses and, in conjunction with our third-party contract manufacturing agreements, provide adequate capacity and are sufficient to meet our expected needs. See Item 1A. Risk Factors for a discussion of the factors that could adversely impact our manufacturing operations and the global supply of our products.

See Item 1. Business—Manufacturing, Distribution and Raw Materials.

Item 3. LEGAL PROCEEDINGS

Certain of the legal proceedings in which we are involved are discussed in Part IV—Note 19, Contingencies and commitments, to the Consolidated Financial Statements and are hereby incorporated by reference.

Item 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

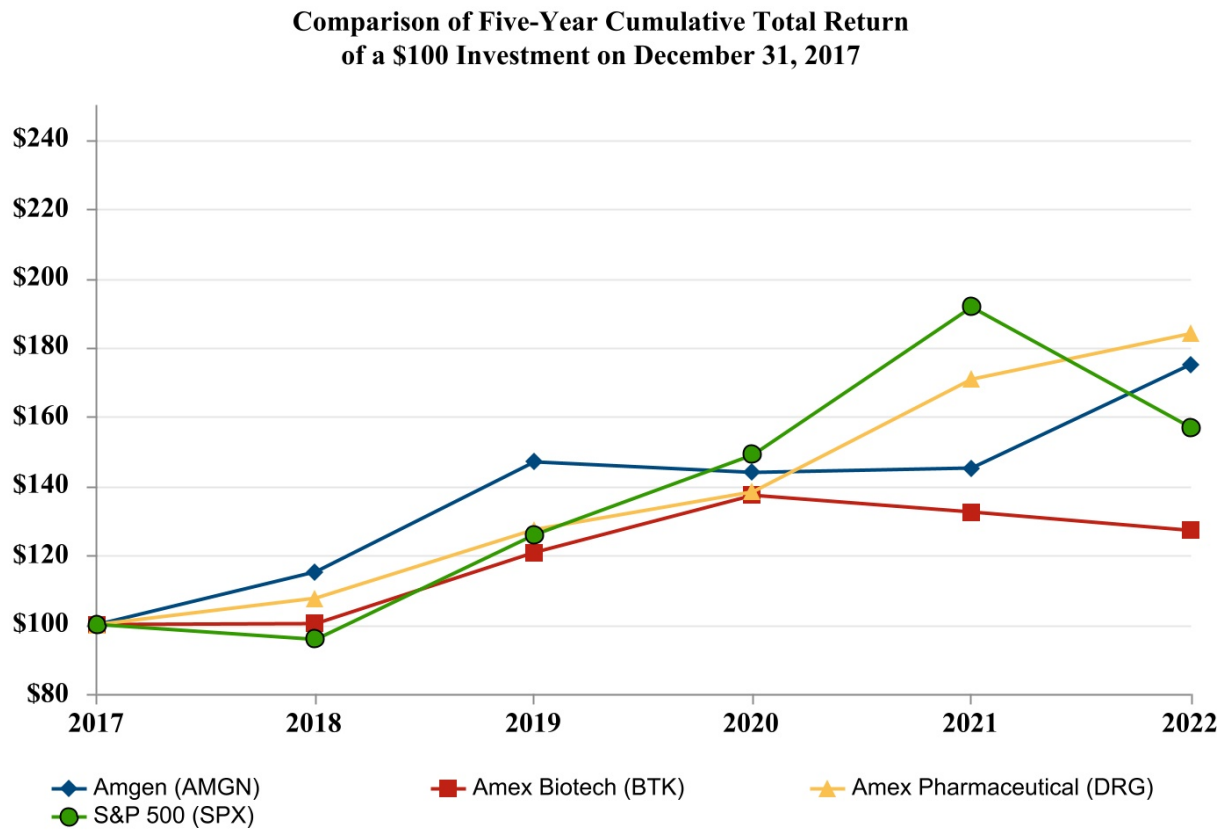
Item 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Common stock

Our common stock trades on the NASDAQ Global Select Market under the symbol AMGN. As of February 6, 2023, there were approximately 4,838 holders of record of our common stock.

Performance graph

The following graph shows the value of an investment of $100 on December 31, 2017, in each of Amgen common stock, the Amex Biotech Index, the Amex Pharmaceutical Index and Standard & Poor's 500 Index. All values assume reinvestment of the pretax value of dividends and are calculated as of December 31 of each year. The historical stock price performance of the Company's common stock shown in the performance graph is not necessarily indicative of future stock price performance.



	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022
Amgen (AMGN)	$100.00	$115.08	$146.87	$143.93	$145.19	$174.94
Amex Biotech (BTK)	$100.00	$100.26	$120.75	$137.14	$132.31	$127.01
Amex Pharmaceutical (DRG)	$100.00	$107.45	$127.20	$138.31	$170.64	$183.88
Standard & Poor's 500 (SPX)	$100.00	$95.63	$125.73	$148.86	$191.54	$156.74

The material in the above performance graph is not soliciting material, is not deemed filed with the SEC and is not incorporated by reference in any filing of the Company under the Securities Act or the Exchange Act, whether made on, before or after the date of this filing and irrespective of any general incorporation language in such filing.

Stock repurchase program

During the three months and year ended December 31, 2022, we had one outstanding stock repurchase program, under which the repurchasing activity was as follows:

	Total number of shares purchased	Average price paid per share[1]	Total number of shares purchased as part of publicly announced program	Maximum dollar value that may yet be purchased under the program[2]
October 1 - October 31	—		—	$ 6,979,263,848
November 1 - November 30	—		—	$ 6,979,263,848
December 1 - December 31	—		—	$ 6,979,263,848
	—		—	
January 1 - December 31[3]	26,147,900	$ 241.32	26,147,900	

(1) Average price paid per share includes related expenses.

(2) In October 2022, our Board of Directors increased the amount authorized under the stock repurchase program by an additional $2.4 billion.

(3) Includes the impact of ASR agreements entered into with third-party financial institutions under which a total of 24,784,400 shares of common stock were delivered at an average price of approximately $242.09 per share.

Dividends

For the years ended December 31, 2022 and 2021, we paid quarterly dividends. We expect to continue to pay quarterly dividends, although the amount and timing of any future dividends are subject to approval by our Board of Directors. Additional information required by this item is incorporated herein by reference to Part IV—Note 16, Stockholders' equity, to the Consolidated Financial Statements.

Securities Authorized for Issuance Under Existing Equity Compensation Plans

Information about securities authorized for issuance under existing equity compensation plans is incorporated by reference from Part III, Item 12—Securities Authorized for Issuance Under Existing Equity Compensation Plans.

Item 6. RESERVED

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following MD&A is intended to assist the reader in understanding Amgen's business. MD&A is provided as a supplement to, and should be read in conjunction with, our consolidated financial statements and accompanying notes. Our results of operations discussed in MD&A are presented in conformity with GAAP. Amgen operates in one business segment: human therapeutics. Therefore, our results of operations are discussed on a consolidated basis.

Forward-looking statements

This report and other documents we file with the SEC contain forward-looking statements that are based on current expectations, estimates, forecasts and projections about us, our future performance, our business, our beliefs and our management's assumptions. In addition, we, or others on our behalf, may make forward-looking statements in press releases, written statements or our communications and discussions with investors and analysts in the normal course of business through meetings, webcasts, phone calls and conference calls. Such words as "expect," "anticipate," "outlook," "could," "target," "project," "intend," "plan," "believe," "seek," "estimate," "should," "may," "assume" and "continue" as well as variations of such words and similar expressions are intended to identify such forward-looking statements. These statements are not guarantees of future performance and they involve certain risks, uncertainties and assumptions that are difficult to predict. We describe our respective risks, uncertainties and assumptions that could affect the outcome or results of operations in Part I, Item 1A. Risk Factors. We have based our forward-looking statements on our management's beliefs and assumptions based on information available to our management at the time the statements are made. We caution you that actual outcomes and results may differ materially from what is expressed, implied or forecasted by our forward-looking statements. Reference is made in particular to forward-looking statements regarding product sales, regulatory activities, clinical trial results, reimbursement, expenses, EPS, liquidity and capital resources, trends, planned dividends, stock repurchases, collaborations and effects of pandemics. Except as required under the federal securities laws and the rules and regulations of the SEC, we do not have any intention or obligation to update publicly any forward-looking statements after the distribution of this report, whether as a result of new information, future events, changes in assumptions or otherwise.

Overview

Amgen is a biotechnology company committed to unlocking the potential of biology for patients suffering from serious illnesses. A biotechnology pioneer since 1980, Amgen has grown to be one of the world's leading independent biotechnology companies, has reached millions of patients around the world and is developing a pipeline of medicines with breakaway potential.

Our principal products are ENBREL, Prolia, Otezla, XGEVA, Aranesp, Nplate, Repatha, KYPROLIS, Neulasta and EVENITY. We also market a number of other products, including MVASI, Vectibix, BLINCYTO, EPOGEN, AMGEVITA, Aimovig, Parsabiv, KANJINTI, LUMAKRAS/LUMYKRAS, TEZSPIRE, NEUPOGEN, Sensipar/Mimpara and TAVNEOS. For additional information about our products, see Part I, Item 1. Business—Marketing, Distribution and Selected Marketed Products.

Our strategy includes integrated activities intended to strengthen our competitive position in the industry. We operate in six commercial areas: inflammation, oncology/hematology, bone health, cardiovascular (CV) disease, nephrology and neuroscience. We conduct discovery research primarily in three therapeutic areas: inflammation, oncology/hematology and general medicine. In 2022, we advanced our innovative pipeline, grew our international business, completed a strategic transaction to augment our marketed product portfolio, announced our intention to acquire Horizon and continued providing uninterrupted supplies of our medicines globally through the third year of the COVID-19 pandemic. We accomplished these objectives while maintaining a strategic and disciplined approach to capital allocation and advancing our ESG efforts.

In 2022, we continued to advance our pipeline, initiating phase 3 clinical trials for a number of programs, including LUMAKRAS/LUMYKRAS for advanced colorectal cancer, olpasiran for CV disease and rocatinlimab for atopic dermatitis. We continued to grow our international business, including achieving key regulatory approvals for TEZSPIRE in the EU and Japan. Our external business development activities for 2022 included the acquisition of ChemoCentryx, adding recently launched TAVNEOS to our inflammation portfolio. We also continued to advance our biosimilar program, with launches in new markets. Our biosimilars are expected to continue launching in new markets throughout 2023, including the U.S. launch of AMJEVITA in January 2023.

During 2022, while gradually recovering from the global pandemic and facing increased competition from biosimilars and generics, total product sales increased 2%, primarily driven by volume growth for certain brands, partially offset by declines in net selling prices of certain products and unfavorable changes to foreign currency exchange rates. Product sales increased 3% in the United States, primarily driven by volume growth, partially offset by declines in net selling prices, and increased 1% in ROW, primarily driven by volume growth, partially offset by unfavorable changes to foreign currency exchange rates and declines in net selling prices. Total operating expenses decreased 9% due to both the acquired IPR&D write-off from the Five Prime acquisition and a licensing-related upfront payment to KKC in 2021, partially offset by a loss on a nonstrategic divestiture in 2022.

Cash flows from operating activities totaled $9.7 billion, which supported investment in our business while returning capital to shareholders through the payment of cash dividends and stock repurchases. For 2022, we increased our quarterly cash dividend by 10% to $1.94 per share of common stock. In December 2022, we declared a cash dividend of $2.13 per share of common stock for the first quarter of 2023, an increase of 10% for this period, to be paid in March 2023. We also repurchased 26.1 million shares of our common stock during 2022 at an aggregate cost of $6.3 billion. In 2022, we received net proceeds from the issuance of debt of $6.9 billion and extinguished $0.3 billion of debt. In December 2022, in connection with the proposed acquisition of Horizon, we entered into a bridge credit agreement and a term loan credit agreement which provide for borrowings in the aggregate of $28.5 billion.

Amgen's approach to and investment in human capital resource management is directed at attracting, motivating, developing and retaining talent to tackle the challenges of running an enterprise focused on the discovery, development and commercialization of innovative medicines. Our compensation, benefits and development programs are designed to encourage performance, promote accountability and adherence to Company values, and align with the interests of the Company's shareholders. Further, we believe that a diverse and inclusive culture fosters innovation, which supports our ability to serve patients. We are engaging in activities and setting goals to improve our focus on diversity, inclusion and belonging. For further information on these and other efforts, see Part I, Item 1. Business—Human Capital Resources.

We have a long-standing ambition to be environmentally responsible, and we regularly set targets to challenge ourselves to deliver further improvements. We achieved our targets for the 2013–2020 period while growing revenues, increasing production capacity and expanding to approximately 100 countries over the same period. To continue on our path to greater environmental sustainability, in January 2021 we announced a new set of long-term environmental targets to achieve by 2027, including achieving carbon neutrality, reducing water consumption by 40% and reducing waste disposed by 75%.[(1)(2)] Additionally, in 2022 we issued our first green bonds to finance eligible projects that meet specified criteria to reduce our impact on the environment.

Our long-term success depends, to a great extent, on our ability to continue to discover, develop and commercialize innovative products and acquire or collaborate on therapies currently in development by other companies. We must develop new products to achieve revenue growth and to offset revenue losses from when products lose their exclusivity or when competing products are launched. Certain of our products face increasing pressure from competition, including biosimilars and generics. For additional information, including information on the expirations of patents for various products, see Part I, Item 1. Business—Marketing, Distribution and Selected Marketed Products—Patents, and Part I, Item 1. Business—Marketing, Distribution and Selected Marketed Products—Competition. We devote considerable resources to R&D activities, but successful product development in the biotechnology industry is highly uncertain. We also face increasing regulatory scrutiny of safety and efficacy both before and after products launch.

Rising healthcare costs, uncertain macroeconomic conditions, including higher inflation and rising interest rates, and geopolitical conflicts continue to pose challenges to our business. As a result of public and private healthcare-provider focus, the industry continues to be subject to cost containment measures and significant pricing pressures, including net price declines. Moreover, legislation enacted to reduce healthcare expenditures, including provisions of the IRA, have affected, and are likely to continue to affect, our business. Finally, wholesale and end-user buying patterns can affect our product sales. These buying patterns can cause fluctuations in quarterly product sales but have generally not been significant to date when comparing full-year product performance to the prior year. See Part I, Item 1. Business—Marketing, Distribution and Selected Marketed Products, and Part I, Item 1A. Risk Factors for further discussion of certain factors that could impact our future product sales.

COVID-19 pandemic

Since the onset of the pandemic in 2020, we have been closely monitoring the pandemic's effects on our global operations. We continue to take appropriate steps to minimize risks to our employees, a significant number of whom have continued to work virtually. To date, our remote working arrangements have not significantly affected our ability to maintain critical business operations, and we have not experienced disruptions to or shortages of our supply of medicines.

Over the course of the pandemic we have experienced changes in demand for some of our products as fluctuations in the frequency of patient visits to doctors' offices have impacted the provision of treatments to existing patients and reduced diagnoses in new patients. During 2021, there was a gradual recovery in both patient visits and diagnosis rates that approached pre-pandemic levels. In 2022, the pandemic continued to impact the healthcare sector and our business, to varying degrees across our markets. During 2022, with the exception of the Asia Pacific region that was affected by lockdowns during most of the year, we saw greater stability in patient visits and demand patterns even in areas that were facing surges in the virus. Given the evolution of COVID-19 since its onset, including the proliferation of variants, we cannot predict the impact of future virus surges on our business and will continue to closely monitor the impact of COVID-19 on our business and on the healthcare sector more generally.

Since early 2021, efforts have been under way to control the COVID-19 pandemic. However, uncertainty remains as to the efficacy of these activities with respect to the ongoing trajectory of the pandemic. Challenges to vaccination efforts, new variants and other causes of virus spread may require governments to change restrictions and/or shutdown requirements in various geographies. As a result, we expect to see continued volatility for at least the duration of the pandemic as governments respond to current local conditions.

With regard to our clinical trial activities, we are continuously monitoring COVID-19 infection rates, including changes from new variants; we are working to mitigate effects on future study enrollment in our clinical trials; and we are evaluating the impact in all relevant countries. We remain focused on supporting our active clinical sites in their providing care for patients and in our providing investigational drug supply. For a discussion of the risks the COVID-19 pandemic could present to our results, see Part I, Item 1A. Risk Factors of this Form 10-K.

[(1)] Represents reductions against established baselines, taking into account only verified reduction projects and does not take into account changes associated with contraction or expansion of the Company.

[(2)] Carbon neutrality goal refers to Scope 1 and 2.

Selected Financial Information

The following is an overview of our results of operations (in millions, except percentages and per-share data):

	Year ended December 31, 2022	Change	Year ended December 31, 2021
Product sales:			
U.S.	$ 17,743	3 %	$ 17,286
ROW	7,058	1 %	7,011
Total product sales	24,801	2 %	24,297
Other revenues	1,522	(10)%	1,682
Total revenues	$ 26,323	1 %	$ 25,979
Operating expenses	$ 16,757	(9)%	$ 18,340
Operating income	$ 9,566	25 %	$ 7,639
Net income	$ 6,552	11 %	$ 5,893
Diluted EPS	$ 12.11	18 %	$ 10.28
Diluted shares	541	(6)%	573

In the following discussion of changes in product sales, any reference to volume growth or decline refers to changes in the purchases of our products by healthcare providers (such as physicians or their clinics), dialysis centers, hospitals and pharmacies. In addition, any reference to increases or decreases in inventory refers to changes in inventory held by wholesaler customers and end users (such as pharmacies).

Total product sales increased in 2022, primarily driven by volume growth for certain brands, including Repatha, Prolia, EVENITY, Nplate, LUMAKRAS/LUMYKRAS, KYPROLIS, Otezla and TEZSPIRE, partially offset by declines in net selling prices of certain products, including Neulasta, Repatha and MVASI, and unfavorable changes to foreign currency exchange rates. For 2023, we expect that net selling prices will continue to decline at a portfolio level driven by increased competition. Further, the first quarter of a year historically represents the lowest product sales quarter for the year, in part due to plan changes, insurance reverifications and higher co-pay expenses as U.S. patients work through deductibles, particularly for products acquired through pharmacy benefit programs.

As a result of uncertain macroeconomic conditions, we expect volatility around foreign currency exchange rates to continue. The impact of unfavorable changes to foreign currency exchange rates will be partially offset by corresponding decreases in our international operating expenses. While not designed to completely address foreign currency changes, our hedging activities also seek to offset, in part, such effects on our net income by hedging our net foreign currency exposure, primarily with respect to product sales denominated in euros.

As discussed above, our product sales have been affected by reduced demand as a result of the COVID-19 pandemic. In general, the dynamics of the pandemic were most significant on our product sales in the early months of the pandemic, with demand beginning to show some recovery in late 2020. In late 2021 and early 2022, increased infection rates caused by variants of the virus (including Omicron) led to diminished capacity in the healthcare sector and reduced working days for our own sales force, which impacted our business. As of the second quarter of 2022, we saw the effects of these variants recede in most markets, which allowed us to engage in increased field-facing activities. Provider and patient activity also increased, leading to improvements in demand for our products to pre-pandemic levels. However, the cumulative decrease in diagnoses over the course of the pandemic has suppressed the volume of new patients starting treatment, which continues to impact our business. Given the unpredictable nature of the pandemic, there could be intermittent disruptions in physician–patient interactions, and as a result, we may experience quarter-to-quarter variability. In addition, other changes in the healthcare ecosystem have the potential to introduce variability into product sales trends. For example, changes in U.S. employment have led to changes to the insured population. Growth in numbers of Medicaid enrollees and uninsured individuals, along with provisions of the IRA, may have a negative impact on product sales. Overall, uncertainty remains around the timing and magnitude of our sales during the COVID-19 pandemic. See Risk Factors in Part I, Item 1A. of this Form 10-K.

Other revenues decreased for 2022, driven by lower revenue from COVID-19 antibody material and licensing-related revenues.

Operating expenses decreased for 2022 due to both the acquired IPR&D write-off related to the bemarituzumab program acquired as part of the Five Prime acquisition and a licensing-related upfront payment to KKC in 2021, partially offset by a loss

on a nonstrategic divestiture in 2022. See Part IV—Note 2, Acquisitions and divestitures, and Note 8, Collaborations, to the Consolidated Financial Statements.

Results of Operations

Product sales

Worldwide product sales were as follows (dollar amounts in millions):

	Year ended December 31, 2022	Change	Year ended December 31, 2021	Change	Year ended December 31, 2020
ENBREL	$ 4,117	(8)%	$ 4,465	(11)%	$ 4,996
Prolia	3,628	12 %	3,248	18 %	2,763
Otezla	2,288	2 %	2,249	2 %	2,195
XGEVA	2,014	— %	2,018	6 %	1,899
Aranesp	1,421	(4)%	1,480	(6)%	1,568
Nplate	1,307	27 %	1,027	21 %	850
Repatha	1,296	16 %	1,117	26 %	887
KYPROLIS	1,247	13 %	1,108	4 %	1,065
Neulasta	1,126	(35)%	1,734	(24)%	2,293
EVENITY	787	48 %	530	51 %	350
Other products[(1)]	5,570	5 %	5,321	(1)%	5,374
Total product sales	$ 24,801	2 %	$ 24,297	— %	$ 24,240
Total U.S.	$ 17,743	3 %	$ 17,286	(4)%	$ 17,985
Total ROW	7,058	1 %	7,011	12 %	6,255
Total product sales	$ 24,801	2 %	$ 24,297	— %	$ 24,240

[(1)] Consists of product sales of our non-principal products, as well as our Gensenta and Bergamo subsidiaries.

Future sales of our products will depend in part on the factors discussed in the Overview, Part I, Item 1. Business—Marketing, Distribution and Selected Marketed Products—Competition, in Part I, Item 1A. Risk Factors, and any additional factors discussed in the individual product sections below. In addition, for a list of our products' significant competitors, see Part I, Item 1. Business—Marketing, Distribution and Selected Marketed Products—Competition.

ENBREL

Total ENBREL sales by geographic region were as follows (dollar amounts in millions):

	Year ended December 31, 2022	Change	Year ended December 31, 2021	Change	Year ended December 31, 2020
ENBREL — U.S.	$ 4,044	(7)%	$ 4,352	(10)%	$ 4,855
ENBREL — Canada	73	(35)%	113	(20)%	141
Total ENBREL	$ 4,117	(8)%	$ 4,465	(11)%	$ 4,996

The decrease in ENBREL sales for 2022 was primarily driven by unfavorable changes to estimated sales deductions, lower volume and lower net selling price. For 2023, we expect ENBREL to follow the historical pattern of lower sales in the first quarter relative to subsequent quarters due to the impact of benefit plan changes, insurance reverification and increased co-pay expenses as U.S. patients work through deductibles. In addition, for 2023, we expect further declines in net selling price.

The decrease in ENBREL sales for 2021 was driven by lower net selling price, volume and unfavorable changes to inventory.

Prolia

Total Prolia sales by geographic region were as follows (dollar amounts in millions):

	Year ended December 31, 2022	Change	Year ended December 31, 2021	Change	Year ended December 31, 2020
Prolia — U.S.	$ 2,465	15 %	$ 2,150	17 %	$ 1,830
Prolia — ROW	1,163	6 %	1,098	18 %	933
Total Prolia	$ 3,628	12 %	$ 3,248	18 %	$ 2,763

The increase in global Prolia sales for 2022 was driven by volume growth and higher net selling price, partially offset by unfavorable changes to foreign currency exchange rates.

The increase in global Prolia sales for 2021 was primarily driven by volume growth.

Otezla

Total Otezla sales by geographic region were as follows (dollar amounts in millions):

	Year ended December 31, 2022	Change	Year ended December 31, 2021	Change	Year ended December 31, 2020
Otezla — U.S.	$ 1,886	5 %	$ 1,804	1 %	$ 1,790
Otezla — ROW	402	(10)%	445	10 %	405
Total Otezla	$ 2,288	2 %	$ 2,249	2 %	$ 2,195

The increase in global Otezla sales for 2022 was primarily driven by volume growth, partially offset by lower net selling price. ROW Otezla sales for 2022 were impacted by unfavorable changes to foreign currency exchange rates. For 2023, we expect Otezla to follow the historical pattern of lower sales in the first quarter relative to subsequent quarters due to the impact of benefit plan changes, insurance reverification and increased co-pay expenses as U.S. patients work through deductibles.

The increase in global Otezla sales for 2021 was driven by volume growth, partially offset by lower net selling price and unfavorable changes to inventory.

For a discussion of ongoing litigation related to Otezla, see Part IV—Note 19, Contingencies and commitments, to the Consolidated Financial Statements.

XGEVA

Total XGEVA sales by geographic region were as follows (dollar amounts in millions):

	Year ended December 31, 2022	Change	Year ended December 31, 2021	Change	Year ended December 31, 2020
XGEVA — U.S.	$ 1,480	3 %	$ 1,434	2 %	$ 1,405
XGEVA — ROW	534	(9)%	584	18 %	494
Total XGEVA	$ 2,014	— %	$ 2,018	6 %	$ 1,899

Global XGEVA sales were relatively unchanged for 2022 as higher net selling price was offset by lower volume as a result of increased competition and unfavorable changes to foreign currency exchange rates.

The increase in global XGEVA sales for 2021 was primarily driven by volume growth, partially offset by lower net selling price.

Aranesp

Total Aranesp sales by geographic region were as follows (dollar amounts in millions):

	Year ended December 31, 2022	Change	Year ended December 31, 2021	Change	Year ended December 31, 2020
Aranesp — U.S.	$ 521	(3)%	$ 537	(15)%	$ 629
Aranesp — ROW	900	(5)%	943	— %	939
Total Aranesp	$ 1,421	(4)%	$ 1,480	(6)%	$ 1,568

The decrease in global Aranesp sales for 2022 was driven by lower net selling price and unfavorable changes to foreign currency exchange rates, partially offset by favorable changes to estimated sales deductions and volume growth.

The decrease in global Aranesp sales for 2021 was primarily driven by lower net selling price.

Aranesp continues to face competition from a long-acting erythropoiesis-stimulating agent (ESA) and from a biosimilar version of EPOGEN, which will impact net selling price and volume in the future.

Nplate

Total Nplate sales by geographic region were as follows (dollar amounts in millions):

	Year ended December 31, 2022	Change	Year ended December 31, 2021	Change	Year ended December 31, 2020
Nplate — U.S.	$ 848	50 %	$ 566	17 %	$ 485
Nplate — ROW	459	— %	461	26 %	365
Total Nplate	$ 1,307	27 %	$ 1,027	21 %	$ 850

The increase in global Nplate sales for 2022 was driven by volume growth. Nplate sales for 2022 included a $207 million order in the fourth quarter from the U.S. government.

The increase in global Nplate sales for 2021 was primarily driven by volume growth.

Repatha

Total Repatha sales by geographic region were as follows (dollar amounts in millions):

	Year ended December 31, 2022	Change	Year ended December 31, 2021	Change	Year ended December 31, 2020
Repatha — U.S.	$ 608	9 %	$ 557	21 %	$ 459
Repatha — ROW	688	23 %	560	31 %	428
Total Repatha	$ 1,296	16 %	$ 1,117	26 %	$ 887

The increase in global Repatha sales for 2022 was driven by volume growth, partially offset by lower net selling price and unfavorable changes to foreign currency exchange rates. Volume benefited from contracting changes to support and improve Medicare Part D and commercial patient access and the inclusion of Repatha on China's National Reimbursement Drug List as of January 1, 2022, both of which resulted in decreases to the net selling price in 2022.

The increase in global Repatha sales for 2021 was driven by volume growth, partially offset by lower net selling price.

For a discussion of ongoing litigation related to Repatha, see Part IV—Note 19, Contingencies and commitments, to the Consolidated Financial Statements.

KYPROLIS

Total KYPROLIS sales by geographic region were as follows (dollar amounts in millions):

	Year ended December 31, 2022	Change	Year ended December 31, 2021	Change	Year ended December 31, 2020
KYPROLIS — U.S.	$ 850	15 %	$ 736	4 %	$ 710
KYPROLIS — ROW	397	7 %	372	5 %	355
Total KYPROLIS	$ 1,247	13 %	$ 1,108	4 %	$ 1,065

The increases in global KYPROLIS sales for 2022 and 2021 were primarily driven by volume growth.

The FDA has reported that it has granted tentative or final approval of ANDAs for generic carfilzomib products filed by a number of companies. The date of approval of those ANDAs for generic carfilzomib products is governed by the Hatch–Waxman Act and any applicable settlement agreements between us and certain companies that seek to develop generic carfilzomib products.

Neulasta

Total Neulasta sales by geographic region were as follows (dollar amounts in millions):

	Year ended December 31, 2022	Change	Year ended December 31, 2021	Change	Year ended December 31, 2020
Neulasta — U.S.	$ 959	(37)%	$ 1,514	(24)%	$ 2,001
Neulasta — ROW	167	(24)%	220	(25)%	292
Total Neulasta	$ 1,126	(35)%	$ 1,734	(24)%	$ 2,293

The decreases in global Neulasta sales for 2022 and 2021 were driven by lower net selling price and volume.

Increased competition as a result of biosimilar versions of Neulasta has had and will continue to have a significant adverse impact on brand sales, including accelerating net price erosion and lower volume. We also expect other biosimilar versions, including biosimilars that will use an on-body injector that would compete with our Onpro injector, to be approved in the future.

EVENITY

Total EVENITY sales by geographic region were as follows (dollar amounts in millions):

	Year ended December 31, 2022	Change	Year ended December 31, 2021	Change	Year ended December 31, 2020
EVENITY — U.S.	$ 533	61 %	$ 331	73 %	$ 191
EVENITY — ROW	254	28 %	199	25 %	159
Total EVENITY	$ 787	48 %	$ 530	51 %	$ 350

The increases in global EVENITY sales for 2022 and 2021 were driven by volume growth across our markets.

Other products

Other product sales by geographic region were as follows (dollar amounts in millions):

	Year ended December 31, 2022	Change	Year ended December 31, 2021	Change	Year ended December 31, 2020
MVASI — U.S.	$ 602	(27)%	$ 826	26 %	$ 656
MVASI — ROW	299	(12)%	340	*	142
Vectibix — U.S.	396	14 %	347	1 %	342
Vectibix — ROW	497	(6)%	526	12 %	469
BLINCYTO — U.S.	336	21 %	278	20 %	231
BLINCYTO — ROW	247	27 %	194	31 %	148
EPOGEN — U.S.	506	(3)%	521	(13)%	598
AMGEVITA — ROW	460	5 %	439	33 %	331
Aimovig — U.S.	398	27 %	313	(17)%	378
Aimovig — ROW	16	*	4	NM	—
Parsabiv — U.S.	253	69 %	150	(75)%	605
Parsabiv— ROW	129	(1)%	130	17 %	111
KANJINTI — U.S.	257	(46)%	479	1 %	475
KANJINTI — ROW	59	(37)%	93	1 %	92
LUMAKRAS — U.S.	222	*	82	NM	—
LUMYKRAS — ROW	63	*	8	NM	—
TEZSPIRE — U.S.	170	NM	—	NM	—
NEUPOGEN — U.S.	87	(14)%	101	(30)%	144
NEUPOGEN — ROW	57	(15)%	67	(17)%	81
Sensipar — U.S.	10	67 %	6	(93)%	92
Sensipar/Mimpara — ROW	54	(31)%	78	(60)%	196
TAVNEOS — U.S.[1]	16	NM	—	NM	—
TAVNEOS — ROW[1]	5	NM	—	NM	—
Other — U.S.[2]	296	47 %	202	85 %	109
Other — ROW[2]	135	(1)%	137	(21)%	174
Total other product sales	$ 5,570	5 %	$ 5,321	(1)%	$ 5,374
Total U.S. — other products	$ 3,549	7 %	$ 3,305	(9)%	$ 3,630
Total ROW — other products	2,021	— %	2,016	16 %	1,744
Total other product sales	$ 5,570	5 %	$ 5,321	(1)%	$ 5,374

NM = not meaningful

* Change in excess of 100%

(1) TAVNEOS was acquired on October 20, 2022 from our acquisition of ChemoCentryx.
(2) Consists of Corlanor, AVSOLA, IMLYGIC and RIABNI, as well as sales by our Gensenta and Bergamo subsidiaries.

Operating expenses

Operating expenses were as follows (dollar amounts in millions):

	Year ended December 31, 2022	Change	Year ended December 31, 2021	Change	Year ended December 31, 2020
Cost of sales	$ 6,406	(1)%	$ 6,454	5 %	$ 6,159
% of product sales	25.8 %		26.6 %		25.4 %
% of total revenues	24.3 %		24.8 %		24.2 %
Research and development	$ 4,434	(8)%	$ 4,819	15 %	$ 4,207
% of product sales	17.9 %		19.8 %		17.4 %
% of total revenues	16.8 %		18.5 %		16.5 %
Acquired in-process research and development	$ —	NM	$ 1,505	NM	$ —
% of product sales	— %		6.2 %		— %
% of total revenues	— %		5.8 %		— %
Selling, general and administrative	$ 5,414	1 %	$ 5,368	(6)%	$ 5,730
% of product sales	21.8 %		22.1 %		23.6 %
% of total revenues	20.6 %		20.7 %		22.5 %
Other	$ 503	*	$ 194	3 %	$ 189
Total operating expenses	$ 16,757	(9)%	$ 18,340	13 %	$ 16,285

NM = not meaningful

* Change in excess of 100%

Cost of sales

Cost of sales decreased to 24.3% of total revenues for 2022, driven by lower COVID-19 antibody shipments and manufacturing costs, partially offset by changes in our product mix.

Cost of sales increased to 24.8% of total revenues for 2021, driven by changes in our product mix and higher profit share and royalties, partially offset by lower amortization expense from acquisition-related assets and lower manufacturing costs.

Research and development

The Company groups all of its R&D activities and related expenditures into three categories: (i) research and early pipeline, (ii) later-stage clinical programs and (iii) marketed products. These categories are described below:

Category	Description
Research and early pipeline	R&D expenses incurred in activities substantially in support of early research through the completion of phase 1 clinical trials, including drug discovery, toxicology, pharmacokinetics and drug metabolism and process development
Later-stage clinical programs	R&D expenses incurred in or related to phase 2 and phase 3 clinical programs intended to result in registration of a new product or a new indication for an existing product primarily in the United States or the EU
Marketed products	R&D expenses incurred in support of the Company's marketed products that are authorized to be sold primarily in the United States or the EU. Includes clinical trials designed to gather information on product safety (certain of which may be required by regulatory authorities) and their product characteristics after regulatory approval has been obtained, as well as the costs of obtaining regulatory approval of a product in a new market after approval in either the United States or the EU has been obtained

R&D expense by category was as follows (in millions):

	Years ended December 31,		
	2022	2021	2020
Research and early pipeline	$ 1,611	$ 1,670	$ 1,405
Later-stage clinical programs	1,627	1,726	1,365
Marketed products	1,196	1,423	1,437
Total R&D expense	$ 4,434	$ 4,819	$ 4,207

The decrease in R&D expense for 2022 was driven by higher business development activity in 2021 included in later-stage clinical programs and research and early pipeline and lower marketed products support, partially offset by higher later-stage clinical programs support and research and early pipeline spend.

The increase in R&D expense for 2021 was driven by a licensing-related upfront payment to KKC included in later-stage clinical programs and higher spend in research and early pipeline, including other business development activities.

Acquired in-process research and development

The Acquired IPR&D expense in 2021 was related to the bemarituzumab program, which was acquired as part of the Five Prime acquisition in 2021. See Part IV—Note 2, Acquisitions and divestitures, to the Consolidated Financial Statements.

Selling, general and administrative

The increase in SG&A expense for 2022 was primarily driven by higher acquisition-related expenses.

The decrease in SG&A expense for 2021 was primarily driven by lower spend for marketed products and lower general and administrative expenses.

Other

Other operating expenses for 2022 primarily consisted of a loss on a nonstrategic divestiture. See Part IV—Note 2, Acquisitions and divestitures, to the Consolidated Financial Statements.

Other operating expenses for 2021 primarily consisted of expenses related to cost-savings initiatives and a legal judgment.

Other operating expenses for 2020 primarily consisted of legal settlement expenses.

Nonoperating expenses/income and income taxes

Nonoperating expenses/income and income taxes were as follows (dollar amounts in millions):

	Years ended December 31,		
	2022	2021	2020
Interest expense, net	$ (1,406)	$ (1,197)	$ (1,262)
Other (expense) income, net	$ (814)	$ 259	$ 256
Provision for income taxes	$ 794	$ 808	$ 869
Effective tax rate	10.8 %	12.1 %	10.7 %

Interest expense, net

The increase in Interest expense, net, for 2022 was primarily due to higher overall debt outstanding and higher LIBORs on debt for which we effectively pay a variable rate of interest through the use of interest rate swaps.

The decrease in Interest expense, net, for 2021 was primarily due to net higher costs associated with the early retirement of debt in 2020 and lower LIBORs in 2021 on debt for which we effectively pay a variable rate of interest through the use of interest rate swaps, partially offset by higher overall debt outstanding.

Other (expense) income, net

The change in Other (expense) income, net, for 2022 was primarily due to higher losses recognized in connection with our BeiGene investment compared with 2021 and losses recognized on our investments in limited partnerships, publicly traded equity securities and other strategic investments.

The change in Other (expense) income, net, for 2021 was primarily due to lower losses incurred in connection with our BeiGene investment compared with 2020, partially offset by lower income on our interest-bearing investments in 2021 and other nonrecurring gains recognized in 2020.

Income taxes

The decrease in our effective tax rate for 2022 compared with 2021 was primarily due to the nondeductible IPR&D expense arising from the acquisition of Five Prime in the prior year, partially offset by a nondeductible loss on a nonstrategic divestiture in 2022 and net unfavorable items as compared to the prior year.

The increase in our effective tax rate for 2021 compared with 2020 was primarily driven by the nondeductible IPR&D expense arising from the acquisition of Five Prime, partially offset by earnings mix and adjustments to prior-year tax liabilities.

The Administration and Congress continue to discuss changes to existing tax law that could substantially increase the taxes we pay to the U.S. government. Further, the OECD recently reached an agreement to align countries on a minimum corporate tax rate and an expansion of the taxing rights of market countries. If enacted, either by all OECD participants or unilaterally by individual countries, this agreement could result in a tax increase that could affect our U.S. and foreign tax liabilities.

The U.S. Treasury released final foreign tax credit regulations in December 2021 that eliminated U.S. creditability of the Puerto Rico Excise Tax beginning in 2023, which would have increased our U.S. tax liability. In response, on June 30, 2022, the U.S. territory of Puerto Rico enacted Act 52-2022, which provides for an alternate fixed tax rate on industrial development income that the U.S. Treasury confirmed will be creditable under federal law. As part of this new law, eligible businesses will be subject to incremental income and withholding taxes in lieu of payment of the Puerto Rico Excise Tax. In order to qualify for the alternative fixed tax rate, our current tax grant with the Puerto Rico government was amended in December 2022. We qualify for this alternative fixed tax rate, beginning January 1, 2023 and our tax expense will increase.

In 2017, we received an RAR and a modified RAR from the IRS for the years 2010–2012, proposing significant adjustments that primarily relate to the allocation of profits between certain of our entities in the United States and the U.S. territory of Puerto Rico. We disagreed with the proposed adjustments and calculations and pursued resolution with the IRS appeals office but were unable to reach resolution. In July 2021, we filed a petition in the U.S. Tax Court to contest two duplicate Statutory Notices of Deficiency (Notices) for the years 2010–2012 that we received in May and July 2021, which seek to increase our U.S. taxable income for the years 2010–2012 by an amount that would result in additional federal tax of approximately $3.6 billion plus interest. Any additional tax that could be imposed for the years 2010–2012 would be reduced by up to approximately $900 million of repatriation tax previously accrued on our foreign earnings.

In 2020, we received an RAR and a modified RAR from the IRS for the years 2013–2015, also proposing significant adjustments that primarily relate to the allocation of profits between certain of our entities in the United States and the U.S. territory of Puerto Rico similar to those proposed for the years 2010–2012. We disagreed with the proposed adjustments and calculations and pursued resolution with the IRS appeals office but were unable to reach resolution. In July 2022, we filed a petition in the U.S. Tax Court to contest a Notice for the years 2013–2015 that we previously reported receiving in April 2022 that seeks to increase our U.S. taxable income for the years 2013–2015 by an amount that would result in additional federal tax of approximately $5.1 billion, plus interest. In addition, the Notice asserts penalties of approximately $2.0 billion. Any additional tax that could be imposed for the years 2013–2015 would be reduced by up to approximately $2.2 billion of repatriation tax previously accrued on our foreign earnings.

We firmly believe that the IRS positions set forth in the 2010–2012 and 2013–2015 Notices are without merit. We are contesting the 2010–2012 and 2013–2015 Notices through the judicial process. The two cases were consolidated in U.S. Tax Court on December 19, 2022.

We are currently under examination by the IRS for the years 2016–2018 with respect to issues similar to those for the 2010 through 2015 period. In addition, we are under examination by a number of state and foreign tax jurisdictions.

Final resolution of these complex matters is not likely within the next 12 months. We continue to believe our accrual for income tax liabilities is appropriate based on past experience, interpretations of tax law, application of the tax law to our facts and judgments about potential actions by tax authorities; however, due to the complexity of the provision for income taxes and

uncertain resolution of these matters, the ultimate outcome of any tax matters may result in payments substantially greater than amounts accrued and could have a material adverse impact on our consolidated financial statements.

See Part I, Item 1A. Risk Factors—*The adoption and interpretation of new tax legislation or exposure to additional tax liabilities could affect our profitability;* Part II, Item 7. Management's Discussion and Analysis or Financial Condition and Results of Operations—Critical Accounting Policies and Estimates, Income taxes; and Part IV—Note 6, Income taxes, to the Consolidated Financial Statements for further discussion.

Financial Condition, Liquidity and Capital Resources

Selected financial data was as follows (in millions):

	December 31,	
	2022	2021
Cash, cash equivalents and marketable securities	$ 9,305	$ 8,037
Total assets	$ 65,121	$ 61,165
Current portion of long-term debt	$ 1,591	$ 87
Long-term debt	$ 37,354	$ 33,222
Stockholders' equity	$ 3,661	$ 6,700

Cash, cash equivalents and marketable securities

Our balance of cash, cash equivalents and marketable securities was $9.3 billion at December 31, 2022. The primary objective of our investment portfolio is to maintain safety of principal, prudent levels of liquidity and acceptable levels of risk. Our investment policy limits interest-bearing security investments to certain types of debt and money market instruments issued by institutions with primarily investment-grade credit ratings, and it places restrictions on maturities and concentration by asset class and issuer.

Capital allocation

Consistent with the objective to optimize our capital structure, we deploy our accumulated cash balances in a strategic manner and consider a number of alternatives, including investments in innovation, both internally and externally, strategic transactions (including those that expand our portfolio of products in areas of therapeutic interest), repayment of debt, payment of dividends and stock repurchases.

We intend to continue investing in our business while returning capital to stockholders through the payment of cash dividends and stock repurchases, thereby reflecting our confidence in the future cash flows of our business and our desire to optimize our cost of capital. The timing and amount of future dividends and stock repurchases will vary based on a number of factors, including future capital requirements for strategic transactions, availability of financing on acceptable terms, debt service requirements, our credit rating, changes to applicable tax laws or corporate laws, changes to our business model and periodic determination by our Board of Directors that cash dividends and/or stock repurchases are in the best interests of stockholders and are in compliance with applicable laws and the Company's agreements. In addition, the timing and amount of stock repurchases may also be affected by our overall level of cash, stock price and blackout periods, during which we are restricted from repurchasing stock. The manner of stock repurchases may include block purchases, tender offers, accelerated share repurchases and market transactions.

The Board of Directors declared quarterly cash dividends of $1.94, $1.76 and $1.60 per share of common stock paid in 2022, 2021 and 2020, respectively, an increase of 10% over the prior year in both 2022 and 2021. In December 2022, the Board of Directors declared a cash dividend of $2.13 per share of common stock for the first quarter of 2023, an increase of 10% for this period, to be paid in March 2023.

We also returned capital to stockholders through our stock repurchase program. During 2022, we repurchased $6.3 billion of common stock, including $6.0 billion under ASR agreements and had cash settlements for stock repurchases of $6.4 billion. In 2021, we repurchased and had cash settlements of $5.0 billion of common stock. In 2020, we repurchased and had cash settlements of $3.5 billion of common stock. In October 2022, the Board of Directors increased the amount authorized under our stock repurchase program by $2.4 billion. As of December 31, 2022, $7.0 billion remained available under the stock repurchase program.

As a result of stock repurchases and quarterly dividend payments, we have an accumulated deficit as of December 31, 2022 and 2021. Our accumulated deficit is not anticipated to affect our future ability to operate, repurchase stock, pay dividends or repay our debt given our expected continued profitability and strong financial position.

We believe that existing funds, cash generated from operations and existing sources of and access to financing are adequate to satisfy our needs for working capital, capital expenditure and debt service requirements, our plans to pay dividends and repurchase stock, and other business initiatives we plan to strategically pursue, including acquisitions and licensing activities. We anticipate that our liquidity needs can be met through a variety of sources, including cash provided by operating activities, sales of marketable securities, borrowings through commercial paper and/or syndicated credit facilities, and access to other domestic and foreign debt markets and equity markets. See Part I, Item 1A. Risk Factors—*Global economic conditions may negatively affect us and may magnify certain risks that affect our business*.

Financing arrangements

To help meet our liquidity requirements, we have entered into various financing arrangements. The noncurrent portions of our long-term borrowings as of December 31, 2022 and 2021, were $37.4 billion and $33.2 billion, respectively. The carrying values of our long-term borrowings are net of fair value adjustments for interest rate swaps and unamortized discounts, premiums and offering costs. As of December 31, 2022, S&P, Moody's and Fitch assigned credit ratings to our outstanding senior notes of BBB+, Baa1 and BBB+, respectively, which are considered investment grade. Unfavorable changes to these ratings may have an adverse impact on future financings.

During 2022, 2021 and 2020, we issued debt with aggregate principal amounts of $7.0 billion, $5.0 billion and $9.0 billion, respectively. During 2022, we repurchased portions of our debt at a cost of $0.3 billion. During 2021 and 2020, we repaid/redeemed debt of $4.2 billion and $6.5 billion, respectively. In addition, during 2020, we exchanged $0.7 billion of certain of our outstanding note issuances with $0.9 billion of newly issued notes with a lower interest rate and later maturity date.

To achieve a desired mix of fixed-rate and floating-rate debt, we entered into interest rate swap contracts that effectively converted a fixed-rate interest coupon for certain of our debt issuances to a floating, LIBOR-based coupon over the lives of the respective notes. These interest rate swap contracts qualify and are designated as fair value hedges. As of both December 31, 2022 and 2021, we had interest rate swap contracts with aggregate notional amount of $6.7 billion.

To hedge our exposure to foreign currency exchange rate risk associated with certain of our long-term notes denominated in foreign currencies, we entered into cross-currency swap contracts, which effectively convert the interest payments and principal repayment of the respective notes from euros, pounds sterling and Swiss francs to U.S. dollars. These cross-currency swap contracts qualify and are designated as cash flow hedges. As of both December 31, 2022 and 2021, we had cross-currency swap contracts with aggregate notional amount of $3.4 billion.

As of December 31, 2022, we had a commercial paper program that allows us to issue up to $2.5 billion of unsecured commercial paper to fund our working-capital needs. During 2022, 2021 and 2020, we did not issue any commercial paper. No commercial paper was outstanding as of December 31, 2022 and 2021.

In 2019, we amended and restated our $2.5 billion syndicated, unsecured, revolving credit agreement, which is available for general corporate purposes or as a liquidity backstop to our commercial paper program. The commitments under the revolving credit agreement may be increased by up to $750 million with the agreement of the banks. Each bank that is a party to the agreement has an initial commitment term of five years. This term may be extended for up to two additional one-year periods with the agreement of the banks. Annual commitment fees for this agreement are 0.1% of the unused portion of the facility based on our current credit rating. In December 2022, this revolving credit agreement was further amended to replace LIBOR with SOFR as the reference rate, pursuant to provisions contained therein related to determination of successor rates in case of phaseout or unavailability of existing designated reference rates. Generally, we would be charged interest for any amounts borrowed under this facility, based on our current credit rating, at (i) SOFR plus 1.125% or (ii) the highest of (A) the syndication agent bank base commercial lending rate, (B) the overnight federal funds rate plus 0.50% or (C) one-month SOFR plus 1.1%. As of December 31, 2022 and 2021, no amounts were outstanding under this facility.

In December 2022, in connection with the proposed acquisition of Horizon, we entered into a bridge credit agreement and a term loan credit agreement which provide for borrowings in the aggregate of $28.5 billion. As of December 31, 2022, no amounts have been borrowed under either agreement. See Part IV —Note 2, Acquisitions and divestitures, to the Consolidated Financial Statements.

It is anticipated that the U.S. dollar LIBOR rate will be phased out and replaced by 2023. The Alternative Reference Rates Committee, a group of private-market participants convened by the Federal Reserve Board and the Federal Reserve Bank of New York to help ensure a successful transition from U.S. dollar LIBOR to a more robust reference rate, recommends SOFR as the U.S. dollar LIBOR alternative. As such, we expect SOFR to become widely adopted by market participants. We do not expect this change to have a material impact on our consolidated financial statements. See Part I, Item 1A. Risk Factors—*Our sales and operations are subject to the risks of doing business internationally, including in emerging markets.*

In February 2020, we filed a shelf registration statement with the SEC that allows us to issue unspecified amounts of debt securities; common stock; preferred stock; warrants to purchase debt securities, common stock, preferred stock or depositary shares; rights to purchase common stock or preferred stock; securities purchase contracts; securities purchase units; and depositary shares. Under this shelf registration statement, all of the securities available for issuance may be offered from time to time with terms to be determined at the time of issuance. This shelf registration statement expires in February 2023, and our Board has approved a new shelf registration statement to replace it.

Certain of our financing arrangements contain nonfinancial covenants. In addition, our revolving credit agreement, bridge credit agreement and term loan credit agreement include a financial covenant that requires us to maintain a specified minimum interest coverage ratio of (i) the sum of consolidated net income, interest expense, provision for income taxes, depreciation expense, amortization expense, unusual or nonrecurring charges and other noncash items (Consolidated EBITDA) to (ii) Consolidated Interest Expense, each as defined and described in the respective agreements. We were in compliance with all applicable covenants under these arrangements as of December 31, 2022.

These financing arrangements are more fully discussed in Part IV—Note 15, Financing arrangements, and Note 18, Derivative instruments, to the Consolidated Financial Statements.

Cash flows

Our summarized cash flow activity was as follows (in millions):

	Years ended December 31,		
	2022	2021	2020
Net cash provided by operating activities	$ 9,721	$ 9,261	$ 10,497
Net cash (used in) provided by investing activities	$ (6,044)	$ 733	$ (5,401)
Net cash used in financing activities	$ (4,037)	$ (8,271)	$ (4,867)

Operating

Cash provided by operating activities has been and is expected to continue to be our primary recurring source of funds. Cash provided by operating activities increased in 2022 primarily due to the timing of payments for sales incentives and discounts, vendor purchases, liabilities to tax authorities and receipts from corporate partners, partially offset by higher manufacturing activities in the current year. Cash provided by operating activities decreased during 2021 primarily due to the monetization of interest rate swaps that occurred in 2020 and the timing of payments for sales incentives and discounts.

Investing

Cash used in investing activities during 2022 was primarily due to our $3.8 billion purchase of ChemoCentryx and net cash outflows related to marketable securities of $1.4 billion. Cash provided by investing activities during 2021 was primarily due to net cash inflows related to marketable securities of $4.3 billion, partially offset by cash used in the acquisitions of Teneobio and Five Prime of $2.5 billion. Cash used in investing activities during 2020 was primarily due to our $3.2 billion of purchases of equity method investments, primarily BeiGene, and net cash outflows related to marketable securities of $1.5 billion. Capital expenditures were $936 million, $880 million and $608 million in 2022, 2021 and 2020, respectively. We currently estimate 2023 spending on capital projects to be approximately $925 million. A majority of the increase in expenditures relates to expansion of manufacturing capacity to enable supply of products and product candidates.

Financing

Cash used in financing activities during 2022 was primarily due to payments to repurchase our common stock of $6.4 billion and dividends paid of $4.2 billion, partially offset by proceeds from the issuance of debt of $6.9 billion. Cash used in financing activities during 2021 was primarily due to payments to repurchase our common stock of $5.0 billion and the payment of dividends of $4.0 billion, partially offset by proceeds from the issuance of debt, net of repayments of $0.8 billion. Cash used in financing activities during 2020 was primarily due to the payment of dividends of $3.8 billion and payments to repurchase our common stock of $3.5 billion, partially offset by proceeds from issuance of debt, net of repayments of $2.5 billion.

See Part IV—Note 9, Investments; Note 15, Financing arrangements; and Note 16, Stockholders' equity, to the Consolidated Financial Statements.

Capital requirements

We have material cash requirements to pay third parties under various contractual obligations discussed below.

We are obligated to pay interest and repay principal under our various financing arrangements, including amounts under interest rate swap and cross-currency swap contracts related to certain of our long-term debt obligations. For information on scheduled debt maturities and payments under derivative contracts associated with our long-term debt obligations, see Part IV—Note 15, Financing arrangements, and Note 18, Derivative instruments, to the Consolidated Financial Statements.

We are obligated to make payments for operating leases, including rental commitments on abandoned leases and leases that have not yet commenced. For information on these obligations, see Part IV—Note 13, Leases, to the Consolidated Financial Statements.

Under the 2017 Tax Act, we elected to pay in eight annual installments the repatriation tax related primarily to prior indefinitely invested earnings of our foreign operations. For information on the remaining scheduled repatriation tax installments, see Part IV—Note 19, Contingencies and commitments—Commitments—U.S. repatriation tax, to the Consolidated Financial Statements.

We have purchase obligations of $3.5 billion primarily related to (i) R&D commitments (including those related to clinical trials) for new and existing products, (ii) capital expenditures and (iii) open purchase orders for the acquisition of goods and services in the ordinary course of business. Most of these obligations are expected to be paid within one year, and payment of certain of these amounts may be reduced based on certain future events.

In addition to the purchase obligations noted above, we are contractually obligated to pay additional amounts that in the aggregate are significant, upon the achievement of various development, regulatory and commercial milestones for agreements we have entered into with third parties, including contingent consideration incurred in the acquisitions of Teneobio and K-A. These payments are contingent upon the occurrence of various future events, substantially all of which have a high degree of uncertainty of occurring, and any resulting cash requirements are managed through our operational budgeting processes. Except with respect to the fair value of the contingent consideration of approximately $0.3 billion, these obligations are not recorded on our Consolidated Balance Sheets. As of December 31, 2022, the maximum amount that may be payable in the future for agreements we have entered into with third parties is $5.6 billion.

We have recorded liabilities for UTBs that, because of their nature, have a high degree of uncertainty regarding the timing of future cash payment and other events that extinguish these liabilities. See Part IV—Note 6, Income taxes, to the Consolidated Financial Statements.

Critical Accounting Policies and Estimates

The preparation of our consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements and the notes to the financial statements. Some of those judgments can be subjective and complex, and therefore, actual results could differ materially from those estimates under different assumptions or conditions. Our significant accounting policies are included in Part IV—Note 1, Summary of significant accounting policies. The following are considered critical to our consolidated financial statements because they require the most difficult, subjective or complex judgments, often because of the need to make estimates about matters that are inherently uncertain.

Product sales and sales deductions

Revenue from product sales is recognized upon transfer of control of a product to a customer, generally upon delivery, based on an amount that reflects the consideration to which we expect to be entitled, net of accruals for estimated rebates, wholesaler chargebacks, discounts and other deductions (collectively, sales deductions) and returns established at the time of sale.

We analyze the adequacy of our accruals for sales deductions quarterly. Amounts accrued for sales deductions are adjusted when trends or significant events indicate that adjustment is appropriate. Accruals are also adjusted to reflect actual results. Amounts recorded in Accrued liabilities in the Consolidated Balance Sheets for sales deductions were as follows (in millions):

	Rebates	Chargebacks	Other deductions	Total
Balance as of December 31, 2019	$ 3,165	$ 559	$ 156	$ 3,880
Amounts charged against product sales	9,167	8,223	1,818	19,208
Payments	(8,353)	(8,191)	(1,735)	(18,279)
Balance as of December 31, 2020	3,979	591	239	4,809
Amounts charged against product sales	10,195	9,619	2,065	21,879
Payments	(10,027)	(9,413)	(2,074)	(21,514)
Balance as of December 31, 2021	4,147	797	230	5,174
Amounts charged against product sales	12,500	10,630	2,288	25,418
Payments	(11,768)	(10,578)	(2,260)	(24,606)
Balance as of December 31, 2022	$ 4,879	$ 849	$ 258	$ 5,986

For the years ended December 31, 2022, 2021 and 2020, total sales deductions were 51%, 47% and 44% of gross product sales, respectively. The increase in the total sales deductions balance as of December 31, 2022, compared with December 31, 2021, was primarily driven by the impact of higher U.S. chargeback and commercial rebate discount rates and an increase in gross sales, partially offset by timing of payments. Included in the amounts are immaterial net adjustments related to prior-year sales due to changes in estimates.

In the United States, we use wholesalers as the principal means of distributing our products to healthcare providers such as physicians or their clinics, dialysis centers, hospitals and pharmacies. Products we sell in Europe are distributed principally to hospitals and/or wholesalers depending on the distribution practice in each country where the products are sold. We monitor the inventory levels of our products at our wholesalers by using data from our wholesalers and other third parties, and we believe wholesaler inventories have been maintained at appropriate levels (generally two to three weeks) given end-user demand. Accordingly, historical fluctuations in wholesaler inventory levels have not significantly affected our method of estimating sales deductions and returns.

Accruals for sales deductions are based primarily on estimates of the amounts earned or to be claimed on the related sales. These estimates take into consideration current contractual and statutory requirements, specific known market events and trends, internal and external historical data and forecasted customer buying patterns. Sales deductions are substantially product specific and therefore, for any given year, can be affected by the mix of products sold.

Rebates include primarily amounts paid to payers and providers in the United States, including those paid to state Medicaid programs, and are based on contractual arrangements or statutory requirements that vary by product, by payer and by individual payer plans. As we sell products, we estimate the amount of rebate we will pay based on the product sold, contractual terms, estimated patient population, historical experience and wholesaler inventory levels; and we accrue these rebates in the period the related sales are recorded. We then adjust the rebate accruals as more information becomes available and to reflect

actual claims experience. Estimating such rebates is complicated, in part because of the time delay between the date of sale and the actual settlement of the liability. We believe the methodology we use to accrue for rebates is reasonable and appropriate given current facts and circumstances, but actual results may differ.

Wholesaler chargebacks relate to our contractual agreements to sell products to healthcare providers in the United States at fixed prices that are lower than the prices we charge wholesalers. When healthcare providers purchase our products through wholesalers at these reduced prices, wholesalers charge us for the difference between their purchase prices and the contractual prices between Amgen and the healthcare providers. The provision for chargebacks is based on expected sales by our wholesaler customers to healthcare providers. Accruals for wholesaler chargebacks are less difficult to estimate than rebates are, and they closely approximate actual results because chargeback amounts are fixed at the date of purchase by the healthcare providers and because we generally settle the liability for these deductions within a few weeks.

Product returns

Returns are estimated by comparison of historical return data to their related sales on a production lot basis. Historical rates of return are determined for each product and are adjusted for known or expected changes in the marketplace specific to each product, when appropriate. In each of the past three years, sales return provisions have amounted to less than 1% of gross product sales. Changes in estimates for prior-year sales return provisions have historically been immaterial.

Income taxes

We provide for income taxes based on pretax income and applicable tax rates in the various jurisdictions in which we operate.

We recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained upon examination by tax authorities based on the technical merits of the position. The tax benefit recognized in the consolidated financial statements for a particular tax position is based on the largest benefit that is more likely than not to be realized. The amount of UTBs is adjusted as appropriate for changes in facts and circumstances, such as significant amendments to existing tax law, new regulations or interpretations by tax authorities, new information obtained during a tax examination or resolution of an examination. We believe our estimates for uncertain tax positions are appropriate and sufficient for any assessments that may result from examinations of our tax returns. We recognize both accrued interest and penalties, when appropriate, related to UTBs in income tax expense.

Certain items are included in our tax return at different times than they are reflected in the financial statements, and they cause temporary differences between the tax bases of assets and liabilities and their reported amounts. Such temporary differences create deferred tax assets and liabilities. Deferred tax assets are generally items that can be used as tax deductions or credits in tax returns in future years but for which we have already recorded the tax benefit in the consolidated financial statements. We establish valuation allowances against our deferred tax assets when the amount of expected future taxable income is not likely to support the use of the deduction or credit. Deferred tax liabilities are either (i) tax expenses recognized in the consolidated financial statements for which payment has been deferred, (ii) expenses for which we have already taken a deduction on the tax return but have not yet recognized in the consolidated financial statements or (iii) liabilities for the difference between the book basis and the tax basis of the intangible assets acquired in many business combinations, because future expenses associated with these assets most often will not be tax deductible.

We are a vertically integrated enterprise with operations in the United States and various foreign jurisdictions. In the jurisdictions where we conduct operations, we are subject to income tax based on the tax laws and principles of such jurisdictions and on the functions, risks and activities performed therein. Our pretax income is therefore attributed to domestic or foreign sources based on the operations performed and risks assumed in each location and the tax laws and principles of the respective taxing jurisdictions. For example, we conduct significant operations in Puerto Rico, a territory of the United States that is treated as a foreign jurisdiction for U.S. tax purposes, pertaining to manufacturing, distribution and other related functions to meet our worldwide product demand. Income from our operations in Puerto Rico is subject to tax incentive grants through 2050.

In 2017, we received an RAR and a modified RAR from the IRS for the years 2010–2012, proposing significant adjustments that primarily relate to the allocation of profits between certain of our entities in the United States and the U.S. territory of Puerto Rico. We disagreed with the proposed adjustments and calculations and pursued resolution with the IRS appeals office but were unable to reach resolution. In July 2021, we filed a petition in the U.S. Tax Court to contest two duplicate Statutory Notices of Deficiency (Notices) for the years 2010–2012 that we received in May and July 2021, which seek to increase our U.S. taxable income for the years 2010–2012 by an amount that would result in additional federal tax of approximately $3.6 billion plus interest. Any additional tax that could be imposed for the years 2010–2012 would be reduced by up to approximately $900 million of repatriation tax previously accrued on our foreign earnings.

In 2020, we received an RAR and a modified RAR from the IRS for the years 2013–2015, also proposing significant adjustments that primarily relate to the allocation of profits between certain of our entities in the United States and the U.S. territory of Puerto Rico similar to those proposed for the years 2010–2012. We disagreed with the proposed adjustments and calculations and pursued resolution with the IRS appeals office but were unable to reach resolution. In July 2022, we filed a petition in the U.S. Tax Court to contest a Notice for the years 2013–2015 that we received in April 2022 that seeks to increase our U.S. taxable income for the years 2013–2015 by an amount that would result in additional federal tax of approximately $5.1 billion, plus interest. In addition, the Notice asserts penalties of approximately $2.0 billion. Any additional tax that could be imposed for the years 2013–2015 would be reduced by up to approximately $2.2 billion of repatriation tax previously accrued on our foreign earnings.

We firmly believe that the IRS positions set forth in the 2010–2012 and 2013–2015 Notices are without merit. We are contesting the 2010–2012 and 2013–2015 Notices through the judicial process. The two cases were consolidated in U.S. Tax Court on December 19, 2022.

We are currently under examination by the IRS for the years 2016–2018 with respect to issues similar to those for the 2010 through 2015 period. In addition, we have examinations by a number of state and foreign tax jurisdictions.

Final resolution of these complex matters is not likely within the next 12 months. We believe our accrual for income tax liabilities is appropriate based on past experience, interpretations of tax law, application of the tax law to our facts and judgments about potential actions by tax authorities; however, due to the complexity of the provision for income taxes and uncertain resolution of these matters, the ultimate outcome of any tax matters may result in payments substantially greater than amounts accrued and could have a material adverse impact on our consolidated financial statements. See Part I, Item 1A. Risk Factors—*The adoption and interpretation of new tax legislation or exposure to additional tax liabilities could affect our profitability;* Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Results of Operations, Income taxes; and Part IV—Note 6, Income taxes, to the Consolidated Financial Statements for further discussion.

Our operations are subject to the tax laws, regulations and administrative practices of the United States, the U.S. territory of Puerto Rico, U.S. state jurisdictions and other countries in which we do business. Significant changes in these rules could have a material adverse effect on our results of operations. See Part I, Item 1A. Risk Factors—*The adoption and interpretation of new tax legislation or exposure to additional tax liabilities could affect our profitability*.

Contingencies

In the ordinary course of business, we are involved in various legal proceedings, government investigations and other matters such as intellectual property disputes, contractual disputes and class action suits that are complex in nature and have outcomes that are difficult to predict. We describe our legal proceedings and other matters that are significant or that we believe could become significant in Part IV—Note 19, Contingencies and commitments, to the Consolidated Financial Statements. We record accruals for loss contingencies to the extent that we conclude it is probable that a liability has been incurred and the amount of the related loss can be reasonably estimated. We evaluate, on a quarterly basis, developments in legal proceedings and other matters that could cause an increase or decrease in the amount of the liability that has been accrued previously.

While it is not possible to accurately predict or determine the eventual outcomes of these items, an adverse determination in one or more of these items currently pending could have a material adverse effect on our consolidated results of operations, financial position or cash flows.

Valuation of assets and liabilities in connection with acquisitions

We have acquired and continue to acquire intangible assets in connection with business combinations and asset acquisitions. These intangible assets consist primarily of technology associated with currently marketed human therapeutic products and IPR&D product candidates. Discounted cash flow models are typically used to determine the fair values of these intangible assets for purposes of allocating consideration paid to the net assets acquired in an acquisition. See Part IV—Note 2, Acquisitions and divestitures, to the Consolidated Financial Statements. These models require the use of significant estimates and assumptions, including but not limited to:

- determining the timing and expected costs to complete in-process projects, taking into account the stage of completion at the acquisition date;
- projecting the probability and timing of obtaining marketing approval from the FDA and other regulatory agencies for product candidates;
- estimating the timing of and future net cash flows from product sales resulting from completed products and in-process projects; and

- developing appropriate discount rates to calculate the present values of the cash flows.

Significant estimates and assumptions are also required to determine the business combination date fair values of any contingent consideration obligations incurred in connection with business combinations. In addition, we must revalue these obligations each subsequent reporting period until the related contingencies are resolved and record changes in their fair values in earnings. The acquisition date fair values of contingent consideration obligations incurred or assumed in the acquisitions were determined using a combination of valuation techniques. Significant estimates and assumptions required for these valuations included but were not limited to the timing and probability of achieving regulatory milestones, product sales projections under various scenarios and discount rates used to calculate the present value of the required payments. These estimates and assumptions are required to be updated in order to revalue these contingent consideration obligations each reporting period. Accordingly, subsequent changes in underlying facts and circumstances could result in changes in these estimates and assumptions, which could have a material impact on the estimated future fair values of these obligations.

We believe the fair values used to record intangible assets acquired and contingent consideration obligations incurred in connection with business combinations and asset acquisitions are based on reasonable estimates and assumptions given the facts and circumstances as of the related valuation dates.

Impairment of long-lived assets

We review the carrying value of our property, plant and equipment and our finite-lived intangible assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If such circumstances exist, an estimate of undiscounted future cash flows to be generated by the long-lived asset is compared with the carrying value to determine whether an impairment exists. If an asset is determined to be impaired, the loss is measured based on the difference between the asset's fair value and its carrying value.

Indefinite-lived intangible assets, composed of IPR&D projects acquired in a business combination that have not reached technological feasibility or that lack regulatory approval at the time of acquisition, are reviewed for impairment annually, whenever events or changes in circumstances indicate that the carrying amount may not be recoverable and upon establishment of technological feasibility or regulatory approval. We determine impairment by comparing the fair value of the asset to its carrying value. If the asset's carrying value exceeds its fair value, an impairment charge is recorded for the difference, and its carrying value is reduced accordingly.

Estimating future cash flows of an IPR&D product candidate for purposes of an impairment analysis requires us to make significant estimates and assumptions regarding the amount and timing of costs to complete the project and the amount, timing and probability of achieving revenues from the completed product similar to how the acquisition date fair value of the project was determined, as described above. There are often major risks and uncertainties associated with IPR&D projects as we are required to obtain regulatory approvals in order to be able to market these products. Such approvals require completing clinical trials that demonstrate a product candidate is safe and effective. Consequently, the eventual realized value of the acquired IPR&D project may vary from its fair value at the date of acquisition, and IPR&D impairment charges may occur in future periods which could have a material adverse effect on our results of operations.

We believe our estimations of future cash flows used for assessing impairment of long-lived assets are based on reasonable assumptions given the facts and circumstances as of the related dates of the assessments.

Impairment of equity method investments

We review the carrying value of our equity method investments whenever events or changes in circumstances indicate that the carrying amount of an investment may not be recoverable. We record impairment losses on our equity method investments if we deem the impairment to be other-than-temporary. We deem an impairment to be other-than-temporary based on various factors, including but not limited to, the length of time and the extent to which the fair value is below the carrying value, volatility of the security price, the financial condition of the issuer, changes in technology that may impair the earnings potential of the investment and our intent and ability to retain the investment to allow for a recovery in fair value.

We believe our judgments used in assessing impairment of equity method investments are based on reasonable assumptions given the facts and circumstances as of the related dates of the assessments.

Recently Issued Accounting Standards

See Part IV—Note 1, Summary of significant accounting policies, to the Consolidated Financial Statements for a discussion of recently issued accounting pronouncements not yet adopted as of December 31, 2022.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to market risks that may result from changes in interest rates, foreign currency exchange rates and prices of equity instruments as well as changes in general economic conditions in the countries where we conduct business. To reduce certain of these risks, we enter into various types of foreign currency and interest rate derivative hedging transactions as part of our risk management program. We do not use derivatives for speculative trading purposes.

In the discussion that follows, we assumed a hypothetical change in interest rates of 100 basis points from those as of December 31, 2022 and 2021. Except as noted below, we also assumed a hypothetical 20% change in foreign currency exchange rates against the U.S. dollar based on its position relative to other currencies as of December 31, 2022 and 2021.

Interest-rate-sensitive financial instruments

Our portfolio of available-for-sale investments as of December 31, 2022 and 2021, was composed almost entirely of U.S. Treasury securities and money market mutual funds. The fair values of our available-for-sale investments were $4.3 billion and $7.3 billion as of December 31, 2022 and 2021, respectively. Duration is a sensitivity measure that can be used to approximate the change in the value of a security that will result from a 100 basis point change in interest rates. Applying a duration model, a hypothetical 100 basis point increase in interest rates as of December 31, 2022 and 2021, would not have resulted in a material reduction in the fair values of these securities. In addition, a hypothetical 100 basis point decrease in interest rates as of December 31, 2022 and 2021, would not result in a material effect on income in the respective ensuing year.

As of December 31, 2022, we had outstanding debt with a carrying value of $38.9 billion and a fair value of $35.0 billion. As of December 31, 2021, we had outstanding debt with a carrying value of $33.3 billion and a fair value of $37.9 billion. Our outstanding debt was composed of debt with fixed interest rates. Changes in interest rates do not affect interest expense on fixed-rate debt. Changes in interest rates would, however, affect the fair values of fixed-rate debt. A hypothetical 100 basis point decrease in interest rates relative to interest rates as of December 31, 2022 and 2021, would have resulted in an increase of $3.5 billion and $4.5 billion, respectively, in the aggregate fair value of our outstanding debt on these dates. Analysis of the debt does not consider the impact that hypothetical changes in interest rates would have on related interest rate swap contracts and cross-currency swap contracts, discussed below.

To achieve a desired mix of fixed-rate and floating-rate debt, we entered into interest rate swap contracts that qualified and were designated for accounting purposes as fair value hedges for certain of our fixed-rate debt. These interest rate swap contracts effectively converted a fixed-rate interest coupon to a floating-rate LIBOR-based coupon over the life of the respective notes. Interest rate swap contracts with aggregate notional amounts of $6.7 billion were outstanding as of both December 31, 2022 and 2021. A hypothetical 100 basis point increase in interest rates relative to interest rates as of December 31, 2022 and 2021, would have resulted in reductions in fair values of approximately $210 million and $330 million, respectively, on our interest rate swap contracts on these dates. Analysis of the interest rate swap contracts does not consider the impact that hypothetical changes in interest rates would have on the related fair values of debt that these interest-rate-sensitive instruments were designed to offset.

In connection with the anticipated issuance of long-term fixed-rate debt, we occasionally enter into forward interest rate contracts, which are designated as cash flow hedges, in order to hedge the variability in cash flows due to changes in the applicable U.S. Treasury rate between the time we enter into these contracts and the time the related debt is issued. As of December 31, 2022, we had forward interest rate contracts outstanding with an aggregate notional amount of $700 million; there were no outstanding forward interest rate contracts as of December 31, 2021. A hypothetical 100 basis point decrease in interest rates relative to interest rates as of December 31, 2022 would have resulted in a reduction in fair value of approximately $60 million on our forward interest rate contracts on this date.

As of both December 31, 2022 and 2021, we had outstanding cross-currency swap contracts with aggregate notional amount of $3.4 billion that hedge our foreign-currency-denominated debt and related interest payments. These contracts effectively convert interest payments and principal repayment of this debt to U.S. dollars from euros, pounds sterling and Swiss francs and are designated for accounting purposes as cash flow hedges. A hypothetical 100 basis point adverse movement in interest rates relative to interest rates as of December 31, 2022 and 2021, would have resulted in reductions in the fair values of our cross-currency swap contracts of approximately $90 million and $170 million, respectively.

Foreign-currency-sensitive financial instruments

Our international operations are affected by fluctuations in the value of the U.S. dollar compared with foreign currencies, predominantly the euro. Increases and decreases in our international product sales from movements in foreign currency exchange rates are partially offset by corresponding increases or decreases in our international operating expenses. Increases and decreases in our foreign-currency-denominated assets from movements in foreign currency exchange rates are partially offset by corresponding increases or decreases in our foreign-currency-denominated liabilities. To further reduce our net exposure to foreign currency exchange rate fluctuations on our results of operations, we enter into foreign currency forward and cross-currency swap contracts.

As of December 31, 2022, we had outstanding euro-, pound-sterling- and Swiss-franc-denominated debt with a principal carrying value and a fair value of $3.0 billion and $2.9 billion, respectively. As of December 31, 2021, we had outstanding euro-, pound-sterling- and Swiss-franc-denominated debt with a principal carrying value and a fair value of $3.2 billion and $3.6 billion, respectively. A hypothetical 20% adverse movement in foreign currency exchange rates compared with the U.S. dollar relative to exchange rates as of December 31, 2022, would have resulted in an increase in fair value of this debt of approximately $580 million on this date and a reduction in income in the ensuing year of approximately $600 million. A hypothetical 20% adverse movement in foreign currency exchange rates compared with the U.S. dollar relative to exchange rates as of December 31, 2021, would have resulted in an increase in fair value of this debt of $710 million on this date and a reduction in income in the ensuing year of $640 million. The impact on income from these hypothetical changes in foreign currency exchange rates would be substantially offset by the impact such changes would have on related cross-currency swap contracts, which are in place for the related foreign-currency-denominated debt.

We have cross-currency swap contracts that are designated as cash flow hedges of our debt denominated in euros, pounds sterling and Swiss francs, with aggregate notional amount of $3.4 billion as of both December 31, 2022 and 2021. A hypothetical 20% adverse movement in foreign currency exchange rates compared with the U.S. dollar relative to exchange rates on these dates would have resulted in reductions in the fair values of these contracts of approximately $540 million and $700 million on these dates, respectively. The impact of this hypothetical adverse movement in foreign currency exchange rates on ensuing years' income from these contracts would be fully offset by corresponding hypothetical changes in the carrying amounts of the related hedged debt.

We enter into foreign currency forward contracts that are designated for accounting purposes as cash flow hedges of certain anticipated foreign currency transactions. As of December 31, 2022, the fair values of these contracts were a $288 million asset and a $76 million liability. As of December 31, 2021, the fair values of these contracts were a $183 million asset and a $39 million liability. As of December 31, 2022, we had primarily euro-based open foreign currency forward contracts with notional amounts of $6.0 billion. As of December 31, 2021, we had primarily euro-based open foreign currency forward contracts with notional amounts of $5.7 billion. With regard to foreign currency forward contracts that were open as of December 31, 2022, a hypothetical 20% adverse movement in foreign currency exchange rates compared with the U.S. dollar relative to exchange rates as of December 31, 2022, would have resulted in a reduction in fair value of these contracts of approximately $1.1 billion on this date and in the ensuing year, a reduction in income of approximately $590 million. With regard to contracts that were open as of December 31, 2021, a hypothetical 20% adverse movement in foreign currency exchange rates compared with the U.S. dollar relative to exchange rates as of December 31, 2021, would have resulted in a reduction in fair value of these contracts of approximately $1.1 billion on this date and in the ensuing year, a reduction in income of $390 million. The analysis does not consider the impact that hypothetical changes in foreign currency exchange rates would have on anticipated transactions that these foreign-currency-sensitive instruments were designed to offset.

As of December 31, 2022 and 2021, we had open, short-duration, foreign currency forward contracts that mature in one month or less, that had notional amounts of $0.5 billion and $0.7 billion, respectively, and that hedged fluctuations of certain assets and liabilities denominated in foreign currencies but were not designated as hedges for accounting purposes. These contracts had no material net unrealized gains or losses as of December 31, 2022 and 2021. With regard to these foreign currency forward contracts that were open as of December 31, 2022 and 2021, a hypothetical 5% adverse movement in foreign currency exchange rates compared with the U.S. dollar relative to exchange rates on these dates would not have a material effect on the fair values of these contracts or related income in the respective ensuing years. The analysis does not consider the impact that hypothetical changes in foreign currency exchange rates would have on assets and liabilities that these foreign-currency-sensitive instruments were designed to offset.

Market-price-sensitive financial instruments

As of December 31, 2022 and 2021, we were exposed to price risk on equity securities included in our portfolio of investments, which were acquired primarily for the promotion of business and strategic objectives. These investments include publicly and privately held small-capitalization stocks, limited partnerships that invest in early-stage biotechnology companies

and our investment in BeiGene. A 20% decrease in the aggregate value of our equity investment portfolio as of December 31, 2022 and 2021, would result in losses in fair value of approximately $1.1 billion and $1.4 billion, respectively.

Counterparty credit risks

Our financial instruments, including derivatives, are subject to counterparty credit risk, which we consider as part of the overall fair value measurement. Our financial risk management policy limits derivative transactions by requiring that transactions be made only with institutions with minimum credit ratings of A– or equivalent by S&P, Moody's or Fitch; and it places exposure limits on the amount with any individual counterparty. In addition, we have an investment policy that limits investments to certain types of debt and money market instruments issued by institutions with investment-grade credit ratings and places restriction on maturities and concentrations by asset class and issuer.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The information required by this item is incorporated herein by reference to the financial statements and schedule listed in Item 15(a)1 and (a)2 of Part IV and included in this Annual Report on Form 10-K.

Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

Item 9A. CONTROLS AND PROCEDURES

We maintain "disclosure controls and procedures," as such term is defined under the Securities Exchange Act Rule 13a-15(e), that are designed to ensure that information required to be disclosed in Amgen's Exchange Act reports is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and that such information is accumulated and communicated to Amgen's management, including its Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosures. In designing and evaluating the disclosure controls and procedures, Amgen's management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and in reaching a reasonable level of assurance, Amgen's management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures. We have carried out an evaluation under the supervision and with the participation of our management, including Amgen's Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of Amgen's disclosure controls and procedures. Based upon their evaluation and subject to the foregoing, the Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of December 31, 2022.

Management determined that as of December 31, 2022, there were no changes in our internal control over financial reporting that occurred during the fiscal quarter then ended that have materially affected or are reasonably likely to materially affect our internal control over financial reporting.

Management's Report on Internal Control over Financial Reporting

Management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a-15(f) under the Securities Exchange Act of 1934. The Company's internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP in the United States. However, all internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and reporting.

Management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2022. In making this assessment, management used the criteria set forth by the COSO in Internal Control—Integrated Framework (2013 framework). Based on our assessment, management believes that the Company maintained effective internal control over financial reporting as of December 31, 2022, based on the COSO criteria.

The effectiveness of the Company's internal control over financial reporting has been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in their attestation report appearing below, which expresses an unqualified opinion on the effectiveness of the Company's internal control over financial reporting as of December 31, 2022.

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of Amgen Inc.

Opinion on Internal Control Over Financial Reporting

We have audited Amgen Inc.'s internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Amgen Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2022 and 2021, the related consolidated statements of income, comprehensive income, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2022, and the related notes and the financial statement schedule listed in the Index at Item 15(a)2 and our report dated February 9, 2023 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Ernst & Young LLP

Los Angeles, California
February 9, 2023

Item 9B. OTHER INFORMATION

Not applicable.

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information about our Directors is incorporated by reference from the section entitled ITEM 1—ELECTION OF DIRECTORS in our Proxy Statement for the 2023 Annual Meeting of Stockholders to be filed with the SEC within 120 days of December 31, 2022 (the Proxy Statement). Information about the procedures by which stockholders may recommend nominees for the Board of Directors is incorporated by reference from APPENDIX A—AMGEN INC. BOARD OF DIRECTORS GUIDELINES FOR DIRECTOR QUALIFICATIONS AND EVALUATIONS and OTHER MATTERS—Stockholder Proposals for the 2024 Annual Meeting in our Proxy Statement. Information about our Audit Committee, members of the committee and our Audit Committee financial experts is incorporated by reference from the section entitled CORPORATE GOVERNANCE—Audit Committee in our Proxy Statement. Information about our executive officers is contained in the discussion entitled Part I, Item 1. Business—Information about our Executive Officers.

Code of Ethics

We maintain a Code of Ethics for the Chief Executive Officer and Senior Financial Officers applicable to our principal executive officer, principal financial officer, principal accounting officer or controller and other persons performing similar functions. To view this code of ethics free of charge, please visit our website at www.amgen.com. (The website address is not intended to function as a hyperlink, and the information contained in our website is not intended to be a part of this filing.) We intend to satisfy the disclosure requirements under Item 5.05 of Form 8-K regarding an amendment to or a waiver from a provision of this code of ethics, if any, by posting such information on our website as set forth above.

Item 11. EXECUTIVE COMPENSATION

Information about director and executive compensation is incorporated by reference from the sections entitled COMPENSATION DISCUSSION AND ANALYSIS, EXECUTIVE COMPENSATION TABLES, DIRECTOR COMPENSATION and CORPORATE GOVERNANCE—Pay Ratio in our Proxy Statement. Information about compensation committee matters is incorporated by reference from the sections entitled CORPORATE GOVERNANCE—Compensation and Management Development Committee and CORPORATE GOVERNANCE—Compensation Committee Report in our Proxy Statement.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Securities Authorized for Issuance Under Existing Equity Compensation Plans

The following table sets forth certain information as of December 31, 2022, concerning the shares of our common stock that may be issued under any form of award granted under our equity compensation plans in effect as of December 31, 2022 (including upon the exercise of options, upon the vesting of awards of RSUs or when performance units are earned and related dividend equivalents have been granted).

	(a)	(b)	(c)
Plan category	**Number of securities to be issued upon exercise of outstanding options and rights**	**Weighted-average exercise price of outstanding options and rights**	**Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))**
Equity compensation plans approved by Amgen security holders:			
Amended and Restated 2009 Equity Incentive Plan[(1)]	10,235,620	$ 207.29	15,255,297
Amended and Restated 1991 Equity Incentive Plan[(2)]	2,191		
Amended and Restated Employee Stock Purchase Plan			4,180,287
Total approved plans	10,237,811	207.29	19,435,584
Equity compensation plan not approved by Amgen security holders:			
Amgen Profit Sharing Plan for Employees in Ireland[(3)]			222,310
Total unapproved plans	—	—	222,310
Total all plans	10,237,811	$ 207.29	19,657,894

(1) The Amended 2009 Plan employs a fungible share-counting formula for determining the number of shares available for issuance under the plan. In accordance with this formula, each option or stock appreciation right counts as one share, while each RSU, performance unit or dividend equivalent counts as 1.9 shares. The number under column (a) represents the actual number of shares issuable under our outstanding awards without giving effect to the fungible share-counting formula. The number under column (c) represents the number of shares available for issuance under this plan based on each such available share counting as one share. Commencing with the grants made in April 2012, RSUs and performance units accrue dividend equivalents that are payable in shares only to the extent and when the underlying RSUs vest or underlying performance units have been earned and the related shares are issued to the grantee. The performance units granted under this plan are earned based on the accomplishment of specified performance goals at the end of their respective three-year performance periods; the number of performance units granted represent target performance, and the maximum number of units that could be earned based on our performance is 200% of the performance units granted in 2020, 2021 and 2022.

As of December 31, 2022, the number of outstanding awards under column (a) includes (i) 5,322,407 shares issuable upon the exercise of outstanding options with a weighted-average exercise price of $207.29; (ii) 3,173,806 shares issuable upon the vesting of outstanding RSUs (including 307,825 related dividend equivalents); and (iii) 1,739,407 shares subject to outstanding 2020, 2021 and 2022 performance units (including 84,603 related dividend equivalents). The weighted-average exercise price shown in column (b) is for the outstanding options only. The number of available shares under column (c) represents the number of shares that remain available for future issuance under this plan as of December 31, 2022, employing the fungible share formula and presumes the issuance of target shares under the performance units granted in 2020, 2021 and 2022 and related dividend equivalents. The numbers under columns (a) and (c) do not give effect to the additional shares that could be issuable in the event above target performance on the performance goals under these outstanding performance units is achieved. Maximum performance under these goals could result in 200% of target shares being awarded for performance units granted in 2020, 2021 and 2022.

(2) This plan has terminated as to future grants. The number under column (a) with respect to this plan includes 2,191 shares issuable upon the settlement of deferred RSUs (including 519 related dividend equivalents).

(3) The Profit Sharing Plan was approved by the Board of Directors on July 28, 2011. The Profit Sharing Plan permits eligible employees of the Company's subsidiaries located in Ireland who participate in the Profit Sharing Plan to apply a portion of their qualifying bonus and salary to the purchase of the Company's common stock on the open market at the market price by a third-party trustee as described in the Profit Sharing Plan.

Security Ownership of Directors and Executive Officers and Certain Beneficial Owners

Information about security ownership of certain beneficial owners and management is incorporated by reference from the sections entitled SECURITY OWNERSHIP OF DIRECTORS AND EXECUTIVE OFFICERS and SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS in our Proxy Statement.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

Information about certain relationships and related transactions and director independence is incorporated by reference from the sections entitled CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS and CORPORATE GOVERNANCE—Director Independence in our Proxy Statement.

Item 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Information about the fees for professional services rendered by our independent registered public accountants is incorporated by reference from the section entitled AUDIT MATTERS—Independent Registered Public Accountants in our Proxy Statement.

PART IV

Item 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a)1. Index to Financial Statements

The following Consolidated Financial Statements are included herein:

(a)2. Index to Financial Statement Schedules

The following Schedule is filed as part of this Annual Report on Form 10-K:

All other schedules are omitted because they are not applicable, not required or because the required information is included in the consolidated financial statements or notes thereto.

(a)3. Exhibits

Exhibit No.	Description
2.1	Asset Purchase Agreement, dated August 25, 2019, by and between Amgen Inc. and Celgene Corporation. (Filed as an exhibit to Form 8-K on August 26, 2019 and incorporated herein by reference.)
2.1.1	Amendment No. 1 to the Asset Purchase Agreement, dated October 17, 2019, by and between Amgen Inc. and Celgene Corporation. (Filed as an exhibit to Form 8-K on October 17, 2019 and incorporated herein by reference.)
2.1.2	Amendment No. 2 to the Asset Purchase Agreement, dated October 17, 2019, by and between Amgen Inc. and Celgene Corporation. (Filed as an exhibit to Form 10-K for the year ended December 31, 2019 on February 12, 2020 and incorporated herein by reference.)
2.2	Letter Agreement, dated November 21, 2019, by and between Amgen Inc. and the parties named therein re: Treatment of Certain Product Inventory in connection with Amgen's acquisition of Otezla (Filed as an exhibit to Form 10-K for the year ended December 31, 2019 on February 12, 2020 and incorporated herein by reference.)
2.3	Irrevocable Guarantee, dated August 25, 2019, by and between Amgen Inc. and Bristol-Myers Squibb Company. (Filed as an exhibit to Form 8-K on August 26, 2019 and incorporated herein by reference.)
2.4	Agreement and Plan of Merger, dated July 27, 2021, by and among Amgen Inc., Teneobio, Inc., Tuxedo Merger Sub, Inc., and Fortis Advisors LLC. (portions of the exhibit have been omitted because they are both (i) not material and (ii) is the type of information that the Company treats as private or confidential)(Filed as an exhibit to Form 10-Q for the quarter ended September 30, 2021 on November 3, 2021 and incorporated herein by reference.)

Exhibit No.	Description
2.5	Agreement and Plan of Merger, dated as of August 3, 2022, among ChemoCentryx, Inc., Amgen Inc. and Carnation Merger Sub, Inc. (Filed as an exhibit to Form 8-K on August 4, 2022 and incorporated herein by reference.)
2.6	Transaction Agreement, dated as of December 11, 2022, by and among Amgen Inc., Pillartree Limited and Horizon Therapeutics plc. (Filed as an exhibit to Form 8-K on December 12, 2022 and incorporated herein by reference.)
2.7	Appendix 3 to the Rule 2.7 Announcement, dated as of December 12, 2022 (Conditions Appendix). (Filed as an exhibit to Form 8-K on December 12, 2022 and incorporated herein by reference.)
3.1	Restated Certificate of Incorporation of Amgen Inc. (As Restated March 6, 2013.) (Filed as an exhibit to Form 10-Q for the quarter ended March 31, 2013 on May 3, 2013 and incorporated herein by reference.)
3.2	Amended and Restated Bylaws of Amgen Inc. (As Amended and Restated February 15, 2016.) (Filed as an exhibit to Form 8-K on February 17, 2016 and incorporated herein by reference.)
4.1	Form of stock certificate for the common stock, par value $.0001 of the Company. (Filed as an exhibit to Form 10-Q for the quarter ended March 31, 1997 on May 14, 1997 and incorporated herein by reference.)
4.2	Form of Indenture, dated January 1, 1992. (Filed as an exhibit to Form S-3 Registration Statement filed on December 19, 1991 and incorporated herein by reference.)
4.3	Agreement of Resignation, Appointment and Acceptance dated February 15, 2008. (Filed as an exhibit to Form 10-K for the year ended December 31, 2007 on February 28, 2008 and incorporated herein by reference.)
4.4	First Supplemental Indenture, dated February 26, 1997. (Filed as an exhibit to Form 8-K on March 14, 1997 and incorporated herein by reference.)
4.5	8-1/8% Debentures due April 1, 2097. (Filed as an exhibit to Form 8-K on April 8, 1997 and incorporated herein by reference.)
4.6	Officer's Certificate of Amgen Inc., dated April 8, 1997, establishing a series of securities entitled "8 1/8% Debentures due April 1, 2097." (Filed as an exhibit to Form 8-K on April 8, 1997 and incorporated herein by reference.)
4.7	Indenture, dated August 4, 2003. (Filed as an exhibit to Form S-3 Registration Statement on August 4, 2003 and incorporated herein by reference.)
4.8	Corporate Commercial Paper - Master Note between and among Amgen Inc., as Issuer, Cede & Co., as Nominee of The Depository Trust Company, and Citibank, N.A., as Paying Agent. (Filed as an exhibit to Form 10-Q for the quarter ended March 31, 1998 on May 13, 1998 and incorporated herein by reference.)
4.9	Officers' Certificate of Amgen Inc., dated May 30, 2007, including form of the Company's 6.375% Senior Notes due 2037. (Filed as an exhibit to Form 8-K on May 30, 2007 and incorporated herein by reference.)
4.10	Officers' Certificate of Amgen Inc., dated May 23, 2008, including form of the Company's 6.90% Senior Notes due 2038. (Filed as exhibit to Form 8-K on May 23, 2008 and incorporated herein by reference.)
4.11	Officers' Certificate of Amgen Inc., dated January 16, 2009, including form of the Company's 6.40% Senior Notes due 2039. (Filed as exhibit to Form 8-K on January 16, 2009 and incorporated herein by reference.)
4.12	Officers' Certificate of Amgen Inc., dated March 12, 2010, including form of the Company's 5.75% Senior Notes due 2040. (Filed as exhibit to Form 8-K on March 12, 2010 and incorporated herein by reference.)
4.13	Officers' Certificate of Amgen Inc., dated September 16, 2010, including form of the Company's 4.95% Senior Notes due 2041. (Filed as an exhibit to Form 8-K on September 17, 2010 and incorporated herein by reference.)
4.14	Officers' Certificate of Amgen Inc., dated June 30, 2011, including form of the Company's 5.65% Senior Notes due 2042. (Filed as an exhibit to Form 8-K on June 30, 2011 and incorporated herein by reference.)
4.15	Officers' Certificate of Amgen Inc., dated November 10, 2011, including form of the Company's 5.15% Senior Notes due 2041. (Filed as an exhibit to Form 8-K on November 10, 2011 and incorporated herein by reference.)

Exhibit No.	Description
4.16	Officers' Certificate of Amgen Inc., dated December 5, 2011, including form of the Company's 5.50% Senior Notes due 2026. (Filed as an exhibit to Form 8-K on December 5, 2011 and incorporated herein by reference.)
4.17	Officers' Certificate of Amgen Inc., dated May 15, 2012, including form of the Company's 5.375% Senior Notes due 2043. (Filed as an exhibit to Form 8-K on May 15, 2012 and incorporated herein by reference.)
4.18	Officers' Certificate of Amgen Inc., dated September 13, 2012, including form of the Company's 4.000% Senior Notes due 2029. (Filed as an exhibit to Form 8-K on September 13, 2012 and incorporated herein by reference.)
4.19	Indenture, dated May 22, 2014, between Amgen Inc. and The Bank of New York Mellon Trust Company, N.A., as Trustee. (Filed as an exhibit to Form 8-K on May 22, 2014 and incorporated herein by reference.)
4.20	Officers' Certificate of Amgen Inc., dated May 22, 2014, including form of the Company's 3.625% Senior Notes due 2024. (Filed as an exhibit to Form 8-K on May 22, 2014 and incorporated herein by reference.)
4.21	Officer's Certificate of Amgen Inc., dated May 1, 2015, including forms of the Company's 3.125% Senior Notes due 2025 and 4.400% Senior Notes due 2045. (Filed as an exhibit on Form 8-K on May 1, 2015 and incorporated herein by reference.)
4.22	Officer's Certificate of Amgen Inc., dated as of February 25, 2016, including form of the Company's 2.000% Senior Notes due 2026. (Filed as an exhibit on Form 8-K on February 26, 2016 and incorporated herein by reference.)
4.23	Form of Permanent Global Certificate for the Company's 0.410% bonds due 2023. (Filed as an exhibit on Form 8-K on March 8, 2016 and incorporated herein by reference.)
4.24	Terms of the Bonds for the Company's 0.410% bonds due 2023. (Filed as an exhibit on Form 8-K on March 8, 2016 and incorporated herein by reference.)
4.25	Officer's Certificate of Amgen Inc., dated as of June 14, 2016, including forms of the Company's 4.563% Senior Notes due 2048 and 4.663% Senior Notes due 2051. (Filed as an exhibit to Form 8-K on June 14, 2016 and incorporated herein by reference.)
4.26	Officer's Certificate of Amgen Inc., dated as of August 19, 2016, including forms of the Company's 2.250% Senior Notes due 2023 and 2.600% Senior Notes due 2026. (Filed as an exhibit to Form 8-K on August 19, 2016 and incorporated herein by reference.)
4.27	Officer's Certificate of Amgen Inc., dated as of November 2, 2017, including in the form of the Company's 3.200% Senior Notes due 2027. (Filed as an exhibit to Form 8-K on November 2, 2017 and incorporated herein by reference.)
4.28	Officer's Certificate of Amgen Inc., dated as of February 21, 2020, including forms of the Company's 1.900% Senior Notes due 2025, 2.200% Senior Notes due 2027, 2.450% Senior Notes due 2030, 3.150% Senior Notes due 2040 and 3.375% Senior Notes due 2050. (Filed as an exhibit to Form 8-K on February 21, 2020 and incorporated herein by reference.)
4.29	Officer's Certificate of Amgen Inc., dated as of May 6, 2020, including form of the Company's 2.300% Senior Notes due 2031. (Filed as an exhibit to Form 8-K on May 6, 2020 and incorporated herein by reference.)
4.30	Officer's Certificate of Amgen Inc., dated as of August 17, 2020, including forms of the Company's 2.770% Senior Notes due 2053. (Filed as an exhibit to Form 8-K on August 18, 2020 and incorporated herein by reference.)
4.31	Officer's Certificate of Amgen Inc., dated as of August 9, 2021, including forms of the Company's 1.650% Senior Notes due 2028, 2.000% Senior Notes due 2032, 2.800% Senior Notes due 2041 and 3.000% Senior Notes due 2052. (Filed as an exhibit to Form 8-K on August 9, 2021 and incorporated herein by reference.)
4.32	Officer's Certificate of Amgen Inc., dated as of February 22, 2022, including forms of the Company's 3.000% Senior Notes due 2029, 3.350% Senior Notes due 2032, 4.200% Senior Notes due 2052 and 4.400% Senior Notes due 2062. (Filed as an exhibit to Form 8-K on February 22, 2022 and incorporated herein by reference.)
4.33	Officer's Certificate of Amgen Inc., dated as of August 18, 2022, including forms of the Company's 4.050% Senior Notes due 2029, 4.200% Senior Notes due 2033 and 4.875% Senior Notes due 2053. (Filed as an exhibit to Form 8-K on August 18, 2022 and incorporated herein by reference.)

Exhibit No.	Description
4.34*	Description of Amgen Inc.'s Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934.
10.1+	Amgen Inc. Amended and Restated 2009 Equity Incentive Plan. (Filed as Appendix C to the Definitive Proxy Statement on Schedule 14A on April 8, 2013 and incorporated herein by reference.)
10.2+	First Amendment to Amgen Inc. Amended and Restated 2009 Equity Incentive Plan, effective March 4, 2015. (Filed as an exhibit to Form 10-Q for the quarter ended March 31, 2015 on April 27, 2015 and incorporated herein by reference.)
10.3+	Second Amendment to Amgen Inc. Amended and Restated 2009 Equity Incentive Plan, effective March 2, 2016. (Filed as an exhibit to Form 10-Q for the quarter ended March 31, 2016 on May 2, 2016 and incorporated herein by reference.)
10.4+*	Form of Grant of Stock Option Agreement for the Amgen Inc. Amended and Restated 2009 Equity Incentive Plan. (As Amended and Restated on December 12, 2022.)
10.5+*	Form of Restricted Stock Unit Agreement for the Amgen Inc. Amended and Restated 2009 Equity Incentive Plan. (As Amended and Restated on December 12, 2022.)
10.6+	Amgen Inc. 2009 Performance Award Program. (As Amended on December 12, 2017.) (Filed as an exhibit to Form 10-K for the year ended December 31, 2017 on February 13, 2018 and incorporated herein by reference.)
10.7+*	Form of Performance Unit Agreement for the Amgen Inc. 2009 Performance Award Program. (As Amended and Reinstated on December 12, 2022.)
10.8+	Amgen Inc. 2009 Director Equity Incentive Program. (As Amended and Restated on October 21, 2020.) (Filed as an exhibit to Form 10-K for the year ended December 31, 2020 on February 9, 2021 and incorporated herein by reference.)
10.9+	Form of Restricted Stock Unit Agreement for the Amgen Inc. 2009 Director Equity Incentive Program. (As Amended on December 11, 2019.) (Filed as an exhibit to Form 10-K for the year ended December 31, 2019 on February 12, 2020 and incorporated herein by reference.)
10.10+	Form of Cash-Settled Restricted Stock Unit Agreement for the Amgen 2009 Director Equity Incentive Program. (As Amended on December 11, 2019.) (Filed as an exhibit to Form 10-K for the year ended December 31, 2019 on February 12, 2020 and incorporated herein by reference.)
10.11+	Amgen Inc. Supplemental Retirement Plan. (As Amended and Restated effective October 16, 2013.) (Filed as an exhibit to Form 10-K for the year ended December 31, 2013 on February 24, 2014 and incorporated herein by reference.)
10.11.1+	First Amendment to the Amgen Inc. Supplemental Retirement Plan, effective October 14, 2016. (Filed as an exhibit to Form 10-Q for the quarter ended September 30, 2016 on October 28, 2016 and incorporated herein by reference.)
10.11.2+	Second Amendment to the Amgen Inc. Supplemental Retirement Plan, effective October 23, 2019. (Filed as an exhibit to Form 10-K for the year ended December 31, 2019 on February 12, 2020 and incorporated herein by reference.)
10.11.3+	Third Amendment to the Amgen Inc. Supplemental Retirement Plan, effective October 20, 2021. (Filed as an exhibit to Form 10-K for the year ended December 31, 2021 on February 16, 2022 and incorporated herein by reference.)
10.11.4+*	Fourth Amendment to the Amgen Inc. Supplemental Retirement Plan, effective October 20, 2022.
10.12+	Amended and Restated Amgen Change of Control Severance Plan. (As Amended and Restated effective December 9, 2010 and subsequently amended effective March 2, 2011.) (Filed as an exhibit to Form 10-Q for the quarter ended March 31, 2011 on May 10, 2011 and incorporated herein by reference.)
10.13+	Amgen Inc. Executive Incentive Plan. (As Amended and Restated effective January 1, 2022.) (Filed as an exhibit to Form 10-Q for the quarter ended March 31, 2022 on April 28, 2022 and incorporated herein by reference.)

Exhibit No.	Description
10.14+	Amgen Nonqualified Deferred Compensation Plan. (As Amended and Restated effective October 16, 2013.) (Filed as an exhibit to Form 10-K for the year ended December 31, 2013 on February 24, 2014 and incorporated herein by reference.)
10.14.1+	First Amendment to the Amgen Nonqualified Deferred Compensation Plan, effective October 14, 2016. (Filed as an exhibit to Form 10-Q for the quarter ended September 30, 2016 on October 28, 2016 and incorporated herein by reference.)
10.14.2+	Second Amendment to the Amgen Nonqualified Deferred Compensation Plan, effective January 1, 2020. (Filed as an exhibit to Form 10-K for the year ended December 31, 2019 on February 12, 2020 and incorporated herein by reference.)
10.14.3+	Third Amendment to the Amgen Nonqualified Deferred Compensation Plan, effective January 1, 2022. (Filed as an exhibit to Form 10-K for the year ended December 31, 2021 on February 16, 2022 and incorporated herein by reference.)
10.15+	Aircraft Time Sharing Agreement, dated December 3, 2021, by and between Amgen Inc. and Robert A. Bradway. (Filed as an exhibit to Form 10-K for the year ended December 31, 2021 on February 16, 2022 and incorporated herein by reference.)
10.16	Second Amended and Restated Credit Agreement, dated December 12, 2019, among Amgen Inc., the Banks therein named, Citibank, N.A., as administrative agent, and JPMorgan Chase Bank, N.A., as syndication agent. (Filed as an exhibit to Form 8-K on December 12, 2019 and incorporated herein by reference.)
10.16.1*	Amendment No. 1 to the Second Amended and Restated Credit Agreement, dated as of December 29, 2022, between Amgen Inc. and Citibank, N.A., as the Administrative Agent and an Issuing Bank.
10.17	Bridge Credit Agreement, dated as of December 12, 2022, by and among Amgen Inc., Citibank, N.A., as administrative agent, Bank of America, N.A., as syndication agent, Citibank, N.A. and Bank of America, N.A., as lead arrangers and book runners, and the other banks party thereto. (Filed as an exhibit to Form 8-K on December 12, 2022 and incorporated herein by reference.)
10.18	Term Loan Credit Agreement, dated as of December 22, 2022, by and among Amgen Inc., Citibank, N.A., as administrative agent, Bank of America, N.A., as syndication agent, Citibank, N.A., Bank of America, N.A., Goldman Sachs Bank USA and Mizuho Bank, Ltd., as lead arrangers and book runners, Goldman Sachs Bank USA and Mizuho Bank, Ltd. as documentation agents, and the other banks party thereto. (Filed as an exhibit to Form 8-K on December 22, 2022 and incorporated herein by reference.)
10.19	Collaboration and License Agreement between Amgen Inc. and Celltech R&D Limited dated May 10, 2002 (portions of the exhibit have been omitted pursuant to a request for confidential treatment) and Amendment No. 1, effective June 9, 2003, to Collaboration and License Agreement between Amgen Inc. and Celltech R&D Limited (portions of the exhibit have been omitted pursuant to a request for confidential treatment). (Filed as an exhibit to Form 10-K/A for the year ended December 31, 2012 on July 31, 2013 and incorporated herein by reference.)
10.19.1	Amendment No. 2 to Collaboration and License Agreement, effective November 14, 2016, between Amgen Inc. and Celltech R&D Limited (portions of the exhibit have been omitted pursuant to a request for confidential treatment). (Filed as an exhibit to Form 10-K for the year ended December 31, 2016 on February 14, 2017 and incorporated herein by reference.)
10.20	Letter Agreement, dated June 25, 2019, by and between Amgen Inc. and UCB Celltech (portions of the exhibit have been omitted because they are both (i) not material and (ii) would be competitively harmful if publicly disclosed). (Filed as an exhibit to Form 10-Q for the quarter ended June 30, 2019 on July 31, 2019 and incorporated herein by reference.)
10.21	Collaboration Agreement, dated October 31, 2019, by and between Amgen Inc. and BeiGene Switzerland GmbH, a wholly-owned subsidiary of BeiGene, Ltd. (portions of the exhibit have been omitted because they are both (i) not material and (ii) would be competitively harmful if publicly disclosed). (Filed as an exhibit to Form 10-K for the year ended December 31, 2019 on February 12, 2020 and incorporated herein by reference.)
10.21.1	First Amendment to Collaboration Agreement, dated April 20, 2022, by and between Amgen Inc. and BeiGene Switzerland GmbH, and BeiGene, Ltd. (portions of the exhibit have been omitted because they are both (i) not material and (ii) is the type of information that the Company treats as private or confidential.) (Filed as an exhibit to Form 10-Q for the quarter ended June 30, 2022 on August 5, 2022 and incorporated herein by reference.)

Exhibit No.	Description
10.22	Guarantee, dated as of October 31, 2019, made by and among BeiGene, Ltd. and Amgen Inc. (Filed as an exhibit to Form 10-K for the year ended December 31, 2019 on February 12, 2020 and incorporated herein by reference.)
10.23	Share Purchase Agreement, dated October 31, 2019, by and between Amgen Inc. and BeiGene, Ltd. (portions of the exhibit have been omitted because they are both (i) not material and (ii) would be competitively harmful if publicly disclosed). (Filed as an exhibit to Schedule 13D on January 8, 2020 and incorporated herein by reference.)
10.23.1	Amendment No. 1 to Share Purchase Agreement, dated December 6, 2019, by and among BeiGene, Ltd. and Amgen Inc. (Filed as an exhibit to Schedule 13D on January 8, 2020 and incorporated herein by reference.)
10.23.2	Restated Amendment No. 2 to Share Purchase Agreement, dated September 24, 2020, by and among BeiGene, Ltd. and Amgen Inc. (Filed as an exhibit to Form 10-Q for the quarter ended September 30, 2020 on October 29, 2020 and incorporated herein by reference.)
10.24	Collaboration Agreement dated March 30, 2012 by and between Amgen Inc. and AstraZeneca Collaboration Ventures, LLC, a wholly owned subsidiary of AstraZeneca Pharmaceuticals LP (portions of the exhibit have been omitted because they are both (i) not material and (ii) is the type of information that the Company treats as private or confidential.) (Filed as an exhibit to Form 10-Q for the quarter ended June 30, 2022 on August 5, 2022 and incorporated herein by reference.)
10.24.1	Amendment No. 1 to the Collaboration Agreement, dated October 1, 2014, by and among Amgen Inc., AstraZeneca Collaboration Ventures, LLC and AstraZeneca Pharmaceuticals LP (portions of the exhibit have been omitted because they are both (i) not material and (ii) is the type of information that the Company treats as private or confidential.) (Filed as an exhibit to Form 10-Q for the quarter ended June 30, 2022 on August 5, 2022 and incorporated herein by reference.)
10.24.2	Amendment Nos. 2 through 6 to the March 30, 2012 Collaboration Agreement between Amgen Inc. and AstraZeneca Collaboration Ventures, LLC, dated May 2 and 27 and October 2, 2016, January 31, 2018, and May 15, 2020, respectively (portions of the exhibit have been omitted because they are both (i) not material and (ii) would be competitively harmful if publicly disclosed.) (Filed as an exhibit to Form 10-Q for the quarter ended June 30, 2020 on July 29, 2020 and incorporated herein by reference.)
10.24.3	Amendment No. 7 to the Collaboration Agreement, dated December 17, 2020, by and between Amgen Inc. and AstraZeneca Collaboration Ventures, LLC (portions of the exhibit have been omitted because they are both (i) not material and (ii) would be competitively harmful if publicly disclosed.) (Filed as an exhibit to Form 10-K for the year ended December 31, 2020 on February 9, 2021 and incorporated herein by reference.)
10.24.4	Amendment No. 8 to the Collaboration Agreement, dated November 19, 2021, by and between Amgen Inc. and AstraZeneca Collaboration Ventures, LLC (portions of the exhibit have been omitted because they are both (i) not material and (ii) is the type of information that the Company treats as private or confidential.) (Filed as an exhibit to Form 10-K for the year ended December 31, 2021 on February 16, 2022 and incorporated herein by reference.)
10.25	License and Collaboration Agreement, dated June 1, 2021, by and between Amgen Inc. and Kyowa Kirin Co., Ltd. (portions of the exhibit have been omitted because they are both (i) not material and (ii) would be competitively harmful if publicly disclosed). (Filed as an exhibit to Form 10-Q for the quarter ended June 30, 2021 on August 4, 2021 and incorporated herein by reference.)
21*	Subsidiaries of the Company.
23	Consent of the Independent Registered Public Accounting Firm. The consent is set forth on page 91 of this Annual Report on the 10-K.
24	Power of Attorney. The Power of Attorney is set forth on page 92 of this Annual Report on Form 10-K.
31*	Rule 13a-14(a) Certifications.
32**	Section 1350 Certifications.
101.INS	Inline XBRL Instance Document - The instance document does not appear in the interactive data file because its XBRL tags are embedded within the Inline XBRL document.
101.SCH*	Inline XBRL Taxonomy Extension Schema Document.

Exhibit No.	Description
101.CAL*	Inline XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF*	Inline XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB*	Inline XBRL Taxonomy Extension Label Linkbase Document.
101.PRE*	Inline XBRL Taxonomy Extension Presentation Linkbase Document.
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).

(* = filed herewith)
(** = furnished herewith and not “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended)
(+ = management contract or compensatory plan or arrangement)

Item 16. FORM 10-K SUMMARY

Not applicable.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this Annual Report to be signed on its behalf by the undersigned, thereunto duly authorized.

AMGEN INC.
(Registrant)

Date: February 9, 2023

By: /s/ PETER H. GRIFFITH

Peter H. Griffith
Executive Vice President and Chief Financial Officer
(Principal Financial Officer)

EXHIBIT 23

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the following Registration Statements:

- Registration Statement (Form S-3 No. 333-236351) of Amgen Inc.,
- Registration Statement (Form S-8 No. 333-159377) pertaining to the Amgen Inc. Amended and Restated 2009 Equity Incentive Plan,
- Registration Statement (Form S-8 No. 33-39183) pertaining to the Amgen Inc. Amended and Restated Employee Stock Purchase Plan,
- Registration Statements (Form S-8 No. 33-39104, as amended by Form S-8 Nos. 333-144581 and 333-216719) pertaining to the Amgen Retirement and Savings Plan,
- Registration Statements (Form S-8 Nos. 33-47605, 333-144580 and 333-216715) pertaining to The Retirement and Savings Plan for Amgen Manufacturing, Limited (formerly known as the Retirement and Savings Plan for Amgen Manufacturing, Inc.),
- Registration Statements (Form S-8 Nos. 333-81284, 333-177868, 333-216723 and 333-260723) pertaining to the Amgen Nonqualified Deferred Compensation Plan, and
- Registration Statement (Form S-8 Nos. 333-176240 and 333-260724) pertaining to the Amgen Profit Sharing Plan for Employees in Ireland;

of our reports dated February 9, 2023, with respect to the consolidated financial statements of Amgen Inc. and the effectiveness of internal control over financial reporting of Amgen Inc. included in this Annual Report (Form 10-K) of Amgen Inc. for the year ended December 31, 2022.

/s/ Ernst & Young LLP

Los Angeles, California
February 9, 2023

EXHIBIT 24

POWER OF ATTORNEY

KNOW ALL MEN AND WOMEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Robert A. Bradway, Peter H. Griffith and Jonathan P. Graham, or any of them, his or her attorney-in-fact, each with the power of substitution and re-substitution, for him or her in any and all capacities, to sign any amendments to this Report, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact, or his or her substitute or substitutes, may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated:

Signature	Title	Date
/S/ ROBERT A. BRADWAY **Robert A. Bradway**	Chairman of the Board, Chief Executive Officer and President, and Director (Principal Executive Officer)	2/9/2023
/S/ PETER H. GRIFFITH **Peter H. Griffith**	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	2/9/2023
/S/ LINDA H. LOUIE **Linda H. Louie**	Vice President, Finance and Chief Accounting Officer (Principal Accounting Officer)	2/9/2023
/S/ WANDA M. AUSTIN **Wanda M. Austin**	Director	2/9/2023
/S/ MICHAEL V. DRAKE **Michael V. Drake**	Director	2/9/2023
/S/ BRIAN J. DRUKER **Brian J. Druker**	Director	2/9/2023
/S/ ROBERT A. ECKERT **Robert A. Eckert**	Director	2/9/2023
/S/ GREG C. GARLAND **Greg C. Garland**	Director	2/9/2023
/S/ CHARLES M. HOLLEY, JR. **Charles M. Holley, Jr.**	Director	2/9/2023
/S/ S. OMAR ISHRAK **S. Omar Ishrak**	Director	2/9/2023
/S/ TYLER JACKS **Tyler Jacks**	Director	2/9/2023
/S/ ELLEN J. KULLMAN **Ellen J. Kullman**	Director	2/9/2023
/S/ AMY E. MILES **Amy E. Miles**	Director	2/9/2023
/S/ RONALD D. SUGAR **Ronald D. Sugar**	Director	2/9/2023
/S/ R. SANDERS WILLIAMS **R. Sanders Williams**	Director	2/9/2023

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of Amgen Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Amgen Inc. (the Company) as of December 31, 2022 and 2021, the related consolidated statements of income, comprehensive income, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2022, and the related notes and the financial statement schedule listed in the Index at Item 15(a)2 (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 9, 2023 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Sales deductions

Description of the Matter

As of December 31, 2022, the Company recorded accrued sales deductions of $6.0 billion. As described in Note 1 to the financial statements under the caption “Product sales and sales deductions,” revenues from product sales are recognized net of accruals for estimated rebates, wholesaler chargebacks, discounts and other deductions (collectively sales deductions), which are established at the time of sale.

Auditing the estimation of sales deductions, which are netted against product sales, is complex, requires significant judgment, and the amounts involved are material to the financial statements taken as a whole. Revenue from product sales is recognized upon transfer of control of a product to a customer, generally upon delivery, and is based on an amount that reflects the consideration to which the Company expects to be entitled, which represents an amount that is net of accruals for estimated sales deductions. The estimated sales deductions are based on current contractual and statutory requirements, market events and trends, internal and external historical data, and forecasted customer buying patterns.

How We Addressed the Matter in Our Audit

We obtained an understanding, evaluated the design and tested the operating effectiveness of internal controls over the sales deduction processes. This included testing controls over management’s review of significant assumptions and inputs used in the estimate of sales deductions, including actual sales, contractual terms, historical experience, wholesaler inventory levels, demand data and estimated patient population. We also tested management’s controls over the accuracy of forecasting demand activity as well as the completeness and accuracy of the significant components included in the final sales deduction estimates.

To test management’s estimated sales deductions, we obtained management’s calculations for the respective estimates and performed the following procedures, among others. We tested management’s estimation process over the determination of sales discount accruals by developing an independent expectation of the estimated accrual balances, including comparing accrual balances recorded by management to those implied by historical payment trends, performing a lookback analysis using actual historical data to evaluate the forecasted amounts, assessing subsequent events to determine whether there was any new information that would require adjustment to the initial accruals, evaluating trends in actual sales and discount accrual balances, comparing cash receipts to product sales, confirming terms and conditions for a sample of contracts, testing a sample of credits issued and payments made throughout the year, and agreeing rates to underlying contract terms.

Unrecognized tax benefits

Description of the Matter

As discussed in Notes 1 and 6 to the consolidated financial statements, the Company operates in various jurisdictions in which differing interpretations of complex tax laws and regulations create uncertainty and necessitate the use of significant judgment in the determination of the Company's unrecognized tax benefits related to allocation of profits among various jurisdictions ("transfer pricing"), particularly in the U.S. federal tax jurisdiction where the Company has significant assets and operations. In this regard, the Company uses significant judgment in (1) determining whether a tax position's technical merits are more-likely-than-not to be sustained and (2) measuring the amount of tax benefit that qualifies for recognition. As of December 31, 2022, the Company accrued $3.8 billion of gross unrecognized tax benefits including those related to transfer pricing. Auditing the assessment of the technical merits and measurement of the Company's unrecognized tax benefits is challenging and can be complex, highly judgmental, and based on interpretations of tax laws and regulations and application of those interpretations to the Company's facts and circumstances.

How We Addressed the Matter in Our Audit

We obtained an understanding, evaluated the design and tested the operating effectiveness of internal controls over the Company's process to assess the technical merits of its tax positions, as well as management's process to measure the unrecognized tax benefits of those tax positions, particularly in regard to transfer pricing. This included testing controls over management's review of the inputs, calculations, assumptions and methods selected to measure the amount of tax benefits that qualify for recognition.

We involved tax and transfer pricing specialists to assist in assessing the technical merits and measurement of certain of the Company's unrecognized tax benefits. Depending on the nature of the specific tax position and, as applicable, developments with the relevant tax authorities, our procedures included obtaining and reviewing the Company's correspondence with such tax authorities and evaluating certain third-party advice to support the Company's evaluations and recorded positions. We used our knowledge of and experience with how the income tax laws and regulations related to transfer pricing are applied by the relevant tax authorities to evaluate the Company's accounting for its unrecognized tax benefits. We evaluated developments in the applicable regulatory environments to assess potential effects on the Company's recorded positions. We assessed management's consideration of current tax controversy, litigation and tax litigation trends. We analyzed the assumptions and data used by the Company when it determined the amount of tax benefits to recognize, including applicable interest and penalties, and we tested the accuracy of those underlying calculations. We have also evaluated the Company's income tax disclosures included in Note 6 in relation to these matters.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 1980.
Los Angeles, California
February 9, 2023

AMGEN INC.

CONSOLIDATED STATEMENTS OF INCOME

Years ended December 31, 2022, 2021 and 2020

(In millions, except per-share data)

	2022	2021	2020
Revenues:			
Product sales	$ 24,801	$ 24,297	$ 24,240
Other revenues	1,522	1,682	1,184
Total revenues	26,323	25,979	25,424
Operating expenses:			
Cost of sales	6,406	6,454	6,159
Research and development	4,434	4,819	4,207
Acquired in-process research and development	—	1,505	—
Selling, general and administrative	5,414	5,368	5,730
Other	503	194	189
Total operating expenses	16,757	18,340	16,285
Operating income	9,566	7,639	9,139
Other income (expense):			
Interest expense, net	(1,406)	(1,197)	(1,262)
Other (expense) income, net	(814)	259	256
Income before income taxes	7,346	6,701	8,133
Provision for income taxes	794	808	869
Net income	$ 6,552	$ 5,893	$ 7,264
Earnings per share:			
Basic	$ 12.18	$ 10.34	$ 12.40
Diluted	$ 12.11	$ 10.28	$ 12.31
Shares used in the calculation of earnings per share:			
Basic	538	570	586
Diluted	541	573	590

See accompanying notes.

AMGEN INC.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

Years ended December 31, 2022, 2021 and 2020

(In millions)

	2022	2021	2020
Net income	$ 6,552	$ 5,893	$ 7,264
Other comprehensive income (loss), net of reclassification adjustments and taxes:			
Gains (losses) on foreign currency translation	496	(135)	9
Gains (losses) on cash flow hedges	67	324	(438)
Losses on available-for-sale securities	—	(1)	(21)
Other	2	1	(7)
Other comprehensive income (loss), net of taxes	565	189	(457)
Comprehensive income	$ 7,117	$ 6,082	$ 6,807

See accompanying notes.

AMGEN INC.

CONSOLIDATED BALANCE SHEETS

December 31, 2022 and 2021

(In millions, except per-share data)

	2022	2021
ASSETS		
Current assets:		
Cash and cash equivalents	$ 7,629	$ 7,989
Marketable securities	1,676	48
Trade receivables, net	5,563	4,895
Inventories	4,930	4,086
Other current assets	2,388	2,367
Total current assets	22,186	19,385
Property, plant and equipment, net	5,427	5,184
Intangible assets, net	16,080	15,182
Goodwill	15,529	14,890
Other noncurrent assets	5,899	6,524
Total assets	$ 65,121	$ 61,165
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 1,572	$ 1,366
Accrued liabilities	12,524	10,731
Current portion of long-term debt	1,591	87
Total current liabilities	15,687	12,184
Long-term debt	37,354	33,222
Long-term tax liabilities	5,757	6,594
Other noncurrent liabilities	2,662	2,465
Contingencies and commitments		
Stockholders' equity:		
Common stock and additional paid-in capital; $0.0001 par value per share; 2,750.0 shares authorized; outstanding—534.0 shares in 2022 and 558.3 shares in 2021	32,514	32,096
Accumulated deficit	(28,622)	(24,600)
Accumulated other comprehensive loss	(231)	(796)
Total stockholders' equity	3,661	6,700
Total liabilities and stockholders' equity	$ 65,121	$ 61,165

See accompanying notes.

AMGEN INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

Years ended December 31, 2022, 2021 and 2020

(In millions, except per-share data)

	Number of shares of common stock	Common stock and additional paid-in capital	Accumulated deficit	Accumulated other comprehensive (loss) income	Total
Balance as of December 31, 2019	591.4	$ 31,531	$ (21,330)	$ (528)	$ 9,673
Cumulative effect of changes in accounting principles, net of taxes	—	—	(2)	—	(2)
Net income	—	—	7,264	—	7,264
Other comprehensive loss, net of taxes	—	—	—	(457)	(457)
Dividends declared on common stock ($6.56 per share)	—	—	(3,843)	—	(3,843)
Issuance of common stock in connection with the Company's equity award programs	2.1	91	—	—	91
Stock-based compensation expense	—	349	—	—	349
Tax impact related to employee stock-based compensation expense	—	(169)	—	—	(169)
Repurchases of common stock	(15.2)	—	(3,497)	—	(3,497)
Balance as of December 31, 2020	578.3	31,802	(21,408)	(985)	9,409
Net income	—	—	5,893	—	5,893
Other comprehensive income, net of taxes	—	—	—	189	189
Dividends declared on common stock ($7.22 per share)	—	—	(4,098)	—	(4,098)
Issuance of common stock in connection with the Company's equity award programs	1.7	82	—	—	82
Stock-based compensation expense	—	361	—	—	361
Tax impact related to employee stock-based compensation expense	—	(149)	—	—	(149)
Repurchases of common stock	(21.7)	—	(4,987)	—	(4,987)
Balance as of December 31, 2021	558.3	32,096	(24,600)	(796)	6,700
Net income	—	—	6,552	—	6,552
Other comprehensive income, net of taxes	—	—	—	565	565
Dividends declared on common stock ($7.95 per share)	—	—	(4,264)	—	(4,264)
Issuance of common stock in connection with the Company's equity award programs	1.8	138	—	—	138
Stock-based compensation expense	—	419	—	—	419
Tax impact related to employee stock-based compensation expense	—	(139)	—	—	(139)
Repurchases of common stock	(26.1)	—	(6,310)	—	(6,310)
Balance as of December 31, 2022	534.0	$ 32,514	$ (28,622)	$ (231)	$ 3,661

See accompanying notes.

AMGEN INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

Years ended December 31, 2022, 2021 and 2020

(In millions)

	2022	2021	2020
Cash flows from operating activities:			
Net income	$ 6,552	$ 5,893	$ 7,264
Depreciation, amortization and other	3,417	3,398	3,601
Stock-based compensation expense	401	341	330
Deferred income taxes	(1,198)	(453)	(287)
Acquired in-process research and development	—	1,505	—
Adjustments for equity method investments	891	33	65
Loss on divestiture	567	—	—
Other items, net	(176)	(262)	(260)
Changes in operating assets and liabilities, net of acquisitions:			
Trade receivables, net	(746)	(429)	(427)
Inventories	(742)	(165)	(215)
Other assets	258	(237)	129
Accounts payable	154	(69)	45
Accrued income taxes, net	(647)	(854)	(249)
Long-term tax liabilities	229	204	(482)
Other liabilities	761	356	983
Net cash provided by operating activities	9,721	9,261	10,497
Cash flows from investing activities:			
Purchases of marketable securities	(2,587)	(8,900)	(8,477)
Proceeds from sales of marketable securities	98	4,403	2,597
Proceeds from maturities of marketable securities	1,120	8,831	4,381
Purchases of property, plant and equipment	(936)	(880)	(608)
Cash paid for acquisitions, net of cash acquired	(3,839)	(2,529)	—
Purchases of equity method investments	(18)	(157)	(3,219)
Proceeds from business divestiture, net of divested cash	130	—	—
Other	(12)	(35)	(75)
Net cash (used in) provided by investing activities	(6,044)	733	(5,401)
Cash flows from financing activities:			
Net proceeds from issuance of debt	6,919	4,945	8,914
Extinguishment of debt	(297)	—	—
Repayment of debt	—	(4,150)	(6,450)
Repurchases of common stock	(6,360)	(4,975)	(3,486)
Dividends paid	(4,196)	(4,013)	(3,755)
Other	(103)	(78)	(90)
Net cash used in financing activities	(4,037)	(8,271)	(4,867)
(Decrease) increase in cash and cash equivalents	(360)	1,723	229
Cash and cash equivalents at beginning of year	7,989	6,266	6,037
Cash and cash equivalents at end of year	$ 7,629	$ 7,989	$ 6,266

See accompanying notes.

1. Summary of significant accounting policies

Business

Amgen Inc. (including its subsidiaries, referred to as "Amgen," "the Company," "we," "our" or "us") is a global biotechnology pioneer that discovers, develops, manufactures and delivers innovative human therapeutics. We operate in one business segment: human therapeutics.

Principles of consolidation

The consolidated financial statements include the accounts of Amgen as well as its majority-owned subsidiaries. In determining whether we are the primary beneficiary of a variable interest entity, we consider whether we have both the power to direct activities of the entity that most significantly impact the entity's economic performance and the obligation to absorb losses of, or the right to receive benefits from, the entity that could potentially be significant to that entity. We do not have any significant interests in any variable interest entities of which we are the primary beneficiary. All material intercompany transactions and balances have been eliminated in consolidation.

Use of estimates

The preparation of consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results may differ from those estimates.

Revenues

Product sales and sales deductions

Revenue from product sales is recognized upon transfer of control of a product to a customer, generally upon delivery, based on an amount that reflects the consideration to which we expect to be entitled, net of accruals for estimated rebates, wholesaler chargebacks, discounts and other deductions (collectively, sales deductions) and returns established at the time of sale.

We analyze the adequacy of our accruals for sales deductions quarterly. Amounts accrued for sales deductions are adjusted when trends or significant events indicate that an adjustment is appropriate. Accruals are also adjusted to reflect actual results. Accruals for sales deductions are based primarily on estimates of the amounts earned or to be claimed on the related sales. These estimates take into consideration current contractual and statutory requirements, specific known market events and trends, internal and external historical data and forecasted customer buying patterns. Sales deductions are substantially product specific and therefore, for any given period, can be affected by the mix of products sold. Included in sales deductions are immaterial net adjustments related to prior-period sales due to changes in estimates.

Returns are estimated through comparison of historical return data with their related sales on a production lot basis. Historical rates of return are determined for each product and are adjusted for known or expected changes in the marketplace specific to each product, when appropriate. Historically, sales return provisions have amounted to less than 1% of gross product sales. Changes in estimates for prior-period sales return provisions have historically been immaterial.

Our payment terms vary by types and locations of customers and by products or services offered. Payment terms differ by jurisdiction and customer, but payment is generally required in a term ranging from 30 to 120 days from date of shipment or satisfaction of the performance obligation. For certain products or services and certain customer types, we may require payment before products are delivered or services are rendered to customers.

Indirect taxes collected from customers and remitted to government authorities that are related to sales of the Company's products, primarily in Europe, are excluded from revenues.

As a practical expedient, sales commissions are expensed when incurred because the amortization period would have been one year or less. These costs are recorded in SG&A expense in the Consolidated Statements of Income.

Other revenues

Other revenues consist primarily of royalty income and corporate partner revenues. Royalties from licensees are based on third-party sales of licensed products and are recorded when the related third-party product sale occurs. Royalty income is estimated based on historical and forecasted sales trends. Corporate partner revenues are composed mainly of license fees and milestones earned and our share of commercial profits generated from collaborations. See Arrangements with multiple-performance obligations, discussed below.

Arrangements with multiple-performance obligations

From time to time, we enter into arrangements for the R&D, manufacture and/or commercialization of products and product candidates. Such arrangements may require us to deliver various rights, services and/or goods, including intellectual property rights/licenses, R&D services, manufacturing services and/or commercialization services. The underlying terms of these arrangements generally provide for consideration to Amgen in the form of nonrefundable, upfront license fees; development and commercial-performance milestone payments; royalty payments; and/or profit sharing.

In arrangements involving more than one performance obligation, each required performance obligation is evaluated to determine whether it qualifies as a distinct performance obligation based on whether (i) the customer can benefit from the good or service either on its own or together with other resources that are readily available and (ii) the good or service is separately identifiable from other promises in the contract. The consideration under the arrangement is then allocated to each separate distinct performance obligation based on its respective relative stand-alone selling price. The estimated selling price of each deliverable reflects our best estimate of what the selling price would be if the deliverable was regularly sold by us on a stand-alone basis or by using an adjusted market assessment approach if selling price on a stand-alone basis is not available.

The consideration allocated to each distinct performance obligation is recognized as revenue when control of the related goods or services is transferred. Consideration associated with at-risk substantive performance milestones is recognized as revenue when it is probable that a significant reversal of the cumulative revenue recognized will not occur. We utilize the sales- and usage-based royalty exception in arrangements that resulted from the license of intellectual property, recognizing revenues generated from royalties or profit sharing as the underlying sales occur.

Research and development costs

R&D costs are expensed as incurred and primarily include salaries, benefits and other staff-related costs; facilities and overhead costs; clinical trial and related clinical manufacturing costs; contract services and other outside costs; information systems' costs; and amortization of acquired technology used in R&D with alternative future uses. R&D expenses also include costs and cost recoveries associated with third-party R&D arrangements, including upfront fees and milestones paid to third parties in connection with technologies that had not reached technological feasibility and did not have an alternative future use. Net payment or reimbursement of R&D costs is recognized when the obligations are incurred or as we become entitled to the cost recovery. See Note 8, Collaborations.

Selling, general and administrative costs

SG&A costs are primarily composed of salaries, benefits and other staff-related costs associated with sales and marketing, finance, legal and other administrative personnel; facilities and overhead costs; outside marketing, advertising and legal expenses; the U.S. healthcare reform federal excise fee on Branded Prescription Pharmaceutical Manufacturers and Importers; and other general and administrative costs. Advertising costs are expensed as incurred and were $841 million, $843 million and $962 million during the years ended December 31, 2022, 2021 and 2020, respectively. SG&A expenses also include costs and cost recoveries associated with marketing and promotion efforts under certain collaborative arrangements. Net payment or reimbursement of SG&A costs is recognized when the obligations are incurred or we become entitled to the cost recovery. See Note 8, Collaborations.

Leases

At inception of a contract, we determine whether an arrangement is or contains a lease. For all leases, we determine the classification as either operating or financing. Operating leases are included in Other noncurrent assets, Accrued liabilities and Other noncurrent liabilities in our Consolidated Balance Sheets.

ROU assets represent our right to use an underlying asset for the lease term, and lease liabilities represent our obligation to make lease payments under the lease. Lease recognition occurs at the commencement date, and lease liability amounts are based on the present value of lease payments made during the lease term. Our lease terms may include options to extend or terminate a lease when it is reasonably certain that we will exercise that option. Because most of our leases do not provide information to determine an implicit interest rate, we use our incremental borrowing rate in determining the present value of lease payments. ROU assets also include any lease payments made prior to the commencement date less lease incentives received. Operating lease expense is recognized on a straight-line basis over the lease term.

We have lease agreements with both lease and nonlease components, which are generally accounted for together as a single lease component. In addition, for certain vehicle and equipment leases, we apply a portfolio approach to determine the lease term and discount rate.

Stock-based compensation

We have stock-based compensation plans under which various types of equity-based awards are granted, including RSUs, performance units and stock options. The fair values of RSUs and stock option awards, which are subject only to service conditions with graded vesting, are recognized as compensation expense, generally on a straight-line basis over the service period, net of estimated forfeitures. The fair values of performance unit awards are recognized as compensation expense, generally on a straight-line basis from the grant date to the end of the performance period. See Note 4, Stock-based compensation.

Income taxes

We provide for income taxes based on pretax income and applicable tax rates in the various jurisdictions in which we operate. Significant judgment is required in determining our provision for income taxes and income tax assets and liabilities, including evaluating uncertainties in the application of accounting principles and complex tax laws. Deferred income taxes are recorded for the expected tax consequences of temporary differences between the bases of assets and liabilities, as well as for loss and tax credit carryforwards for financial reporting purposes and amounts recognized for income tax purposes. We record a valuation allowance to reduce our deferred tax assets to the amount of future tax benefit that is more likely than not to be realized.

We recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained upon examination by tax authorities based on the technical merits of the position. The tax benefit recognized in the consolidated financial statements for a particular tax position is based on the largest benefit that is more likely than not to be realized. The amount of UTBs is adjusted as appropriate for changes in facts and circumstances, such as significant amendments to existing tax law, new regulations or interpretations by tax authorities, new information obtained during a tax examination or resolution of an examination. We recognize both accrued interest and penalties, when appropriate, related to UTBs in income tax expense. See Note 6, Income taxes.

Acquisitions

We first determine whether a set of assets acquired constitute a business and should be accounted for as a business combination. If the assets acquired do not constitute a business, we account for the transaction as an asset acquisition. Business combinations are accounted for by means of the acquisition method of accounting. Under the acquisition method, assets acquired, including IPR&D projects, and liabilities assumed are recorded at their respective fair values as of the acquisition date in our consolidated financial statements. The excess of the fair value of consideration transferred over the fair value of the net assets acquired is recorded as goodwill. Contingent consideration obligations incurred in connection with a business combination (including the assumption of an acquiree's liability arising from an acquisition it consummated prior to our acquisition) are recorded at their fair values on the acquisition date and remeasured at their fair values each subsequent reporting period until the related contingencies have been resolved. The resulting changes in fair values are recorded in earnings. In contrast, asset acquisitions are accounted for by using a cost accumulation and allocation model. Under this model, the cost of the acquisition is allocated to the assets acquired and liabilities assumed. IPR&D projects with no alternative future use are recorded in R&D expense upon acquisition, and contingent consideration obligations incurred in connection with an asset acquisition are recorded when it is probable that they will occur and they can be reasonably estimated. See Note 2, Acquisitions and divestitures, and Note 17, Fair value measurement.

Cash equivalents

We consider cash equivalents to be only those investments that are highly liquid, that are readily convertible to cash and that mature within three months from the date of purchase.

Interest-bearing securities

We consider our interest-bearing securities investment portfolio as available-for-sale, and accordingly, these investments are recorded at fair value, with unrealized gains and losses recorded in AOCI. Investments with maturities beyond one year may be classified as short-term marketable securities in the Consolidated Balance Sheets due to their highly liquid nature and because they represent the Company's investments that are available for current operations. See Note 9, Investments, and Note 17, Fair value measurement.

Inventories

Inventories are stated at the lower of cost or net realizable value. Cost, which includes amounts related to materials, labor and overhead, is determined in a manner that approximates the first-in, first-out method. Net realizable value is the estimated selling price in the ordinary course of business less reasonably predictable costs of completion, disposal and transportation. See Note 10, Inventories.

Derivatives

We recognize all of our derivative instruments as either assets or liabilities at fair value in the Consolidated Balance Sheets. The accounting for changes in the fair value of a derivative instrument depends on whether the derivative has been formally designated and qualifies as part of a hedging relationship under the applicable accounting standards and, further, on the type of hedging relationship. For derivatives formally designated as hedges, we assess both at inception and quarterly thereafter whether the hedging derivatives are highly effective in offsetting changes in either the fair value or cash flows of the hedged item. Our derivatives that are not designated and do not qualify as hedges are adjusted to fair value through current earnings. See Note 17, Fair value measurement, and Note 18, Derivative instruments.

Property, plant and equipment, net

Property, plant and equipment is recorded at historical cost, net of accumulated depreciation, amortization and, if applicable, impairment charges. We review our property, plant and equipment assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Depreciation is recorded over the assets' useful lives on a straight-line basis. Leasehold improvements are amortized on a straight-line basis over the shorter of their estimated useful lives or lease terms. See Note 11, Property, plant and equipment.

Goodwill and other intangible assets

Finite-lived intangible assets are recorded at cost, net of accumulated amortization, and, if applicable, impairment charges. Amortization of finite-lived intangible assets is recorded over the assets' estimated useful lives on a straight-line basis or based on the pattern in which economic benefits are consumed, if reliably determinable. We review our finite-lived intangible assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. See Note 12, Goodwill and other intangible assets.

The fair values of IPR&D projects acquired in a business combination that are not complete are capitalized and accounted for as indefinite-lived intangible assets until completion or abandonment of the related R&D efforts. Upon successful completion of the project, the capitalized amount is amortized over its estimated useful life. If a project is abandoned, all remaining capitalized amounts are written off immediately. Major risks and uncertainties are often associated with IPR&D projects because we are required to obtain regulatory approvals before marketing the resulting products. Such approvals require completing clinical trials that demonstrate a product candidate is safe and effective. Consequently, the eventual realized value of the acquired IPR&D project may vary from its fair value at the date of acquisition, and IPR&D impairment charges may occur in future periods.

Capitalized IPR&D projects are tested for impairment annually and whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. We consider various factors for potential impairment, including the current legal and regulatory environment and the competitive landscape. Adverse clinical trial results, significant delays in obtaining marketing approval, the inability to bring a product to market and the introduction or advancement of competitors' products could result in partial or full impairment of the related intangible assets.

We perform an impairment test of goodwill annually and whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. To date, an impairment of goodwill has not been recorded. See Note 12, Goodwill and other intangible assets.

Contingencies

In the ordinary course of business, we are involved in various legal proceedings, government investigations and other matters that are complex in nature and have outcomes that are difficult to predict. Certain of these proceedings are discussed in Note 19, Contingencies and commitments. We record accruals for loss contingencies to the extent that we conclude it is probable that a liability has been incurred and the amount of the related loss can be reasonably estimated. We evaluate, on a quarterly basis, developments in legal proceedings and other matters that could cause an increase or decrease in the amount of the liability that has been accrued previously.

Foreign currency translation

The net assets of international subsidiaries whose functional currencies are not in U.S. dollars are translated into U.S. dollars using current exchange rates. The U.S. dollar effects that arise from translation of the net assets of these subsidiaries at changing rates are recognized in AOCI. The subsidiaries' earnings are translated into U.S. dollars by using average exchange rates.

Equity investments

Marketable and nonmarketable equity securities

Investments in publicly traded equity securities with readily determinable fair values are recorded at quoted market prices for identical securities, with changes in fair value recorded in Other (expense) income, net, in the Consolidated Statements of Income. Investments in equity securities without readily determinable fair values are recorded at cost minus impairment, if any, adjusted for changes resulting from observable price changes in orderly transactions for identical or similar securities. Such adjustments are recorded in Other (expense) income, net, in the Consolidated Statements of Income.

Equity method investments

Equity investments that give us the ability to exert significant influence, but not control, over an investee for which we have not elected the fair value option are accounted for under the equity method of accounting. In concluding whether we have the ability to exercise significant influence over an investee, we consider factors such as our ownership percentage, voting and other shareholder rights, board of directors representation and the existence of other collaborative or business relationships. The equity method of accounting requires us to allocate the difference between the fair value of securities acquired and our proportionate share of the carrying value of the underlying assets (the basis difference) to various items and amortize such differences over their useful lives. Our share of investees' earnings or losses and amortization of basis differences, if any, are recorded one quarter in arrears in Other (expense) income, net, in the Consolidated Statements of Income. We record impairment losses on our equity method investments if we deem the impairment to be other-than-temporary. We deem an impairment to be other-than-temporary based on various factors, including but not limited to, the length of time the fair value is below the carrying value, volatility of the security price and our intent and ability to retain the investment to allow for a recovery in fair value.

For equity method investments for which we have elected the fair value option, changes in fair value are recorded in Other (expense) income, net, in the Consolidated Statements of Income.

Additionally, we hold investments in limited partnerships, which primarily invest in early-stage biotechnology companies. As a practical expedient, such limited partnership investments are measured by using our proportionate share of the net asset values of the underlying investments held by the limited partnerships, with such changes included in Other (expense) income, net, in the Consolidated Statements of Income.

Recent accounting pronouncements

In March 2020, the FASB issued a new accounting standard to ease the financial reporting burdens caused by the expected market transition from the LIBOR and other interbank offered rates to alternative reference rates, commonly referred to as reference rate reform. The new standard provides temporary optional expedients and exceptions to current GAAP guidance on contract modifications and hedge accounting. Specifically, a modification to transition to an alternative reference rate is treated as an event that does not require contract remeasurement or reassessment of a previous accounting treatment. Moreover, for all types of hedging relationships, an entity is permitted to change the reference rate without having to dedesignate the hedging relationship. In January 2021, the FASB issued a new accounting standard to expand the scope of the original March 2020 standard to include derivative instruments on discounting transactions. The provisions of these standards have not had and are not expected to have a material impact on our consolidated financial statements.

In November 2021, the FASB issued a new accounting standard around the recognition and measurement of contract assets and contract liabilities from revenue contracts with customers acquired in a business combination. The new standard clarifies that contract assets and contract liabilities acquired in a business combination from an acquiree should initially be recognized by applying revenue recognition principles and not at fair value. The standard is effective for interim and annual periods beginning on January 1, 2023, and early adoption is permitted. The impact of this standard will depend on the facts and circumstances of future transactions.

2. Acquisitions and divestitures

Proposed acquisition of Horizon Therapeutics plc

On December 12, 2022, we announced that we entered into a transaction agreement under which Amgen will acquire all shares of Horizon for $116.50 per share in cash for a transaction equity value of approximately $27.8 billion. Horizon is a global biotechnology company headquartered in Dublin, Ireland and is focused on the discovery, development and commercialization of medicines that address critical needs for people impacted by rare, autoimmune and severe inflammatory diseases. Horizon has 12 marketed medicines and a pipeline with more than 20 development programs. The closing of this transaction is contingent upon satisfaction of certain regulatory (including FTC review) and other customary closing conditions.

In connection with the proposed acquisition of Horizon, Amgen entered into a 364-day bridge credit agreement with a syndicated group of banks for an aggregate amount of $28.5 billion on December 12, 2022. On December 22, 2022, we entered into a term loan credit agreement with an aggregate principal amount of $4.0 billion which provides for two equally sized tranches of term loans, one with an 18-month term and one with a three-year term. Accordingly, the bridge credit agreement was reduced by the amount of the term loan credit agreement to $24.5 billion. As of December 31, 2022, no amounts have been drawn under the bridge credit agreement or the term loan credit agreement. In connection with these credit agreements, Amgen incurred approximately $97 million of financing costs, which was capitalized primarily in Other current assets in our Consolidated Balance Sheets and is being amortized to Interest expense, net, in our Consolidated Statements of Income over the terms of the agreements. Additionally, we have agreed to maintain a cash balance of $2.96 billion that, together with any borrowings under the bridge credit agreement and term loan credit agreement, represents sources of funds available to finance the acquisition.

On January 30, 2023, the Company and Horizon each received a request for additional information and documentary materials (Second Request) from the FTC in connection with the FTC's review of the Company's proposed acquisition of Horizon. The effect of the Second Request is to extend the waiting period imposed by the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, until 30 days after the Company and Horizon have substantially complied with the Second Request, unless that period is extended voluntarily by the Company and Horizon or terminated sooner by the FTC.

Acquisition of ChemoCentryx, Inc.

On October 20, 2022, we acquired all the outstanding stock of ChemoCentryx, a publicly traded biotechnology company focused on orally-administered therapeutics to treat autoimmune diseases, inflammatory disorders and cancer, for $52.00 per share in cash, representing a total consideration of $3.9 billion. The acquisition, which was accounted for as a business combination, includes TAVNEOS, an orally administered selective complement 5a receptor inhibitor that was approved by the U.S. FDA in October 2021 as an adjunctive therapy for adults with severe active anti-neutrophil cytoplasmic autoantibody-associated vasculitis (ANCA-associated vasculitis). TAVNEOS is commercialized by us in the United States; for markets outside the United States, TAVNEOS is commercialized by a collaboration partner, and Amgen is entitled to royalties and milestones based off future sales of the product. Upon its acquisition, ChemoCentryx became a wholly owned subsidiary of Amgen, and its operations have been included in our consolidated financial statements commencing on the acquisition date.

During the three months ended December 31, 2022, the Company incurred approximately $106 million of costs directly related to the acquisition of ChemoCentryx, consisting of share-based payments to settle non-vested equity awards attributable to post-combination services, severance and other transaction costs. These costs were included primarily in SG&A expense in the Consolidated Statements of Income.

The following table summarizes the total consideration and allocated acquisition date fair values of assets acquired and liabilities assumed (in millions):

	Amounts
Cash and cash equivalents	$ 86
Marketable securities	235
Inventories	41
Finite-lived intangible assets – developed-product-technology rights	3,497
Goodwill	667
Other liabilities, net	(85)
Deferred tax liability, net	(516)
Total assets acquired, net	$ 3,925

The $3.9 billion total consideration consisted of (i) a $3.7 billion cash payment to outstanding common stockholders of ChemoCentryx and (ii) a $181 million cash payment to equity award holders of ChemoCentryx for services rendered prior to the acquisition date of October 20, 2022, under the ChemoCentryx equity award plans.

The developed-product-technology rights acquired relates to TAVNEOS, which is approved in the United States and EU for ANCA-associated vasculitis. The estimated fair values of $3.5 billion were determined by using a multi-period excess earnings income approach that discounts expected future cash flows to present value by applying a discount rate that represents the estimated rate that market participants would use to value the intangible assets. The developed-product-technology rights are being amortized on a straight-line basis over a weighted-average period of approximately 11 years using the straight-line method.

The estimated fair value of the acquired inventory of $41 million was determined using the comparative sales method, which uses actual or expected selling prices of inventory as the base amount to which adjustments for selling effort and a profit on the buyer's effort are applied. The inventory fair value adjustment is being amortized as inventory turns over, which we estimate to be approximately 13 months.

A net deferred tax liability of $516 million was recognized on the temporary differences related to the book bases and tax bases of the acquired identifiable assets and assumed liabilities, primarily driven by the intangible assets acquired.

The excess of the acquisition date consideration over the fair values assigned to the assets acquired and the liabilities assumed of $667 million was recorded as goodwill, which is not deductible for tax purposes. The goodwill value is primarily attributable to the expected synergies from the TAVNEOS asset.

Our accounting for this acquisition is preliminary and will be finalized upon completion of our analysis to determine the acquisition date fair values of certain assets acquired, liabilities assumed and tax-related items as we obtain additional information during the measurement period of up to one year from the acquisition date.

Acquisition of Teneobio, Inc.

On October 19, 2021, we acquired all of the outstanding stock of Teneobio, a privately held, clinical-stage biotechnology company developing a new class of biologics called human heavy-chain antibodies, which are single-chain antibodies composed of the human heavy-chain domain. The transaction, which was accounted for as a business combination, includes Teneobio's proprietary bispecific and multispecific antibody technologies, which complement Amgen's existing antibody capabilities and bispecific T-cell engager BiTE® platform and will enable significant acceleration and efficiency in the discovery and development of new molecules to treat diseases across Amgen's core therapeutic areas. Upon its acquisition, Teneobio became a wholly owned subsidiary of Amgen, and its operations have been included in our consolidated financial statements commencing on the acquisition date.

Measurement period adjustments for the year ended December 31, 2022, included changes to the purchase price allocation and total consideration, resulting in a net increase of $22 million to goodwill. The measurement period adjustments resulted primarily from valuation inputs pertaining to certain acquired assets based on facts and circumstances that existed as of the acquisition date and did not result from events subsequent to the acquisition date. These adjustments did not have a significant impact on Amgen's results of operations during the year ended December 31, 2022, and would not have had a significant impact on prior-period results if these adjustments had been made as of the acquisition date. The following table summarizes the final total consideration and allocated acquisition date fair values of assets acquired and liabilities assumed, inclusive of measurement period adjustments (in millions):

	Amounts
Cash purchase price	$ 993
Contingent consideration	299
Total consideration	$ 1,292
Cash and cash equivalents	$ 100
IPR&D	991
Finite-lived intangible asset – R&D technology rights	115
Finite-lived intangible assets – licensing rights	41
Goodwill	273
Other assets, net	16
Deferred tax liability	(244)
Total assets acquired, net	$ 1,292

Consideration for this transaction comprised of (i) an upfront cash payment of $993 million, which included a working-capital adjustment, and (ii) future contingent milestone payments to Teneobio's former equity holders of up to $1.6 billion in cash, based on the achievement of various development and regulatory milestones with regard to the leading asset (AMG 340, formerly TNB-585) and to various development milestones for other drug candidates. The estimated fair values of the contingent consideration obligations aggregated $299 million as of the acquisition date and were determined using a probability-weighted expected return methodology. The assumptions in this method include the probability of achieving the milestones and the expected payment dates, with such amounts discounted to present value based on our pretax cost of debt. See Note 17, Fair value measurement, for information regarding the estimated fair value of these obligations as of December 31, 2022.

The estimated fair values of acquired IPR&D assets totaled $991 million, of which $784 million relates to AMG 340, that is in a Phase 1 clinical trial for the treatment of metastatic castration-resistant prostate cancer (mCRPC), and the balance relates to four separate preclinical oncology programs. The R&D technology rights of $115 million relate to Teneobio's proprietary bispecific and multispecific antibody technologies; the amount is being amortized over 10 years by using the straight-line method. Teneobio has also licensed its technology and certain identified targets to various third parties, representing contractual agreements valued at $41 million. The estimated fair values for these intangible assets were determined using a multi-period excess earnings income approach that discounts expected future cash flows to present value by applying a discount rate that represents the estimated rate that market participants would use to value the intangible assets. The projected cash flows were based on certain assumptions attributable to the respective intangible asset, including estimates of future revenues and expenses, the time and resources needed to complete development and the probabilities of obtaining marketing approval from the FDA and other regulatory agencies.

A deferred tax liability of $244 million was recognized on temporary differences related to the book bases and tax bases of the acquired identifiable assets and assumed liabilities, primarily driven by the intangible assets acquired.

The excess of the acquisition date consideration over the fair values assigned to the assets acquired and the liabilities assumed of $273 million was recorded as goodwill, which is not deductible for tax purposes. The goodwill value represents expected synergies from both AMG 340 and the technologies acquired.

Acquisition of Five Prime Therapeutics, Inc.

On April 16, 2021, Amgen completed its acquisition of Five Prime for a total cash consideration of $1.6 billion, net of cash acquired. The purchase price was funded with cash on hand. This transaction was accounted for as an asset acquisition because substantially all the value of the assets acquired was concentrated in the intellectual property rights of bemarituzumab, a Phase 3 first-in-class program for gastric cancer. Five Prime's operations have been included in our consolidated financial statements commencing after the acquisition date.

We allocated the consideration to acquire Five Prime to the bemarituzumab IPR&D program of $1.5 billion, which was expensed immediately in Acquired IPR&D expense in the Consolidated Statements of Income; deferred tax assets of $177 million; and other net liabilities of $47 million. The acquired IPR&D expense was not tax deductible.

Divestiture of Gensenta İlaç Sanayi ve Ticaret A.Ş.

On November 2, 2022, we sold our shares in Gensenta, a subsidiary in Turkey, to Eczacıbaşı for net cash proceeds of approximately $130 million. The transaction was accounted for as a sale of a business and did not meet the criteria to be classified as discontinued operations. Upon closing of this transaction, net assets related to Gensenta of $86 million were divested, and during the year ended December 31, 2022, we recognized a loss on divestiture of $567 million recorded in Other operating expenses in the Consolidated Statements of Income, primarily due to the reclassification of $615 million of cumulative foreign currency translation losses from AOCI into earnings. See Note 16, Stockholders' equity.

3. Revenues

We operate in one business segment: human therapeutics. Therefore, results of our operations are reported on a consolidated basis for purposes of segment reporting, consistent with internal management reporting. Revenues by product and by geographic area, based on customers' locations, are presented below. The majority of ROW revenues relates to products sold in Europe.

Revenues were as follows (in millions):

	Year ended December 31, 2022			Year ended December 31, 2021			Year ended December 31, 2020		
	U.S.	ROW	Total	U.S.	ROW	Total	U.S.	ROW	Total
ENBREL	$ 4,044	$ 73	$ 4,117	$ 4,352	$ 113	$ 4,465	$ 4,855	$ 141	$ 4,996
Prolia	2,465	1,163	3,628	2,150	1,098	3,248	1,830	933	2,763
Otezla	1,886	402	2,288	1,804	445	2,249	1,790	405	2,195
XGEVA	1,480	534	2,014	1,434	584	2,018	1,405	494	1,899
Aranesp	521	900	1,421	537	943	1,480	629	939	1,568
Nplate	848	459	1,307	566	461	1,027	485	365	850
Repatha	608	688	1,296	557	560	1,117	459	428	887
KYPROLIS	850	397	1,247	736	372	1,108	710	355	1,065
Neulasta	959	167	1,126	1,514	220	1,734	2,001	292	2,293
EVENITY	533	254	787	331	199	530	191	159	350
Other products[1]	3,549	2,021	5,570	3,305	2,016	5,321	3,630	1,744	5,374
Total product sales[2]	17,743	7,058	24,801	17,286	7,011	24,297	17,985	6,255	24,240
Other revenues	852	670	1,522	908	774	1,682	511	673	1,184
Total revenues	$ 18,595	$ 7,728	$ 26,323	$ 18,194	$ 7,785	$ 25,979	$ 18,496	$ 6,928	$ 25,424

[1] Consists of product sales of our non-principal products, as well as our Gensenta and Bergamo subsidiaries.

[2] Hedging gains and losses, which are included in product sales, were not material for the years ended December 31, 2022, 2021 and 2020.

In the United States, we sell primarily to pharmaceutical wholesale distributors that we use as the principal means of distributing our products to healthcare providers. Outside the United States, we sell principally to healthcare providers and/or pharmaceutical wholesale distributors depending on the distribution practice in each country. We monitor the financial condition of our larger customers and limit our credit exposure by setting credit limits and, in certain circumstances, by requiring letters of credit or obtaining credit insurance.

We had product sales to three customers that individually accounted for more than 10% of total revenues for each of the years ended December 31, 2022, 2021 and 2020. For the year ended December 31, 2022, on a combined basis, these customers accounted for 82% of total gross revenues as shown in the following table. Certain information with respect to these customers was as follows (dollar amounts in millions):

	Years ended December 31,		
	2022	2021	2020
McKesson Corporation:			
Gross product sales	$ 17,305	$ 15,187	$ 13,779
% of total gross revenues	35 %	33 %	32 %
AmerisourceBergen Corporation:			
Gross product sales	$ 15,443	$ 14,783	$ 14,743
% of total gross revenues	31 %	32 %	34 %
Cardinal Health, Inc.:			
Gross product sales	$ 8,319	$ 7,681	$ 7,332
% of total gross revenues	16 %	17 %	17 %

As of December 31, 2022 and 2021, amounts due from these three customers each exceeded 10% of gross trade receivables and accounted for 75% and 73%, respectively, of net trade receivables on a combined basis. As of December 31, 2022 and 2021, 26% and 27%, respectively, of net trade receivables were due from customers located outside the United States, the majority of which were from Europe. Our total allowance for doubtful accounts as of December 31, 2022 and 2021, was not material.

4. Stock-based compensation

Our Amended 2009 Plan authorizes for issuance to employees of Amgen and nonemployee members of our Board of Directors shares of our common stock pursuant to grants of equity-based awards, including RSUs, stock options and performance units. The pool of shares available under the Amended 2009 Plan is reduced by one share for each stock option granted and by 1.9 shares for other types of awards granted, including full-value awards. In general, if any shares subject to an award granted under the Amended 2009 Plan expire or become forfeited, terminated or canceled without the issuance of shares, the shares subject to such awards are added back into the authorized pool on the same basis that they were removed. In addition, under the Amended 2009 Plan, shares withheld to pay for minimum statutory tax obligations with respect to full-value awards are added back into the authorized pool on the basis of 1.9 shares. As of December 31, 2022, the Amended 2009 Plan provides for future grants and/or issuances of up to approximately 15 million shares of our common stock. Stock-based awards under our employee compensation plans are made with newly issued shares reserved for this purpose.

The following table reflects the components of stock-based compensation expense recognized in our Consolidated Statements of Income (in millions):

	Years ended December 31,		
	2022	2021	2020
RSUs	$ 227	$ 183	$ 178
Performance units	132	121	118
Stock options	42	37	34
Total stock-based compensation expense, pretax	401	341	330
Tax benefit from stock-based compensation expense	(86)	(74)	(72)
Total stock-based compensation expense, net of tax	$ 315	$ 267	$ 258

Restricted stock units and stock options

Eligible employees generally receive an annual grant of RSUs and, for certain executive-level employees, stock options, with the size and type of award generally determined by the employee's salary grade and performance level. Certain management and professional-level employees typically receive RSU grants upon commencement of employment. Nonemployee members of our Board of Directors also receive an annual grant of RSUs.

Our RSU and stock option grants provide for accelerated or continued vesting in certain circumstances as defined in the plans and related grant agreements, including upon death, disability, termination in connection with a change in control and the retirement of employees who meet certain service and/or age requirements. RSUs and stock options generally vest in equal amounts on the second, third and fourth anniversaries of the grant date. RSUs accrue dividend equivalents, which are typically payable in shares only when and to the extent the underlying RSUs vest and are issued to the recipient.

Restricted stock units

The grant date fair value of an RSU equals the closing price of our common stock on the grant date, as RSUs accrue dividend equivalents during their vesting period. The weighted-average grant date fair values per unit of RSUs granted during the years ended December 31, 2022, 2021 and 2020, were $234.47, $233.10 and $235.63, respectively.

The following table summarizes information regarding our RSUs:

	Year ended December 31, 2022	
	Units (in millions)	Weighted-average grant date fair value
Balance nonvested as of December 31, 2021	3.0	$ 217.95
Granted	1.0	$ 234.47
Vested	(0.9)	$ 201.47
Forfeited	(0.3)	$ 226.15
Balance nonvested as of December 31, 2022	2.8	$ 228.71

The total grant date fair values of RSUs that vested during the years ended December 31, 2022, 2021 and 2020, were $192 million, $166 million and $161 million, respectively.

Stock options

The exercise price of stock options is set as the closing price of our common stock on the grant date, and the related number of shares granted is fixed at that point in time. Awards expire 10 years from the date of grant. We use the Black–Scholes option valuation model to estimate the grant date fair value of stock options.

The weighted-average assumptions used in the option valuation model and the resulting weighted-average grant date fair values of stock options granted were as follows:

	Years ended December 31,		
	2022	2021	2020
Closing price of our common stock on grant date	$ 230.92	$ 237.17	$ 236.36
Expected volatility (average of implied and historical volatility)	24.5 %	25.6 %	28.1 %
Expected life (in years)	5.7	5.7	5.8
Risk-free interest rate	2.8 %	1.0 %	0.4 %
Expected dividend yield	3.3 %	2.9 %	3.0 %
Fair value of stock options granted	$ 42.43	$ 40.43	$ 42.34

The following table summarizes information regarding our stock options:

	Year ended December 31, 2022			
	Options (in millions)	Weighted-average exercise price	Weighted-average remaining contractual life (in years)	Aggregate intrinsic value (in millions)
Balance unexercised as of December 31, 2021	5.1	$ 197.27		
Granted	1.1	$ 230.92		
Exercised	(0.7)	$ 167.44		
Expired/forfeited	(0.2)	$ 226.35		
Balance unexercised as of December 31, 2022	5.3	$ 207.29	7.0	$ 295
Vested or expected to vest as of December 31, 2022	5.2	$ 206.47	7.0	$ 290
Exercisable as of December 31, 2022	2.2	$ 177.48	5.3	$ 187

The total intrinsic values of options exercised during the years ended December 31, 2022, 2021 and 2020, were $67 million, $56 million and $98 million, respectively. The actual tax benefits realized from tax deductions from option exercises during the years ended December 31, 2022, 2021 and 2020, were $14 million, $12 million and $21 million, respectively.

As of December 31, 2022, $362 million of unrecognized compensation cost was related to nonvested RSUs and unvested stock options, which is expected to be recognized over a weighted-average period of 1.7 years.

Performance units

Certain management-level employees also receive annual grants of performance units, which give the recipient the right to receive common stock that is contingent upon achievement of specified preestablished goals over the performance period, which is generally three years. The performance goals for the units granted during the years ended December 31, 2022, 2021 and 2020, which are accounted for as equity awards, are based on (i) Amgen's stockholder return compared with a comparator group of companies, which are considered market conditions and are therefore reflected in the grant date fair values of the units, and (ii) Amgen's stand-alone financial performance measures, which are considered performance conditions. The expense recognized for awards is based on the grant date fair value of a unit multiplied by the number of units expected to be earned with respect to the related performance conditions, net of estimated forfeitures. Depending on the outcome of these performance goals, a recipient may ultimately earn a number of units greater or less than the number of units granted. Shares of our common stock are issued on a one-for-one basis for each performance unit earned. In general, performance unit awards vest at the end of the performance period. The performance award program provides for accelerated or continued vesting in certain circumstances as defined in the plan, including upon death, disability, a change in control and retirement of employees who meet certain service and/or age requirements. Performance units accrue dividend equivalents that are typically payable in shares only when and to the extent the underlying performance units vest and are issued to the recipient, including with respect to market and performance conditions that affect the number of performance units earned.

We use a payout simulation model to estimate the grant date fair value of performance units. The weighted-average assumptions used in the payout simulation model and the resulting weighted-average grant date fair values of performance units granted were as follows:

	Years ended December 31,		
	2022	2021	2020
Closing price of our common stock on grant date	$ 230.92	$ 239.64	$ 236.36
Volatility	28.1 %	29.3 %	27.5 %
Risk-free interest rate	0.3 %	0.3 %	0.2 %
Fair value of units granted	$ 247.48	$ 254.68	$ 249.07

The payout simulation model assumes correlations of returns of the stock prices of our common stock and the common stocks of the comparator groups of companies and stock price volatilities of the comparator groups of companies to simulate stockholder returns over the performance periods and their resulting impact on the payout percentages based on the contractual terms of the performance units.

As of both December 31, 2022 and 2021, 1.6 million performance units were outstanding, with weighted-average grant date fair values per unit of $250.27 and $229.39 per unit, respectively. During the year ended December 31, 2022, 0.6 million performance units with a weighted-average grant date fair value per unit of $247.48 were granted, and 0.1 million performance units with a weighted-average grant date fair value per unit of $250.94 were forfeited.

The total fair values of performance units paid during the years ended December 31, 2022, 2021 and 2020, were $150 million, $149 million and $230 million, respectively, based on the number of performance units earned multiplied by the closing stock price of our common stock on the last day of the performance period.

As of December 31, 2022, $132 million of unrecognized compensation cost was related to nonvested performance units, which is expected to be recognized over a weighted-average period of one year.

5. Defined contribution plan

The Company has defined contribution plans to which certain employees of the Company and participating subsidiaries may defer compensation for income tax purposes. Participants are eligible to receive matching contributions based on their contributions, in addition to other Company contributions. Defined contribution plan expenses were $243 million, $279 million and $231 million for the years ended December 31, 2022, 2021 and 2020, respectively.

6. Income taxes

Income before income taxes included the following (in millions):

	Years ended December 31,		
	2022	2021	2020
Domestic	$ 3,026	$ 1,850	$ 4,087
Foreign	4,320	4,851	4,046
Total income before income taxes	$ 7,346	$ 6,701	$ 8,133

The provision for income taxes included the following (in millions):

	Years ended December 31,		
	2022	2021	2020
Current provision:			
Federal	$ 1,721	$ 865	$ 921
State	44	18	34
Foreign	304	359	277
Total current provision	2,069	1,242	1,232
Deferred benefit:			
Federal	(1,185)	(308)	(321)
State	(27)	(9)	9
Foreign	(63)	(117)	(51)
Total deferred benefit	(1,275)	(434)	(363)
Total provision for income taxes	$ 794	$ 808	$ 869

Deferred income taxes reflect the tax effect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes, tax credit carryforwards and the tax effects of NOL carryforwards. As of December 31, 2022, we elected to establish deferred taxes with respect to the U.S. minimum tax on the earnings of our foreign subsidiaries for the reversal of temporary items in future years. Significant components of our deferred tax assets and liabilities were as follows (in millions):

	December 31,	
	2022	2021
Deferred income tax assets:		
NOL and credit carryforwards	$ 1,344	$ 1,065
Accrued expenses	584	600
Capitalized research and development expenses	515	—
Investments	270	—
Expenses capitalized for tax	211	244
Earnings of foreign subsidiaries	192	—
Stock-based compensation	104	96
Other	317	326
Total deferred income tax assets	3,537	2,331
Valuation allowance	(718)	(663)
Net deferred income tax assets	2,819	1,668
Deferred income tax liabilities:		
Acquired intangible assets	(1,238)	(824)
Debt	(272)	(275)
Fixed assets	(112)	(129)
Other	(254)	(221)
Total deferred income tax liabilities	(1,876)	(1,449)
Total deferred income taxes, net	$ 943	$ 219

Valuation allowances are provided to reduce the amounts of our deferred tax assets to an amount that is more likely than not to be realized based on an assessment of positive and negative evidence, including estimates of future taxable income necessary to realize future deductible amounts.

The valuation allowance increased in 2022, primarily driven by the Company’s expectation that certain state R&D credits will expire unused.

As of December 31, 2022, we had $170 million of federal tax credit carryforwards available to reduce future federal income taxes and have provided a valuation allowance for $6 million of those federal tax credit carryforwards. The federal tax credit carryforwards expire between 2023 and 2042. We had $896 million of state tax credit carryforwards available to reduce future state income taxes and have provided a valuation allowance for $813 million of those state tax credit carryforwards. We had $51 million of tax credit carryforwards related to our foreign jurisdictions available to offset future foreign income taxes for which we have provided no valuation allowance.

As of December 31, 2022, we had $1.3 billion of federal NOL carryforwards available to reduce future federal income taxes and have provided no valuation allowance on those federal NOL carryforwards. Additionally, $1.0 billion of those federal NOL carryforwards have no expiration; the remainder begin to expire between 2023 and 2037. We had $536 million of state NOL carryforwards available to reduce future state income taxes and have provided a valuation allowance for $415 million of those state NOL carryforwards. We had $1.9 billion of foreign NOL carryforwards available to reduce future foreign income taxes and have provided a valuation allowance for $186 million of those foreign NOL carryforwards. For the foreign NOLs with no valuation allowance provided, $640 million have no expiration; and the remainder will expire between 2023 and 2051.

The reconciliations of the total gross amounts of UTBs were as follows (in millions):

	Years ended December 31,		
	2022	2021	2020
Beginning balance	$ 3,546	$ 3,352	$ 3,287
Additions based on tax positions related to the current year	151	171	165
Additions based on tax positions related to prior years	90	35	3
Reductions for tax positions of prior years	(14)	(4)	(35)
Reductions for expiration of statute of limitations	(3)	—	—
Settlements	—	(8)	(68)
Ending balance	$ 3,770	$ 3,546	$ 3,352

Substantially all of the UTBs as of December 31, 2022, if recognized, would affect our effective tax rate. During the year ended December 31, 2020, we effectively settled certain issues with the IRS. As a result, we remeasured our UTBs accordingly.

Interest and penalties related to UTBs are included in our provision for income taxes. During the years ended December 31, 2022, 2021 and 2020, we recognized $189 million, $98 million and $116 million, respectively, of interest and penalties through the income tax provision in the Consolidated Statements of Income. The increase in interest expense for the year ended December 31, 2022, was primarily due to higher interest rates during 2022. As of December 31, 2022 and 2021, accrued interest and penalties associated with UTBs were $1.1 billion and $881 million, respectively.

The reconciliations between the federal statutory tax rate applied to income before income taxes and our effective tax rate were as follows:

	Years ended December 31,		
	2022	2021	2020
Federal statutory tax rate	21.0 %	21.0 %	21.0 %
Foreign earnings	(5.6)%	(7.8)%	(4.7)%
Foreign-derived intangible income	(1.3)%	(1.0)%	(0.7)%
Credits, Puerto Rico excise tax	(2.8)%	(3.4)%	(2.9)%
Interest on uncertain tax positions	1.9 %	1.1 %	1.1 %
Credits, primarily federal R&D	(2.0)%	(2.1)%	(1.4)%
Acquisition IPR&D	— %	4.9 %	— %
Audit settlements	— %	— %	(1.0)%
Other, net	(0.4)%	(0.6)%	(0.7)%
Effective tax rate	10.8 %	12.1 %	10.7 %

The effective tax rates for the years ended December 31, 2022, 2021 and 2020, differ from the federal statutory rate primarily due to impacts of the jurisdictional mix of income and expenses. Substantially all of the benefit to our effective tax rate from foreign earnings results from the Company's operations in Puerto Rico, a territory of the United States that is treated as a foreign jurisdiction for U.S. tax purposes. Our operations in Puerto Rico are subject to tax incentive grants through 2050. Additionally, the Company's operations conducted in Singapore are subject to a tax incentive grant through 2034. Our foreign earnings are also subject to U.S. tax at a reduced rate of 10.5%.

The U.S. territory of Puerto Rico imposes a 4% excise tax on the gross intercompany purchase price of goods and services from our manufacturer in Puerto Rico effective through December 31, 2022. For 2022, we account for the excise tax as a manufacturing cost that is capitalized in Inventories and expensed in Cost of sales when the related products are sold. For U.S. income tax purposes, the excise tax results in foreign tax credits that are generally recognized in our provision for income taxes when the excise tax is incurred.

Income taxes paid during the years ended December 31, 2022, 2021 and 2020, were $2.4 billion, $1.9 billion and $1.4 billion, respectively.

One or more of our legal entities file income tax returns in the U.S. federal jurisdiction, various U.S. state jurisdictions and certain foreign jurisdictions. Our income tax returns are routinely examined by tax authorities in those jurisdictions. Significant disputes can and have arisen with tax authorities involving issues regarding the timing and amount of deductions, the use of tax credits and allocations of income and expenses among various tax jurisdictions because of differing interpretations of tax laws, regulations and relevant facts. Tax authorities, including the IRS, are becoming more aggressive and are particularly focused on such matters.

In 2017, we received an RAR and a modified RAR from the IRS for the years 2010–2012, proposing significant adjustments that primarily relate to the allocation of profits between certain of our entities in the United States and the U.S. territory of Puerto Rico. We disagreed with the proposed adjustments and calculations and pursued resolution with the IRS appeals office but were unable to reach resolution. In July 2021, we filed a petition in the U.S. Tax Court to contest two duplicate Statutory Notices of Deficiency (Notices) for the years 2010–2012 that we received in May and July 2021, which seek to increase our U.S. taxable income for the years 2010–2012 by an amount that would result in additional federal tax of approximately $3.6 billion plus interest. Any additional tax that could be imposed for the years 2010–2012 would be reduced by up to approximately $900 million of repatriation tax previously accrued on our foreign earnings.

In 2020, we received an RAR and a modified RAR from the IRS for the years 2013–2015, also proposing significant adjustments that primarily relate to the allocation of profits between certain of our entities in the United States and the U.S. territory of Puerto Rico similar to those proposed for the years 2010–2012. We disagreed with the proposed adjustments and calculations and pursued resolution with the IRS appeals office but were unable to reach resolution. In July 2022, we filed a petition in the U.S. Tax Court to contest a Notice for the years 2013–2015 that we previously reported receiving in April 2022 that seeks to increase our U.S. taxable income for the years 2013–2015 by an amount that would result in additional federal tax of approximately $5.1 billion, plus interest. In addition, the Notice asserts penalties of approximately $2.0 billion. Any additional tax that could be imposed for the years 2013–2015 would be reduced by up to approximately $2.2 billion of repatriation tax previously accrued on our foreign earnings.

We firmly believe that the IRS positions set forth in the 2010–2012 and 2013–2015 Notices are without merit. We are contesting the 2010–2012 and 2013–2015 Notices through the judicial process. The two cases were consolidated in U.S. Tax Court on December 19, 2022.

We are currently under examination by the IRS for the years 2016–2018 with respect to issues similar to those for the 2010 through 2015 period. In addition, we are under examination by a number of state and foreign tax jurisdictions.

Final resolution of these complex matters is not likely within the next 12 months. We continue to believe our accrual for income tax liabilities is appropriate based on past experience, interpretations of tax law, application of the tax law to our facts and judgments about potential actions by tax authorities; however, due to the complexity of the provision for income taxes and uncertain resolution of these matters, the ultimate outcome of any tax matters may result in payments substantially greater than amounts accrued and could have a material adverse impact on our consolidated financial statements.

We are no longer subject to U.S. federal income tax examinations for years ended on or before December 31, 2009.

7. Earnings per share

The computation of basic EPS is based on the weighted-average number of our common shares outstanding. The computation of diluted EPS is based on the weighted-average number of our common shares outstanding and dilutive potential common shares, which primarily include shares that may be issued under our stock option, restricted stock and performance unit award programs (collectively, dilutive securities), as determined by using the treasury stock method.

The computations for basic and diluted EPS were as follows (in millions, except per-share data):

	Years ended December 31,		
	2022	2021	2020
Income (Numerator):			
Net income for basic and diluted EPS	$ 6,552	$ 5,893	$ 7,264
Shares (Denominator):			
Weighted-average shares for basic EPS	538	570	586
Effect of dilutive securities	3	3	4
Weighted-average shares for diluted EPS	541	573	590
Basic EPS	$ 12.18	$ 10.34	$ 12.40
Diluted EPS	$ 12.11	$ 10.28	$ 12.31

For each of the three years ended December 31, 2022, the number of antidilutive employee stock-based awards excluded from the computation of diluted EPS was not significant.

8. Collaborations

A collaborative arrangement is a contractual arrangement that involves a joint operating activity. Such arrangements involve two or more parties that are both (i) active participants in the activity and (ii) exposed to significant risks and rewards dependent on the commercial success of the activity.

From time to time, we enter into collaborative arrangements for the R&D, manufacture and/or commercialization of products and/or product candidates. These collaborations generally provide for nonrefundable upfront license fees, development and commercial-performance milestone payments, cost sharing, royalties and/or profit sharing. Our collaboration arrangements are performed with no guarantee of either technological or commercial success, and each arrangement is unique in nature. See Note 1, Summary of significant accounting policies, for additional discussion of revenues recognized under these types of arrangements. Operating expenses for costs incurred pursuant to these arrangements are reported in their respective expense line items in the Consolidated Statements of Income, net of any payments due to or reimbursements due from our collaboration partners, with such reimbursements being recognized at the time the party becomes obligated to pay. Our significant arrangements are discussed below.

BeiGene, Ltd.

In January 2020, we acquired an equity stake in BeiGene for approximately $2.8 billion in cash as part of a collaboration to expand our oncology presence in China. For additional information regarding our equity investment in BeiGene, see Note 9, Investments. Under the collaboration, BeiGene began selling XGEVA in 2020, BLINCYTO in 2021 and KYPROLIS in 2022 in China, and Amgen shares profits and losses equally during the initial product-specific commercialization periods; thereafter, product rights may revert to Amgen, and Amgen will pay royalties to BeiGene on sales in China of such products for a specified period. Amgen manufactures and supplies the collaboration products to BeiGene.

In addition, we jointly develop a portion of our oncology portfolio with BeiGene, which shares in global R&D costs by providing cash and development services of up to $1.25 billion. Upon regulatory approval, BeiGene will assume commercialization rights in China for a specified period, and Amgen and BeiGene will share profits equally until certain of these product rights revert to Amgen. Upon return of the product rights, Amgen will pay royalties to BeiGene on sales in China for a specified period. For product sales outside China, Amgen will also pay royalties to BeiGene.

During the years ended December 31, 2022, 2021 and 2020, net costs recovered from BeiGene for oncology product candidates were $199 million, $220 million and $225 million, respectively, and were recorded as an offset to R&D expense in the Consolidated Statements of Income. During the years ended December 31, 2022 and 2021, product sales from Amgen to

BeiGene under the collaboration were $64 million and $72 million, respectively, and were recorded in Product sales in the Consolidated Statements of Income. During the years ended December 31, 2022 and 2021, profit and loss share expenses related to the initial product-specific commercialization period were $53 million and $64 million, respectively, and were recorded in SG&A expense in the Consolidated Statements of Income. Product sales from Amgen to BeiGene and profit and loss share expenses were not material during the year ended December 31, 2020. Amounts owed from BeiGene for product sales were $6 million and $21 million as of December 31, 2022 and 2021, respectively, which are included in Trade receivables, net, in the Consolidated Balance Sheets. Net amounts owed from BeiGene for cost recoveries and profit and loss share payments were $47 million and $61 million as of December 31, 2022 and 2021, respectively, which are included in Other current assets in the Consolidated Balance Sheets.

AstraZeneca plc

We are in a collaboration with AstraZeneca for the development and commercialization of TEZSPIRE. Under our collaboration, both companies share global costs, profits and losses equally after payment by AstraZeneca of a mid-single-digit royalty to Amgen. AstraZeneca leads global development, and both Amgen and AstraZeneca jointly commercialize TEZSPIRE in North America. In North America, Amgen, as the principal, recognizes product sales of TEZSPIRE in the United States, and AstraZeneca, as the principal, recognizes product sales of TEZSPIRE in Canada. AstraZeneca leads commercialization for TEZSPIRE outside North America. Amgen manufactures and supplies TEZSPIRE worldwide.

During the years ended December 31, 2022, 2021 and 2020, net costs due to AstraZeneca for global development were $74 million, $49 million and $52 million, respectively, and were recorded in R&D Expense in the Consolidated Statements of Income. During the years ended December 31, 2022, 2021 and 2020, net costs due to AstraZeneca for global commercialization were $60 million, $39 million and $16 million, respectively, and were recorded in SG&A Expense in the Consolidated Statements of Income. During the year ended December 31, 2022, global profit and loss share expenses were $119 million and were recorded primarily in Cost of sales in the Consolidated Statements of Income. TEZSPIRE launched in the United States in January 2022.

UCB

We are in a collaboration with UCB for the development and commercialization of EVENITY. Under our collaboration, UCB has rights to lead commercialization for EVENITY in most countries in Europe and China (excluding Hong Kong). Amgen, as the principal, leads commercialization for EVENITY and recognizes product sales in all other territories, including the United States. Global development costs and commercialization profits and losses related to the collaboration are shared equally. Amgen manufactures and supplies EVENITY worldwide.

During the years ended December 31, 2022, 2021 and 2020, global profit and loss share expenses were $255 million, $186 million and $115 million, respectively, and were recorded primarily in Cost of sales in the Consolidated Statements of Income. Net costs recovered from and due to UCB during the years ended December 31, 2022, 2021 and 2020, were not material.

Novartis Pharma AG

We are in a collaboration with Novartis to jointly develop and commercialize Aimovig. On January 31, 2022, we modified the terms of the collaboration. Effective January 1, 2022, in the United States, Novartis no longer collaborates with Amgen, shares Aimovig commercialization costs or is required to pay milestones, and Amgen no longer pays royalties to Novartis on U.S. sales of Aimovig. Novartis continues to hold global co-development rights and exclusive commercial rights outside the United States and Japan for Aimovig. Amgen and Novartis share global development expenses, and Novartis pays Amgen double-digit royalties on net sales of the product outside the United States and Japan. Amgen manufactures and supplies Aimovig worldwide.

During the year ended December 31, 2022, net costs recovered from Novartis for migraine products were $53 million and were recorded in R&D expense in the Consolidated Statements of Income. During the years ended December 31, 2021 and 2020, net costs recovered from Novartis for migraine products were $160 million and $192 million, respectively, and were recorded primarily in SG&A expense in the Consolidated Statements of Income. During the years ended December 31, 2021 and 2020, royalties due to Novartis for Aimovig were $116 million and $139 million, respectively, and were recorded in Cost of sales in the Consolidated Statements of Income. During the years ended December 31, 2022, 2021 and 2020, royalties due from Novartis for Aimovig were not material.

Kyowa Kirin Co., Ltd.

On July 30, 2021, we closed our collaboration and licensing agreement with KKC to jointly develop and commercialize rocatinlimab, an anti-OX40 fully human monoclonal antibody, worldwide, except in Japan. Rocatinlimab is for the treatment of atopic dermatitis, with potential for treatment of other autoimmune diseases.

Under the terms of the agreement, we lead the global development, manufacture and commercialization of rocatinlimab, except in Japan. KKC will co-promote rocatinlimab with Amgen in the United States and have opt in rights to co-promote rocatinlimab in various other markets outside the United States, including in Europe and Asia.

We made an upfront payment of $400 million to KKC that was recognized in R&D expense in the third quarter of 2021. Amgen and KKC share equally the global development costs, except in Japan, and the U.S. commercialization costs. Outside the United States and Japan, any commercialization costs incurred by KKC will be reimbursed by Amgen. We may also be required to make milestone payments of up to $850 million contingent upon the achievement of certain regulatory events and commercial thresholds. We will also pay KKC significant double-digit royalties on global sales, except in Japan. Net costs recovered from and due to KKC were not material during the years ended December 31, 2022 and 2021.

Other

In addition to the collaborations discussed above, we have various other collaborations that are not individually significant to our business at this time. Pursuant to the terms of those agreements, we may be required to pay additional amounts or we may receive additional amounts upon the achievement of various development and commercial milestones that in the aggregate could be significant. We may also incur or have reimbursed to us significant R&D costs if a related product candidate were to advance to late-stage clinical trials. In addition, if any products related to these collaborations are approved for sale, we may be required to pay significant royalties or we may receive significant royalties on future sales. The payments of these amounts, however, are contingent upon the occurrence of various future events that have high degrees of uncertainty of occurrence.

9. Investments

Available-for-sale investments

The amortized cost, gross unrealized gains, gross unrealized losses and fair values of interest-bearing securities, which are considered available-for-sale, by type of security were as follows (in millions):

Types of securities as of December 31, 2022	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair values
U.S. Treasury notes	$ —	$ —	$ —	$ —
U.S. Treasury bills	1,676	—	—	1,676
Money market mutual funds	2,659	—	—	2,659
Other short-term interest-bearing securities	—	—	—	—
Total available-for-sale investments	$ 4,335	$ —	$ —	$ 4,335

Types of securities as of December 31, 2021	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair values
U.S. Treasury notes	$ 47	$ —	$ —	$ 47
U.S. Treasury bills	1,400	—	—	1,400
Money market mutual funds	5,856	—	—	5,856
Other short-term interest-bearing securities	1	—	—	1
Total available-for-sale investments	$ 7,304	$ —	$ —	$ 7,304

The fair values of available-for-sale investments by location in the Consolidated Balance Sheets were as follows (in millions):

	December 31,	
Consolidated Balance Sheets locations	2022	2021
Cash and cash equivalents	$ 2,659	$ 7,256
Marketable securities	1,676	48
Total available-for-sale investments	$ 4,335	$ 7,304

Cash and cash equivalents in the above table excludes bank account cash of $4,970 million and $733 million as of December 31, 2022 and 2021, respectively.

All interest-bearing securities as of December 31, 2022 and 2021, mature in one year or less.

For the years ended December 31, 2022, 2021 and 2020, realized gains and losses on interest-bearing securities were not material. Realized gains and losses on interest-bearing securities are recorded in Other (expense) income, net, in the Consolidated Statements of Income. The cost of securities sold is based on the specific-identification method.

The primary objective of our investment portfolio is to maintain safety of principal, prudent levels of liquidity and acceptable levels of risk. Our investment policy limits interest-bearing security investments to certain types of debt and money market instruments issued by institutions with investment-grade credit ratings, and it places restrictions on maturities and concentration by asset class and issuer.

Equity securities

We held investments in equity securities with readily determinable fair values (publicly traded securities) of $480 million and $611 million as of December 31, 2022 and 2021, respectively, which are included in Other noncurrent assets in the Consolidated Balance Sheets. For the years ended December 31, 2022, 2021 and 2020, net unrealized gains and losses on publicly traded securities were a loss of $165 million and gains of $161 million and $174 million, respectively. Realized gains and losses on publicly traded securities for the years ended December 31, 2022, 2021 and 2020, were not material.

We held investments of $233 million and $262 million in equity securities without readily determinable fair values as of December 31, 2022 and 2021, respectively, which are included in Other noncurrent assets in the Consolidated Balance Sheets. For the years ended December 31, 2022 and 2020, gains due to upward adjustments and gains realized upon dispositions of

these securities were not material. For the year ended December 31, 2021, gains due to upward adjustments were $152 million, and gains realized on the dispositions of these securities were $41 million. For the year ended December 31, 2022, downward adjustments to the carrying values of these securities were $67 million. For the years ended December 31, 2021 and 2020, downward adjustments were not material. Adjustments were based on observable price transactions.

Equity Method Investments

BeiGene, Ltd.

On January 2, 2020, we acquired a 20.5% ownership interest in BeiGene for $2.8 billion, of which $2.6 billion was attributed to the fair value of equity securities upon closing, with the remainder attributed to prepaid R&D. Our equity investment in BeiGene is included in Other noncurrent assets in the Consolidated Balance Sheets. As of December 31, 2022, our equity investment is accounted for under the equity method of accounting due to our ability to exert significant influence over BeiGene. See Note 1, Summary of significant accounting policies, for factors in concluding our ability to exert significant influence over BeiGene. The fair value of equity securities acquired exceeded our proportionate share of the carrying value of the underlying net assets of BeiGene by approximately $2.4 billion. The equity method of accounting requires us to identify and allocate amounts to items that give rise to the basis difference and to amortize these items over their useful lives. This amortization, along with our share of the results of operations of BeiGene, is included in Other (expense) income, net, in our Consolidated Statements of Income. Recognition occurs one quarter in arrears, which began in the second quarter of 2020. The basis difference was allocated to finite-lived intangible assets, indefinite-lived intangible assets, equity-method goodwill and related deferred taxes. The finite-lived intangible assets are being amortized over a period ranging from 8 to 15 years.

During the years ended December 31, 2022, 2021 and 2020, the carrying value of the investment was reduced by our share of BeiGene's net losses of $394 million, $265 million and $229 million, respectively, and amortization of the basis difference of $190 million, $172 million and $109 million, respectively. During the years ended December 31, 2021 and 2020, we increased the carrying value by $50 million and $569 million, respectively, as a result of our purchases of additional shares of BeiGene; we did not purchase additional shares of BeiGene during the year ended December 31, 2022. In addition, during the years ended December 31, 2022, 2021 and 2020, the carrying value increased by $11 million, $265 million and $34 million, respectively, from the impact of other BeiGene ownership transactions.

As of December 31, 2022 and 2021, our ownership interest in BeiGene was approximately 18.2% and 18.4%, respectively. As of December 31, 2022 and 2021, the carrying value of our investment in BeiGene was $2.2 billion and $2.8 billion, respectively. As of December 31, 2022 and 2021, the fair value of our investment in BeiGene was $4.2 billion and $5.1 billion, respectively. We believe that as of December 31, 2022, the carrying value of our equity investment in BeiGene is fully recoverable. For information on a collaboration agreement we entered into with BeiGene in connection with this investment, see Note 8, Collaborations.

Effective January 30, 2023, we relinquished our right to appoint a director to BeiGene's Board of Directors. We no longer have the ability to exert significant influence over BeiGene and therefore will account for our equity investment at fair value, with changes in fair value recorded in earnings starting in the first quarter of 2023.

Neumora Therapeutics, Inc.

On September 30, 2021, we acquired an approximately 25.9% ownership interest in Neumora, a privately held company, for $257 million, which is included in Other noncurrent assets in the Consolidated Balance Sheets, in exchange for a $100 million cash payment and $157 million in noncash consideration primarily related to future services. Although our equity investment provides us with the ability to exercise significant influence over Neumora, we have elected the fair value option to account for our equity investment. Under the fair value option, changes in the fair value of the investment are recognized through earnings each reporting period. We believe the fair value option best reflects the economics of the underlying transaction. During the year ended December 31, 2022, we made an additional $10 million cash investment via participation in Neumora's subsequent financing round. As of December 31, 2022 and 2021, our ownership interest in Neumora was approximately 24.9% and 25.9%, respectively, and the fair value of our investment was $335 million and $220 million, respectively. During the years ended December 31, 2022 and 2021, we recognized a net gain of $105 million and a net loss of $37 million, respectively, for the change in fair values in Other (expense) income, net, in the Consolidated Statements of Income. For information on determination of fair values, see Note 17, Fair value measurement.

Limited partnerships

We held limited partnership investments of $249 million and $573 million as of December 31, 2022 and 2021, respectively, which are included in Other noncurrent assets in the Consolidated Balance Sheets. These investments, which are primarily investment funds of early-stage biotechnology companies, are accounted for by using the equity method of accounting and are measured by using our proportionate share of the net asset values of the underlying investments held by the limited partnerships as a practical expedient. These investments are typically redeemable only through distributions upon liquidation of the underlying assets. As of December 31, 2022, unfunded additional commitments to be made for these investments during the next several years were $187 million. For the years ended December 31, 2022, 2021 and 2020, net gains and losses recognized from our limited partnership investments were a net loss of $284 million and net gains of $143 million and $241 million, respectively.

10. Inventories

Inventories consisted of the following (in millions):

	December 31,	
	2022	**2021**
Raw materials	$ 828	$ 647
Work in process	3,098	2,367
Finished goods	1,004	1,072
Total inventories	$ 4,930	$ 4,086

11. Property, plant and equipment

Property, plant and equipment consisted of the following (dollar amounts in millions):

	Useful life (in years)	December 31, 2022	December 31, 2021
Land	—	$ 292	$ 279
Buildings and improvements	10-40	4,201	4,028
Manufacturing equipment	8-12	3,105	3,080
Laboratory equipment	8-12	1,277	1,193
Fixed equipment	12	2,478	2,402
Capitalized software	3-5	1,215	1,151
Other	5-10	929	862
Construction in progress	—	1,213	987
Property, plant and equipment, gross		14,710	13,982
Less accumulated depreciation and amortization		(9,283)	(8,798)
Property, plant and equipment, net		$ 5,427	$ 5,184

During the years ended December 31, 2022, 2021 and 2020, we recognized depreciation and amortization expense associated with our property, plant and equipment of $661 million, $644 million and $640 million, respectively.

Geographic information

Certain geographic information with respect to property, plant and equipment, net (long-lived assets), was as follows (in millions):

	December 31, 2022	December 31, 2021
U.S.	$ 3,154	$ 2,801
Puerto Rico	1,247	1,311
ROW	1,026	1,072
Total property, plant and equipment, net	$ 5,427	$ 5,184

12. Goodwill and other intangible assets

Goodwill

The changes in the carrying amounts of goodwill were as follows (in millions):

	December 31,	
	2022	2021
Beginning balance	$ 14,890	$ 14,689
Changes to goodwill resulting from acquisitions and divestitures, net[1]	651	251
Currency translation adjustments	(12)	(50)
Ending balance	$ 15,529	$ 14,890

[1] For 2022, the changes to goodwill consist of goodwill resulting from the acquisition of ChemoCentryx, changes to the acquisition date fair values of net assets acquired in the acquisition of Teneobio and the nonstrategic Gensenta divestiture. See Note 2, Acquisitions and divestitures.

Other intangible assets

Other intangible assets consisted of the following (in millions):

	December 31,					
	2022			2021		
	Gross carrying amounts	Accumulated amortization	Other intangible assets, net	Gross carrying amounts	Accumulated amortization	Other intangible assets, net
Finite-lived intangible assets:						
Developed-product-technology rights	$ 29,028	$ (15,045)	$ 13,983	$ 25,561	$ (12,769)	$ 12,792
Licensing rights	3,864	(3,123)	741	3,807	(2,973)	834
Marketing-related rights	1,326	(1,167)	159	1,354	(1,112)	242
R&D technology rights	1,378	(1,190)	188	1,377	(1,133)	244
Total finite-lived intangible assets	35,596	(20,525)	15,071	32,099	(17,987)	14,112
Indefinite-lived intangible assets:						
IPR&D	1,009	—	1,009	1,070	—	1,070
Total other intangible assets	$ 36,605	$ (20,525)	$ 16,080	$ 33,169	$ (17,987)	$ 15,182

Developed-product-technology rights consists of rights related to marketed products acquired in acquisitions. Licensing rights consists primarily of contractual rights acquired in acquisitions to receive future milestone, royalty and profit-sharing payments; capitalized payments to third parties for milestones related to regulatory approvals to commercialize products; and up-front payments associated with royalty obligations for marketed products. Marketing-related rights consists primarily of rights related to the sale and distribution of marketed products. R&D technology rights pertains to technologies used in R&D that have alternative future uses. Developed-product-technology rights include assets acquired with the ChemoCentryx acquisition. IPR&D, R&D technology rights and licensing rights includes assets acquired with the Teneobio acquisition. See Note 2, Acquisitions and divestitures.

IPR&D consists of R&D projects acquired in a business combination that are not complete at the time of acquisition due to remaining technological risks and/or lack of receipt of required regulatory approvals. All IPR&D projects have major risks and uncertainties associated with the timely and successful completion of the development and commercialization of product candidates, including our ability to confirm safety and efficacy based on data from clinical trials, our ability to obtain necessary regulatory approvals and our ability to successfully complete these tasks within budgeted costs. We are not permitted to market a human therapeutic without obtaining regulatory approvals, and such approvals require the completion of clinical trials that demonstrate that a product candidate is safe and effective. In addition, the availability and extent of coverage and reimbursement from third-party payers, including government healthcare programs and private insurance plans as well as competitive product launches, affect the revenues a product can generate. Consequently, the eventual realized values, if any, of acquired IPR&D projects may vary from their estimated fair values. We review IPR&D projects for impairment annually, whenever events or changes in circumstances indicate that the carrying amounts may not be recoverable and upon the establishment of technological feasibility or regulatory approval.

During the years ended December 31, 2022, 2021 and 2020, we recognized amortization associated with our finite-lived intangible assets of $2.6 billion, $2.6 billion and $2.8 billion, respectively. Amortization of intangible assets is included primarily in Cost of sales in the Consolidated Statements of Income. The total estimated amortization for our finite-lived intangible assets for the years ending December 31, 2023, 2024, 2025, 2026 and 2027, are $2.8 billion, $2.7 billion, $2.5 billion, $2.1 billion and $2.1 billion, respectively.

13. Leases

We lease certain facilities and equipment related primarily to R&D, administrative and commercial activities. Leases with terms of 12 months or less are expensed as incurred and are not recorded in the Consolidated Balance Sheets.

Most leases include one or more options to renew, with renewal terms that may extend the lease term up to seven years. The exercise of lease renewal options is at our sole discretion. In addition, some of our lease agreements include rental payments adjusted periodically for inflation. Our lease agreements neither contain residual value guarantees nor impose significant restrictions or covenants. We sublease certain real estate to third parties. Our sublease portfolio consists of operating leases from former R&D and administrative space.

The following table summarizes information related to our leases, all of which are classified as operating, included in our Consolidated Balance Sheets (in millions):

	December 31,	
Consolidated Balance Sheets locations	**2022**	**2021**
Assets:		
Other noncurrent assets	$ 579	$ 566
Liabilities:		
Accrued liabilities	$ 156	$ 145
Other noncurrent liabilities	539	525
Total lease liabilities	$ 695	$ 670

The components of net lease costs were as follows (in millions):

	Years ended December 31,		
Lease costs	**2022**	**2021**	**2020**
Operating[(1)]	$ 218	$ 237	$ 223
Sublease income	(32)	(38)	(34)
Total net lease costs	$ 186	$ 199	$ 189

(1) Includes short-term leases and variable lease costs, which were not material for the years ended December 31, 2022, 2021 and 2020.

Maturities of lease liabilities as of December 31, 2022, were as follows (in millions):

Maturity dates	**Amounts**
2023	$ 172
2024	109
2025	80
2026	70
2027	64
Thereafter	286
Total lease payments[(1)]	781
Less imputed interest	(86)
Present value of lease liabilities	$ 695

(1) Includes future rental commitments for abandoned leases of $90 million. We expect to receive total future rental income of $76 million related to noncancelable subleases for abandoned facilities.

The weighted-average remaining lease terms and weighted-average discount rates were as follows:

	December 31,	
	2022	2021
Weighted-average remaining lease term (in years)	8.2	8.3
Weighted-average discount rate	2.7 %	2.5 %

Cash and noncash information related to our leases was as follows (in millions):

	Years ended December 31,		
	2022	2021	2020
Cash paid for amounts included in the measurement of lease liabilities:			
Operating cash flows for operating leases	$ 171	$ 190	$ 177
ROU assets obtained in exchange for lease obligations:			
Operating leases	$ 191	$ 340	$ 101

As of December 31, 2022, the total undiscounted future lease payments for leases that have not yet commenced were not material.

14. Other current assets and accrued liabilities

Other current assets consisted of the following (in millions):

	December 31,	
	2022	2021
Prepaid expenses	$ 1,204	$ 1,223
Corporate partner receivables	700	780
Tax receivables	129	164
Other	355	200
Total other current assets	$ 2,388	$ 2,367

Accrued liabilities consisted of the following (in millions):

	December 31,	
	2022	2021
Sales deductions	$ 5,986	$ 5,174
Income taxes payable	1,195	701
Dividends payable	1,137	1,083
Employee compensation and benefits	1,099	1,081
Sales returns reserve	548	542
Other	2,559	2,150
Total accrued liabilities	$ 12,524	$ 10,731

15. Financing arrangements

Our borrowings consisted of the following (in millions):

	December 31,	
	2022	2021
0.41% CHF700 million bonds due 2023 (0.41% 2023 Swiss franc Bonds)	$ 757	$ 767
2.25% notes due 2023 (2.25% 2023 Notes)	750	750
3.625% notes due 2024 (3.625% 2024 Notes)	1,400	1,400
1.90% notes due 2025 (1.90% 2025 Notes)	500	500
3.125% notes due 2025 (3.125% 2025 Notes)	1,000	1,000
2.00% €750 million notes due 2026 (2.00% 2026 euro Notes)	803	853
2.60% notes due 2026 (2.60% 2026 Notes)	1,250	1,250
5.50% £475 million notes due 2026 (5.50% 2026 pound sterling Notes)	574	643
2.20% notes due 2027 (2.20% 2027 Notes)	1,724	1,750
3.20% notes due 2027 (3.20% 2027 Notes)	1,000	1,000
1.65% notes due in 2028 (1.65% 2028 Notes)	1,234	1,250
3.00% notes due 2029 (3.00% 2029 Notes)	750	—
4.05% notes due 2029 (4.05% 2029 Notes)	1,250	—
4.00% £700 million notes due 2029 (4.00% 2029 pound sterling Notes)	846	947
2.45% notes due 2030 (2.45% 2030 Notes)	1,250	1,250
2.30% notes due 2031 (2.30% 2031 Notes)	1,250	1,250
2.00% notes due 2032 (2.00% 2032 Notes)	1,051	1,250
3.35% notes due 2032 (3.35% 2032 Notes)	1,000	—
4.20% notes due 2033 (4.20% 2033 Notes)	750	—
6.375% notes due 2037 (6.375% 2037 Notes)	478	478
6.90% notes due 2038 (6.90% 2038 Notes)	254	254
6.40% notes due 2039 (6.40% 2039 Notes)	333	333
3.15% notes due 2040 (3.15% 2040 Notes)	2,000	2,000
5.75% notes due 2040 (5.75% 2040 Notes)	373	373
2.80% notes due 2041 (2.80% 2041 Notes)	1,110	1,150
4.95% notes due 2041 (4.95% 2041 Notes)	600	600
5.15% notes due 2041 (5.15% 2041 Notes)	729	729
5.65% notes due 2042 (5.65% 2042 Notes)	415	415
5.375% notes due 2043 (5.375% 2043 Notes)	185	185
4.40% notes due 2045 (4.40% 2045 Notes)	2,250	2,250
4.563% notes due 2048 (4.563% 2048 Notes)	1,415	1,415
3.375% notes due 2050 (3.375% 2050 Notes)	2,250	2,250
4.663% notes due 2051 (4.663% 2051 Notes)	3,541	3,541
3.00% notes due 2052 (3.00% 2052 Notes)	1,254	1,350
4.20% notes due 2052 (4.20% 2052 Notes)	1,000	—
4.875% notes due 2053 (4.875% 2053 Notes)	1,000	—
2.77% notes due 2053 (2.77% 2053 Notes)	940	940
4.40% notes due 2062 (4.40% 2062 Notes)	1,250	—
Other notes due 2097	100	100
Unamortized bond discounts, premiums and issuance costs, net	(1,246)	(1,213)
Fair value adjustments	(437)	284
Other	12	15
Total carrying value of debt	38,945	33,309
Less current portion	(1,591)	(87)
Total long-term debt	$ 37,354	$ 33,222

There are no material differences between the effective interest rates and the coupon rates of any of our borrowings, except for the 4.563% 2048 Notes, the 4.663% 2051 Notes and the 2.77% 2053 Notes, which have effective interest rates of 6.3%, 5.6% and 5.2%, respectively.

Under the terms of all of our outstanding notes, except our Other notes due 2097, in the event of a change-in-control triggering event we may be required to purchase all or a portion of these debt securities at prices equal to 101% of the principal amounts of the notes plus accrued and unpaid interest. In addition, all of our outstanding notes—except our 0.41% 2023 Swiss franc Bonds and Other notes due 2097—may be redeemed at any time at our option—in whole or in part—at the principal amounts of the notes being redeemed plus accrued and unpaid interest and make-whole amounts, which are defined by the terms of the notes. Certain of the redeemable notes do not require the payment of make-whole amounts if redeemed during a specified period of time immediately prior to the maturity of the notes. Such time periods range from one month to six months prior to maturity.

Debt issuances

During the years ended December 31, 2022, 2021 and 2020, we issued debt securities in the following offerings:

- In 2022, we issued $7.0 billion of debt consisting of $750 million of the 3.00% 2029 Notes, $1.25 billion of the 4.05% 2029 Notes, $1.0 billion of the 3.35% 2032 Notes, $750 million of the 4.20% 2033 Notes, $1.0 billion of the 4.20% 2052 Notes, $1.0 billion of the 4.875% 2053 Notes and $1.25 billion of the 4.40% 2062 Notes. The 3.00% 2029 Notes were issued to finance eligible projects that meet specified criteria to reduce our impact on the environment.
- In 2021, we issued $5.0 billion of debt consisting of $1.25 billion of the 1.65% 2028 Notes, $1.25 billion of the 2.00% 2032 Notes, $1.15 billion of the 2.80% 2041 Notes and $1.35 billion of the 3.00% 2052 Notes.
- In 2020, we issued $9.0 billion of debt consisting of $500 million of the 1.90% 2025 Notes, $1.75 billion of the 2.20% 2027 Notes, $1.25 billion of the 2.45% 2030 Notes, $1.25 billion of the 2.30% 2031 Notes, $2.0 billion of the 3.15% 2040 Notes and $2.25 billion of the 3.375% 2050 Notes.

Debt extinguishment

In 2022, we repurchased portions of the 2.20% 2027 Notes, the 1.65% 2028 Notes, the 2.00% 2032 Notes, the 2.80% 2041 Notes and the 3.00% 2052 Notes for an aggregate cost of $297 million, which resulted in the recognition of a $78 million gain on extinguishment of debt recorded in Other (expense) income, net, in the Consolidated Statements of Income.

Debt repayments/redemptions

We made debt repayments/redemptions during the years ended December 31, 2022, 2021 and 2020, as follows:

- In 2022, no debt was repaid/redeemed.
- In 2021, we redeemed $4.2 billion of debt, including the €1.25 billion aggregate principal amount ($1.4 billion upon settlement of the related cross-currency swap) of the 1.25% 2022 euro Notes, the $500 million aggregate principal amount of the 2.70% 2022 Notes, the $1.5 billion aggregate principal amount of the 2.65% 2022 Notes and the $750 million aggregate principal amount of the 3.625% 2022 Notes. In connection with the redemption of these notes, we paid a total of $24 million in make-whole amounts plus associated accrued and unpaid interest, all of which was recognized in Interest expense, net, in the Consolidated Statements of Income.
- In 2020, we repaid/redeemed $6.5 billion of debt, including the repayment at maturity of the $300 million aggregate principal amount of the 4.50% 2020 Notes, the $750 million aggregate principal amount of the 2.125% 2020 Notes, the $300 million Floating Rate Notes due 2020 and the $700 million aggregate principal amount of the 2.20% 2020 Notes. In connection with the redemption of the $900 million aggregate principal amount of the 3.45% 2020 Notes, the $1.0 billion aggregate principal balance of the 4.10% 2021 Notes, the $750 million aggregate principal balance of the 1.85% 2021 Notes and the $1.75 billion aggregate principal balance of the 3.875% 2021 Notes, we paid a total of $96 million in make-whole amounts plus associated accrued and unpaid interest, all of which was recognized in Interest expense, net, in the Consolidated Statements of Income.

Interest rate swaps

To achieve a desired mix of fixed-rate and floating-rate debt, we entered into interest rate swap contracts that effectively converted fixed-rate interest coupons for certain of our debt issuances to floating LIBOR-based coupons over the lives of the respective notes. These interest rate swap contracts qualified and are designated as fair value hedges.

During the year ended December 31, 2021, we entered into interest rate swap contracts with an aggregate notional amount of $1.0 billion with respect to the 2.45% 2030 Notes and an aggregate notional amount of $500 million with respect to the 2.30% 2031 Notes. In connection with the redemption of the 3.625% 2022 Notes, discussed above, associated interest rate swap contracts with an aggregate notional amount of $750 million were terminated.

In connection with the redemption of certain of the notes during the year ended December 31, 2020, discussed above, associated interest rate swap contracts with an aggregate notional value of $3.65 billion were terminated. In addition, because of historically low interest rates, during the year ended December 31, 2020, we terminated interest rate swaps with an aggregate notional amount of $5.2 billion that hedged the 3.625% 2024 Notes, the 2.60% 2026 Notes, the 4.663% 2051 Notes and portions of the 3.625% 2022 Notes and the 3.125% 2025 Notes, which resulted in the receipt of $576 million of cash and reduced counterparty credit risk. Immediately following the terminations of these contracts, we entered into new interest rate swap agreements at then-current interest rates on the same $5.2 billion principal amount of notes. See Note 18, Derivative instruments.

As of December 31, 2022 and 2021, the effective interest rates on notes for which we have entered into interest rate swap contracts and the related notional amounts of these contracts were as follows (dollar amounts in millions):

Notes	Notional amounts	Effective interest rates
3.625% 2024 Notes	$ 1,400	LIBOR + 3.2%
3.125% 2025 Notes	1,000	LIBOR + 1.8%
2.60% 2026 Notes	1,250	LIBOR + 1.8%
2.45% 2030 Notes	1,000	LIBOR + 1.0%
2.30% 2031 Notes	500	LIBOR + 0.8%
4.663% 2051 Notes	1,500	LIBOR + 4.1%
Total notional amounts	$ 6,650	

Debt exchange

In 2020, we completed a private offering to exchange portions of certain outstanding senior notes due 2037 through 2043 (collectively, Old Notes), listed below, for the $940 million principal amount of the newly issued 2.77% 2053 Notes (the Exchange Offer).

The following principal amounts of each series of Old Notes were validly tendered and subsequently canceled in connection with the Exchange Offer (in millions):

	Principal amount exchanged
6.375% 2037 Notes	$ 74
6.90% 2038 Notes	$ 37
6.40% 2039 Notes	$ 133
5.75% 2040 Notes	$ 39
5.15% 2041 Notes	$ 245
5.65% 2042 Notes	$ 72
5.375% 2043 Notes	$ 76

The 2.77% 2053 Notes bear interest at a lower fixed coupon rate while requiring higher principal repayment at a later maturity date as compared to those of the Old Notes that were exchanged. There were no other significant changes to the terms between the Old Notes and the 2.77% 2053 Notes. In connection with the Exchange Offer, $85 million was paid to holders of the Old Notes (the cash consideration).

The Exchange Offer was accounted for as a debt modification, and accordingly, deferred financing costs and discounts associated with the Old Notes, the cash consideration and the $264 million discount associated with the 2.77% 2053 Notes are being accreted over the term of these newly issued notes and recorded as Interest expense, net, in the Consolidated Statements of Income.

Cross-currency swaps

To hedge our exposure to foreign currency exchange rate risk associated with certain of our long-term notes denominated in foreign currencies, we entered into cross-currency swap contracts. The terms of these contracts effectively convert the interest payments and principal repayments on our 0.41% 2023 Swiss franc Bonds, 2.00% 2026 euro Notes, 5.50% 2026 pound sterling Notes and 4.00% 2029 pound sterling Notes from euros, pounds sterling and Swiss francs to U.S. dollars. These cross-currency swap contracts have been designated as cash flow hedges. For information regarding the terms of these contracts, see Note 18, Derivative instruments.

In connection with the redemption of the 1.25% 2022 euro Notes, discussed above, associated cross-currency swap contracts with an aggregate notional amount of €1.25 billion were terminated.

Shelf registration statement and other facilities

As of December 31, 2022, we have a commercial paper program that allows us to issue up to $2.5 billion of unsecured commercial paper to fund our working-capital needs. As of December 31, 2022 and 2021, we had no amounts outstanding under our commercial paper program.

In 2019, we amended and restated our $2.5 billion syndicated, unsecured, revolving credit agreement, which is available for general corporate purposes or as a liquidity backstop to our commercial paper program. The commitments under the revolving credit agreement may be increased by up to $750 million with the agreement of the banks. Each bank that is a party to the agreement has an initial commitment term of five years. This term may be extended for up to two additional one-year periods with the agreement of the banks. Annual commitment fees for this agreement are 0.1% of the unused portion of the facility based on our current credit rating. In December 2022, this revolving credit agreement was further amended to replace LIBOR with SOFR as the reference rate, pursuant to provisions contained therein related to determination of successor rates in case of phaseout or unavailability of existing designated reference rates. Generally, we would be charged interest for any amounts borrowed under this facility, based on our current credit rating, at (i) SOFR plus 1.125% or (ii) the highest of (A) the syndication agent bank base commercial lending rate, (B) the overnight federal funds rate plus 0.50% or (C) one-month SOFR plus 1.1%. As of December 31, 2022 and 2021, no amounts were outstanding under this facility.

In February 2020, we filed a shelf registration statement with the SEC that allows us to issue unspecified amounts of debt securities; common stock; preferred stock; warrants to purchase debt securities, common stock, preferred stock or depositary shares; rights to purchase common stock or preferred stock; securities purchase contracts; securities purchase units; and depositary shares. Under this shelf registration statement, all of the securities available for issuance may be offered from time to time with terms to be determined at the time of issuance. This shelf registration statement expires in February 2023, and our Board has approved a new shelf registration statement to replace it.

In December 2022, in connection with the proposed acquisition of Horizon, we entered into a bridge credit agreement and a term loan credit agreement which provide for borrowings aggregating $28.5 billion. As of December 31, 2022, no amounts have been borrowed under either agreement. See Note 2, Acquisitions and divestitures.

Certain of our financing arrangements contain nonfinancial covenants. In addition, our revolving credit agreement, bridge credit agreement and term loan agreement include a financial covenant, which requires us to maintain a specified minimum interest coverage ratio of (i) the sum of consolidated net income, interest expense, provision for income taxes, depreciation expense, amortization expense, unusual or nonrecurring charges and other noncash items (Consolidated EBITDA) to (ii) Consolidated Interest Expense, each as defined and described in the respective agreements. We were in compliance with all applicable covenants under these arrangements as of December 31, 2022.

Contractual maturities of debt obligations

The aggregate contractual maturities of all borrowings due subsequent to December 31, 2022, are as follows (in millions):

Maturity dates	Amounts
2023	$ 1,509
2024	1,400
2025	1,500
2026	2,627
2027	2,724
Thereafter	30,868
Total	$ 40,628

Interest costs

Interest costs are expensed as incurred except to the extent such interest is related to construction in progress, in which case interest is capitalized. Interest costs capitalized for the years ended December 31, 2022, 2021 and 2020, were not material. Interest paid, including the ongoing impact of interest rate and cross-currency swap contracts, during each of the years ended December 31, 2022, 2021 and 2020, were $1.2 billion.

16. Stockholders' equity

Stock repurchase program

Activity under our stock repurchase program, on a trade date basis, was as follows (in millions):

	Years ended December 31,					
	2022		2021		2020	
	Shares	Dollars	Shares	Dollars	Shares	Dollars
First quarter	24.6	$ 5,410	3.7	$ 865	4.3	$ 933
Second quarter	—	—	6.5	1,592	2.6	591
Third quarter	1.5	900	4.6	1,069	3.0	752
Fourth quarter	—	—	6.9	1,461	5.3	1,221
Total stock repurchases	26.1	$ 6,310	21.7	$ 4,987	15.2	$ 3,497

During the first quarter of 2022, the Company entered into ASR agreements with third-party financial institutions (Dealers) whereby the Company made payments in an aggregate amount of $6.0 billion to the Dealers and received and retired an initial 23.3 million shares of the Company's common stock from the Dealers. The payments were recorded as reductions to shareholders' equity, consisting of a $5.1 billion increase to accumulated deficit, which reflects the value of the initial shares received, and a $0.9 billion decrease in additional paid-in capital, which reflects the value of the stock that remained to be delivered by the Dealers. During the third quarter of 2022, an additional 1.5 million shares of the Company's common stock were received from the Dealers which constituted final settlement under the ASR agreements, and accordingly, the $0.9 billion decrease in additional paid-in capital recorded in the first quarter was reclassified to accumulated deficit. In total, we repurchased 26.1 million shares of common stock during the year ended December 31, 2022, consisting primarily of the 24.8 million shares received under the ASR agreements.

In October 2022, our Board of Directors increased the amount authorized under our stock repurchase program by an additional $2.4 billion. As of December 31, 2022, $7.0 billion remained available under our stock repurchase program.

Dividends

Our Board of Directors declared quarterly dividends per share of $1.94, $1.76 and $1.60, which were paid in each of the four quarters of 2022, 2021 and 2020, respectively.

Historically, we have declared dividends in December of each year, which were paid in the first quarter of the following fiscal year and in March, July and October, which were paid in the second, third and fourth quarters, respectively, of the same fiscal year. Additionally, on December 12, 2022, the Board of Directors declared a quarterly cash dividend of $2.13 per share of common stock, which will be paid in March 2023, to all stockholders of record as of the close of business on February 15, 2023.

Accumulated other comprehensive loss

The components of AOCI were as follows (in millions):

	Foreign currency translation	Cash flow hedges	Available-for-sale securities	Other	AOCI
Balance as of December 31, 2019	$ (718)	$ 175	$ 22	$ (7)	$ (528)
Foreign currency translation adjustments	9	—	—	—	9
Unrealized (losses) gains	—	(61)	6	—	(55)
Reclassification adjustments to income	—	(501)	(33)	—	(534)
Other losses	—	—	—	(7)	(7)
Income taxes	—	124	6	—	130
Balance as of December 31, 2020	(709)	(263)	1	(14)	(985)
Foreign currency translation adjustments	(135)	—	—	—	(135)
Unrealized gains (losses)	—	159	(1)	—	158
Reclassification adjustments to income	—	253	—	—	253
Other gains	—	—	—	1	1
Income taxes	—	(88)	—	—	(88)
Balance as of December 31, 2021	(844)	61	—	(13)	(796)
Foreign currency translation adjustments	496	—	—	—	496
Unrealized gains	—	84	—	—	84
Reclassification adjustments to income	—	2	—	—	2
Other gains	—	—	—	2	2
Income taxes	—	(19)	—	—	(19)
Balance as of December 31, 2022	$ (348)	$ 128	$ —	$ (11)	$ (231)

With respect to the table above, income tax expenses or benefits for unrealized gains and losses and the related reclassification adjustments to income for cash flow hedges were a $19 million expense and a $0 million expense in 2022, a $33 million expense and a $55 million expense in 2021 and a $14 million benefit and a $110 million benefit in 2020, respectively. Income tax expenses or benefits for unrealized gains and losses and the related reclassification adjustments to income for available-for-sale securities were a $1 million expense and a $7 million benefit in 2020, respectively.

Reclassifications out of AOCI and into earnings were as follows (in millions):

	Years ended December 31,			
Components of AOCI	2022	2021	2020	Consolidated Statements of Income locations
Cash flow hedges:				
Foreign currency contract gains (losses)	$ 231	$ (8)	$ 178	Product sales
Cross-currency swap contract (losses) gains	(233)	(245)	323	Other (expense) income, net
	(2)	(253)	501	Income before income taxes
	—	55	(110)	Provision for income taxes
	$ (2)	$ (198)	$ 391	Net income
Available-for-sale securities:				
Net realized gains	$ —	$ —	$ 33	Other (expense) income, net
	—	—	(7)	Provision for income taxes
	$ —	$ —	$ 26	Net income

Other

In addition to common stock, our authorized capital includes 5 million shares of preferred stock, $0.0001 par value. As of December 31, 2022 and 2021, no shares of preferred stock were issued or outstanding.

17. Fair value measurement

To estimate the fair value of our financial assets and liabilities, we use valuation approaches within a hierarchy that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that observable inputs be used when available. Observable inputs are inputs that market participants would use in pricing an asset or liability based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company's assumptions about the inputs that market participants would use in pricing an asset or liability and are developed based on the best information available in the circumstances. The fair value hierarchy is divided into three levels based on the source of inputs as follows:

Level 1 — Valuations based on unadjusted quoted prices in active markets for identical assets or liabilities that the Company has the ability to access
Level 2 — Valuations for which all significant inputs are observable either directly or indirectly—other than Level 1 inputs
Level 3 — Valuations based on inputs that are unobservable and significant to the overall fair value measurement

The availability of observable inputs can vary among the various types of financial assets and liabilities. To the extent that the valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment. In certain cases, the inputs used for measuring fair value may fall into different levels of the fair value hierarchy. In such cases, for financial statement disclosure purposes, the level in the fair value hierarchy within which the fair value measurement is categorized is based on the lowest level of input used that is significant to the overall fair value measurement.

The fair values of each major class of the Company's financial assets and liabilities measured at fair value on a recurring basis were as follows (in millions):

Fair value measurement as of December 31, 2022, using:	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
Assets:				
Available-for-sale securities:				
U.S. Treasury notes	$ —	$ —	$ —	$ —
U.S. Treasury bills	1,676	—	—	1,676
Money market mutual funds	2,659	—	—	2,659
Other short-term interest-bearing securities	—	—	—	—
Other investments	—	130	—	130
Equity securities	480	—	335	815
Derivatives:				
Foreign currency forward contracts	—	287	—	287
Cross-currency swap contracts	—	54	—	54
Interest rate swap contracts	—	—	—	—
Total assets	$ 4,815	$ 471	$ 335	$ 5,621
Liabilities:				
Derivatives:				
Foreign currency forward contracts	$ —	$ 76	$ —	$ 76
Cross-currency swap contracts	—	541	—	541
Interest rate swap contracts	—	776	—	776
Forward interest rate contracts	—	5	—	5
Contingent consideration obligations	—	—	270	270
Total liabilities	$ —	$ 1,398	$ 270	$ 1,668

Fair value measurement as of December 31, 2021, using:	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
Assets:				
Available-for-sale securities:				
U.S. Treasury notes	$ 47	$ —	$ —	$ 47
U.S. Treasury bills	1,400	—	—	1,400
Money market mutual funds	5,856	—	—	5,856
Other short-term interest-bearing securities	—	1	—	1
Other investments	—	—	—	—
Equity securities	611	—	220	831
Derivatives:				
Foreign currency forward contracts	—	183	—	183
Cross-currency swap contracts	—	66	—	66
Interest rate swap contracts	—	16	—	16
Total assets	$ 7,914	$ 266	$ 220	$ 8,400
Liabilities:				
Derivatives:				
Foreign currency forward contracts	$ —	$ 39	$ —	$ 39
Cross-currency swap contracts	—	339	—	339
Interest rate swap contracts	—	156	—	156
Forward interest rate contracts	—	—	—	—
Contingent consideration obligations	—	—	342	342
Total liabilities	$ —	$ 534	$ 342	$ 876

Interest-bearing and equity securities

The fair values of our U.S. Treasury securities, money market mutual funds and equity investments in publicly traded securities are based on quoted market prices in active markets, with no valuation adjustment. Other investments consist of interest-bearing deposits that are valued at amortized cost, which approximates fair value given their near term maturity. The fair value of equity securities for which the fair value option was elected are initially valued at the transaction price and subsequently valued based on a combination of observable price transactions, when available, market performance and publicly available market information for similar companies that have actively traded equity securities. See Note 9, Investments— *Neumora Therapeutics, Inc.*

Derivatives

Our foreign currency forward contracts, cross-currency swap contracts and interest rate swap contracts are with counterparties that have minimum credit ratings of A– or equivalent by S&P, Moody's or Fitch. We estimate the fair values of these contracts by taking into consideration valuations obtained from a third-party valuation service that uses an income-based industry-standard valuation model for which all significant inputs are observable either directly or indirectly. These inputs, as applicable, include foreign currency exchange rates, LIBOR, swap rates, obligor credit default swap rates and cross-currency basis swap spreads. Certain inputs, when applicable, are at commonly quoted intervals. See Note 18, Derivative instruments.

Contingent consideration obligations

As a result of our business acquisitions, we have incurred contingent consideration obligations as discussed below. The contingent consideration obligations are recorded at their fair values by using probability-adjusted discounted cash flows, and we revalue these obligations each reporting period until the related contingencies have been resolved. The fair value measurements of these obligations are based on significant unobservable inputs related to licensing rights and product candidates acquired in business combinations, and they are reviewed quarterly by management in our R&D and commercial sales organizations. The inputs include, as applicable, estimated probabilities and the timing of achieving specified development, regulatory and commercial milestones as well as estimated annual sales. Significant changes to these inputs would result in corresponding increases or decreases in the fair values of the obligations, as applicable. Changes in the fair values of contingent consideration obligations are recognized in Other operating expenses in the Consolidated Statements of Income.

Changes in the carrying amounts of contingent consideration obligations were as follows (in millions):

	Years ended December 31,		
	2022	2021	2020
Beginning balance	$ 342	$ 33	$ 61
Additions	—	309	—
Payments	(7)	(7)	(6)
Net changes in valuations	(65)	7	(22)
Ending balance	$ 270	$ 342	$ 33

As a result of our acquisition of Teneobio in 2021, we are obligated to pay its former shareholders up to $1.6 billion upon achieving separate development and regulatory milestones with regard to various R&D programs. See Note 2, Acquisitions and divestitures.

As a result of our acquisition of K-A in 2018, we are obligated to make single-digit royalty payments to Kirin Holdings Company, Limited contingent upon sales of brodalumab.

As a result of our acquisition of BioVex Group Inc. in 2011, we were obligated to pay its former shareholders upon achieving separate sales-related milestones with regard to IMLYGIC if certain sales thresholds were met. During the year ended December 31, 2020, we determined that the likelihood of achieving these milestones was no longer probable, and accordingly, the obligations were written off.

Summary of the fair values of other financial instruments

Cash equivalents

The fair values of cash equivalents approximate their carrying values due to the short-term nature of such financial instruments.

Borrowings

We estimated the fair values of our borrowings by using Level 2 inputs. As of December 31, 2022 and 2021, the aggregate fair values of our borrowings were $35.0 billion and $37.9 billion, respectively, and the carrying values were $38.9 billion and $33.3 billion, respectively.

Investment in BeiGene

We estimated the fair value of our investment in BeiGene by using Level 1 inputs. As of December 31, 2022 and 2021, the fair values were $4.2 billion and $5.1 billion, and the carrying values were $2.2 billion and $2.8 billion, respectively.

During the years ended December 31, 2022 and 2021, there were no transfers of assets or liabilities between fair value measurement levels, and there were no material remeasurements to the fair values of assets and liabilities that are not measured at fair value on a recurring basis.

18. Derivative instruments

The Company is exposed to foreign currency exchange rate and interest rate risks related to its business operations. To reduce our risks related to such exposures, we use or have used certain derivative instruments, including foreign currency forward, foreign currency option, cross-currency swap, forward interest rate and interest rate swap contracts. We have designated certain of our derivatives as cash flow and fair value hedges; we also have derivatives not designated as hedges. We do not use derivatives for speculative trading purposes.

Cash flow hedges

We are exposed to possible changes in the values of certain anticipated foreign currency cash flows resulting from changes in foreign currency exchange rates primarily associated with our euro-denominated international product sales. The foreign currency exchange rate fluctuation exposure associated with cash inflows from our international product sales are partially offset by corresponding cash outflows from our international operating expenses. To further reduce this exposure, we enter into foreign currency forward contracts to hedge a portion of our projected international product sales up to a maximum of three years into the future; and at any given point in time, a higher percentage of nearer-term projected product sales is being hedged than in successive periods.

As of December 31, 2022, 2021 and 2020, we had outstanding foreign currency forward contracts with aggregate notional amounts of $6.0 billion, $5.7 billion and $5.1 billion, respectively. We have designated these foreign currency forward contracts, which are primarily euro based, as cash flow hedges. Accordingly, we report unrealized gains and losses on these contracts in AOCI in the Consolidated Balance Sheets, and we reclassify them to Product sales in the Consolidated Statements of Income in the same periods during which the hedged transactions affect earnings.

To hedge our exposure to foreign currency exchange rate risk associated with certain of our long-term debt denominated in foreign currencies, we enter into cross-currency swap contracts. Under the terms of such contracts, we paid euros, pounds sterling and Swiss francs and received U.S. dollars for the notional amounts at inception of the contracts; and based on these notional amounts, we exchange interest payments at fixed rates over the lives of the contracts by paying U.S. dollars and receiving euros, pounds sterling and Swiss francs. In addition, we will pay U.S. dollars to and receive euros, pounds sterling and Swiss francs from the counterparties at the maturities of the contracts for these same notional amounts. The terms of these contracts correspond to the related hedged debt, thereby effectively converting the interest payments and principal repayment on the debt from euros, pounds sterling and Swiss francs to U.S. dollars. We have designated these cross-currency swap contracts as cash flow hedges. Accordingly, the unrealized gains and losses on these contracts are reported in AOCI in the Consolidated Balance Sheets and reclassified to Other (expense) income, net, in the Consolidated Statements of Income in the same periods during which the hedged debt affects earnings.

The notional amounts and interest rates of our cross-currency swaps as of December 31, 2022, were as follows (notional amounts in millions):

	Foreign currency			U.S. dollars		
Hedged notes	**Notional amounts**		**Interest rates**	**Notional amounts**		**Interest rates**
0.41% 2023 Swiss franc Bonds	CHF	700	0.4 %	$	704	3.4 %
2.00% 2026 euro Notes	€	750	2.0 %	$	833	3.9 %
5.50% 2026 pound sterling Notes	£	475	5.5 %	$	747	6.0 %
4.00% 2029 pound sterling Notes	£	700	4.0 %	$	1,111	4.6 %

In connection with the anticipated issuance of long-term fixed-rate debt, we occasionally enter into forward interest rate contracts in order to hedge the variability in cash flows due to changes in the applicable U.S. Treasury rate between the time we enter into these contracts and the time the related debt is issued. Gains and losses on forward interest rate contracts, which are designated as cash flow hedges, are recognized in AOCI in the Consolidated Balance Sheets and are amortized into Interest expense, net, in the Consolidated Statements of Income over the lives of the associated debt issuances. In December 2022, we entered into a forward interest rate contract with an aggregate notional amount of $700 million. Amounts expected to be recognized during the subsequent 12 months on forward interest rate contracts are not material.

The unrealized gains and losses recognized in AOCI for our derivative instruments designated as cash flow hedges were as follows (in millions):

	Years ended December 31,		
Derivatives in cash flow hedging relationships	**2022**	**2021**	**2020**
Foreign currency forward contracts	$ 308	$ 373	$ (251)
Cross-currency swap contracts	(219)	(214)	190
Forward interest rate contracts	(5)	—	—
Total unrealized gains (losses)	$ 84	$ 159	$ (61)

Fair value hedges

To achieve a desired mix of fixed-rate and floating-rate debt, we entered into interest rate swap contracts that qualified for and were designated as fair value hedges. These interest rate swap contracts effectively convert fixed-rate coupons to floating-rate LIBOR-based coupons over the terms of the related hedge contracts. As of both December 31, 2022 and 2021, we had interest rate swap contracts with aggregate notional amounts of $6.7 billion that hedge certain portions of our long-term debt issuances. See Note 15, Financing arrangements, for information on our interest rate swaps.

For interest rate swap contracts that qualify for and are designated as fair value hedges, we recognize in Interest expense, net, in the Consolidated Statements of Income the unrealized gain or loss on the derivative resulting from the change in fair value during the period, as well as the offsetting unrealized loss or gain of the hedged item resulting from the change in fair value during the period attributable to the hedged risk. If a hedging relationship involving an interest rate swap contract is terminated, the gain or loss realized on contract termination is recorded as an adjustment to the carrying value of the debt and amortized into Interest expense, net, over the remaining life of the previously hedged debt.

The hedged liabilities and related cumulative-basis adjustments for fair value hedges of those liabilities were recorded in the Consolidated Balance Sheets as follows (in millions):

	Carrying amounts of hedged liabilities[1]		Cumulative amounts of fair value hedging adjustments related to the carrying amounts of the hedged liabilities[2]	
	December 31,		December 31,	
Consolidated Balance Sheets locations	**2022**	**2021**	**2022**	**2021**
Current portion of long-term debt	$ 82	$ 85	$ 82	$ 85
Long-term debt	$ 6,017	$ 6,729	$ (519)	$ 199

[1] Current portion of long-term debt includes $82 million and $85 million of carrying value with discontinued hedging relationships as of December 31, 2022 and 2021, respectively. Long-term debt includes $357 million and $440 million of carrying value with discontinued hedging relationships as of December 31, 2022 and 2021, respectively.

[2] Current portion of long-term debt includes $82 million and $85 million of hedging adjustments on discontinued hedging relationships as of December 31, 2022 and 2021, respectively. Long-term debt includes $257 million and $340 million of hedging adjustments on discontinued hedging relationships as of December 31, 2022 and 2021, respectively.

Impact of hedging transactions

The following tables summarize the amounts recorded in income and expense line items and the effects thereon from fair value and cash flow hedging, including discontinued hedging relationships (in millions):

	Year ended December 31, 2022		
	Product sales	Other (expense) income, net	Interest expense, net
Total amounts recorded in income and (expense) line items presented in the Consolidated Statements of Income	$ 24,801	$ (814)	$ (1,406)
The effects of cash flow and fair value hedging:			
Gains (losses) on cash flow hedging relationships reclassified out of AOCI:			
Foreign currency forward contracts	$ 231	$ —	$ —
Cross-currency swap contracts	$ —	$ (233)	$ —
Gains (losses) on fair value hedging relationships—interest rate swap agreements:			
Hedged items[1]	$ —	$ —	$ 716
Derivatives designated as hedging instruments	$ —	$ —	$ (636)

	Year ended December 31, 2021		
	Product sales	Other (expense) income, net	Interest expense, net
Total amounts recorded in income and (expense) line items presented in the Consolidated Statements of Income	$ 24,297	$ 259	$ (1,197)
The effects of cash flow and fair value hedging:			
Losses on cash flow hedging relationships reclassified out of AOCI:			
Foreign currency forward contracts	$ (8)	$ —	$ —
Cross-currency swap contracts	$ —	$ (245)	$ —
Gains (losses) on fair value hedging relationships—interest rate swap agreements:			
Hedged items[1]	$ —	$ —	$ 281
Derivatives designated as hedging instruments	$ —	$ —	$ (192)

	Year ended December 31, 2020		
	Product sales	Other (expense) income, net	Interest expense, net
Total amounts recorded in income and (expense) line items presented in the Consolidated Statements of Income	$ 24,240	$ 256	$ (1,262)
The effects of cash flow and fair value hedging:			
Gains on cash flow hedging relationships reclassified out of AOCI:			
Foreign currency forward contracts	$ 178	$ —	$ —
Cross-currency swap contracts	$ —	$ 323	$ —
Gains (losses) on fair value hedging relationships—interest rate swap agreements:			
Hedged items[1]	$ —	$ —	$ 315
Derivatives designated as hedging instruments	$ —	$ —	$ (204)

(1) Gains on hedged items do not completely offset losses on the related designated hedging instruments due to amortization of the cumulative amounts of fair value hedging adjustments included in the carrying amount of the hedged debt for discontinued hedging relationships and the recognition of gains on terminated hedges when the corresponding hedged item was paid down in the period.

No portions of our cash flow hedge contracts were excluded from the assessment of hedge effectiveness. As of December 31, 2022, we expected to reclassify $159 million of net gains on our foreign currency and cross-currency swap contracts out of AOCI and into earnings during the next 12 months.

Derivatives not designated as hedges

To reduce our exposure to foreign currency fluctuations in certain assets and liabilities denominated in foreign currencies, we enter into foreign currency forward contracts that are not designated as hedging transactions. Most of these exposures are hedged on a month-to-month basis. As of December 31, 2022, 2021 and 2020, the total notional amounts of these foreign currency forward contracts were $517 million, $680 million and $1.0 billion, respectively. Gains and losses recognized in earnings for our derivative instruments not designated as hedging instruments were not material for the years ended December 31, 2022, 2021 and 2020.

Fair values of derivatives

The fair values of derivatives included in the Consolidated Balance Sheets were as follows (in millions):

	Derivative assets		Derivative liabilities	
December 31, 2022	**Consolidated Balance Sheets locations**	**Fair values**	**Consolidated Balance Sheets locations**	**Fair values**
Derivatives designated as hedging instruments:				
Foreign currency forward contracts	Other current assets/ Other noncurrent assets	$ 287	Accrued liabilities/ Other noncurrent liabilities	$ 76
Cross-currency swap contracts	Other current assets/ Other noncurrent assets	54	Accrued liabilities/ Other noncurrent liabilities	541
Interest rate swap contracts	Other current assets/ Other noncurrent assets	—	Accrued liabilities/ Other noncurrent liabilities	776
Forward interest rate contracts	Other current assets/ Other noncurrent assets	—	Accrued liabilities/ Other noncurrent liabilities	5
Total derivatives designated as hedging instruments		341		1,398
Total derivatives		$ 341		$ 1,398

	Derivative assets		Derivative liabilities	
December 31, 2021	**Consolidated Balance Sheets locations**	**Fair values**	**Consolidated Balance Sheets locations**	**Fair values**
Derivatives designated as hedging instruments:				
Foreign currency forward contracts	Other current assets/ Other noncurrent assets	$ 183	Accrued liabilities/ Other noncurrent liabilities	$ 39
Cross-currency swap contracts	Other current assets/ Other noncurrent assets	66	Accrued liabilities/ Other noncurrent liabilities	339
Interest rate swap contracts	Other current assets/ Other noncurrent assets	16	Accrued liabilities/ Other noncurrent liabilities	156
Forward interest rate contracts	Other current assets/ Other noncurrent assets	—	Accrued liabilities/ Other noncurrent liabilities	—
Total derivatives designated as hedging instruments		265		534
Total derivatives		$ 265		$ 534

For additional information, see Note 17, Fair value measurement.

Our derivative contracts that were in liability positions as of December 31, 2022, contain certain credit-risk-related contingent provisions that would be triggered if (i) we were to undergo a change-in-control and (ii) our or the surviving entity's creditworthiness deteriorates, which is generally defined as having either a credit rating that is below investment grade or a materially weaker creditworthiness after the change-in-control. If these events were to occur, the counterparties would have the right, but not the obligation, to close the contracts under early-termination provisions. In such circumstances, the counterparties could request immediate settlement of these contracts for amounts that approximate the then current fair values of the contracts. In addition, our derivative contracts are not subject to any type of master netting arrangement, and amounts due either to or from a counterparty under the contracts may be offset against other amounts due either to or from the same counterparty only if an event of default or termination, as defined, were to occur.

The cash flow effects of our derivative contracts in the Consolidated Statements of Cash Flows are included in Net cash provided by operating activities, except for the settlement of notional amounts of cross-currency swaps, which are included in Net cash used in financing activities.

19. Contingencies and commitments

Contingencies

In the ordinary course of business, we are involved in various legal proceedings, government investigations and other matters that are complex in nature and have outcomes that are difficult to predict. See Part I, Item 1A. Risk Factors—*Our business may be affected by litigation and government investigations.* We describe our legal proceedings and other matters that are significant or that we believe could become significant in this footnote.

We record accruals for loss contingencies to the extent that we conclude it is probable that a liability has been incurred and the amount of the related loss can be reasonably estimated. We evaluate, on a quarterly basis, developments in legal proceedings and other matters that could cause an increase or decrease in the amount of the liability that has been accrued previously.

Our legal proceedings involve various aspects of our business and a variety of claims, some of which present novel factual allegations and/or unique legal theories. In each of the matters described in this filing, in which we could incur a liability, our opponents seek an award of a not-yet-quantified amount of damages or an amount that is not material. In addition, a number of the matters pending against us are at very early stages of the legal process, which in complex proceedings of the sort we face often extend for several years. As a result, none of the matters described in this filing, in which we could incur a liability, have progressed sufficiently through discovery and/or the development of important factual information and legal issues to enable us to estimate a range of possible loss, if any, or such amounts are not material. While it is not possible to accurately predict or determine the eventual outcomes of these matters, an adverse determination in one or more of these matters currently pending could have a material adverse effect on our consolidated results of operations, financial position or cash flows.

Certain recent developments concerning our legal proceedings and other matters are discussed below:

ANDA Patent Litigation

Otezla ANDA Patent Litigation

Amgen Inc. v. Sandoz Inc., et al.

Beginning in June 2018, Celgene filed 19 separate lawsuits in the U.S. District Court for the District of New Jersey (the New Jersey District Court) against Alkem Laboratories Ltd. (Alkem); Amneal Pharmaceuticals LLC (Amneal); Annora Pharma Private Ltd. and Hetero USA Inc. (collectively, Hetero); Aurobindo Pharma Ltd. and Aurobindo Pharma USA Inc. (collectively, Aurobindo); Cipla Limited (Cipla Ltd); DRL; Emcure Pharmaceuticals Ltd. and Heritage Pharmaceuticals Inc. (collectively, Emcure); Glenmark Pharmaceuticals Ltd. (Glenmark); Macleods Pharmaceuticals Ltd. (Macleods); Mankind Pharma Ltd. (Mankind); MSN Laboratories Private Limited (MSN); Pharmascience Inc. (Pharmascience); Prinston Pharmaceutical Inc. (Prinston); Sandoz Inc. (Sandoz); Shilpa Medicare Ltd. (Shilpa); Teva Pharmaceuticals USA, Inc. and Actavis LLC (collectively, Actavis); Torrent Pharmaceuticals Ltd. (Torrent); Unichem Laboratories, Ltd. (Unichem); and Zydus Pharmaceuticals (USA) Inc. (Zydus), each for infringement of one or more of the following patents: U.S. Patent Nos. 6,962,940 (the '940 Patent), 7,208,516 (the '516 Patent), 7,427,638 (the '638 Patent), 7,659,302 (the '302 Patent), 7,893,101 (the '101 Patent), 8,455,536 (the '536 Patent), 8,802,717 (the '717 Patent), 9,018,243 (the '243 Patent) and 9,872,854 (the '854 Patent), which are listed in the Orange Book for Otezla. Each of these lawsuits was based on each defendant's submission of an ANDA seeking FDA approval to market a generic version of Otezla. The New Jersey District Court consolidated these 19 lawsuits for discovery and case management purposes into a single case, *Celgene Corp. v. Sandoz Inc., et al.* Each lawsuit seeks an order of the New Jersey District Court making any FDA approval of the respective defendant's ANDA effective no earlier than the expiration of the applicable patents.

In August 2018, Celgene filed amended complaints against Alkem, Amneal, Aurobindo, Cipla Ltd, DRL, Glenmark, Pharmascience, Sandoz, Actavis, Unichem and Zydus additionally asserting U.S. Patent No. 9,724,330 (the ’330 Patent), which is listed in the Orange Book for Otezla. Between October 15 and November 27, 2018, Celgene filed amended complaints against Alkem, Amneal, Hetero, Aurobindo, Cipla Ltd, DRL, Emcure, Glenmark, Macleods, Mankind, MSN, Pharmascience, Prinston, Sandoz, Actavis, Torrent, Unichem and Zydus additionally asserting U.S. Patent No. 10,092,541 (the ’541 Patent), which is listed in the Orange Book for Otezla. Between March 1 and April 4, 2019, Celgene filed amended complaints against Hetero, MSN and Emcure for infringement of one or more of the above-listed patents. On October 1, 2019, Celgene filed an amended complaint against Mankind for infringement of the ’940, ’302, ’536, ’243 and ’330 Patents. On October 8, 2019, Celgene filed a separate lawsuit against Zydus in the New Jersey District Court for infringement of U.S. Patent Nos. 8,093,283 (the ’283 Patent) and 8,629,173, which are not listed in the Orange Book for Otezla. On December 19, 2019, the New Jersey District Court consolidated this lawsuit for discovery and case management purposes into the existing consolidated case, *Celgene Corp. v. Sandoz Inc., et al*. Each defendant has filed an answer to the above-listed complaints and amended complaints disputing infringement and/or validity of the patents asserted against it. Along with their answers, each of Alkem, Hetero, Cipla Ltd, DRL, Emcure, Glenmark, Macleods, Mankind, Pharmascience, Sandoz, Shilpa, Actavis, Torrent, Unichem and Zydus filed declaratory judgment counterclaims asserting that some or all of the patents are not infringed and/or are invalid. In August 2019, based on a joint request by Celgene and Glenmark, the New Jersey District Court entered a consent judgment and injunction prohibiting the making, having made, using, selling, offering to sell, importing, or distributing of Glenmark’s apremilast product during the term of the ’940, ’638, ’302, ’101, ’536, ’243, ’330 and ’541 Patents, unless authorized pursuant to a confidential settlement agreement.

Following Amgen’s acquisition of the patents-in-suit and the new drug application for Otezla, on February 14, 2020, the New Jersey District Court issued an order substituting Amgen for Celgene as plaintiff in the consolidated action and all related actions, terminating Celgene as plaintiff in the consolidated action and all related actions, and amending the case caption in the consolidated action and all related actions to reflect Amgen as the sole plaintiff.

On March 25, 2020, based on a joint request by Amgen and Unichem, the New Jersey District Court entered a consent judgment and injunction prohibiting the making, using, selling, offering to sell, or importing of Unichem’s apremilast product during the term of the ’940, ’638, ’302, ’101, ’536, ’243, ’330 and ’541 Patents, unless authorized pursuant to a confidential settlement agreement. On April 3, 2020, based on a joint request by Amgen and Hetero, the New Jersey District Court entered a consent judgment and injunction prohibiting the making, using, selling, offering to sell, or importing of Hetero’s apremilast product during the term of the ’940, ’516, ’638, ’302, ’101, ’536, ’717, ’243, ’330, ’854 and ’541 Patents, unless authorized pursuant to a confidential settlement agreement. On May 28, 2020, based on a joint request by Amgen and Emcure, the New Jersey District Court entered a consent judgment and injunction prohibiting the making, using, selling, offering to sell, or importing of Emcure’s apremilast product during the term of the ’638, ’101, ’854 and ’541 Patents unless authorized pursuant to a confidential settlement agreement. On July 7, 2020, the New Jersey District Court ordered a stipulated dismissal without prejudice of all claims, counterclaims, and affirmative defenses between Amgen and Sandoz with respect to the ’717, ’516 and ’854 Patents, leaving the ’940, ’302, ’536, ’243, ’330, ’638, ’101 and ’541 Patents asserted by Amgen against Sandoz in the litigation. On August 6, 2020, based on a joint request by Amgen and Mankind, the New Jersey District Court entered a consent judgment and injunction prohibiting the making, using, selling, offering to sell, or importing of Mankind’s apremilast product during the term of the ’940, ’302, ’536, ’243, ’330, ’638, ’101 and ’541 Patents, unless authorized pursuant to a confidential settlement agreement. On August 14, 2020, based on a joint request by Amgen and Macleods, the New Jersey District Court entered a consent judgment and injunction prohibiting the making, using, selling, offering to sell, or importing of Macleods’ apremilast product during the term of the ’638 and ’541 Patents, unless authorized pursuant to a confidential settlement agreement. On October 7, 2020, based on a joint request by Amgen and Amneal, the New Jersey District Court entered a consent judgment and injunction prohibiting the making, using, selling, offering to sell, or importing of Amneal’s apremilast product during the term of the ’101, ’940, ’638, ’302, ’536, ’243, ’330 and ’541 Patents, unless authorized pursuant to a confidential settlement agreement. On December 30, 2020, based on a joint request by Amgen and Shilpa, the New Jersey District Court entered a consent judgment and injunction prohibiting the making, using, selling, offering to sell, or importing of Shilpa’s apremilast product during the term of the ’638, ’101 and ’854 Patents, unless authorized pursuant to a confidential settlement agreement. On January 26, 2021, based on a joint request by Amgen and Actavis, the New Jersey District Court entered a consent judgment and injunction prohibiting the making, using, selling, offering to sell, or importing of Actavis’ apremilast product during the term of the ’940, ’516, ’638, ’302, ’536, ’717, ’330, ’854 and ’541 Patents, unless authorized pursuant to a confidential settlement agreement. On March 24, 2021, based on a joint request by Amgen and Prinston, the New Jersey District Court entered a consent judgment and injunction prohibiting the making, using, selling, offering to sell, or importing of Prinston’s apremilast product during the term of the ’638 and ’541 Patents, unless authorized pursuant to a confidential settlement agreement. On April 6, 2021, based on a joint request by Amgen and Aurobindo, the New Jersey District Court entered a consent judgment and injunction prohibiting the making, using, selling, offering to sell, or importing of Aurobindo’s apremilast product during the term of the ’940, ’516, ’638, ’302, ’101, ’536, ’717, ’243, ’330, ’854 and ’541 Patents, unless authorized pursuant to a confidential settlement agreement.

On May 5, 2021, based on a joint request by Amgen and Cipla, the New Jersey District Court entered a consent judgment and injunction prohibiting the making, using, selling, offering to sell, or importing of Cipla's apremilast product during the term of the '940, '638, '302, '536, '330 and '541 Patents, unless authorized pursuant to a confidential settlement agreement. On May 14, 2021, based on a joint request by Amgen and Torrent, the New Jersey District Court entered a consent judgment and injunction prohibiting the making, using, selling, offering to sell, or importing of Torrent's apremilast product during the term of the '101, '638, '854 and '541 Patents, unless authorized pursuant to a confidential settlement agreement. On May 19, 2021, based on a joint request by Amgen and Alkem, the New Jersey District Court entered a consent judgment and injunction prohibiting the making, using, selling, offering to sell, or importing of Alkem's apremilast product during the term of the '940, '638, '302, '536, '330 and '541 Patents, unless authorized pursuant to a confidential settlement agreement. On May 25, 2021, based on a joint request by Amgen and MSN, the New Jersey District Court entered a consent judgment and injunction prohibiting the making, using, selling, offering to sell, or importing of MSN's apremilast product during the term of the '940, '638, '302, '536, '330 and '541 Patents, unless authorized pursuant to a confidential settlement agreement. On June 11, 2021, based on a joint request by Amgen and Pharmascience, the New Jersey District Court entered a consent judgment and injunction prohibiting the making, using, selling, offering to sell, or importing of Pharmascience's apremilast product during the term of the '243, '940, '638, '302, '101, '536, '330 and '541 Patents, unless authorized pursuant to a confidential settlement agreement. On June 17, 2021, based on a joint request by Amgen and DRL, the New Jersey District Court entered a consent judgment and injunction prohibiting the making, using, selling, offering to sell, or importing of DRL's apremilast product during the term of the '638, '101, '536 and '541 Patents, unless authorized pursuant to a confidential settlement agreement.

Trial on the consolidated patent infringement action against Sandoz and Zydus was held at the New Jersey District Court from June 14 to 25, 2021, with closing arguments on July 28, 2021.

On September 28, 2021, consistent with its September 20, 2021 opinion and order, the New Jersey District Court entered final judgment in favor of Amgen and against Zydus with respect to claims 3 and 6 of the '638 Patent, claim 6 of the '536 Patent and claims 2 and 27 of the '283 Patent; and final judgment in favor of Zydus and against Amgen with respect to claims 1 and 15 of the '101 Patent and claims 2, 19 and 21 of the '541 Patent. The final judgment ordered that the effective date of any final approval by the FDA of Zydus's ANDA must be after expiration of the three infringed patents (the '638, '536 and '283 Patents) and any regulatory exclusivity to which Amgen may become entitled. The final judgment also includes an injunction prohibiting Zydus from making, using, offering to sell, or selling in the United States, or importing into the United States, Zydus's generic apremilast products during the term of the three infringed patents. On October 27, 2021, Zydus filed a notice of appeal to the Federal Circuit Court with respect to the '638 Patent. On October 28, 2021, Amgen filed a notice of appeal to the Federal Circuit Court.

On October 12, 2021, the New Jersey District Court also entered final judgment in favor of Amgen and against Sandoz with respect to claims 3 and 6 of the '638 Patent, claim 6 of the '536 Patent and claims 1 and 15 of the '101 Patent; and final judgment in favor of Sandoz and against Amgen with respect to claims 2, 19 and 21 of the '541 Patent. The final judgment ordered that the effective date of any final approval by the FDA of Sandoz's ANDA must be after expiration of the three infringed patents (the '638, '536 and '101 Patents) and any regulatory exclusivity to which Amgen may become entitled. The final judgment also includes an injunction prohibiting Sandoz from making, using, offering to sell, or selling in the United States, or importing into the United States, Sandoz's generic apremilast products during the term of the three infringed patents. On November 9, 2021, Sandoz filed a notice of appeal to the Federal Circuit Court with respect to the '638 and '101 Patents. On November 10, 2021, Amgen filed a notice of appeal to the Federal Circuit Court.

Oral argument for Amgen's, Sandoz's and Zydus' appeals was held on February 8, 2023.

Amgen Inc. v. Apotex Inc.

On June 14, 2022, Amgen filed a lawsuit in the New Jersey District Court against Apotex Inc. (Apotex) for infringement of the '638 Patent, the '854 Patent and the '541 Patent. This lawsuit was based on Apotex's submission of an ANDA seeking FDA approval to market a generic version of Otezla and seeks an order of the New Jersey District Court making any FDA approval of Apotex's ANDA effective no earlier than the expiration of the applicable patents.

On October 14, 2022, Apotex filed its answer, disputing infringement and/or validity of the patents-in-suit. Along with its answer, Apotex also filed declaratory judgment counterclaims asserting that the patents-in-suit are not infringed and/or are invalid.

On January 20, 2023, based on a joint request by Amgen and Apotex, the New Jersey District Court entered a consent judgment and injunction prohibiting the making, using, selling, offering to sell, or importing of Apotex's apremilast product during the term of the '638, '854, and '541 Patents, unless authorized pursuant to a confidential settlement agreement.

Repatha Patent Litigation

Amgen Inc., et al. v. Sanofi, et al.

In October 2014, Amgen initiated a series of lawsuits that were consolidated by the U.S. District Court for the District of Delaware (Delaware District Court) in December 2014 into a single case against Sanofi, Sanofi-Aventis U.S. LLC and Aventisub LLC, formerly doing business as Aventis Pharmaceuticals Inc. (collectively, Sanofi) and Regeneron Pharmaceuticals, Inc. (Regeneron), addressing seven of our patents: U.S. Patent Nos. 8,563,698; 8,829,165 (the ’165 Patent); 8,859,741 (the ’741 Patent); 8,871,913; 8,871,914; 8,883,983; and 8,889,834. These patents describe and claim monoclonal antibodies to PCSK9. By its complaints, Amgen seeks an injunction to prevent the infringing manufacture, use and sale of Sanofi and Regeneron’s alirocumab, a monoclonal antibody targeting PCSK9. In January 2016, the Delaware District Court granted Amgen’s motion to amend the complaint to add its affiliates, Amgen Manufacturing, Limited and Amgen USA Inc., as plaintiffs and to add the allegation that Sanofi and Regeneron’s infringement of Amgen’s patents is willful.

In February 2016, the Delaware District Court entered a stipulated order finding alirocumab and the drug product containing it, PRALUENT infringe certain of Amgen’s patents, including claims 2, 7, 9, 15, 19 and 29 of the ’165 Patent and claim 7 of the ’741 Patent. In March 2016, the Delaware District Court entered judgment in favor of Amgen following a five-day jury trial and a unanimous jury verdict that these patent claims are all valid. In January 2017, the Delaware District Court denied Sanofi and Regeneron’s posttrial motions seeking a new trial and for judgment as a matter of law, and granted Amgen’s motion for a permanent injunction prohibiting the infringing manufacture, use, sale, offer for sale or import of alirocumab in the United States. Sanofi and Regeneron filed an appeal of the judgment and the permanent injunction to the Federal Circuit Court. In February 2017, following a motion by Sanofi and Regeneron, the Federal Circuit Court entered a stay of the permanent injunction during the pendency of the appeal. In October 2017, the Federal Circuit Court reversed in part the judgment of the Delaware District Court and remanded for a new trial two of the patent validity defenses (lack of written description and enablement of the claimed inventions), and affirmed the Delaware District Court’s judgment of infringement of claims 2, 7, 9, 15, 19 and 29 of the ’165 Patent and claim 7 of the ’741 Patent and the third patent validity defense (finding that the claimed inventions were not obvious to a person of ordinary skill in the field of the patents).

In March 2018, the Federal Circuit Court issued a mandate returning the case to the Delaware District Court for a new trial on two of Sanofi and Regeneron’s challenges to the validity of our patents (lack of written description and enablement of the claimed inventions) and for further consideration of a permanent injunction. In July 2018, Amgen filed a petition for certiorari with the U.S. Supreme Court seeking review of the Federal Circuit Court’s conclusion that the judgment affirming the validity of Amgen’s patents was based, in part, on an erroneous application of the law of written description. On January 7, 2019, the U.S. Supreme Court denied Amgen’s petition for certiorari. On remand, the Delaware District Court scheduled a new trial on Sanofi and Regeneron’s challenges to the validity of our patents based on lack of written description and enablement of the claimed inventions. The Delaware District Court also entered judgment on the pleadings for Sanofi and Regeneron on Amgen’s claim of willful infringement.

On February 25, 2019, a jury of the Delaware District Court again unanimously upheld the validity of claims 19 and 29 of the ’165 Patent and claim 7 of the ’741 Patent. The jury also found that claims 7 and 15 of the ’165 Patent meet the enablement requirement, but are invalid for failure to meet the written description requirement. On March 18, 2019, Sanofi and Regeneron filed posttrial motions seeking to reverse the jury verdict against them or for a new trial, and Amgen filed a motion for a permanent injunction. On August 28, 2019, the Delaware District Court ruled on the posttrial motions, denying Sanofi and Regeneron’s request for a new trial and their request to reverse the jury verdict that the ’165 Patent and the ’741 Patent provide written description support for the claimed inventions. The Delaware District Court also ruled as a matter of law that claims 19 and 29 of the ’165 Patent and claim 7 of the ’741 Patent are invalid for failing to meet the enablement requirement, overturning the jury verdict.

On October 23, 2019, Amgen filed a notice of appeal to the Federal Circuit Court and based on the subsequent hearing, on February 11, 2021 the Federal Circuit Court issued a decision affirming the Delaware District Court’s ruling. Amgen filed a petition for rehearing en banc which was denied on June 21, 2021. On November 18, 2021, Amgen filed a petition for writ of certiorari with the U.S. Supreme Court seeking review of the invalidation of claims 19 and 29 of the ’165 Patent and claim 7 of the ’741 Patent as lacking an enabling disclosure of the invention.

On November 4, 2022, the U.S. Supreme Court granted review on Amgen’s petition for certiorari on the question of whether the appropriate standard was applied by the lower courts in invalidating claims 19 and 29 of the ’165 Patent and claim 7 of the ’741 Patent as lacking an enabling disclosure of the invention. Amgen filed its opening brief on December 27, 2022. On February 3, 2023, Sanofi and Regeneron filed a brief in response. Oral argument before the U.S. Supreme Court is scheduled for March 27, 2023.

Patent Disputes in the International Region

We are involved in and expect future involvement in additional disputes regarding our PCSK9 patents in other jurisdictions and regions. This includes matters filed against us and that we have filed in Germany, Spain and Japan.

In February 2016, the European Patent Office (EPO) granted European Patent No. 2,215,124 (EP 2,215,124) to Amgen. This patent describes and claims monoclonal antibodies to PCSK9 and methods of treatment and Sanofi filed an opposition to the patent in the EPO seeking to invalidate it. In November 2016, Sanofi-Aventis Deutschland GmbH, Sanofi-Aventis Groupe S.A. and Sanofi Winthrop Industrie S.A. filed a joint opposition against Amgen's patent, and each of Lilly, Regeneron and Strawman Ltd. also filed oppositions to Amgen's patent. In November 2018, the EPO confirmed the validity of Amgen's EP 2,215,124, which was appealed to the Technical Board of Appeal (TBA). On October 29, 2020, the TBA upheld the validity of certain claims, including claims that protect Repatha, but ruled that broader claims encompassing PRALUENT were invalid. As a result of the TBA's decision, national litigations regarding PRALUENT in Europe are in the process of being resolved. In Germany, Sanofi-Aventis Deutschland GmbH and Regeneron have filed actions seeking damages arising from the provisional enforcement of an injunction against PRALUENT that was lifted after the TBA's October 29, 2020 ruling.

On March 23, 2022, Amgen filed counterclaims alleging that PRALUENT infringes Amgen's European Patent No. 2,641,917 (the '917 Patent). A EPO opposition to the '917 Patent, filed by Sanofi on February 5, 2021, is pending, and the hearing before the EPO's Opposition Division is scheduled for February 21, 2023.

On July 21, 2022, Sanofi Biotechnology SAS filed an action against Amgen GmbH and Amgen (Europe) B.V. before the Regional Court of Dusseldorf alleging that the marketing and sale of Repatha infringes European Patent No. 2,756,004 (the EP'004 Patent), seeking infringement damages and injunctive relief. The EP'004 Patent is currently in opposition proceedings, initiated by Amgen and an anonymous third party, before the EPO. A hearing before the Opposition Division of the EPO was held on June 8 and 9, 2022, and on August 16, 2022, the Opposition Division issued a written decision upholding the validity of the EP'004 Patent claims at issue, with narrowing amendments. Proceedings before the TBA commenced on August 17, 2022. On November 22, 2022, Amgen filed Grounds of Appeal before the TBA, and on December 30, 2022, Regeneron filed Grounds of Appeal before the TBA. On January 23, 2023, the TBA invited Amgen to file any response to Regeneron's Grounds of Appeal by May 23, 2023.

On April 24, 2020, the Supreme Court of Japan declined to hear Sanofi K.K.'s appeals making final the Japanese High Court's decisions that PRALUENT infringes Amgen's valid patent rights in Japan. On June 24, 2020, Amgen filed written answers to the invalidity trials initiated by Regeneron on February 12, 2020 before the Japan Patent Office seeking to invalidate Amgen's Japanese patents that were previously held infringed by PRALUENT and valid over challenges filed by Sanofi K.K. On April 15, 2021, the Japanese Patent Office dismissed Regeneron's invalidity trials, and in August 2021 Regeneron appealed the decisions to the Japanese High Court. On January 26, 2023, the Japanese High Court found Amgen's patent claims invalid for lacking adequate support. The decision is subject to appeal to the Japanese Supreme Court. Damages proceedings against Sanofi K.K. are ongoing before the Tokyo District Court, where Sanofi K.K. has initiated new validity challenges to Amgen patents in Japan.

ABP 654 (ustekinumab) Patent Litigation

Janssen Biotech, Inc. v. Amgen Inc.

On November 29, 2022, Janssen filed a lawsuit in the Delaware District Court alleging Amgen's infringement of two patents by Amgen's submission of an application for FDA licensure of ABP 654, Amgen's biosimilar version of Janssen's STELARA (ustekinumab) and also seeking declaratory judgment of infringement of the same two patents.

Antitrust Class Action

Sensipar Antitrust Class Actions

From February to April 2019, four plaintiffs filed putative class action lawsuits against Amgen and various entities affiliated with Teva Pharmaceuticals USA, Inc. (Teva) alleging anticompetitive conduct in connection with settlements between Amgen and manufacturers of generic cinacalcet product. two of those actions were brought in the Delaware District Court, captioned *UFCW Local 1500 Welfare Fund v. Amgen Inc., et al.* (February 21, 2019) (Local 1500) and *Cesar Castillo, Inc. v. Amgen Inc., et al.* (February 26, 2019) (Castillo). The third action was brought in the New Jersey District Court, captioned *Teamsters Local 237 Welfare Fund, et al. v. Amgen Inc., et al.* (March 14, 2019) (Local 237) and the fourth action was brought in the U.S. District Court for the Eastern District of Pennsylvania (the Eastern Pennsylvania District Court), captioned *KPH Healthcare Services, Inc. a/k/a Kinney Drugs, Inc. v. Amgen Inc., et al* (April 10, 2019) (KPH). Each of the lawsuits is brought on behalf of a putative class of direct or indirect purchasers of Sensipar and alleges that the plaintiffs have overpaid for Sensipar as a result of Amgen's conduct that allegedly improperly delayed market entry by manufacturers of generic cinacalcet products.

The lawsuits focus predominantly on the settlement among Amgen, Watson Laboratories, Inc. (Watson) and Teva of the parties' patent infringement litigation. Each of the lawsuits seeks, among other things, treble damages, equitable relief and attorneys' fees and costs. On April 10, 2019, the plaintiff in the KPH lawsuit filed a motion seeking to have the four lawsuits consolidated and designated as a multidistrict litigation (MDL) in the Eastern Pennsylvania District Court, and the plaintiff in the Local 1500 lawsuit filed a motion seeking to have the four lawsuits, along with *Cipla Ltd. v. Amgen Inc.*, consolidated and designated as an MDL in the Delaware District Court.

On July 31, 2019, the MDL panel entered an order consolidating in the Delaware District Court the four class action lawsuits. On September 13, 2019, the plaintiffs filed amended complaints, and on October 15, 2019, Amgen filed its motion to dismiss both the direct purchaser plaintiffs' consolidated class action complaint and the indirect purchaser end payer plaintiffs' complaint. On December 6, 2019, the plaintiffs responded to Amgen's motion to dismiss and, on January 10, 2020, Amgen filed its response. On February 6, 2020, the motions in the class action lawsuits were transferred to the U.S. Magistrate Judge for the District of Delaware (Magistrate Judge) for a recommendation. The MDL panel certified its conditional transfer order on February 6, 2020 transferring the additional class action lawsuit brought in the U.S. District Court for the Southern District of Florida, captioned *MSP Recovery Claims v. Amgen Inc., et al.*, to the Delaware District Court.

On July 22, 2020, the Magistrate Judge issued a recommendation to the Delaware District Court that the claims against Amgen be dismissed but leave be given to plaintiffs to amend their complaints. On August 5, 2020, the plaintiffs filed objections to the Magistrate Judge's report and recommendation. On August 19, 2020, Amgen filed a response to the plaintiffs' objections. On November 30, 2020, the District Court adopted the Magistrate Judge's recommendation in part and denied it in part, denying Amgen's motion to dismiss on the grounds that plaintiffs adequately alleged reverse payment claims but granted Amgen's motion to dismiss with respect to the other Federal antitrust claims. On December 23, 2020, Teva, Watson and Actavis filed a motion for interlocutory appeal and for a stay pending appeal and Amgen filed its joinder (the 1292 Motion). On January 5, 2021, a joint status report was filed advising the Delaware District Court that the defendants are still considering whether to withdraw the 1292 Motion and plaintiffs' offer to stay discovery, pending further rulings on motions to dismiss the amended complaints. On January 19, 2021, a joint status report was filed pursuant to the Delaware District Court's January 6, 2021 order along with a stipulation to defer the 1292 Motion until after rulings on the amended complaints.

On February 16, 2021, the plaintiffs in the antitrust class action lawsuit brought on behalf of putative classes of direct or indirect purchasers of Sensipar filed their amended complaints. On March 4, 2021, a stipulation and order regarding the filing of a second amended complaint were filed to add another plaintiff: Teamsters Western Region & Local 177 Health Care Fund. On March 17, 2021, a defendant, MSP Recovery Claims, Series LLC, filed its notice of voluntary dismissal. On March 30, 2021, the remaining defendants, including Amgen, filed their motions to dismiss the second amended complaint.

On April 27, 2021, plaintiffs filed their oppositions to defendants' (including Amgen's) motion to dismiss, and defendants' reply was filed on May 25, 2021. A hearing on defendants' motion to dismiss was held in the Delaware District Court on July 13, 2021.

On March 11, 2022, the Delaware District Court granted defendants' (including Amgen's) motion to dismiss except as to the reverse payment claim and various state law claims from ten of the states in which plaintiffs reside. On May 11, 2022, the parties filed motions asking permission to seek interlocutory appeal. The plaintiffs did not oppose Amgen's motion and instead argued all issues should be appealed at this time. Amgen filed its opposition to plaintiffs' motion on June 10, 2022, and reply briefs were filed on June 24, 2022.

Regeneron Pharmaceuticals, Inc. Antitrust Action

On May 27, 2022, Regeneron Pharmaceuticals, Inc. (Regeneron) filed suit against Amgen in the Delaware District Court for federal and state antitrust and unfair competition violations and tortious interference with prospective business relations. Regeneron alleges that Amgen's sales contracting practices for Repatha, ENBREL and Otezla with key insurers, third-party payers and PBMs have harmed the sales of its product PRALUENT and focuses on two primary arguments: that Amgen improperly bundled sales of Repatha with ENBREL, Otezla and potentially other products and sought exclusive or de facto exclusive formulary positioning for Repatha. Amgen's initial responsive pleading, a motion to dismiss, was filed on August 1, 2022.

On August 11, 2022, Amgen moved to stay the case pending the ultimate decision on the merits of the ongoing patent litigation between Amgen and Regeneron in *Amgen Inc., et al. v. Sanofi, et al.* On January 6, 2023, the Delaware District Court heard oral argument on the motion to stay and the motion to dismiss.

U.S. Tax Litigation.

Amgen Inc. & Subsidiaries v. Commissioner of Internal Revenue

See Note 6, Income taxes, for discussion of the IRS tax dispute and the Company's petitions in the U.S. Tax Court.

ChemoCentryx, Inc. Securities Matters

On May 5 and June 8 of 2021, ChemoCentryx and its Chief Executive Officer were named as defendants in two putative shareholder class actions filed in the U.S. District Court for the Northern District of California (Northern District Court of California). These cases were consolidated into *Homyk v. ChemoCentryx, Inc.* in which the plaintiffs allege violations of Sections 10(b) and 20(a) of the Securities Exchange Act in connection with statements regarding the New Drug Application for TAVNEOS and the underlying Phase 3 clinical trial, seeking an award of damages, interest and attorneys' fees. On March 28, 2022, the plaintiffs filed their consolidated amended complaint, and on May 19, 2022, ChemoCentryx moved to dismiss these claims.

On January 25, 2022, the Board of Directors and certain of ChemoCentryx's officers were named as defendants in a putative shareholder derivative action filed in the Northern District Court of California, *Napoli v. Schall*, and on March 11, 2022, the Northern District Court of California stayed the action until judgment is entered in the *Homyk v. ChemoCentryx, Inc.* action. On December 5, 2022 the plaintiffs in *Napoli* filed a Notice of Voluntary Dismissal, and on December 22, 2022, the Court ordered the dismissal of the case.

Commitments – U.S. repatriation tax

Under the 2017 Tax Act, we elected to pay in eight annual installments the repatriation tax related primarily to prior indefinitely invested earnings of our foreign operations. The following table summarizes the remaining scheduled repatriation tax payments as of December 31, 2022 (in millions):

	Amounts
2023	$ 1,100
2024	1,467
2025	1,834
Total remaining U.S. repatriation tax commitments	$ 4,401

SCHEDULE II

AMGEN INC.

VALUATION AND QUALIFYING ACCOUNTS

Years ended December 31, 2022, 2021 and 2020

(In millions)

Allowance for doubtful accounts	Balance at beginning of period	Additions charged to costs and expenses	Other additions	Deductions	Balance at end of period
Year ended December 31, 2022	$ 26	$ —	$ —	$ (4)	$ 22
Year ended December 31, 2021	$ 32	$ —	$ —	$ (6)	$ 26
Year ended December 31, 2020	$ 26	$ 8	$ —	$ (2)	$ 32

DESCRIPTION OF AMGEN INC.'S SECURITIES REGISTERED PURSUANT TO SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934

As of February 6, 2023, Amgen Inc. has two classes of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"): (1) our common stock, par value $0.0001 per share (the "Common Stock"); and (2) our 2.000% Senior Notes due 2026 (the "Notes").

DESCRIPTION OF COMMON STOCK

The following description of our capital stock is a summary and does not purport to be complete. It is subject to and qualified in its entirety by reference to our restated certificate of incorporation, as amended ("certificate of incorporation") and our amended and restated bylaws, each of which are incorporated by reference as an exhibit to the Annual Report on Form 10-K ("Annual Report"). The terms "Amgen" "we," "our," and "us" refer solely to Amgen Inc. and not its subsidiaries.

Our authorized capital stock includes 2,750,000,000 shares of Common Stock. Each holder of our Common Stock is entitled to one vote per share on all matters to be voted upon by our stockholders. Upon any liquidation, dissolution or winding up of our business, the holders of our Common Stock are entitled to share equally in all assets available for distribution after payment of all liabilities, subject to the liquidation preference of shares of preferred stock, if any, then outstanding. Our Common Stock has no preemptive or conversion rights. All outstanding shares of common stock are fully paid and non-assessable. Our outstanding shares of common stock are quoted on the Nasdaq Global Select Market under the symbol "AMGN."

Dividends

Subject to preferences that may be applicable to any preferred stock (if any such stock be issued and outstanding), the holders of Common Stock are entitled ratably to receive dividends, if any, declared by our board of directors out of funds legally available for the payment of dividends.

Anti-Takeover Effects of Delaware Law

We are subject to the provisions of Section 203 of the Delaware General Corporation Law. Under Section 203, we would generally be prohibited from engaging in any business combination with any interested stockholder for a period of three years following the time that this stockholder became an interested stockholder unless:

- prior to such time, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned (i) by persons who are directors and also officers and (ii) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- at or subsequent to such time, the business combination is approved by the board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock which is not owned by the interested stockholder.

Under Section 203, a "business combination" includes:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, lease, exchange, mortgage, pledge, transfer or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;

- any transaction which results in the issuance or transfer by the corporation or by any direct or indirect majority-owned subsidiary of the corporation of any stock of the corporation or of such subsidiary to the interested stockholder, subject to limited exceptions;

- any transaction involving the corporation or any direct or indirect majority-owned subsidiary of the corporation which has the effect, directly or indirectly, of increasing the proportionate share of the stock of any class or series, or securities convertible into the stock of any class or series, of the corporation or of any such subsidiary which is owned by the interested stockholder; or

- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation or any direct or indirect majority-owned subsidiary of the corporation.

In general, Section 203 defines an interested stockholder as an entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by such entity or person.

Transfer Agent

The transfer agent and registrar for our Common Stock is the American Stock Transfer & Trust Company.

DESCRIPTION OF THE NOTES

The following description of our Notes is a summary and does not purport to be complete. It is subject to and qualified in its entirety by reference to the indenture, dated as of May 22, 2014 (the "Indenture"), between us and The Bank of New York Mellon Trust Company, N.A., as trustee (the "Trustee"), which are incorporated by reference as exhibits to the Annual Report of which this Exhibit 4.34 is a part. The Notes are traded on The Nasdaq Stock Market LLC under the trading symbol of "AMGN26." We encourage you to read the above referenced Indenture for additional information.

General

We issued €750,000,000 in aggregate principal amount of 2.000% Senior Notes, maturing February 25, 2026 and bearing interest at a rate of 2.000% per annum, payable annually on February 25 of each year. As of February 6, 2023, €750,000,000 aggregate principal amount of the Notes was outstanding.

We may, without notice to or the consent of the holders or beneficial owners of the Notes of any series, create and issue additional Notes and/or notes having the same ranking, interest rate, maturity and other terms as the Notes of that series. Any additional debt securities having such similar terms, together with that series of Notes, could be considered part of the same series of Notes under the Indenture; *provided* that, in the case of any notes represented by global notes, for so long as may be required by the United States Securities Act of 1933, as amended (the "Securities Act"), or the procedures of the common depositary, the Euroclear System ("Euroclear") or Clearstream Banking, S.A. ("Clearstream") (or a successor or clearing system), such additional Notes will be represented by one or more separate global notes in accordance with the terms of the Indenture and subject to applicable transfer or other restrictions.

The Notes are redeemable prior to maturity as described below under the headings "—Optional Redemption" and "—Redemption Upon Changes in Withholding Taxes." The Notes do not have the benefit of any sinking funds. The Notes of each series are issued only in registered form without coupons attached in minimum denominations of €100,000 and any integral multiple of €1,000 in excess thereof. Each series of Notes are represented by one or more global securities deposited with, or on behalf of, a common depositary for Euroclear and Clearstream (the "global notes").

Certain Definitions

As used herein, the following terms have the meanings set forth below.

"*Attributable Liens*" means in connection with a sale and lease-back transaction the lesser of:

(1) the fair market value of the assets subject to such transaction; and

(2) the present value (discounted at a rate per annum equal to the average interest borne by all outstanding debt securities issued under the Indenture (which may include debt securities in addition to the Notes) determined on a weighted average basis and compounded semi-annually) of the obligations of the lessee for rental payments during the term of the related lease.

"*Business Day*" means any day on which commercial banks and foreign exchange markets are open for business in New York and London and which is a day on which the Trans-European Automated Real-Time Gross Settlement Express Transfer System (TARGET2) is operating.

"*Calculation Agent*" means an independent financial institution appointed by Amgen, which may include the paying agent, any of the managers or their respective affiliates who agree to serve in such capacity.

"*Capital Lease*" means any Indebtedness represented by a lease obligation of a Person incurred with respect to real property or equipment acquired or leased by such Person and used in its business that is required to be recorded as a capital lease in accordance with GAAP.

"*Consolidated Net Worth*" means, as of any date of determination, the Stockholders' Equity of us and our Consolidated Subsidiaries on that date.

"*Consolidated Subsidiary*" means, as of any date of determination and with respect to any Person, any Subsidiary of that Person whose financial data is, in accordance with GAAP, reflected in that Person's consolidated financial statements.

"*Credit Facilities*" means, one or more debt facilities (including, without limitation, the revolving credit agreement and the term loan credit agreement, as applicable) or commercial paper facilities, in each case, with banks or other institutional lenders providing for revolving credit loans, term loans, receivables financing (including through the sale of receivables to such lenders or to special purpose entities formed to borrow from such lenders against such receivables) or letters of credit, in each case, as amended, restated, modified, renewed, refunded, replaced (whether upon or after termination or otherwise) or refinanced (including by means of sales of debt securities to institutional investors) in whole or in part from time to time.

"*Exempted Debt*" means the sum of the following as of the date of determination:

(1) our Indebtedness incurred after the first issue date of the Notes and secured by Liens not permitted by the first sentence under "—Limitation on Liens" below; and

(2) our and our Subsidiaries' Attributable Liens in respect of sale and lease-back transactions entered into after the first issue date of the Notes pursuant to the second paragraph of "—Limitation on Sale and Lease-Back Transactions" below.

"*GAAP*" means accounting principles generally accepted in the United States set forth in the Accounting Standards Codification of the Financial Accounting Standards Board or in such other documents by such other entity as have been approved by a significant segment of the accounting profession, which are in effect as of the date of determination.

"*Governmental Agency*" means:

(1) any foreign, federal, state, county or municipal government, or political subdivision thereof;

(2) any governmental or quasi-governmental agency, authority, board, bureau, commission, department, instrumentality or public body;

(3) any court or administrative tribunal; and

(4) with respect to any Person, any arbitration tribunal or other nongovernmental authority to whose jurisdiction that Person has consented.

"*Hedging Obligations*" means, with respect to any specified Person, the obligations of such Person under:

(1) interest rate swap agreements (whether from fixed to floating or from floating to fixed), interest rate cap agreements and interest rate collar agreements;

(2) other agreements or arrangements designed to manage interest rates or interest rate risk; and

(3) other agreements or arrangements designed to protect such Person against fluctuations in currency exchange rates or commodity prices.

"*Indebtedness*" of any Person means, without duplication, any indebtedness, whether or not contingent, in respect of borrowed money or evidenced by bonds, notes, debentures or similar instruments or letters of credit (or reimbursement agreements with respect thereto) or representing the balance deferred and unpaid of the purchase price of any Property (including pursuant to Capital Leases), except any such balance that constitutes an accrued expense or trade payable, if and to the extent any of the foregoing indebtedness would appear as a liability upon a balance sheet of such Person prepared on a consolidated basis in accordance with GAAP (but does not include

contingent liabilities which appear only in a footnote to a balance sheet), and shall also include, to the extent not otherwise included, the guaranty of items which would be included within this definition.

"*Laws*" means, collectively, all foreign, federal, state and local statutes, treaties, rules, regulations, ordinances, codes and administrative or controlling precedents of any Governmental Agency.

"*Lien*" means any lien, security interest, charge or encumbrance of any kind (including any conditional sale or other title retention agreement, any lease in the nature thereof, and any agreement to give any security interest).

"*Make-Whole Amount*" means the excess of (1) the net present value, on the redemption date, of the principal being redeemed or paid and the amount of interest (exclusive of interest accrued to the date of redemption) that would have been payable if such redemption had not been made, over (2) the aggregate principal amount of the Notes being redeemed or paid. Net present value shall be determined by discounting, on a semi-annual basis, such principal and interest at the Reinvestment Rate (as defined below and as determined on the third Business Day preceding the date such notice of redemption is given) from the respective dates on which such principal and interest would have been payable if such redemption had not been made.

"*Permitted Liens*" means:

(1) Liens securing Indebtedness under Credit Facilities;

(2) Liens on accounts receivable, merchandise inventory, equipment, and patents, trademarks, trade names and other intangibles, securing our Indebtedness;

(3) Liens on any of our assets, any of our Subsidiaries' assets, or the assets of any joint venture to which we or any of our Subsidiaries is a party, created solely to secure obligations incurred to finance the refurbishment, improvement or construction of such asset, which obligations are incurred no later than 24 months after completion of such refurbishment, improvement or construction, and all renewals, extensions, refinancings, replacements or refundings of such obligations;

(4) (a) Liens given to secure the payment of the purchase price incurred in connection with the acquisition (including acquisition through merger or consolidation) of Property (including shares of stock), including Capital Lease transactions in connection with any such acquisition, and (b) Liens existing on Property at the time of acquisition thereof or at the time of acquisition by us or one of our Subsidiaries of any Person then owning such Property whether or not such existing Liens were given to secure the payment of the purchase price of the Property to which they attach; provided that, with respect to clause (a), the Liens shall be given within 24 months after such acquisition and shall attach solely to the Property acquired or purchased and any improvements then or thereafter placed thereon;

(5) Liens in favor of customs and revenue authorities arising as a matter of law to secure payment of customs duties in connection with the importation of goods;

(6) Liens upon specific items of inventory or other goods and proceeds of any Person securing such Person's obligations in respect of bankers' acceptances issued or created for the account of such Person to facilitate the purchase, shipment or storage of such inventory or other goods;

(7) Liens securing reimbursement obligations with respect to letters of credit that encumber documents and other Property relating to such letters of credit and the products and proceeds thereof;

(8) Liens on key-man life insurance policies granted to secure our Indebtedness against the cash surrender value thereof;

(9) Liens encumbering customary initial deposits and margin deposits and other Liens in the ordinary course of business, in each case securing Hedging Obligations and forward contract, option, futures contracts, futures options or similar agreements or arrangements designed to protect us or any of our Subsidiaries from fluctuations in interest rates, currencies or the price of commodities;

(10) Liens arising out of conditional sale, title retention, consignment or similar arrangements for the sale of goods entered into by us or any of our Subsidiaries in the ordinary course of business;

(11) pre-existing Liens on assets acquired by us or any of our Subsidiaries after the first issue date of the Notes;

(12) Liens in our favor or the favor of any of our Subsidiaries;

(13) inchoate Liens incident to construction or maintenance of real property, or Liens incident to construction or maintenance of real property, now or hereafter filed of record for sums not yet delinquent or being contested in good faith, if reserves or other appropriate provisions, if any, as shall be required by GAAP shall have been made therefor;

(14) statutory Liens arising in the ordinary course of business with respect to obligations which are not delinquent or are being contested in good faith, if reserves or other appropriate provisions, if any, as shall be required by GAAP shall have been made therefor;

(15) Liens consisting of pledges or deposits to secure obligations under workers' compensation laws or similar legislation, including Liens of judgments thereunder which are not currently dischargeable;

(16) Liens consisting of pledges or deposits of Property to secure performance in connection with operating leases made in the ordinary course of business to which we or any of our Subsidiaries is a party as lessee, provided the aggregate value of all such pledges and deposits in connection with any such lease does not at any time exceed 16 2⁄3% of the annual fixed rentals payable under such lease;

(17) Liens consisting of deposits of Property to secure our statutory obligations or statutory obligations of any of our Subsidiaries in the ordinary course of its business;

(18) Liens consisting of deposits of Property to secure (or in lieu of) surety, appeal or customs bonds in proceedings to which we or any of our Subsidiaries is a party in the ordinary course of its business, but not in excess of $75,000,000;

(19) purchase money Liens or purchase money security interests upon or in any Property acquired or held by us or any of our Subsidiaries in the ordinary course of business to secure the purchase price of such Property or to secure indebtedness incurred solely for the purpose of financing the acquisition of such Property;

(20) Liens on an asset created in connection with the acquisition, construction or development of additions, extensions or improvements to such asset which shall be financed by obligations described in Sections 142, 144(a) or 144(c) of the Code, or by obligations entitled to substantially similar tax benefits under other legislation or regulations in effect from time to time; and

(21) Liens on Property subject to escrow or similar arrangements established in connection with litigation settlements.

"*Person*" means any individual, corporation, partnership, joint venture, association, limited liability company, joint-stock company, trust, unincorporated organization or government or any agency or political subdivision thereof.

"*Property*" means any property or asset, whether real, personal or mixed, or tangible or intangible.

"*Reference Bund*" means the Federal Government Bond of Bundesrepublik Deutschland due February 15, 2026, with ISIN 0001102390.

"*Reference Dealers*" means each of the four banks selected by a Calculation Agent which are primary European government security dealers, and their respective successors, or market makers in pricing corporate bond issues.

"*Reinvestment Rate*" means 0.300% plus the average of the four quotations given by the Reference Dealers of the mid-market annual yield to maturity of the Reference Bund at 11: 00 a.m. (Central European time ("CET")) on the fourth Business Day preceding such redemption date and if the Reference Bund is no longer outstanding, a Similar Security will be chosen by the Calculation Agent at 11: 00 a.m. (CET) on the third Business Day in London preceding such redemption date, quoted in writing by the Calculation Agent to us.

"*Similar Security*" means a reference bond or reference bonds issued by the German Federal Government having an actual or interpolated maturity comparable with the remaining term of the Notes that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of the Notes.

"*Stockholders' Equity*" means, as of any date of determination, stockholders' equity as of that date determined in accordance with GAAP; provided that there shall be excluded from Stockholders' Equity any amount attributable to capital stock that is, directly or indirectly, required to be redeemed or repurchased by the issuer thereof at a specified date or upon the occurrence of specified events or at the election of the holder thereof.

"*Subsidiary*" of any specified person means any corporation, association or other business entity of which more than 50% of the total voting power of shares of capital stock entitled (without regard to the occurrence of any contingency) to vote in the election of directors, managers or trustees thereof is at the time owned or controlled, directly or indirectly, by such person or one or more of the other Subsidiaries of that person or a combination thereof.

Paying Agent and Registrar

The Bank of New York Mellon, London Branch, is the principal paying agent for the Notes (the "principal paying agent"). The Bank of New York Mellon Trust Company, N.A., is the security registrar for the Notes. Upon notice to the Trustee, we may change any paying agent or security registrar, and we or any of our subsidiaries may act as paying agent or registrar.

Interest

The Notes accrue interest at a rate of 2.000% per annum. The Notes accrue interest on their stated principal amounts from the most recent interest payment date on which interest has been paid or duly provided for. Accrued and unpaid interest on the Notes are payable annually in arrears on February 25 of each year. In each case, interest is paid to the holder in whose name a note is registered at the close of business on the day that is one Business Day prior to the relevant interest payment date.

Interest on the Notes is computed on the basis of the actual number of days in the period for which interest is being calculated and the actual number of days from and including the last date on which interest was paid on the Notes, to but excluding the next scheduled interest payment date. This payment convention is referred to as Actual/Actual (ICMA) as defined in the rulebook of the International Capital Market Association. If any date on which interest, principal or premium is payable on the Notes is not a Business Day, then payment of such amounts payable on such date will be made on the next succeeding day that is a Business Day (and, except as provided under "—Payment of Additional Amounts," without any interest or other payment in respect of any such delay) with the same force and effect as if made on such interest payment date or maturity date, as the case may be.

Any amounts payable on any Notes that are not punctually paid on any payment date will cease to be payable to the person in whose name such Notes are registered on the relevant record date, and such defaulted payment will instead be payable to the person in whose name such Notes are registered on the special record date or other specified date determined in accordance with the Indenture.

Ranking

The Notes are senior unsecured obligations of Amgen. The Notes rank:

- equal in right of payment to all of our other existing and future senior unsecured indebtedness;
- senior in right of payment to all of our existing and future subordinated indebtedness; and
- effectively subordinated in right of payment to all of our subsidiaries' obligations (including secured and unsecured obligations) and subordinated in right of payment to our secured obligations, to the extent of the assets securing such obligations.

The Notes and the Indenture do not limit our ability to incur additional indebtedness. We may incur substantial additional amounts of indebtedness in the future.

Optional Redemption

The Notes may be redeemed prior to maturity at our option, at any time in whole or from time to time in part. If the Notes are redeemed before November 25, 2025 (three months prior to the maturity date of the Notes), the redemption price will equal the sum of (1) 100% of the principal amount being redeemed, plus accrued and unpaid interest to, but not including, the redemption date, and (2) the Make-Whole Amount, if any. If the Notes are redeemed on or after November 25, 2025 (three months prior to the maturity date of the Notes), the redemption price will equal 100% of the principal amount being redeemed, plus accrued and unpaid interest to, but not including, the redemption date.

If we give notice as provided in the Indenture and funds for the redemption of any Notes called for redemption sufficient to pay the redemption price have been deposited with the principal paying agent on or before 10:00 a.m., London time, on the redemption date, such Notes will cease to bear interest on the date fixed for redemption. Thereafter, the only right of the holders of such Notes will be to receive payment of the redemption price.

Upon surrender of a note that is redeemed in part, we shall execute and the Trustee shall authenticate for the holder a new note of the same series and the same maturity equal in principal amount to the unredeemed portion of the note surrendered.

The Notes are redeemable prior to maturity as described below under the headings "—Optional Redemption" and "—Redemption Upon Changes in Withholding Taxes." The Notes do not have the benefit of any sinking funds. The Notes of each series are issued only in registered form without coupons attached in minimum denominations of €100,000 and any integral multiple of €1,000 in excess thereof. Each series of Notes are represented by one or more global securities deposited with, or on behalf of, a common depositary for Euroclear and Clearstream (the "global notes").

Payments on the global notes are made through the principal paying agent (as defined herein under the heading "—Paying Agent and Registrar"). Payments on the Notes are made at the specified office or agency of the principal paying agent; *provided* that all such payments with respect to Notes represented by one or more global notes registered in the name of or held by a nominee of Euroclear or Clearstream, as applicable, will be by wire transfer of immediately available funds to the account specified by the holder or holders thereof.

In addition, at our option, if certificated notes are issued, we may make payments by check mailed to the holder's registered address or by wire transfer to the account shown on the register for the certificated notes.

If certificated notes are issued, they will be issued only in minimum denominations of €100,000 principal amount and integral multiples of €1,000 in excess thereof upon receipt by the applicable registrar of instructions relating thereto and any certificates and other documentation required under the Indenture. It is expected that such instructions will be based upon directions received by Euroclear or Clearstream, as applicable, from the participant which owns the relevant book-entry interests. Certificated notes issued in exchange for book-entry interests will,

except as provided in the Indenture, be subject to, and will have a legend with respect to the restrictions on transfer summarized below.

Subject to the restrictions on transfer referred to above, Notes issued as certificated notes may be transferred or exchanged, in whole or in part, in minimum denominations of €100,000 principal amount and integral multiples of €1,000 in excess thereof to persons who take delivery thereof in the form of certificated notes. In connection with any such transfer or exchange, the Indenture requires the transferring or exchanging holder to, among other things, furnish appropriate endorsements and transfer documents, to furnish information regarding the account of the transferee at Euroclear or Clearstream, where appropriate, to furnish certain certificates and opinions, and to pay any tax or other governmental charge in connection with such transfer or exchange. Any such transfer or exchange will otherwise be made without charge to the holder.

Notwithstanding the foregoing, we are not required to register the transfer or exchange of any Notes:

- for a period of 15 days prior to any date fixed for the redemption of the Notes;
- for a period of 15 days immediately prior to the date fixed for selection of Notes to be redeemed in part;
- for a period of 15 days prior to the record date with respect to any interest payment date; or
- which the holder has tendered (and not withdrawn) for repurchase in connection with a change of control offer.

Redemption Upon Changes in Withholding Taxes

If (a) as a result of any change in, or amendment to, the laws (or any regulations or rulings promulgated thereunder) of the United States (or any political subdivision or taxing authority thereof or therein having power to tax) (a "Relevant Taxing Jurisdiction"), or any change in, or amendment to, the official position regarding the application or interpretation of such laws, regulations or rulings (including by virtue of a holding, judgment or order by a court of competent jurisdiction or a change in published administrative practice), which change or amendment is announced on or after the date of the applicable prospectus supplement, we become or will become obligated to pay additional amounts as described herein under the heading "—Payment of Additional Amounts" or (b) any act is taken by a Relevant Taxing Jurisdiction on or after the date of the applicable prospectus supplement, whether or not such act is taken with respect to us or any affiliate, that results in a substantial probability that we will or may be required to pay such additional amounts, then we may, at our option, redeem the Notes of any affected series, as a whole but not in part, upon not less than 15 days' nor more than 60 days' published notice in accordance with the applicable notice requirement, at 100% of their principal amount, together with interest accrued thereon to the date fixed for redemption; *provided* that we determine, in our business judgment, that the obligation to pay such additional amounts cannot be avoided by the use of reasonable measures available to us (which does not include substitution of the obligor under the Notes). No redemption pursuant to (a) or (b) above may be made unless we have received an opinion of independent counsel to the effect that as a result of such change or amendment we will, or that an act taken by a Relevant Taxing Jurisdiction has resulted in a substantial probability that we will, or may, be required to pay the additional amounts described herein under the heading "—Payment of Additional Amounts," and we shall have delivered to the Trustee a certificate, signed by a duly authorized officer, stating that based on such opinion we are entitled to redeem the Notes pursuant to their terms.

Notice of Redemption

We will publish a notice of any redemption of any affected series of Notes described above in accordance with the applicable notice provisions. If fewer than all of the Notes are to be redeemed at any time, the principal paying agent will select the Notes to be redeemed in accordance with the rules of the principal securities exchange, if any, on which the Notes are listed at such time or, if the not Notes are not listed on a securities exchange, in accordance with the rules of Euroclear or Clearstream, or absent any such rules, *pro rata*, by lot; *provided*, *however*, that no such partial redemption shall reduce the portion of the principal amount of a note not redeemed to less than €100,000. The principal paying agent shall not be liable for any selections made by it in accordance with this paragraph.

We will give notice of any optional redemption to the registered holders of Notes at least 15 but not more than 60 days before a redemption date. The notice shall identify the Notes to be redeemed and shall state:

- the redemption date;
- the redemption price;
- the name and address of the paying agent;
- if any Notes are being redeemed in part, the portion of the principal amount of such notes to be redeemed and that, after the redemption date and upon surrender of such Notes, a new note or notes in principal amount equal to the unredeemed portion of the original note shall be issued in the name of the holder of the Notes thereof upon cancellation of the original note;
- that the notes called for redemption must be surrendered to the paying agent to collect the redemption price;
- that interest on the Notes called for redemption ceases to accrue on and after the redemption date unless we default in the deposit of the redemption price; and
- the CUSIP and/or ISIN number of the Notes.

At our request, the Trustee shall give the notice of redemption in our name and at our expense.

Payment of Additional Amounts

All payments of principal and interest on the Notes will be made free and clear of and without withholding or deduction for or on account of any present or future tax, assessment or other governmental charge (collectively, "Taxes") imposed by any Relevant Taxing Jurisdiction, unless the withholding of such Taxes is required by law or the official interpretation or administration thereof. We will, subject to the exceptions and limitations set forth below, pay such additional amounts as are necessary in order that the net payment of the principal of and interest on the applicable series of Notes to a holder who is not a U.S. person for U.S. federal income tax purposes, after deduction for any present or future Taxes of any Relevant Taxing Jurisdiction, imposed by withholding with respect to the payment, will not be less than the amount provided in such Notes to be then due and payable*; provided*, *however*, that the foregoing obligation to pay additional amounts shall not apply:

(1) to any Taxes that are imposed or withheld solely by reason of the holder or beneficial owner, or a fiduciary, settlor, beneficiary, member or shareholder of the holder if the holder is an estate, trust, partnership or corporation, or a person holding a power over an estate or trust administered by a fiduciary holder, being considered as:

(a) being or having been present or engaged in a trade or business in the United States or having or having had a permanent establishment in the United States;

(b) having a current or former relationship with the United States, including a relationship as a citizen or resident thereof;

(c) being or having been a foreign or domestic personal holding company, a passive foreign investment company or a controlled foreign corporation with respect to the United States or a corporation that has accumulated earnings to avoid U.S. federal income tax;

(d) being or having been a "10-percent shareholder" of the obligor under the Notes within the meaning of section 871(h)(3) of the U.S. Internal Revenue Code of 1986, as amended (the "Code"), or any successor provision; or

(e) being or having been a bank receiving interest described in section 881(c)(3)(A) of the Code or any successor provision;

(2) to any holder that is not the sole beneficial owner of the note, or a portion thereof, or that is a fiduciary or partnership, but only to the extent that a beneficiary or settlor with respect to the fiduciary, a beneficial

owner or member of the partnership would not have been entitled to the payment of an additional amount had the beneficiary, settlor, beneficial owner or member received directly its beneficial or distributive share of the payment;

(3) to any Taxes that are imposed or withheld solely by reason of the failure to (a) comply with certification, identification or information reporting requirements concerning the nationality, residence, identity or connection with a Relevant Taxing Jurisdiction of the holder or beneficial owner of such note, if compliance is required by statute or by regulation of the Relevant Taxing Jurisdiction as a precondition to relief or exemption from such Taxes (including the submission of an applicable U.S. Internal Revenue Service ("IRS") Form W-8 (with any required attachments)) or (b) comply with any informational gathering and reporting requirements or to take any similar action (including entering into any agreement with the IRS), in each case, that are required to obtain the maximum available exemption from withholding by a Relevant Taxing Jurisdiction that is available to payments received by or on behalf of the holder;

(4) to any Taxes that are imposed otherwise than by withholding from the payment;

(5) to any Taxes that are imposed or withheld solely by reason of a change in law, regulation, or administrative or judicial interpretation that becomes effective more than 15 days after the payment becomes due or is duly provided for, whichever occurs later;

(6) to any estate, inheritance, gift, sales, excise, transfer, wealth or personal property tax or a similar tax, assessment or governmental charge;

(7) to any Taxes required to be withheld by any paying agent from any payment of principal of or interest on any note, if such payment can be made without such withholding by any other paying agent;

(8) to any Taxes that are imposed or levied by reason of the presentation (where presentation is required in order to receive payment) of such notes for payment on a date more than 30 days after the date on which such payment became due and payable, except to the extent that the holder or beneficial owner thereof would have been entitled to additional amounts had the notes been presented for payment on any date during such 30 day period;

(9) to any Taxes that are imposed or withheld pursuant to Sections 1471 through 1474 of the Code, as of the issue date (or any amended or successor version of such sections), any U.S. Treasury Regulations promulgated thereunder, any official interpretations thereof, any similar law or regulation adopted pursuant to an intergovernmental agreement between a non-U.S. jurisdiction and the United States with respect to the foregoing or any agreements entered into pursuant to Section 1471(b)(1) of the Code; or

(10) in the case of any combination of any items (1) through (9).

The notes are subject in all cases to any tax, fiscal or other law or regulation or administrative or judicial interpretation applicable thereto. Except as specifically provided under this heading "—Payment of Additional Amounts," we are not required to make any payment with respect to any tax, assessment or governmental charge imposed by any government or a political subdivision or taxing authority thereof or therein.

Change of Control Offer

If a change of control triggering event occurs, unless we have exercised our option to redeem the notes as described above, we will be required to make an offer (the "change of control offer") to each holder of the notes to repurchase all or any part (equal to €100,000 or integral multiples of €1,000 in excess thereof) of that holder's notes on the terms set forth in such notes. In the change of control offer, we will be required to offer payment in cash equal to 101 % of the aggregate principal amount of notes repurchased, plus accrued and unpaid interest, if any, on the notes repurchased to the date of repurchase (the "change of control payment"). Within 30 days following any change of control triggering event, a notice will be provided to holders of the notes describing the transaction that constitutes the change of control triggering event and offering to repurchase the notes on the date specified in the notice, which date will be no earlier than 30 days and no later than 60 days from the date such notice is provided (the "change of control payment date"); provided, however, that in no event will the change of control payment date occur prior to the date 90 days following the first issue date of the notes.

On the change of control payment date, we will, to the extent lawful:

- accept for payment all notes or portions of notes properly tendered pursuant to the change of control offer;
- by 10:00 a.m., London time, deposit with the principal paying agent an amount equal to the change of control payment in respect of all notes or portions of notes properly tendered; and
- deliver or cause to be delivered to the Trustee the notes properly accepted together with an officer's certificate stating the aggregate principal amount of notes or portions of notes being repurchased.

We will not repurchase any notes if there has occurred and is continuing on the change of control payment date an event of default under the Indenture, other than a default in the payment of the change of control payment upon a change of control triggering event.

We will comply with the requirements of Rule 14e-1 under the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act"), and any other securities laws and regulations thereunder to the extent those laws and regulations are applicable in connection with the repurchase of the notes as a result of a change of control triggering event. To the extent that the provisions of any such securities laws or regulations conflict with the change of control offer provisions of the notes, we will comply with those securities laws and regulations and will not be deemed to have breached our obligations under the change of control offer provisions of the notes by virtue of any such conflict.

For purposes of the change of control offer provisions of the notes, the following terms will be applicable:

"*Beneficial owner*" shall be determined in accordance with Rules 13d-3 and 13d-5 under the Exchange Act or any successor provisions, except that a person will be deemed to have beneficial ownership of all shares that person has the right to acquire irrespective of whether that right is exercisable immediately or only after the passage of time.

"*Change of control*" means the occurrence of any of the following: (1) the consummation of any transaction (including, without limitation, any merger or consolidation) the result of which is that any person or group (other than our company or one of our subsidiaries) becomes the beneficial owner, directly or indirectly, of more than 50% of our voting stock or other voting stock into which our voting stock is reclassified, consolidated, exchanged or changed, measured by voting power rather than number of shares; provided, however, that a person shall not be deemed beneficial owner of, or to own beneficially, (A) any securities tendered pursuant to a tender or exchange offer made by or on behalf of such person or any of such person's affiliates until such tendered securities are accepted for purchase or exchange thereunder, or (B) any securities if such beneficial ownership (i) arises solely as a result of a revocable proxy delivered in response to a proxy or consent solicitation made pursuant to the applicable rules and regulations under the Exchange Act, and (ii) is not also then reportable on Schedule 13D (or any successor schedule) under the Exchange Act; (2) the direct or indirect sale, transfer, conveyance or other disposition (other than by way of merger or consolidation), in one or more series of related transactions, of all or substantially all of our assets and the assets of our subsidiaries, taken as a whole, to one or more persons or groups (other than our company or one of our subsidiaries), provided that none of the circumstances in this clause (2) will be a change of control if the persons that beneficially own our voting stock immediately prior to the transaction own, directly or indirectly, shares with a majority of the total voting power of all outstanding voting securities of the surviving or transferee person that are entitled to vote generally in the election of that person's board of directors, managers or trustees immediately after the transaction; (3) we consolidate with, or merge with or into any person, or any person

consolidates with, or merges with or into, us, in any such event pursuant to a transaction in which any of our outstanding voting stock or the voting stock of such other person is converted into or exchanged for cash, securities or other property, other than such transaction where the shares of our voting stock outstanding immediately prior to such transaction constitute, or are converted into or exchanged for, a majority of the voting stock of the surviving person or any direct or indirect parent company of the surviving person immediately after giving effect to such transaction; or (4) the adoption of a plan relating to our liquidation or dissolution. Notwithstanding the foregoing, a transaction will not be deemed to involve a change of control under clause (1) above if (i) we become a direct or indirect wholly-owned subsidiary of a holding company and (ii) (A) the direct or indirect holders of the voting stock of such holding company immediately following that transaction are substantially the same as the holders of our voting stock immediately prior to that transaction or (B) immediately following that transaction no person (other than a holding company satisfying the requirements of this sentence) is the beneficial owner, directly or indirectly, of more than 50% of the voting stock of such holding company.

"*Change of control triggering event*" means the occurrence of both a change of control and a rating event.

"*Fitch*" means Fitch, Inc., and its successors.

"*Group*" has the meaning given by Section 13(d) and 14(d) of the Exchange Act or any successor provisions and includes any group acting for the purpose of acquiring, holding or disposing of securities within the meaning of Rule 13d-5(b)(1) under the Exchange Act or any successor provision.

"*Investment grade rating*" means a rating equal to or higher than Baa3 (or the equivalent) by Moody's, BBB—(or the equivalent) by S&P and BBB—(or the equivalent) by Fitch, and the equivalent investment grade credit rating from any additional rating agency or rating agencies selected by us.

"*Moody's*" means Moody's Investors Service, Inc., and its successors.

"*Person*" has the meaning given by Section 13(d) and 14(d) of the Exchange Act or any successor provisions.

"*Rating agencies*" means (1) each of Fitch, Moody's and S&P; and (2) if any of Fitch, Moody's or S&P ceases to rate the notes or fails to make a rating of the notes publicly available for reasons outside of our control, a "nationally recognized statistical rating organization" within the meaning of Section 3(a)(62) of the Exchange Act selected by us (as certified by a resolution of our Board of Directors) as a replacement agency for Fitch, Moody's or S&P, or all of them, as the case may be.

"*Rating event*" means the rating on the applicable series of notes is lowered by at least two of the three rating agencies and the notes are rated below an investment grade rating by at least two of the three rating agencies on any day during the period commencing 60 days prior to the first public notice of the occurrence of a change of control or our intention to effect a change of control and ending 60 days following consummation of such change of control (which period will be extended so long as the rating of the applicable series of notes is under publicly announced consideration for a possible downgrade by any of the rating agencies).

"*S&P*" means Standard & Poor's Rating Services, a division of The McGraw-Hill Companies, Inc., and its successors.

"*Voting stock*" as applied to stock of any person, means shares, interests, participations or other equivalents in the equity interest (however designated) in such person having ordinary voting power for the election of a majority of the directors (or the equivalent) of such person, other than shares, interests, participations or other equivalents having such power only by reason of the occurrence of a contingency.

Certain Covenants

Limitation on Liens

We will not, nor will we permit any of our Subsidiaries to, create or incur any Lien on any of our or their respective Properties, whether now owned or hereafter acquired, or upon any income or profits therefrom, in order to secure any of our Indebtedness, without effectively providing that each series of notes shall be equally and ratably secured until such time as such Indebtedness is no longer secured by such Lien, except:

(1) Liens existing as of the first issue date of the notes;

(2) Liens granted after the first issue date of the notes on any of our or our Subsidiaries' Properties securing our Indebtedness created in favor of the holders of the notes;

(3) Liens securing our Indebtedness which are incurred to extend, renew or refinance Indebtedness which is secured by Liens permitted to be incurred under the Indenture; provided that those Liens do not extend to or cover any of our or our Subsidiaries' Property other than the Property securing the Indebtedness being refinanced and that the principal amount of such Indebtedness does not exceed the principal amount of the Indebtedness being refinanced;

(4) Liens created in substitution of or as replacements for any Liens permitted by the clauses directly above, provided that, based on a good faith determination of one of our officers, the Property encumbered under any such substitute or replacement Lien is substantially similar in nature to the Property encumbered by the otherwise permitted Lien which is being replaced; and

(5) Permitted Liens.

Notwithstanding the foregoing, we and any of our Subsidiaries may, without securing any series of notes, create or incur Liens which would otherwise be subject to the restrictions set forth in the preceding paragraph, if after giving effect thereto, Exempted Debt does not exceed the greater of (a) 35% of Consolidated Net Worth calculated as of the date of the creation or incurrence of the Lien or (b) 35% of Consolidated Net Worth calculated as of the first issue date of the notes.

Limitation on Sale and Lease-Back Transactions

We will not, nor will we permit any of our Subsidiaries to, enter into any sale and lease-back transaction for the sale and leasing back of any Property, whether now owned or hereafter acquired, of ours or any of our Subsidiaries, unless:

(1) such transaction was entered into prior to the first issue date of the notes;

(2) such transaction was for the sale and leasing back to us of any Property by one of our Subsidiaries;

(3) such transaction involves a lease for less than three years;

(4) we would be entitled to incur Indebtedness secured by a mortgage on the property to be leased in an amount equal to the Attributable Liens with respect to such sale and lease-back transaction without equally and ratably securing the notes pursuant to the first paragraph of "—Limitation on Liens" above; or

(5) we apply an amount equal to the fair value of the Property sold to the purchase of Property or to the retirement of our or any of our Subsidiaries' long-term Indebtedness within 120 days of the effective date of any such sale and lease-back transaction. In lieu of applying such amount to such retirement, we may, or may cause any of our Subsidiaries to, deliver debt securities to the Trustee therefor for cancellation, such debt securities to be credited at the cost thereof to us.

Notwithstanding the foregoing, we and any of our Subsidiaries may enter into any sale lease-back transaction which would otherwise be subject to the foregoing restrictions if after giving effect thereto and at the time of determination, Exempted Debt does not exceed the greater of (a) 35% of Consolidated Net Worth calculated as of the closing date of the sale-leaseback transaction or (b) 35% of Consolidated Net Worth calculated as of the first issue date of the notes.

Events of Default

Event of default means, with respect to each series of notes, any of the following:

- default in the payment of any interest on the notes of that series when it becomes due and payable, and continuance of such default for a period of 30 days (unless the entire amount of the payment is deposited by us with the Trustee or with the principal paying agent prior to the expiration of the 30-day period);

- default in the payment of principal of the notes of that series at their maturity;

- default in the performance or breach of any other covenant or warranty by us in the Indenture (other than defaults pursuant to the previous two bullet points above or pursuant to a covenant or warranty that has been included in the Indenture solely for the benefit of a series of debt securities other than that series of notes), which default continues uncured for a period of 90 days after we receive written notice from the Trustee or we and the Trustee receive written notice from the holders of not less than a majority in principal amount of the outstanding Notes of the affected series as provided in the Indenture; or

- certain voluntary or involuntary events of bankruptcy, insolvency or reorganization of our company.

No event of default with respect to the Notes (except as to certain events of bankruptcy, insolvency or reorganization) necessarily constitutes an event of default with respect to any other series of debt securities. The occurrence of an event of default may constitute an event of default under our bank credit agreements in existence from time to time. In addition, the occurrence of certain events of default or an acceleration under the Indenture may constitute an event of default under certain of our other indebtedness outstanding from time to time.

We will provide the Trustee written notice of any default or event of default within 30 days of becoming aware of the occurrence of such default or event of default, which notice will describe in reasonable detail the status of such default or event of default and what action we are taking or propose to take in respect thereof.

If an event of default with respect to a series of Notes occurs and is continuing (other than an event of default regarding certain events of bankruptcy, insolvency or reorganization of our company), then the Trustee or the holders of not less than a majority in principal amount of the outstanding Notes of that series may, by a notice in writing to us (and to the Trustee if given by the holders), declare to be due and payable immediately the principal of, and accrued and unpaid interest, if any, on all Notes of that series. In the case of an event of default resulting from certain events of bankruptcy, insolvency or reorganization, the principal of and accrued and unpaid interest, if any, on all outstanding debt securities issued under the Indenture will become and be immediately due and payable without any declaration or other act on the part of the Trustee or any holder of outstanding debt securities, including the Notes. At any time after a declaration of acceleration with respect to a series of Notes has been made, and before a judgment or decree for payment of the money due has been obtained by the Trustee, the holders of a majority in principal amount of the outstanding Notes of that series may, by written notice to us and the Trustee, rescind and annul such acceleration if all events of default, other than the non-payment of accelerated principal and interest, if any, with respect to the Notes of that series, have been cured or waived as provided in the Indenture.

The Indenture provides that the Trustee will be under no obligation to exercise any of its rights or powers under the Indenture at the request of any holder of notes, unless the Trustee receives indemnity satisfactory to it against any cost, liability or expense which might be incurred by it in exercising such right or power. Subject to certain rights of the Trustee, the holders of a majority in principal amount of the outstanding Notes of the affected series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee or exercising any trust or power conferred on the Trustee with respect to the Notes of that series.

No holder of any Note of any series will have any right to institute any proceeding, judicial or otherwise, with respect to the Indenture, or for the appointment of a receiver or Trustee, or for any remedy under the Indenture unless, among other things:

- that holder has previously given to the Trustee written notice of a continuing event of default with respect to the Notes of that series; and

- the holders of at least a majority in principal amount of the outstanding Notes of that series have made written request, and offered reasonable indemnity or security, to the Trustee to institute the proceeding as Trustee, and the Trustee has not received from the holders of a majority in principal amount of the outstanding Notes of that series a direction inconsistent with that request and has failed to institute the proceeding within 60 days.

Notwithstanding any other provision in the Indenture, the holder of any Note will have an absolute and unconditional right to receive payment of the principal of, premium and any interest on that Note on or after the due dates expressed in that Note and to institute suit for the enforcement of any such payment.

If any securities are outstanding under the Indenture, the Indenture requires us, within 120 days after the end of each fiscal year, to furnish to the Trustee a statement as to our compliance with the indenture. If a default or event of default occurs and is continuing with respect to notes of any series and if it is known to a responsible officer of the Trustee, the Trustee shall deliver to each holder of the Notes of that series notice of a default or event of default within 90 days after it occurs. The Indenture provides that the Trustee may withhold notice to the holders of the Notes of any default or event of default (except in the case of a default or event of default in payment of principal of or interest on any Note of that series) with respect to Notes of that series if it in good faith determines that withholding notice is in the interest of the holders of those Notes.

Modification and Waiver

We and the Trustee may modify and amend the Indenture or Notes of any series without the consent of any holder of Notes:

- to cure any ambiguity, defect or inconsistency;
- to comply with the covenant described below under the heading "—Consolidation, Merger and Sale of Assets;"
- to provide for uncertificated notes in addition to or in place of certificated notes;
- to add guarantees with respect to Notes of any series or secure notes of any series;
- to surrender any of our rights or powers under the Indenture;
- to add covenants or events of default for the benefit of the holders of Notes of any series;
- to comply with the applicable procedures of the applicable depositary;
- to make any change that would not adversely affect the rights of any holder of Notes in any material respect;
- to provide for the issuance of and establish the form and terms and conditions of additional Notes of any series as permitted by the Indenture;
- to effect the appointment of a successor trustee with respect to the Notes and to add to or change any of the provisions of the Indenture to provide for or facilitate administration by more than one trustee; or
- to comply with requirements of the U.S. Securities and Exchange Commission in order to effect or maintain the qualification of the Indenture under the U.S. Trust Indenture Act of 1939.

We may also modify and amend the Indenture with the consent of the holders of at least a majority in principal amount of the outstanding Notes of each series affected by the modifications or amendments. We may not make any modification or amendment without the consent of the holders of each affected Note then outstanding if that amendment will:

- reduce the amount of Notes whose holders must consent to an amendment, supplement or waiver;
- reduce the rate of or extend the time for payment of interest (including any additional amounts) on the Notes;
- reduce the principal of or premium on or change the fixed maturity of the Notes;
- waive a default in the payment of the principal of, premium or interest on the notes (except a rescission of acceleration of the notes by the holders of at least a majority in aggregate principal amount of the then outstanding Notes of that series and a waiver of the payment default that resulted from such acceleration);
- make the principal of or interest on the Notes payable in currency other than that stated in the Notes;
- make any change to certain provisions of the Indenture relating to, among other things, the right of holders of the Notes to receive payment of the principal of, premium and interest on the Notes and to institute suit for the enforcement of any such payment and to waivers or amendments; or
- waive a redemption payment with respect to the Notes.

Except for certain specified provisions, the holders of at least a majority in principal amount of the outstanding Notes of the affected series may, on behalf of the holders of all the Notes of that series, waive our compliance with provisions of the Indenture. The holders of a majority in principal amount of the outstanding Notes of the affected series may, on behalf of the holders of all the Notes of such series, waive any past default under the Indenture with respect to that series and its consequences, except a default in the payment of the principal of, premium or any interest on any Note of that series; provided, however, that the holders of a majority in principal amount of the outstanding Notes of the affected series may rescind an acceleration and its consequences, including any related payment default that resulted from such acceleration.

No amendment to cure any ambiguity, defect or inconsistency in the Indenture made solely to conform the Indenture to the description of notes contained in the applicable prospectus supplement will be deemed to adversely affect the interests of the holders of the Notes.

Consolidation, Merger and Sale of Assets

We may not consolidate with or merge with or into, or convey, transfer or lease all or substantially all of our properties and assets to, any person, which we refer to as a "successor person," unless:

- we are the surviving corporation or the successor person (if other than Amgen) is organized and validly existing under the laws of any U.S. domestic jurisdiction and expressly assumes, pursuant to a supplemental Indenture, our obligations on the notes and under the Indenture; and
- immediately after giving effect to the transaction, no default or event of default shall have occurred and be continuing under the Indenture.

Notwithstanding the foregoing, any of our Subsidiaries may consolidate with, merge into or transfer all or part of its properties and assets to us.

Defeasance and Covenant Defeasance

Legal Defeasance

The Indenture provides that we may be discharged from any and all obligations in respect of the Notes (subject to certain exceptions). We will be so discharged upon the deposit with the Trustee, in trust, of money, U.S. government obligations and/or foreign government obligations that, through the payment of interest and principal in accordance with their terms, will provide money, U.S. government obligations or foreign government obligations in an amount sufficient in the opinion of a nationally recognized firm of independent public accountants or investment bank to pay and discharge each installment of principal of, premium and interest on the Notes on the stated maturity of those payments in accordance with the terms of the Indenture and the Notes.

This discharge may occur only if, among other things, we have delivered to the Trustee an opinion of counsel stating that we have received from, or there has been published by, the IRS a ruling or, since the date of execution of the Indenture, there has been a change in the applicable U.S. federal income tax law, in either case to the effect that, and based thereon such opinion shall confirm that, the holders of the Notes will not recognize income, gain or loss for U.S. federal income tax purposes as a result of the deposit, defeasance and discharge and will be subject to U.S. federal income tax on the same amounts and in the same manner and at the same times as would have been the case if such deposit, defeasance and discharge had not occurred.

Defeasance of Certain Covenants

The Indenture provides that upon compliance with certain conditions:

- we may omit to comply with the covenant described under the heading "—Consolidation, Merger and Sale of Assets" and certain other covenants set forth in the Indenture, as well as any additional covenants set forth in the applicable prospectus supplement; and

- any omission to comply with those covenants will not constitute a default or an event of default with respect to the Notes, which we refer to as a "covenant defeasance."

The conditions include:

- depositing with the Trustee money, U.S. government obligations and/or foreign government obligations that, through the payment of interest and principal in accordance with their terms, will provide money in an amount sufficient in the opinion of a nationally recognized firm of independent public accountants or investment bank to pay and discharge each installment of principal of, premium and interest on the notes on the stated maturity of those payments in accordance with the terms of the Indenture and the Notes; and

- delivering to the Trustee an opinion of counsel to the effect that the holders of the Notes will not recognize income, gain or loss for U.S. federal income tax purposes as a result of the deposit and related covenant defeasance and will be subject to U.S. federal income tax on the same amounts and in the same manner and at the same times as would have been the case if the deposit and related covenant defeasance had not occurred.

Covenant Defeasance and Events of Default

In the event we exercise our option to effect covenant defeasance with respect to any series of the Notes and the Notes of that series are declared due and payable because of the occurrence of any event of default, the amount of money, U.S. government obligations and/or foreign government obligations on deposit with the Trustee will be sufficient to pay amounts due on the Notes of that series at the time of their stated maturity but may not be sufficient to pay amounts due on the notes of that series at the time of the acceleration resulting from the event of default. In such a case, we would remain liable for those payments.

Concerning the Trustee

The Bank of New York Mellon Trust Company, N.A. is Trustee under the Indenture.

Governing Law

The Indenture and the Notes, including any claim or controversy arising out of or relating to the Indenture or the Notes, are governed by the laws of the State of New York.

Form of Award Notice

[*The information set forth in this Award Notice will be contained on the related pages on Merrill Lynch Benefits Website (or the website of any successor company to Merrill Lynch Bank & Trust Co., FSB). This Award Notice shall be replaced by the equivalent pages on such website. References to Award Notice in this Agreement shall then refer to the equivalent pages on such website.*]

This notice of Award (the "Award Notice") sets forth certain details relating to the grant by the Company to you of the Award identified below, pursuant to the Plan. The terms of this Award Notice are incorporated into the Agreement that accompanies this Award Notice and made part of the Agreement. Capitalized terms used in this Award Notice that are not otherwise defined in this Award Notice have the meanings given to such terms in the Agreement.

Employee:
Employee ID:
Address:
Award Type:
Grant ID:
Plan: Amgen Inc. Amended and Restated 2009 Equity Incentive Plan, as amended and/or restated from time to time
Grant Date:
Grant Price: $_____
Number of Shares
Covered by Option:
Expiration Date: The [_____ (__th)] anniversary of the Grant Date
Vesting Date: Means the vesting date indicated in the Vesting Schedule
Vesting Schedule: Means the schedule of vesting set forth under Vesting Details
Vesting Details: Means the presentation (tabular or otherwise) of the Vesting Date and the quantity of Shares vesting.

IMPORTANT NOTICE REGARDING ACCEPTANCE OF THE AWARD AND THE REQUIREMENT TO OPEN A BROKERAGE ACCOUNT[1]:

***RESIDENTS OF THE U.S. AND PUERTO RICO*:** Please read this Award Notice, the Plan and the Agreement (collectively, the "Grant Documents") carefully. If you, as a resident of the U.S. or Puerto Rico, do **not** wish to receive this Award and/or you do **not** consent and agree to the terms and conditions on which this Award is offered, as set forth in the Grant Documents, then you must reject the Award by contacting the Merrill Lynch call center (800) 97AMGEN (800-972-6436) within the U.S., Puerto Rico and Canada or +1 (609) 818-8910 from all other countries (Merrill Lynch will accept the charges for your call) no later than the forty-fifth calendar day following the day on which this Award Notice is made available to you, in which case the Award will be cancelled. For the purpose of determining the forty-five calendar days, Day 1 will be the day **immediately** following the day on which this Award Notice is made available to you. Your failure to notify the Company of your rejection of the Award within this specified period will constitute your acceptance of the Award and your agreement with all terms and conditions of the Award, as set forth in the Grant Documents. If you agree to the terms and conditions of your grant and you desire to accept it, then no further action is needed on your part to accept the grant. However, you must still open a brokerage account as directed by the Company, by 1:00 pm Pacific Time on or before the date that is 11 months after the date of

[1] *This provision is only for use on the form of grant used for the U.S. and Puerto Rico.*

grant. This step is necessary to process transactions related to your equity grant. **If you do not open a brokerage account by this deadline, your grant will be cancelled.**

GRANT OF STOCK OPTION AGREEMENT

THE SPECIFIC TERMS OF YOUR STOCK OPTION ARE FOUND IN THE PAGES RELATING TO THE GRANT OF STOCK OPTIONS FOUND ON MERRILL LYNCH BENEFITS WEBSITE (OR THE WEBSITE OF ANY SUCCESSOR COMPANY TO MERRILL LYNCH BANK & TRUST CO., FSB) (THE "AWARD NOTICE") WHICH ACCOMPANIES THIS DOCUMENT. THE TERMS OF THE AWARD NOTICE ARE INCORPORATED INTO THIS GRANT OF STOCK OPTIONS.

On the Grant Date, specified in the Award Notice, Amgen Inc., a Delaware corporation (the "Company"), has granted to you, the grantee named in the Award Notice, under the plan specified in the Award Notice (the "Plan"), an option (the "Option") to purchase the number of shares of the $0.0001 par value common stock of the Company (the "Shares") specified in the Award Notice, pursuant to the terms set forth in this Stock Option Agreement, any additional terms and conditions for your country set forth in the attached Appendix A and the Award Notice (together, the "Agreement"). This Option is not intended to qualify and will not be treated as an "incentive stock option" within the meaning of Section 422 of the U.S. Internal Revenue Code of 1986, as amended (together with the regulations and other official guidance promulgated thereunder, the "Code"). Capitalized terms not defined herein shall have the meanings assigned to such terms in the Plan.

The terms and conditions of your Option are as follows:

I. Subject to the terms and conditions of the Plan and this Agreement, on each Vesting Date the Option shall vest with respect to the number of Shares indicated on the Vesting Schedule, provided that you have remained continuously and actively employed with the Company or an Affiliate (as defined in the Plan) through each applicable Vesting Date, unless [(i) your employment has terminated due to your Voluntary Termination (as defined in Section IV(A)(5)) or (ii)]*[2] you experience a Qualified Termination (as defined in Section IV(B)(4)), or as otherwise determined by the Company in the exercise of its discretion as provided in Section IV(A)(7). This Option may only be exercised for whole shares of the Common Stock, and the Company shall be under no obligation to issue any fractional Shares to you. Subject to the limitations contained herein, this Option shall be exercisable with respect to each installment on or after the applicable Vesting Date. Notwithstanding anything herein to the contrary, the Vesting Schedule may be accelerated (by notice in writing) by the Company in its sole discretion at any time during the term of this Option. In addition, if not prohibited by local law, vesting may be suspended by the Company in its sole discretion during a leave of absence as provided from time to time according to Company policies and practices; provided, that, in no event shall any such suspension extend the term of this Option beyond the Expiration Date set forth on the Award Notice and in this Agreement.

[2] *Section IV(A)(5) of this Agreement is not applicable to awards identified by the Administrator as new hire, retention or promotion grants and the provisions of such section shall be reserved and references thereto identified by an asterisk (*) shall be omitted from the agreements evidencing such grants.*

II. (1) The per share exercise price of this Option is the Grant Price as defined in the Award Notice, being not less than the Fair Market Value of the Common Stock on the date of grant of this Option.

(2) To the extent permitted by applicable statutes and regulations, payment of the exercise price per share is due in full upon exercise of all or any part of each installment which has become exercisable by you by means of (i) cash or a check, (ii) any cashless exercise procedure through the use of a brokerage arrangement approved by the Company, or (iii) any other form of legal consideration that may be acceptable to the Board or the Committee in their discretion.

(3) To the extent permitted by applicable statutes and regulations, if, at the time of exercise, the Company's Common Stock is publicly traded and quoted regularly in the Wall Street Journal, payment of the exercise price may be made by delivery of already-owned Shares with a Fair Market Value equal to the exercise price of the Shares for which this Option is being exercised. The already-owned Shares must have been owned by you for the period required to avoid adverse accounting treatment and owned free and clear of any liens, claims, encumbrances or security interests. Payment may also be made by a combination of cash and already-owned Shares.

Notwithstanding the foregoing, the Company reserves the right to restrict the methods of payment of the exercise price if necessary or advisable to comply with applicable law or regulation, as determined by the Company in its sole discretion.

III. Notwithstanding anything to the contrary contain herein, the Company shall not take any actions that would violate the Securities Act, the Exchange Act, the Code, or any other securities or tax or other applicable law or regulation, or the rules of any Securities Exchange. The Company, in its sole discretion, may impose any timing or other restrictions with respect to the exercise of this Option arising from compliance with any securities or tax laws or other rules or regulations. Notwithstanding anything to the contrary contained herein, this Option may not be exercised and no Shares underlying the Option will be issued unless such Shares are then registered under the Securities Act, or, if such Shares are not then so registered, the Company has determined that such exercise and issuance would be exempt from the registration requirements of the Securities Act, and that the issuance satisfies all other applicable legal requirements. If the Option cannot be exercised and expires during this period, you will forfeit the Option and no Shares or value will be transferred to you.

IV. (A) The term of this Option commences on the Grant Date and, unless sooner terminated as set forth below or in the Plan, terminates on the [_____ (__th)] anniversary of the Grant Date (the "Expiration Date"). This Option shall terminate prior to the Expiration Date as follows: three (3) months after the termination of your employment with the Company or an Affiliate (as defined in the Plan) for any reason or for no reason, including if your employment is terminated by the Company or an Affiliate without Cause (as defined below), or in the event of

any other termination of your employment caused directly or indirectly by the Company or an Affiliate, unless:

(1) such termination of your employment is due to your Permanent and Total Disability (as defined below), in which case the Option shall terminate on the earlier of the Expiration Date or five (5) years after termination of your employment and the vesting of the Option shall be accelerated and the Option shall be fully exercisable, subject to your execution of a general release and waiver in a form provided by the Company (for the purpose of resolving any potential or actual disputes arising from your employment and the termination of your employment with the Company), as of the day immediately preceding such termination of your employment with respect to the Option, except that if the Option was granted in the calendar year in which such termination occurs, the Option shall be accelerated to vest with respect to a number of Shares equal to the number of Shares subject to the Option multiplied by a fraction, the numerator of which is the number of complete months you remained continuously and actively employed during such calendar year, and the denominator of which is twelve (12), and any portion of the Option (if any) that remains unvested shall automatically expire and terminate on the date of the termination of your active employment due to your Permanent and Total Disability without consideration therefor;

(2) such termination of your employment is due to your death, in which case the Option shall terminate on the earlier of the Expiration Date or five (5) years after your death and the vesting of the Option shall be accelerated and the Option shall be fully exercisable as of the day immediately preceding your death with respect to the Option, except that if the Option was granted in the calendar year in which your death occurs the Option shall be accelerated to vest with respect to a number of Shares equal to the number of Shares subject to the Option multiplied by a fraction, the numerator of which is the number of complete months you remained continuously and actively employed during such calendar year, and the denominator of which is twelve (12), and any portion of the Option (if any) that remains unvested shall automatically expire and terminate on the date of termination of your active employment due to your death without consideration therefor;

(3) during any part of such three (3) month period, this Option is not exercisable solely because of the condition set forth in Section III above, in which event this Option shall not terminate until the earlier of the Expiration Date or until it shall have been exercisable for an aggregate period of three (3) months after the termination of your employment;

(4) exercise of this Option within three (3) months after termination of your employment with the Company or with an Affiliate would result in liability under Section 16(b) of the Exchange Act, in which case this Option will terminate on the earliest of: (a) the tenth (10th) day after the last date upon which exercise would result in such liability; (b) six (6)

months and ten (10) days after the termination of your employment with the Company or an Affiliate; or (c) the Expiration Date;

(5) [such termination of your employment is due to your voluntary termination (and such voluntary termination is not the result of Permanent and Total Disability (as defined below)) after you are at least sixty five (65) years of age, or after you are at least fifty-five (55) years of age and have been an employee of the Company and/or an Affiliate for at least ten (10) years in the aggregate as determined by the Company in its sole discretion according to Company policies and practices as in effect from time to time ("Voluntary Termination"), in which case this Option shall terminate on the earlier of the Expiration Date or five (5) years after termination of your employment and the unvested portions of this Option will become exercisable pursuant to the Vesting Schedule without regard to your Voluntary Termination of your employment prior to the Vesting Date, subject to your execution of a general release and waiver in a form provided by the Company (for the purpose of resolving any potential or actual disputes arising from your employment and the termination of your employment with the Company), with respect to the Option; if the Option was granted in the calendar year in which your Voluntary Termination occurs, the Option will become exercisable pursuant to the Vesting Schedule only with respect to a number of Shares equal to the number of Shares subject to the Option multiplied by a fraction, the numerator of which is the number of complete months you remained continuously and actively employed during such calendar year, and the denominator of which is twelve (12), and any portion of the Option (if any) that remains unvested shall automatically expire and terminate on the date of the termination of your active employment due to your Voluntary Termination without consideration therefor; notwithstanding the definition of Voluntary Termination set forth above, if the Company receives an opinion of counsel that there has been a legal judgment and/or legal development in your jurisdiction that would likely result in the favorable treatment upon Voluntary Termination described above being deemed unlawful and/or discriminatory, then the Committee will not apply the favorable treatment described above;][Reserved]* [3]

(6) such termination of your employment is due to a Qualified Termination, in which case, the Option shall terminate on the earlier of (a) the date that is three (3) months following the date of such Qualified Termination or (b) the Expiration Date, and, to the extent permitted by applicable law, the vesting of the Option shall be accelerated and the Option shall be fully exercisable as of the day immediately prior to the Qualified Termination; or

(7) the Company determines, in its sole discretion at any time during the term of this Option, in writing, to otherwise extend the period of time during which this Option will vest and may be exercised after termination of your employment; provided, that, in no event shall any such extension extend the term of this Option beyond the Expiration Date set forth on the Award Notice and in this Agreement.

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[3] *Section IV(A)(5) of this Agreement is not applicable to awards identified by the Administrator as new hire, retention or promotion grants and the provisions of such section shall be reserved and references thereto identified by an asterisk (*) shall be omitted from the agreements evidencing such grants.*

However, in any and all circumstances and except to the extent the Vesting Schedule has been accelerated by the Company in its sole discretion during the term of this Option or as a result of your Permanent and Total Disability or death as provided in Sections IV(A)(1) or IV(A)(2) above, respectively, [as a result of your Voluntary Termination as provided in Section IV(A)(5) above,]* as a result of a Qualified Termination as provided in Section IV(A)(6) above or as otherwise determined by the Company in the exercise of its discretion as provided in Section IV(A)(7) above, this Option may be exercised following termination of your employment only as to that number of Shares as to which it was exercisable on the date of termination of your employment under the provisions of Section I of this Agreement.

(B) For purposes of this Option:

(1) "termination of your employment" shall mean the last date you are either an active employee of the Company or an Affiliate or actively engaged as a Director to the Company or an Affiliate; in the event of termination of your employment (whether or not later found to be invalid or in breach of employment laws in the jurisdiction where you are employed or the terms of your employment agreement, if any), your right to receive options and vest under the Plan, if any, will terminate effective as of the date that you are no longer actively employed and will not be extended by any notice period (*e.g.*, active employment would not include any period of "garden leave" or similar period mandated under employment laws in the jurisdiction where you are employed or the terms of your employment agreement, if any). Your right, if any, to exercise the Option after termination of employment will be measured by the date of termination of your active employment and will not be extended by any notice period mandated under local law. The Administrator shall have the exclusive discretion to determine when you are no longer actively providing services for purposes of this Agreement (including whether you may still be considered to be providing services while on a leave of absence);

(2) "Cause" shall mean (i) your conviction of a felony (or similar crime under applicable law, as determined by the Company), or (ii) your engaging in conduct that constitutes willful gross neglect or willful gross misconduct in carrying out your duties, resulting, in either case, in material economic harm to the Company or any Affiliate, unless you believed in good faith that such conduct was in, or not contrary to, the best interests of the Company or any Affiliate. For purposes of clause (ii) above, no act, or failure to act, on your part shall be deemed "willful" unless done, or omitted to be done, by you not in good faith;

(3) "Permanent and Total Disability" shall have the meaning ascribed to such term under Section 22(e)(3) of the Code and with such permanent and total disability being certified prior to termination of your employment by (a) the U.S. Social Security Administration, (b) the comparable governmental authority applicable to an Affiliate, (c) such other body having the relevant decision-making power applicable to an Affiliate, or (d) an independent medical advisor appointed by the Company in its sole discretion, as applicable, in any such case;

(4) "Qualified Termination" shall mean

(a) if you are an employee who participates in the Change of Control Plan (as defined below), your termination of employment within two (2) years following a Change of Control (i) by the Company other than for Cause, Disability (as defined below) or as a result of your death, or (ii) by you for Good Reason (as defined in the Change of Control Plan); or

(b) if you are an employee who does not participate in the Change of Control Plan or the Change of Control Plan is no longer in effect, your termination of employment within two (2) years following a Change of Control by the Company other than for Cause, Disability (as defined below) or as a result of your death;

(5) "Change of Control" shall mean the occurrence of any of the following:

(a) the acquisition (other than from the Company) by any person, entity or "group," within the meaning of Section 13(d)(3) or 14(d)(2) of the Exchange Act (excluding, for this purpose, the Company or any of its Affiliates, or any employee benefit plan of the Company or any of its Affiliates which acquires beneficial ownership of voting securities of the Company), of beneficial ownership (within the meaning of Rule 13d-3 promulgated under the Exchange Act) of fifty percent (50%) or more of either the then outstanding Shares or the combined voting power of the Company's then outstanding voting securities entitled to vote generally in the election of directors; or

(b) the consummation by the Company of a reorganization, merger, consolidation, (in each case, with respect to which persons who were the stockholders of the Company immediately prior to such reorganization, merger or consolidation do not, immediately thereafter, own more than fifty percent (50%) of the combined voting power entitled to vote generally in the election of directors of the reorganized, merged or consolidated company's then outstanding voting securities) or a liquidation or dissolution of the Company or of the sale of all or substantially all of the assets of the Company.

Notwithstanding anything herein or in any Award Agreement to the contrary, if a Change of Control constitutes a payment event with respect to any Award that is subject to United States income tax and which provides for a deferral of compensation that is subject to Section 409A of the Code, the transaction or event described in subsection (a) or (b), (c) above must also constitute a "change in control event," as defined in U.S. Treasury Regulation §1.409A-3(i)(5), in order to constitute a Change of Control for purposes of payment of such Award.

(6) "Change of Control Plan" shall mean the Company's change of control and severance plan, including the Amgen Inc. Change of Control Severance Plan, as amended and restated, effective as of December 9, 2010 (and any subsequent amendments thereto), or any equivalent plan governing the provision of benefits to eligible employees upon the occurrence of a Change of Control (including resulting from a termination of employment that occurs within a specified time period following a Change of Control), as in effect immediately prior to a Change of Control; and

(7) "Disability" shall be determined in accordance with the Company's long-term disability plan as in effect immediately prior to a Change of Control.

V. (A) To the extent specified above, this Option may be exercised by delivering a notice of exercise in person, by mail, via electronic mail or facsimile or by other authorized

method designated by the Company, together with the exercise price to the Company Stock Administrator, or to such other person as the Company Stock Administrator may designate, during regular business hours, together with such additional documents as the Company may then require pursuant to Section 7.2(b) of the Plan.

(B) Regardless of any action the Company or your actual employer (the "Employer") takes with respect to any or all income tax (including federal, state and local taxes), social insurance, payroll tax, fringe benefit tax, payment on account or other tax-related items related to your participation in the Plan and legally applicable to you ("Tax Obligations"), you acknowledge that the ultimate liability for all Tax Obligations is and remains your responsibility and may exceed the amount, if any, actually withheld by the Company and/or your Employer. You further acknowledge that the Company and/or your Employer: (a) make no representations or undertakings regarding the treatment of any Tax Obligations in connection with any aspect of the Option grant or the underlying Shares, including, but not limited to, the grant, vesting or exercise of the Option, the subsequent sale of Shares acquired pursuant to such exercise and the receipt of any dividends; and (b) do not commit to and are under no obligation to structure the terms of the grant or any aspect of the Option to reduce or eliminate your liability for Tax Obligations or achieve any particular tax result. Furthermore, if you become subject to tax in more than one jurisdiction, you acknowledge that the Company and/or your Employer (or former employer, as applicable) may be required to withhold or account for Tax Obligations in more than one jurisdiction.

(C) Prior to any relevant taxable or tax withholding event, as applicable, you shall pay or make adequate arrangements satisfactory to the Company and/or your Employer to satisfy all Tax Obligations. In this regard, you authorize the Company and/or your Employer, or their respective agents, at their discretion, to satisfy all applicable Tax Obligations by one or a combination of the following:

(1) withholding from your wages or other cash compensation paid to you by the Company and/or your Employer;

(2) withholding from proceeds of the sale of Shares acquired upon exercise of the Option either through your voluntary sale or through a mandatory sale arranged by the Company (on your behalf pursuant to this authorization); or

(3) withholding in Shares issuable, or cash payable, upon exercise of the Option, provided that, if such Shares are withheld, the Company and your Employer shall only withhold an amount of Shares with a fair market value not to exceed the Tax Obligations as determined in the discretion of the Company or your Employer, as applicable.

Depending on the withholding method, the Company may withhold or account for Tax Obligations by considering applicable minimum statutory withholding rates or other applicable withholding rates, including maximum applicable rates. If the Tax Obligations are satisfied by withholding in Shares, for tax purposes you are deemed to have been issued the full number of Shares subject to the exercised Option, notwithstanding that a number of the Shares is

held back and not actually issued to you solely for the purpose of paying the Tax Obligations due as a result of any aspect of your participation in the Plan.

(D) Finally, you shall pay to the Company or your Employer any amount of Tax Obligations that the Company or your Employer may be required to withhold or account for as a result of your participation in the Plan that cannot be or were not satisfied by the means previously described. You agree to take any further actions and execute any additional documents as may be necessary to effectuate the provisions of this Section V. Notwithstanding anything to the contrary contained herein, the Company may refuse to issue or deliver the Shares or the proceeds of the sale of Shares if you fail to comply with your obligations in connection with the Tax Obligations.

VI. This Option is not transferable, except by will or the laws of descent and distribution, and is exercisable during your life only by you except if you have named a trust created for the benefit of you, your spouse, or members of your immediate family (a "Trust") as beneficiary of this Option, this Option may be exercised by the Trust after your death.

VII. Any notices provided for in this Option or the Plan shall be given in writing or electronically and shall be deemed effectively given upon receipt or, in the case of notices delivered by the Company to you, five (5) days after deposit in the United States mail or equivalent foreign postal service, postage prepaid, addressed to you at such address as is currently maintained in the Company's records or at such other address as you hereafter designate by written notice to the Company Stock Administrator. Such notices may be given using any automated system for the documentation, granting or exercise of Awards, such as a system using an internet website or interactive voice response, as approved by the Company.

VIII. This Option is subject to all the provisions of the Plan and its provisions are hereby made a part of this Option, including without limitation the provisions of Articles 6 and 7 of the Plan relating to Options, and is further subject to all interpretations, amendments, rules and regulations which may from time to time be promulgated and adopted pursuant to the Plan. In the event of any conflict between the provisions of this Option and those of the Plan, the provisions of the Plan shall control.

IX. ***In order for the Company to facilitate your participation in the Plan, the Company and your Employer must collect and use personal data about you. In accordance with applicable laws, reasonable security measures will be implemented and maintained to protect the security of your personal data; however, you understand that absolute security cannot be guaranteed.***

You understand that the Company and your Employer may hold certain personal information about you, including your name, home address and telephone number, email address, date of birth, social insurance/security number (to the extent permitted under applicable local law), passport or other identification number, salary, nationality, job title/work history/service periods, residency status, citizenship, tax withholding and payroll data, any shares of stock or directorships held in the Company, details of all equity compensation or any other entitlement to Shares awarded, cancelled, vested, unvested or outstanding in your favor, for the purposes of implementing, administering and managing the Plan ("personal data").

You authorize the transfer of your personal data to Merrill Lynch Bank & Trust Co., FSB, or any successor thereto, and any other third parties which may assist the Company (presently or in the future) with implementing, administering and managing your participation in the Plan to receive, possess, use, retain and transfer your personal data, in electronic or other form, for the purpose of implementing, administering and managing your participation in the Plan, including any requisite transfer of such personal data as may be required to any other broker, escrow agent or other third party with whom the Shares received upon exercise of this Option may be deposited. You understand that such authorized recipients of your personal data may be located in countries that do not provide the same level of data privacy laws and protections as the country in which your personal data originated. Transfers of personal data among Company and its group entities follow applicable laws and our Binding Corporate Rules (BCRs). For more information on Company's BCRs, please visit http://www.amgen.com/bcr/. You acknowledge that the collection, use and transfer of your personal data is necessary to facilitate to your participation in the Plan, as well as to grant you Options or other equity awards and administer or maintain such awards.

You may correct or update your personal data previously provided to Company, by completing the form located at https://preferences.amgen.com. Subject to applicable law, you may have additional rights, including the right to object and/or request destruction of your personal data. To exercise these rights, where applicable, please contact your local human resources representative.

X. The terms of this Option shall be governed by the laws of the State of Delaware without giving effect to principles of conflicts of laws. For purposes of litigating any dispute that arises hereunder, the parties hereby submit to and consent to the jurisdiction of the State of Delaware, and agree that such litigation shall be conducted in the courts of the State of Delaware, or the federal courts for the United States for the federal district located in the State of Delaware, and no other courts, where this Option is made and/or to be performed.

XI. Notwithstanding any provision of this Option to the contrary, if you are employed by the Company or an Affiliate in any of the countries identified in the attached Appendix A (which constitutes a part of this Agreement), are subject to the laws of any foreign jurisdiction, or relocate to one of the countries included in the attached Appendix A, the Option granted hereunder shall be subject to any additional terms and conditions for your country set forth in Appendix A and the following additional terms and conditions:

a. the terms and conditions of this Option, including Appendix A, are deemed modified to the extent necessary or advisable to comply with applicable foreign laws or facilitate the administration to the Plan;

b. if applicable, the effectiveness of this Option is conditioned upon its compliance with any applicable foreign laws, regulations, rules or local governmental regulatory exemption and subject to receipt of any required foreign regulatory approvals; and

c. the Company may take any other action before or after the date of this Option that it deems advisable to obtain approval or comply with any necessary local governmental regulatory exemptions or approvals.

XII. (A) In accepting this Option, you acknowledge, understand and agree that:

(1) the Plan is established voluntarily by the Company, is discretionary in nature and may be modified, amended, suspended or terminated by the Company at any time, as provided in the Plan;

(2) the grant of this Option is exceptional, voluntary and occasional and does not create any contractual or other right to receive future awards of options, or benefits in lieu of options even if options have been awarded in the past;

(3) all decisions with respect to future awards, if any, will be at the sole discretion of the Company;

(4) your participation in the Plan is voluntary;

(5) the grant of Options, the underlying Shares, and the income from and value of same, are not intended to replace any pension rights or compensation;

(6) neither the grant of options nor any provision of this Option, the Plan or the policies adopted pursuant to the Plan confer upon you any right with respect to employment or continuation of current employment and shall not interfere with the ability of your Employer to terminate your employment or service relationship (if any) at any time;

(7) in the event that you are not an employee of the Company or any Affiliate, the Option shall not be interpreted to form an employment contract or relationship with the Company or any Affiliate;

(8) the future value of the underlying Shares is unknown, indeterminable, and cannot be predicted with certainty;

(9) if the underlying Shares do not increase in value, this Option will have no value; if you exercise this Option and obtain Shares, the value of those Shares acquired upon exercise may increase or decrease in value, even below the Grant Price per Share;

(10) in consideration of the grant of this Option, no claim or entitlement to compensation or damages arises from forfeiture of options resulting from termination of your employment by the Company or an Affiliate (regardless of the reason for such termination and whether or not later found to be invalid or in breach of employment laws in the jurisdiction where you are employed or the terms of your employment agreement, if any), and you irrevocably release the Company and your Employer from any such claim that may arise; if, notwithstanding the foregoing, any such claim is found by a court of competent jurisdiction to have arisen, you shall be deemed irrevocably to have waived your entitlement to pursue such claim;

(11) unless otherwise agreed with the Company, the Options, the underlying Shares, and the income from and value of same, are not granted as consideration for, or in connection with, the service you may provide as a director of an Affiliate of the Company;

(12) except as otherwise provided in this Agreement or the Plan, the Options and the benefits evidenced by this Agreement do not create any entitlement to have the Options or any such benefits transferred to, or assumed by, another company nor to be exchanged, cashed out or substituted for, in connection with any corporate transaction affecting the shares of the Company; and

(13) the following provisions apply only if you are providing services outside the United States:

(i) for employment law purposes outside the United States, the Option, underlying Shares, and the income from and value of same, are not part of normal or expected compensation or salary for any purpose, including but not limited to for purposes of calculating any severance, resignation, termination, redundancy, dismissal, end of service payments, bonuses, holiday pay, long-service awards, pension or retirement benefits or similar mandatory payments; and

(ii) neither the Company, your Employer nor any Affiliate of the Company shall be liable for any foreign exchange rate fluctuation between your local currency and the United States Dollar that may affect the value of the Option or of any amounts due to you pursuant to the exercise of the Option or the subsequent sale of any Shares acquired upon exercise of the Option.

(B) The Company is not providing any tax, legal or financial advice, nor is the Company making any recommendations regarding your participation in the Plan, or your acquisition or sale of the underlying Shares. You should consult with your own personal tax, legal and financial advisors regarding your participation in the Plan before taking any action related to the Plan.

XIII. If one or more of the provisions of this Option shall be held invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby and the invalid, illegal or unenforceable provisions shall be deemed null and void; however, to the extent permissible by law, any provisions which could be deemed null and void shall first be construed, interpreted or revised retroactively to permit this Option to be construed so as to foster the intent of this Option and the Plan.

XIV. By electing to accept this Agreement, you acknowledge that you are sufficiently proficient in English, or have consulted with an advisor who is sufficiently proficient in English, so as to allow you to understand the terms and conditions of this Agreement. Furthermore, if you have received this Option or any other document related to the Plan translated into a language other than English and if the meaning of the translated version is different than the English version, the English version will control.

XV. This Option is not intended to constitute “nonqualified deferred compensation” within the meaning of Code Section 409A, but rather is intended to be exempt from the application of Code Section 409A. To the extent that this Option is nevertheless deemed to be subject to Code Section 409A for any reason, this Option shall be interpreted in accordance with Code Section 409A and U.S. Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the Grant Date. Notwithstanding any provision herein to the contrary, in the event that following the Grant Date, the Committee (as defined in the Plan) determines that this Option may be or become subject to Code Section 409A, the Committee may adopt such amendments to the Plan and/or this Option or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, that the Committee determines are necessary or appropriate to (a) exempt the Plan and/or this Option from the application of Code Section 409A and/or preserve the intended tax treatment of the benefits provided with respect to this Option, or (b) comply with the requirements of Code Section 409A; provided, however, that this paragraph shall not create an obligation on the part of the Committee to adopt any such amendment, policy or procedure or take any such other action.

XVI. By electing to accept this Option, you acknowledge receipt of this Option and hereby confirm your understanding that the terms set forth in this Option constitute, subject to the terms of the Plan, which terms shall control in the event of any conflict between the Plan and

this Option, the entire agreement and understanding of the parties with respect to the matters contained herein and supersede any and all prior agreements, arrangements and understandings, both oral and written, between the parties concerning the subject matter of this Option. The Company may, in its sole discretion, decide to deliver any documents related to current or future participation in the Plan (including this Agreement) by electronic means. You hereby consent to receive such documents by electronic delivery and agree to participate in the Plan through an on-line or electronic system established and maintained by the Company or another third party designated by the Company.

XVII. The Company reserves the right to impose other requirements on your participation in the Plan, on this Option and on any Shares acquired under the Plan, to the extent the Company determines it is necessary or advisable for legal or administrative reasons, and to require you to sign any additional agreements or undertakings that may be necessary to accomplish the foregoing.

XVIII. This Option and all compensation payable with respect to it shall be subject to recovery by the Company pursuant to any and all of the Company's policies with respect to the recovery of compensation, as they shall be in effect and may be amended from time to time, to the maximum extent permitted by applicable law.

XIX. You acknowledge that a waiver by the Company of breach of any provision of this Option shall not operate or be construed as a waiver of any other provision of this Option, or of any subsequent breach by you or any other grantee.

Very truly yours,

AMGEN INC.

By_____
Duly authorized on behalf
of the Board of Directors

APPENDIX A

ADDITIONAL TERMS AND CONDITIONS OF THE AMENDED AND RESTATED AMGEN INC. 2009 EQUITY INCENTIVE PLAN, AS AMENDED AND/OR RESTATED FROM TIME TO TIME

GRANT OF STOCK OPTION (BY COUNTRY)

Certain capitalized terms used but not defined in this Appendix A shall have the meanings set forth in the Plan and/or the Agreement to which this Appendix is attached.

TERMS AND CONDITIONS

This Appendix includes additional terms and conditions that govern any Options granted under the Plan if, under applicable law, you are a resident of, are deemed to be a resident of or are working in one of the countries listed below. Furthermore, the additional terms and conditions that govern any Options granted hereunder may apply to you if you transfer employment and/or residency to one of the countries listed below and the Company shall, in its discretion, determine to what extent the terms and conditions contained herein shall apply to you.

NOTIFICATIONS

This Appendix also includes notifications relating to exchange control and other issues of which you should be aware with respect to your participation in the Plan. The information is based on the exchange control, securities and other laws in effect in the countries to which this Appendix refers as of October 2022. Such laws are often complex and change frequently. As a result, the Company strongly recommends that you not rely on the notifications herein as the only source of information relating to the consequences of your participation in the Plan because the information may be outdated when you exercise the Options and acquire Shares under the Plan, or when you subsequently sell Shares acquired under the Plan.

In addition, the notifications are general in nature and may not apply to your particular situation, and the Company is not in a position to assure you of any particular result. Accordingly, you should seek appropriate professional advice as to how the relevant laws in your country may apply to your situation. Finally, if you are a citizen or resident of a country other than the one in which you are currently residing and/or working or are considered a resident of another country for local law purposes, the information contained herein may not be applicable to you or you may be subject to the provisions of one or more jurisdictions.

ALL NON-U.S. JURISDICTIONS

TERMS AND CONDITIONS

Method of Exercise. The following provision replaces Section II(3):

To the extent permitted by applicable statutes and regulations, payment of the exercise price per Share is due in full in cash or check upon exercise of all or any part of this Option which has become exercisable by you. Due to legal restrictions outside the U.S., you are not permitted to pay the exercise price by delivery of already-owned Shares of a value equal to the exercise price of the Shares for which this Option is being exercised. Furthermore, payment may not be made by a combination of cash and already-owned Common Stock.

Tax Withholding. The following provision supplements Section V(C) of the Agreement:

In the event the Company withholds or accounts for Tax Obligations by considering maximum applicable rates in your jurisdiction(s), in the event of over-withholding, you may receive a refund of any over-withheld amount in cash and will not be entitled to the equivalent amount in Shares, or if not refunded, you may seek a refund from the local tax authorities. In the event of under-withholding, you may be required to pay any additional Tax Obligations directly to the applicable tax authority or to the Company and/or your Employer.

NOTIFICATIONS

Insider Trading Restrictions/Market Abuse Laws. You may be subject to insider trading restrictions and/or market abuse laws based on the exchange on which the Shares are listed and in applicable jurisdictions including the United States and your country or your broker's country, if different, which may affect your ability to accept, acquire, sell or otherwise dispose of Shares, rights to Shares (*e.g.*, Options) or rights linked to the value of Shares during such times as you are considered to have "inside information" regarding the Company (as defined by the laws in applicable jurisdictions). Local insider trading laws and regulations may prohibit the cancellation or amendment of orders you place before you possessed inside information. Furthermore you could be prohibited from (i) disclosing the inside information to any third party, which may include fellow employees (other than on a "need to know" basis) and (ii) "tipping" third parties or causing them otherwise to buy or sell securities. Any restrictions under these laws or regulations are separate from and in addition to any restrictions that may be imposed under any applicable Company insider trading policy. You are responsible for ensuring your compliance with any applicable restrictions and you should speak with your personal legal advisor on this matter.

Foreign Asset/Account, Tax Reporting Information. Your country of residence may have certain foreign asset and/or account reporting requirements which may affect your ability to acquire or hold Shares under the Plan or cash received from participating in the Plan (including from any dividends received, or sale proceeds arising from the sale of Shares) in a brokerage or bank account outside of your country. You may be required to report such accounts, assets or transactions to the tax or other authorities in your country. You also may be required to repatriate sale proceeds or other funds received as a result of participating in the Plan to your country within a certain time after receipt. You are responsible for ensuring your compliance with such regulations, and you should speak with your personal legal advisor on this matter.

ALL EUROPEAN ECONOMIC AREA ("EEA") / EUROPEAN UNION ("EU") JURISDICTIONS, UNITED KINGDOM AND SWITZERLAND

TERMS AND CONDITIONS

Data Privacy Notice. This provision replaces Section IX of the Agreement:

Please refer to the Fair Processing Notice previously provided by your local human resources representative, which notice governs the collection, use and transfer of your personal data necessary for the Company to facilitate your participation in the Plan. If you have any questions or concerns regarding the Fair Processing Notice, including questions about your rights afforded thereunder, you should contact your local human resources representative or send an email to hrconnect@amgen.com.

For purposes of implementing, administering and managing the Plan, Company and your Employer may hold certain personal data about you, including your name, home address and telephone number, email address, date of birth, social insurance/security number (to the extent permitted under applicable local law), passport or other identification number, salary, nationality, job title/work history/service periods, residency status, citizenship, tax withholding and payroll data, any shares of stock or directorships held in the Company, details of all equity compensation or any other entitlement to Shares awarded, cancelled, vested, unvested or outstanding in your favor ("personal data").

You authorize the transfer of your personal data to Merrill Lynch Bank & Trust Co., FSB, or any successor thereto, and any other third parties which may assist the Company (presently or in the future) with implementing, administering and managing your participation in the Plan to receive, possess, use, retain and transfer your personal data, in electronic or other form, for the purpose of implementing, administering and managing your participation in the Plan, including any requisite transfer of such personal data as may be required to any other broker, escrow agent or other third party with whom the Shares received upon exercise of this Option may be deposited.

ARGENTINA

TERMS AND CONDITIONS

Method of Exercise. Due to legal restrictions in Argentina, you may be required to pay the exercise price for any Shares subject to the Option granted hereunder by a cashless sell-all exercise, such that all Shares will be sold immediately upon exercise and the cash proceeds of sale, less the exercise price, any Tax Obligations and broker's fees or commissions, will be remitted to you. The Company reserves the right to provide additional methods of exercise depending on local developments.

Labor Law Acknowledgement. The following provision supplements Section XII of the Agreement:

In accepting this Option, you acknowledge, understand and agree that the grant of the Option is made by the Company (not your Employer) in its sole discretion and that the value of the Option or any Shares acquired under the Plan shall not constitute salary or wages for any purpose under Argentine labor law including, but not limited to, the calculation of (i) any labor benefits including, without limitation, vacation pay, thirteenth salary, compensation in lieu of notice, annual bonus, disability, and leave of absence payments, etc., or (ii) any termination or severance indemnities or similar payments.

NOTIFICATIONS

Securities Law Information. Neither the Option nor the underlying Shares are publicly offered or listed on any stock exchange in Argentina.

Exchange Control Information. Provided you are not required to purchase foreign currency and remit funds out of Argentina to acquire Shares under the Plan, local exchange control restrictions would not apply. However, if so required, you personally are responsible for complying with any and all Argentine currency exchange regulations, approvals and reporting requirements. Exchange control requirements in Argentina are subject to change; you should consult with your personal advisor regarding any obligations you have under the Plan.

Foreign Asset/Account Reporting Information. If you are an Argentine resident, you are required to report certain information regarding any Shares you hold as of December 31 each year to the Argentine tax authorities on your annual tax return.

AUSTRALIA

NOTIFICATIONS

Securities Law Information. If you acquire Shares under the Plan and offer the Shares for sale to a person or entity resident in Australia, the offer may be subject to disclosure requirements under Australian law. You should consult with your own legal advisor before making any such offer in Australia.

Tax Information. Subdivision 83A-C of the Income Tax Assessment Act 1997 (Cth) applies to the Options granted under the Plan, such that the Options are intended to be subject to deferred taxation.

Exchange Control Information. If you are an Australian resident, exchange control reporting is required for cash transactions exceeding AUD10,000 and for international fund transfers. If an Australian bank is assisting with the transaction, the bank will file the report on your behalf. If there is no Australian bank involved in the transfer, you will be required to file the report.

AUSTRIA

NOTIFICATIONS

Foreign Asset/Account Reporting Information. If you are an Austrian resident and you hold Shares acquired under the Plapn outside of Austria, you may be subject to reporting obligations to the Austrian National Bank.

Exchange Control Information. A separate reporting requirement applies when you sell Shares acquired under the Plan or receive a cash dividend paid on such Shares. In that case, there may be exchange control obligations if the cash proceeds are held outside of Austria. If the transaction volume of all cash accounts abroad meets or exceeds a specified threshold, the movements and balances of all accounts must be reported monthly, as of the last day of the month, on or before the 15th day of the following month, on the prescribed form (*Meldungen SI-Forderungen und/oder SI-Verpflichtungen*).

BELGIUM

NOTIFICATIONS

Taxation of the Option. Your tax consequences will vary depending on when you accept the Option. If you accept the Option in writing within 60 days of the offer date, you will be subject to taxation on the 60th day after the offer date. If you accept the Option more than 60 days after the offer date, you will be subject to taxation at exercise. Please refer to the additional materials that will be delivered to you for a more detailed description of the tax consequences of accepting the Option. You should consult your personal tax advisor prior to accepting the Option.

Tax Reporting; Foreign Asset/Account Reporting Information. If you are a Belgian resident, you are required to report any taxable income attributable to the Option granted hereunder on your annual tax return. You are also required to report any securities (*e.g.*, Shares acquired under the Plan) held and bank accounts (including brokerage accounts) opened and maintained outside of Belgium on your annual tax return. The first time you report the foreign security and/

or bank account on your annual income tax return you will have to provide the National Bank of Belgium Central Contact Point with the account details of any such foreign accounts (including the account number, bank name and country in which such account was opened) in a separate form. This report, as well as information on how to complete it, can be found on the website of the National Bank of Belgium, www.nbb.be, under the *Kredietcentrales / Centrales des crédits* caption.

Stock Exchange Tax Information. A stock exchange tax applies to transactions executed by a Belgian resident through a non-Belgian financial intermediary, such as a U.S. broker. The stock exchange tax likely will apply when the Option is exercised and when Shares acquired under the Plan are sold. It is your responsibility to comply with this tax obligation and you should consult your personal tax advisor for additional details on your obligations with respect to the stock exchange tax.

Annual Securities Accounts Tax Information. An annual securities accounts tax may be payable if the total value of securities held in a Belgian or foreign securities account (e.g., Shares acquired under the Plan) exceeds a certain threshold on four reference dates within the relevant reporting period (i.e., December 31, March 31, June 30 and September 30). In such case, the tax will be due on the value of the qualifying securities held in such account. It is your responsibility to comply with this obligation and you should consult with your personal tax or financial advisor for additional details.

BRAZIL

TERMS AND CONDITIONS

Compliance with Law. By accepting the Option, you acknowledge that you agree to comply with applicable Brazilian laws and pay any and all applicable taxes associated with the exercise of the Option, the sale of Shares acquired under the Plan and the payment of dividends on such Shares.

Nature of Grant. This provision supplements Section XII of the Agreement:

In accepting this Option, you acknowledge (i) that you are making an investment decision, (ii) that the Options will be exercisable by you only if the vesting conditions are met and any necessary services are rendered by you during the vesting period set forth in the Vesting Schedule, and (iii) that the value of the underlying Shares is not fixed and may increase or decrease in value over the vesting period without compensation to you.

NOTIFICATIONS

Exchange Control Information. If you are resident or domiciled in Brazil, you will be required to submit annually a declaration of assets and rights held outside of Brazil to the Central Bank of Brazil if the aggregate value of such assets and rights on December 31 of each year exceeds US$1,000,000. If such amount exceeds US$100,000,000, the referenced declaration must be submitted quarterly, in the month following the end of each quarter. Assets and rights that must be reported include the following: (i) bank deposits; (ii) loans; (iii) financing transactions; (iv) leases; (v) direct investments; (vi) portfolio investments, including Shares acquired under the Plan; (vii) financial derivatives investments; and (viii) other investments, such as real estate. Please note that foreign individuals holding Brazilian visas are considered Brazilian residents for purposes of this reporting requirement and must declare at least the assets held abroad that were acquired subsequent to the date of admittance as a resident of Brazil. Individuals holding assets and rights outside of Brazil valued at less than US$1,000,000 are not required to submit a declaration.

BULGARIA

NOTIFICATIONS

Exchange Control Information. If funds are remitted to purchase Shares abroad, a declaration of the purpose of the remittance must be provided to the local bank that is transferring the funds. If the funds are remitted to a bank outside the European Union and the amount exceeds a specified amount, documentation evidencing the underlying transaction (for instance a copy of the option agreement) must be provided.

Foreign Asset/Account Reporting Information. You will be required to annually file statistical forms with the Bulgarian National Bank regarding your receivables in bank accounts abroad as well as your securities abroad (*e.g.*, Shares acquired under the Plan) if the total sum of all such receivables and securities equals or exceeds a specified amount as of the previous calendar year-end. The reports are due by March 31. You should contact your bank in Bulgaria for additional information regarding this requirement.

CANADA

TERMS AND CONDITIONS

Termination of Employment. Section IV(B)(1) of the Agreement is amended to read as follows:

(1) "termination of your employment" shall mean the last date you are either an active employee of the Company or an Affiliate or actively engaged as Director to the Company or an Affiliate; in the event of involuntary termination of your employment (regardless of the reason for such termination and whether or not later found to be invalid or unlawful, including for breaching employment laws in the jurisdiction where you are employed or the terms of your employment agreement, if any), your right to receive the Option and vest under the Plan, if any, will terminate effective as of the date that is the earlier of: (1) the date you receive written notice of termination of employment from the Company or your Employer, or (2) the date you are no longer actively employed by the Company or your Employer regardless of any period during which notice, pay in lieu of notice or related payments or damages are provided or required to be provided under local law. Your right, if any, to acquire Shares pursuant to the Option after termination of employment will be measured by the date of termination of your active employment and will not be extended by any notice period mandated under local law. You will not earn or be entitled to any pro-rated vesting for that portion of time before the date on which your right to vest terminates, nor will you be entitled to any compensation for lost vesting. Notwithstanding the foregoing, if applicable employment standards legislation explicitly requires continued vesting during a statutory notice period, your right to vest in the Options, if any, will terminate effective as of the last day of your minimum statutory notice period, but you will not earn or be entitled to pro-rated vesting if the vesting date falls after the end of your statutory notice period, nor will you be entitled to any compensation for lost vesting;

The following provision will apply to you if you are a resident of Quebec:

French Language Documents. A French translation of this document and certain other documents related to this Award will be made available to Participant as soon as reasonably practicable. Participant understands that, from time to time, additional information related to the Award may be provided in English and such information may not be immediately available in French. However, upon request, the Company will provide a translation of such information into French as soon as reasonably practicable. Notwithstanding anything to the contrary in the

Agreement, and unless Participant indicates otherwise, the French translation of this document and certain other documents related to the Award will govern Participant's participation in the Plan.

Data Privacy Notice. This provision supplements Section IX of the Agreement:

You hereby authorize the Company and the Company's representative to discuss with and obtain all relevant information from all personnel (professional or not) involved in the administration of the Plan. You further authorize the Company, your Employer and Merrill Lynch Bank & Trust Co., FSB (or any other stock plan service provider) to disclose and discuss your participation in the Plan with their advisors. You also authorize the Company and your Employer to record such information and keep it in your file.

NOTIFICATIONS

Securities Law Information. You are permitted to sell Shares acquired through the Plan through the designated broker appointed under the Plan, if any, provided that the resale of such Shares takes place outside of Canada through the facilities of a stock exchange on which the Shares are listed (*e.g.*, the Nasdaq Global Select Market).

Foreign Asset/Account Reporting Information. Specified foreign property, including Shares, Options and other rights to receive Shares of a non-Canadian company held by a Canadian resident employee generally must be reported annually on a Form T1135 (Foreign Income Verification Statement) if the total cost of the employee's specified foreign property exceeds C$100,000 at any time during the year. Thus, such Options must be reported – generally at nil cost – if the C$100,000 cost threshold is exceeded because other specified foreign property is held by the employee. When Shares are acquired, their cost generally is the adjusted cost base ("ACB") of the Shares. The ACB ordinarily would equal the fair market value of the Shares at the time of acquisition, but if the employee owns other shares of the same company, this ACB may have to be averaged with the ACB of the other shares.

CHINA

TERMS AND CONDITIONS

The following terms apply only to nationals of the People's Republic of China (the "PRC") residing in the PRC:

Method of Exercise. Due to legal restrictions in the PRC, you will be required to pay the exercise price for any Shares subject to the Option granted hereunder by a cashless sell-all exercise, such that all Shares will be sold immediately upon exercise and the cash proceeds of sale, less the exercise price, any Tax Obligations and broker's fees or commissions, will be remitted to you. The Company reserves the right to provide additional methods of exercise depending on local developments.

Termination of Employment. To comply with requirements imposed by the State Administration of Foreign Exchange, to the extent that, under Section IV of the Agreement, you may exercise any Option after termination of your employment, you will be permitted to exercise such Option for the shorter of the period set forth in Section IV of the Agreement and six (6) months from the date of termination of your employment; any unexercised Option shall immediately lapse six (6) months following the termination of your employment.

The Company reserves the right to impose such further restrictions or conditions as may be necessary to comply with changes in applicable local laws in the PRC.

Please note that the above provisions will apply to all Options granted to you under the Plan, as well as to any Options granted to you in the past under the Plan.

Exchange Control Requirements. You understand and agree that, pursuant to PRC exchange control requirements, you will be required to repatriate the cash proceeds from the sale of the Shares issued upon the exercise of the Option to China. You further understand that, under applicable laws, such repatriation of your cash proceeds will need to be effectuated through a special exchange control account established by the Company or any Affiliate, including your Employer, and you hereby consent and agree that any proceeds from the sale of the Shares may be transferred to such special account prior to being delivered to you. You also understand that the Company will deliver the proceeds to you as soon as possible, but that there may be delays in distributing the funds to you due to exchange control requirements in China. Proceeds may be paid to you in U.S. dollars or local currency at the Company's discretion. If the proceeds are paid to you in U.S. dollars, you will be required to set up a U.S. dollar bank account in China so that the proceeds may be deposited into this account. If the proceeds are paid to you in local currency, the Company is under no obligation to secure any particular currency conversion rate and the Company may face delays in converting the proceeds to local currency due to exchange control restrictions. You agree to bear any currency fluctuation risk between the date the Option is exercised and the time that (i) the Tax Obligations are converted to local currency and remitted to the tax authorities, and (ii) net proceeds are converted to local currency and distributed to you. You acknowledge that neither the Company nor any Affiliate will be held liable for any delay in delivering the proceeds to you. You agree to sign any agreements, forms and/or consents that may be requested by the Company or the Company's designated broker to effectuate any of the remittances, transfers, conversions or other processes affecting the proceeds. You further agree to comply with any other requirements that may be imposed by the Company in the future in order to facilitate compliance with exchange control requirements in China.

COLOMBIA

TERMS AND CONDITIONS

Labor Law Acknowledgement. The following provision supplements Section XII of the Agreement:

You acknowledge that pursuant to Article 15 of Law 50/1990 (Article 128 of the Colombian Labor Code), the Plan and related benefits do not constitute a component of "salary" for any purpose. Therefore, they are considered to be of an extraordinary nature and will not be included and/or considered for purposes of calculating any and all labor benefits, such as legal/fringe benefits, vacations, indemnities, payroll taxes, social insurance contributions and/or any other labor-related amounts, subject to the limitations provided in Law 1393/2010.

NOTIFICATIONS

Securities Law Information. The Shares are not and will not be registered with the Colombian registry of publicly traded securities (*Registro Nacional de Valores y Emisores*) and therefore the Shares may not be offered to the public in Colombia. Nothing in this document should be construed as the making of a public offer of securities in Colombia.

Exchange Control Information. Investment in assets located abroad (such as Shares acquired under the Plan) does not require prior approval from the Central Bank (*Banco de la República*). Nonetheless, such investments are subject to registration before the Central Bank as foreign investments held abroad, regardless of value. In addition, you must file an annual informative return with the local tax authority detailing assets you hold abroad, which must include the

Shares acquired at exercise (every year as long as you keep them). This obligation is only applicable if the assets held abroad exceed the amount of 2,000 Tax Units (approx. US$22.000)

All payments for your investment originating in Colombia (and the liquidation of such investments) must be transferred through the Colombian foreign exchange market (*e.g.*, local banks), which includes the obligation to correctly complete and file the appropriate foreign exchange form (*declaración de cambio*).

Foreign Asset/Account Reporting Notice. An annual information return may need to be filed with the Colombian Tax Office detailing any assets held abroad (including Shares acquired under the Plan). If the individual value of any of these assets exceeds a certain threshold, each asset must be described (*e.g.*, its nature and its value) and the jurisdiction in which it is located must be disclosed. It is your responsibility to comply with this tax reporting requirement.

CROATIA

NOTIFICATIONS

Exchange Control Information. Croatian residents may be required to report any foreign investments (including Shares acquired under the Plan) to the Croatian National Bank for statistical purposes. You should be aware that exchange control regulations in Croatia are subject to frequent change and you are solely responsible for ensuring your continued compliance with current Croatian exchange control laws.

CZECH REPUBLIC

NOTIFICATIONS

Exchange Control Information. A Czech resident may be required to notify the Czech National Bank ("CNB") of the acquisition of Shares under the Plan or maintenance of a foreign account if (i) he or she maintains foreign direct investments with a value of 2,500,000 Kč or more in the aggregate, (ii) he or she maintains other foreign financial assets with a value of 200,000,000 Kč or more, or (iii) the Czech resident is specifically requested to do so by the CNB.

DENMARK

TERMS AND CONDITIONS

Danish Stock Option Act. In accepting this Option, you acknowledge that you have received an Employer Statement translated into Danish, which is being provided to comply with the Danish Stock Option Act. To the extent more favorable to you and required to comply with the Stock Option Act, as amended with effect from January 1, 2019.

NOTIFICATIONS

Exchange Control Information. The requirement to report certain information to the Danish Tax Administration via Form V or K was eliminated effective January 1, 2019. However, you still must report the foreign bank/brokerage accounts and their deposits, and Shares held in a foreign bank or brokerage account in your tax return under the section on foreign affairs and income.

EGYPT

NOTIFICATIONS

Exchange Control Information. If you transfer funds into or out of Egypt in connection with the exercise of the Option or the receipt of sale proceeds, you are required to transfer the funds through a registered bank in Egypt.

FINLAND

NOTIFICATIONS

Foreign Asset/Account Reporting Information. There are no specific reporting requirements with respect to foreign assets/accounts. However, please note that you must check your pre-completed tax return to confirm that the ownership of Shares and other securities (foreign or domestic) are correctly reported. If you find any errors or omissions, you must make the necessary corrections electronically or by sending specific paper forms to the local tax authorities.

FRANCE

TERMS AND CONDITIONS

Language Consent. By accepting the grant, you confirm having read and understood the Plan and Agreement which were provided in the English language. You accept the terms of these documents accordingly.

Consentement Relatif à la Langue Utilisée. *En acceptant l'attribution, vous confirmez avoir lu et compris le Plan et le Contrat, qui ont été communiqués en langue anglaise. Vous acceptez les termes de ces documents en connaissance de cause.*

NOTIFICATIONS

Foreign Asset/Account Reporting Information. French residents and non-residents must declare to the Customs Authorities the cash and securities they import or export without the use of a financial institution when the value of such cash or securities exceeds €10,000. French residents also must report all foreign bank and brokerage accounts on an annual basis (including accounts opened or closed during the tax year) on Form N° 3916, together with the income tax return. Failure to comply could trigger significant penalties.

GERMANY

NOTIFICATIONS

Foreign Asset/Account Reporting Information. If your acquisition of Shares under the Plan leads to a qualified participation at any point during the calendar year, you will need to report the acquisition when you file your tax return for the relevant year. A qualified participation is attained only in the unlikely event (i) you own at least 1% of the Company and the value of the Shares acquired exceeds €150,000 or (ii) you hold Shares exceeding 10% of the Company's total Common Stock.

Exchange Control Information. Cross-border payments in excess of €12,500 must be reported monthly to the German Federal Bank (*Bundesbank*). In case of payments in connection with securities (including proceeds realized upon the sale of Shares or the receipt of dividends), the report must be made by the 5th day of the month following the month in which the payment was received and must be filed electronically. The form of report (*Allgemeines Meldeportal Statistik*)

can be accessed via the *Bundesbank's* website (www.bundesbank.de) and is available in both German and English. In addition, you may be required to report the acquisition or sale of Shares to the *Bundesbank* if the value of the Shares acquired or sold exceeds €12,500. You are responsible for satisfying any applicable reporting obligation.

GREECE

NOTIFICATIONS

Foreign Asset/Account Reporting Information. The reporting of foreign assets (including Shares and other investments) is your own obligation and takes place through your annual tax return.

Exchange Control Information. If you exercise the Option through a cash exercise, withdraw funds from a bank in Greece and remit those funds out of Greece (in an amount exceeding a specified threshold), you may be required to submit a written application to the bank.

If you exercise the Option by way of a cashless method of exercise as described in Section II(2)(ii) of the Agreement, this application will not be required because no funds will be remitted out of Greece.

HONG KONG

TERMS AND CONDITIONS

Sale of Shares. Shares received at exercise are accepted as a personal investment. In the event that Shares are issued in respect of the Options within six (6) months of the Grant Date, you agree that you will not offer to the public or otherwise dispose of the Shares prior to the six (6)-month anniversary of the Grant Date.

NOTIFICATIONS

SECURITIES WARNING: *The contents of this document have not been reviewed by any regulatory authority in Hong Kong. You should exercise caution in relation to the offer. If you are in doubt about any of the contents of the Agreement, including this Appendix, or the Plan, you should obtain independent professional advice. The Option and any Shares issued in respect of the Option do not constitute a public offering of securities under Hong Kong law and are available only to members of the Board and Employees. The Agreement, including this Appendix, the Plan and other incidental communication materials have not been prepared in accordance with and are not intended to constitute a "prospectus" for a public offering of securities under the applicable securities legislation in Hong Kong. The Option and any documentation related thereto are intended solely for the personal use of each member of the Board and/or Employee and may not be distributed to any other person.*

HUNGARY

There are no country-specific provisions.

ICELAND

TERMS AND CONDITIONS

Method of Exercise. Due to legal restrictions in Iceland, you will be required to pay the exercise price for any Shares subject to the Option granted hereunder by a cashless sell-all

exercise, such that all Shares will be sold immediately upon exercise and the cash proceeds of sale, less the exercise price, any Tax Obligations and broker's fees or commissions, will be remitted to you. The Company reserves the right to provide additional methods of exercise depending on local developments.

NOTIFICATIONS

Exchange Control Information. Approval by the Central Bank of Iceland is no longer required to participate in the Plan, regardless of the value of the Shares acquired under the Plan. Despite the recent relaxation of the exchange control requirements, you should consult with your personal advisor to ensure compliance with applicable exchange control regulations in Iceland as such regulations are subject to frequent change. You are responsible for ensuring compliance with all exchange control laws in Iceland.

INDIA

TERMS AND CONDITIONS

Method of Exercise. Due to legal restrictions in India, you will not be permitted to pay the exercise price for Shares subject to the Option granted hereunder by a cashless "sell-to-cover" procedure, under which method a number of Shares with a value sufficient to cover the exercise price, brokerage fees and any applicable Tax Obligations would be sold upon exercise and you would receive only the remaining Shares subject to the exercised Option. The Company reserves the right to permit this procedure for payment of the exercise price in the future, depending on the development of local law.

NOTIFICATIONS

Exchange Control Information. If you remit funds out of India to purchase Shares at exercise of the Option granted hereunder, you are responsible for complying with applicable exchange control regulations. In particular, it will be your obligation to determine whether approval from the Reserve Bank of India is required prior to exercise or whether you have exhausted the investment limit of US$250,000 for the relevant fiscal year.

You must repatriate any cash dividends paid on Shares acquired under the Plan to India, as well as any proceeds from the sale of Shares acquired under the Plan within a prescribed period of time (currently, within one hundred and eighty (180) days of receipt of cash dividends, and within ninety (90) days of receipt of sale proceeds), or such other period of time as may be required under applicable regulations. You will receive a foreign inward remittance certificate ("FIRC") from the bank where you deposit the foreign currency, and you must maintain the FIRC as proof of repatriation of funds in the event that the Reserve Bank of India or your Employer requests proof of repatriation. It is your responsibility to comply with these requirements.

Foreign Asset/Account Reporting Information. You are required to declare foreign bank accounts and any foreign financial assets (including Shares held outside of India) in your annual tax return. It is your responsibility to comply with this reporting obligation and you should consult your personal tax advisor in this regard.

IRELAND

TERMS AND CONDITIONS

Nature of Grant. This provision supplements Section XII of the Agreement:

In accepting this Option, you acknowledge that the benefits received under the Plan will not be taken into account for any redundancy or unfair dismissal claim.

ITALY

TERMS AND CONDITIONS

Method of Exercise. Due to legal restrictions in Italy, you will be required to pay the exercise price for any Shares subject to the Option granted hereunder by a cashless sell-all exercise, such that all Shares will be sold immediately upon exercise and the cash proceeds of sale, less the exercise price, any Tax Obligations and broker's fees or commissions, will be remitted to you. The Company reserves the right to provide additional methods of exercise depending on local developments.

Nature of Grant. In accepting this Option, you acknowledge that (1) you have received a copy of the Plan, the Agreement and this Appendix; (2) you have reviewed the applicable documents in their entirety and fully understand the contents thereof; and (3) you accept all provisions of the Plan, the Agreement and this Appendix.

For the Option granted, you further acknowledge that you have read and specifically and explicitly approve, without limitation, the following Sections of the Option Agreement: Section I, Section IV, Section V, Section X, Section XII, Section XIII, Section XIV, Section XVII and the Data Privacy Notice for All European Economic Area ("EEA") / European Union ("EU") Jurisdictions, United Kingdom and Switzerland in this Appendix.

NOTIFICATIONS

Foreign Asset/Account Reporting Information. Italian residents who, at any time during the fiscal year, hold foreign financial assets (including cash and Shares) which may generate income taxable in Italy are required to report these assets on their annual tax returns (UNICO Form, RW Schedule) for the year during which the assets are held, or on a special form if no tax return is due. These reporting obligations will also apply to Italian residents who are the beneficial owners of foreign financial assets under Italian money laundering provisions.

Foreign Financial Assets Tax. The fair market value of any Shares held outside of Italy is subject to a foreign assets tax at a flat rate. The fair market value is considered to be the value of the Shares on the Nasdaq Global Select Market on December 31 of the applicable year in which you held the Shares (or when the Shares are acquired during the course of the year, the tax is levied in proportion to the actual days of holding over the calendar year). No tax payment duties arise if the amount of the foreign financial assets tax calculated on all financial assets held abroad does not exceed a certain threshold. You should consult with your personal tax advisor about the foreign financial assets tax.

JAPAN

NOTIFICATIONS

Exchange Control Information. If you acquire Shares valued at more than ¥100,000,000 in a single transaction, you must file a Securities Acquisition Report with the Ministry of Finance through the Bank of Japan within 20 days of the purchase of the Shares.

In addition, if you pay more than ¥30,000,000 in a single transaction for the purchase of Shares when you exercise the Option, you must file a Payment Report with the Ministry of Finance

through the Bank of Japan by the 20th day of the month following the month in which the payment was made. The precise reporting requirements vary depending on whether or not the relevant payment is made through a bank in Japan.

A Payment Report is required independently from a Securities Acquisition Report. Therefore, if the total amount that you pay upon a one-time transaction for exercising the Option and purchasing Shares exceeds ¥100,000,000, then you must file both a Payment Report and a Securities Acquisition Report.

Foreign Asset/Account Reporting Information. You will be required to report to the Japanese tax authorities details of any assets held outside of Japan as of December 31st (including any Shares acquired under the Plan) to the extent such assets have a total net fair market value exceeding ¥50,000,000. Such report will be due by March 15 each year. You should consult with your personal tax advisor as to whether the reporting obligation applies to you and whether you will be required to include in the report details of any outstanding Options, Shares or cash that you hold.

KOREA

NOTIFICATIONS

Foreign Asset/Account Reporting Information. You are required to declare all foreign financial accounts (*e.g.* non-Korean bank accounts, brokerage accounts holding Shares, etc.) to the Korean tax authority and file a report regarding such accounts if the monthly balance of such accounts exceeds a certain threshold. It is your responsibility to comply with this reporting obligation and you should consult your personal tax advisor to ensure compliance with this requirement.

LITHUANIA

NOTIFICATIONS

Foreign Asset/Account Reporting Information. If you (i) hold certain job positions established by the law or (ii) donate to political parties or political campaigners, you must file an Annual Asset Return of the Individual (Family) in Form No. FR0001 with respect to assets held outside of Lithuania (*e.g.*, Shares). If you open an account in a foreign financial institution and annual turnover in the account exceeds EUR 15,000, you must file a foreign account report.

MEXICO

TERMS AND CONDITIONS

Acknowledgement of the Agreement. In accepting the Option granted hereunder, you acknowledge that you have received a copy of the Plan, have reviewed the Plan and the Option Agreement, including this Appendix, in their entirety and fully understand and accept all provisions of the Plan and the Agreement, including this Appendix. You further acknowledge that you have read and specifically and expressly approve the terms and conditions of Section XII of the Agreement, in which the following is clearly described and established:

(1) Your participation in the Plan does not constitute an acquired right.

(2) The Plan and your participation in the Plan are offered by Amgen Inc. on a wholly discretionary basis.

(3) Your participation in the Plan is voluntary.

(4) Amgen Inc. and its Affiliates are not responsible for any decrease in the value of the Option granted and/or Shares issued under the Plan.

Labor Law Acknowledgement and Policy Statement. In accepting the Option granted hereunder, you expressly recognize that Amgen Inc., with registered offices at One Amgen Center Drive, Thousand Oaks, California 91320, U.S.A., is solely responsible for the administration of the Plan and that your participation in the Plan and acquisition of Shares do not constitute an employment relationship between you and Amgen Inc. since you are participating in the Plan on a wholly commercial basis and your sole employer is Amgen Mexico S.A. de C.V. ("Amgen-Mexico"). Based on the foregoing, you expressly recognize that the Plan and the benefits that you may derive from participation in the Plan do not establish any rights between you and your Employer, Amgen-Mexico, and do not form part of the employment conditions and/or benefits provided by Amgen-Mexico and any modification of the Plan or its termination shall not constitute a change or impairment of the terms and conditions of your employment.

You further understand that your participation in the Plan is as a result of a unilateral and discretionary decision of Amgen Inc.; therefore, Amgen Inc. reserves the absolute right to amend and/or discontinue your participation in the Plan at any time without any liability to you.

Finally, you hereby declare that you do not reserve to yourself any action or right to bring any claim against Amgen Inc. for any compensation or damages regarding any provision of the Plan or the benefits derived under the Plan, and you therefore grant a full and broad release to Amgen Inc., its Affiliates, stockholders, officers, agents or legal representatives with respect to any claim that may arise.

Spanish Translation

Reconocimiento del Otorgamiento. Al aceptar cualquier Opción bajo el presente documento, usted reconoce que ha recibido una copia del Plan, que ha revisado el mismo en su totalidad, así como también el Acuerdo de Opción, incluyendo este Apéndice, además que comprende y está de acuerdo con todas las disposiciones tanto del Plan y del Opción, incluyendo este Apéndice. Asimismo, usted reconoce que ha leído y manifiesta específicamente y expresamente la conformidad con los términos y condiciones establecidos en la Sección XII del Acuerdo de Opción, en los que se establece y describe claramente que:

(1) Su participación en el Plan de ninguna manera constituye un derecho adquirido.

(2) El Plan y su participación en el mismo son ofrecidos por Amgen Inc. de forma completamente discrecional.

(3) Su participación en el Plan es voluntaria.

(4) Amgen Inc. y sus Afiliados no son responsables de ninguna disminución en el valor de la opción otorgada y/o de las Acciones Comunes emitidas mediante el Plan.

Reconocimiento de la Ley Laboral y Declaración de Política. Al aceptar cualquier Opción bajo el presente, usted reconoce expresamente que Amgen Inc., con oficinas registradas localizadas en One Amgen Center Drive, Thousand Oaks, California 91320, U.S.A., es la única responsable de la administración del Plan y que su participación en el mismo y la adquisición de Acciones Comunes no constituyen de ninguna manera una relación laboral entre usted y Amgen

Inc., debido a que su participación en el Plan es únicamente una relación comercial y que su único empleador es Amgen Mexico S.A. de C.V. ("Amgen-México"). Derivado de lo anterior, usted reconoce expresamente que el Plan y los beneficios a su favor que pudieran derivar de la participación en el mismo, no establecen ningún derecho entre usted y su empleador, Amgen – México, y no forman parte de las condiciones laborales y/o los beneficios otorgados por Amgen – México, y cualquier modificación del Plan o la terminación del mismo no constituirá un cambio o desmejora de los términos y condiciones de su trabajo.

Asimismo, usted entiende que su participación en el Plan es resultado de la decisión unilateral y discrecional de Amgen Inc., por lo tanto, Amgen Inc. se reserva el derecho absoluto de modificar y/o descontinuar su participación en el Plan en cualquier momento y sin ninguna responsabilidad para usted.

Finalmente, usted manifiesta que no se reserva ninguna acción o derecho que origine una demanda en contra de Amgen Inc., por cualquier compensación o daños y perjuicios, en relación con cualquier disposición del Plan o de los beneficios derivados del mismo, y en consecuencia usted exime amplia y completamente a Amgen Inc. de toda responsabilidad, como así también a sus Afiliadas, accionistas, directores, agentes o representantes legales con respecto a cualquier demanda que pudiera surgir.

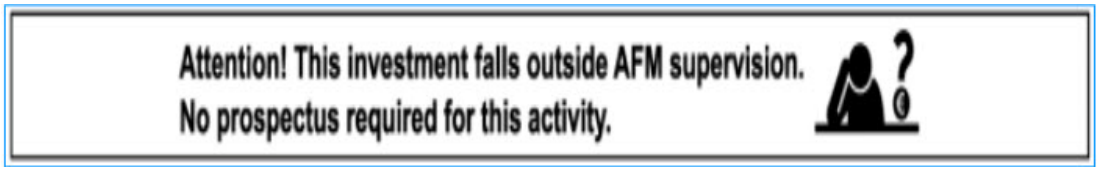
NOTIFICATIONS

Securities Law Information. The Options and the Shares offered under the Plan have not been registered with the National Register of Securities maintained by the Mexican National Banking and Securities Commission and cannot be offered or sold publicly in Mexico. In addition, the Plan, the Agreement and any other document relating to the Options may not be publicly distributed in Mexico. These materials are addressed to you only because of your existing relationship with the Company and your Employer and these materials should not be reproduced or copied in any form. The offer contained in these materials does not constitute a public offering of securities but rather constitutes a private placement of securities addressed specifically to individuals who are present employees of Amgen-Mexico made in accordance with the provisions of the Mexican Securities Market Law, and any rights under such offering shall not be assigned or transferred.

NETHERLANDS

NOTIFICATIONS

Securities Law Information.



NORWAY

NOTIFICATIONS

Foreign Asset/Account Reporting Information. Norwegian residents may be subject to foreign asset reporting as part of their ordinary tax return. Norwegian banks, financial institutions,

limited companies etc. must report certain information to the Tax Administration. Such information may then be pre-completed in a Norwegian resident's tax return. However, if the resident has traded, or is the owner of, financial instruments (*e.g.*, Shares) not pre-completed in the tax return, the Norwegian resident must enter this information in Form RF-1159, which is an appendix to the tax return.

Options will be considered assets and are, therefore, subject to wealth tax. An exemption from wealth tax may be available for non-transferrable awards. However, because the wealth tax regulations and the practice of the tax authorities are not well developed, Norwegian residents should provide the tax authorities with information concerning the Options in the annual tax return even if the Norwegian resident maintains that no wealth tax is payable.

Exchange Control Information. In general, Norwegian residents should not be subject to any foreign exchange requirements in connection with their acquisition or sale of Shares under the Plan, except normal reporting requirements to the Norwegian Currency Registry. If any transfer of funds into or out of Norway is made through a Norwegian bank, the bank will make the registration.

POLAND

NOTIFICATIONS

Foreign Asset/Account Reporting Information. Polish residents holding foreign securities (including Shares) and maintaining accounts abroad must file reports with the National Bank of Poland if the aggregate value of Shares and cash held in such foreign accounts exceeds PLN 7,000,000. If required, the reports are due on a quarterly basis by the 20th day following the end of each quarter and must be filed on special forms available on the website of the National Bank of Poland.

Exchange Control Information. In addition, Polish residents are required to transfer funds through a bank account in Poland if the transferred amount in any single transaction exceeds a specified threshold (currently €15,000 (or PLN 15,000 if such transfer of funds is associated with the business activity of a consultant)). You must store all documents connected with any foreign exchange transactions you engage in for a period of five (5) years from the end of the year when such transactions were made. Penalties may apply for failure to comply with exchange control requirements.

PORTUGAL

TERMS AND CONDITIONS

Consent to Receive Information in English. You hereby expressly declare that you have full knowledge of the English language and have read, understood and fully accepted and agreed with the terms and conditions established in the Plan and Agreement.

Conhecimento da Lingua. *Por meio do presente, eu declaro expressamente que tem pleno conhecimento da língua inglesa e que li, compreendi e livremente aceitei e concordei com os termos e condições estabelecidas no Plano e no Acordo.*

ROMANIA

NOTIFICATIONS

Exchange Control Information. Certain transfers of funds may need to be reported to the National Office for Prevention and Control of Money Laundering on specific forms by the relevant bank or financial institution. If you deposit proceeds from the sale of Shares or the receipt of dividends in a bank account in Romania, you may be required to provide the Romanian bank assisting with the transaction with appropriate documentation explaining the source of the income. You should consult with a legal advisor to determine whether you will be required to submit such documentation to the Romanian bank.

RUSSIA

TERMS AND CONDITIONS

Exchange Control Requirements. You may be required to repatriate certain cash amounts received with respect to the Option to Russia (*e.g.*, cash dividends, sale proceeds) as soon as you intend to use those cash amounts for any purpose, including reinvestment. If the repatriation requirement applies, such funds must initially be credited to you through a foreign currency account at an authorized bank in Russia. After the funds are initially received in Russia, they may be further remitted to foreign banks in accordance with Russian exchange control laws. Under the Directive N 5371-U of the Russian Central Bank (the "CBR"), the repatriation requirement may not apply in certain cases with respect to cash amounts received in an account that is considered by the CBR to be a foreign brokerage account. Statutory exceptions to the repatriation requirement also may apply.

The exchange control rules and regulations in Russia, including temporary restrictions imposed by the Russian government in March 2022, are subject to frequent change. You should consult with your personal legal advisor to determine the applicability of any repatriation requirements applicable to any Shares or cash received in connection with the Plan and held in an account outside Russia.

Securities Law Requirements. The Option granted hereunder, the Agreement, including this Appendix, the Plan and all other materials you may receive regarding your participation in the Plan or the Option granted hereunder do not constitute advertising or an offering of securities in Russia. The issuance of Shares under the Plan has not and will not be registered in Russia; therefore, Shares may not be offered or placed in public circulation in Russia.

In no event will Shares acquired under the Plan be delivered to you in Russia; any and all Shares will be maintained on your behalf in the United States.

You are not permitted to sell any Shares acquired under the Plan directly to a Russian legal entity or resident.

Data Privacy Notice. The following provision supplements Section IX of the Agreement:

You understand and agree that you must complete and return a Consent to Processing of Personal Data (the "Consent") form to the Company. Further, you understand and agree that if you do not complete and return a Consent form to the Company, the Company will not be able to administer or maintain the Option. Therefore, you understand that refusing to complete a Consent form or withdrawing your consent may affect your ability to participate in the Plan.

NOTIFICATIONS

Foreign Asset/Account Reporting Information. Russian residents are required to file the following reports or notifications with the Russian tax authorities, if applicable: (i) annual cash flow reporting for an offshore brokerage account (due by June 1 each year for the previous year, with the first reporting due by June 1, 2022 for calendar year 2021); (ii) financial asset (including Shares) reporting for an offshore brokerage account (due by June 1 each year for the previous year, with the first reporting due by June 1, 2022 for calendar year 2021); and (ii) a one-time notification within one (1) month of opening, closing, or changing details of an offshore brokerage account. You are encouraged to contact your personal tax advisor before remitting your proceeds from participation in the Plan to Russia to ensure compliance with applicable requirements.

Anti-Corruption Legislation Information. Individuals holding public office in Russia, as well as their spouses and dependent children, may be prohibited from opening or maintaining a foreign brokerage or bank account and holding any securities, whether acquired directly or indirectly, in a foreign company (including Shares acquired under the Plan). You should consult with your personal legal advisor to determine whether this restriction applies to your circumstances.

SINGAPORE

TERMS AND CONDITIONS

Restriction on Sale and Transferability. You hereby agree that any Shares acquired pursuant to the Option will not be offered for sale in Singapore prior to the six (6)-month anniversary of the Grant Date, unless such sale or offer is made pursuant to one or more exemptions under Part XIII Division 1 Subdivision (4) (other than section 280) of the Securities and Futures Act (Chap. 289, 2006 Ed.) ("SFA"), or pursuant to, and in accordance with the conditions of, any other applicable provisions of the SFA.

NOTIFICATIONS

Securities Law Information. The grant of the Option is being made pursuant to the "Qualifying Person" exemption under section 273(1)(f) of the SFA, on which basis it is exempt from the prospectus and registration requirements under the SFA, and is not made with a view to the Option being subsequently offered for sale to any other party. The Plan has not been, and will not be, lodged or registered as a prospectus with the Monetary Authority of Singapore.

Director Notification Requirement. Directors (including alternate, substitute, associate and shadow directors) of a Singapore Affiliate are subject to certain notification requirements under the Singapore Companies Act, regardless of whether they are resident or employed in Singapore. Directors of a Singapore Affiliate must notify the Singapore Affiliate in writing of an interest (*e.g.*, Options, Shares, etc.) in the Company or any related company within two (2) business days of (i) its acquisition or disposal, (ii) any change in a previously disclosed interest (*e.g.*, when the Shares are sold), or (iii) becoming a director.

SLOVAK REPUBLIC

NOTIFICATIONS

Foreign Asset/Account Reporting Notice. Slovak Republic residents who carry on business activities as an independent entrepreneur (in Slovakian, *podnikatel*), must report foreign assets

(including any Shares) to the National Bank of Slovakia (provided that the value of the foreign assets exceeds an amount of EUR 2,000,000). These reports must be submitted on a monthly basis by the 15th day of the respective calendar month, as well as on a quarterly basis by the 15th day of the calendar month following the respective calendar quarter, using notification form DEV (NBS) 1-12, which may be found at the National Bank of Slovakia's website at www.nbs.sk.

SLOVENIA

There are no country-specific provisions.

SPAIN

TERMS AND CONDITIONS

Nature of Grant. The following provision supplements Section XII of the Agreement:

In accepting this Option, you consent to participation in the Plan and acknowledge that you have received a copy of the Plan.

You understand that the Company has unilaterally, gratuitously and in its sole discretion decided to grant the Option under the Plan to individuals who may be members of the Board or Employees of the Company or its Affiliates throughout the world. The decision is a limited decision, which is entered into upon the express assumption and condition that the Option granted will not economically or otherwise bind the Company or any of its Affiliates on an ongoing basis, other than as expressly set forth in the Agreement, including this Appendix. Consequently, you understand that the Option granted hereunder is given on the assumption and condition that it shall not become a part of any employment contract (either with the Company or any of its Affiliates) and shall not be considered a mandatory benefit, salary for any purposes (including severance compensation) or any other right whatsoever. Further, you understand and freely accept that there is no guarantee that any benefit whatsoever shall arise from any gratuitous and discretionary grant of the Option since the future value of the Option and the underlying Shares is unknown and unpredictable. In addition, you understand that the Option granted hereunder would not be made but for the assumptions and conditions referred to above; thus, you understand, acknowledge and freely accept that, should any or all of the assumptions be mistaken or should any of the conditions not be met for any reason, then any grant of an Option or right to an Option shall be null and void.

Further, the vesting of the Option is expressly conditioned on your continued and active rendering of service, such that if your employment terminates for any reason whatsoever, the Option may cease vesting immediately, in whole or in part, effective on the date of your termination of employment (unless otherwise specifically provided in Section IV of the Agreement). This will be the case, for example, even if (1) you are considered to be unfairly dismissed without good cause (*i.e.*, subject to a "despido improcedente"); (2) you are dismissed for disciplinary or objective reasons or due to a collective dismissal; (3) you terminate service due to a change of work location, duties or any other employment or contractual condition; (4) you terminate service due to a unilateral breach of contract by the Company or an Affiliate; or (5) your employment terminates for any other reason whatsoever. Consequently, upon termination of your employment for any of the above reasons, you may automatically lose any rights to Options that were not vested on the date of your termination of employment, as described in the Plan and the Agreement.

You acknowledge that you have read and specifically accept the conditions referred to in Section IV of the Agreement.

NOTIFICATIONS

Securities Law Information. No "offer of securities to the public," as defined under Spanish law, has taken place or will take place in the Spanish territory. The Agreement (including this Appendix) has not been nor will it be registered with the *Comisión Nacional del Mercado de Valores*, and does not constitute a public offering prospectus.

Exchange Control Information. If you acquire Shares under the Plan, you must declare the acquisition to the *Direccion General de Comercio e Inversiones* (the "DGCI"). If you acquire the Shares through the use of a Spanish financial institution, that institution will automatically make the declaration to the DGCI for you; otherwise, you will be required to make the declaration by filing a D-6 form. You must declare ownership of any Shares with the DGCI each January while the Shares are owned and must also report, in January, any sale of Shares that occurred in the previous year for which the report is being made, unless the sale proceeds exceed the applicable threshold, in which case the report is due within one (1) month of the sale.

Foreign Asset/Account Reporting Information. You are required to declare electronically to the Bank of Spain any securities accounts (including brokerage accounts held abroad), as well as the Shares held in such accounts if the value of the transactions during the prior tax year or the balances in such accounts as of December 31 of the prior tax year exceed €1,000,000.

To the extent that you hold Shares and/or have bank accounts outside of Spain with a value in excess of €50,000 (for each type of asset) as of December 31 each year, you will be required to report information on such assets in your tax return (tax form 720) for such year. After such Shares and/or accounts are initially reported, the reporting obligation will apply for subsequent years only if the value of any previously-reported Shares or accounts increases by more than €20,000 or if you sell or otherwise dispose of any previously-reported Shares or accounts. If the value of such Shares and/or accounts as of December 31 does not exceed €50,000, a summarized form of declaration may be presented.

SWEDEN

TERMS AND CONDITIONS

Authorization to Withhold. This provision supplements Section V of the Agreement:

Without limiting the Company's and the Employer's authority to satisfy their withholding obligations for Tax Obligations as set forth in the Agreement, in accepting the Options, you authorize the Company to withhold Shares or to sell Shares otherwise issuable to you upon exercise to satisfy Tax Obligations, regardless of whether the Company and/or Employer have an obligation to withhold such Tax Obligations, provided that such withholding would not, in the Company's determination, result in adverse accounting consequences to the Company.

SWITZERLAND

NOTIFICATIONS

Securities Law Information. Neither this document nor any other materials relating to the Option (i) constitutes a prospectus according to articles 35 et seq. of the Swiss Federal Act on Financial Services ("FinSA"), (ii) may be publicly distributed or otherwise made publicly available in Switzerland to any person other than an employee of the Company or one of its Subsidiaries or (iii) has been or will be filed with, approved or supervised by any Swiss

reviewing body according to article 51 of FinSA or any Swiss regulatory authority, including the Swiss Financial Market Supervisory Authority.

TAIWAN

NOTIFICATIONS

Exchange Control Information. You may acquire and remit foreign currency (including proceeds from the sale of Shares or the receipt of dividends) up to US$5,000,000 per year without justification. If the transaction amount is TWD500,000 or more in a single transaction, you must submit a Foreign Exchange Transaction Form. If the transaction amount is US$500,000 or more in a single transaction, you must also provide supporting documentation to the satisfaction of the remitting bank.

THAILAND

NOTIFICATIONS

Exchange Control Information. If you receive funds in connection with the Plan (*e.g.*, dividends or sale proceeds) with a value equal to or greater than US$1,000,000 per transaction, you are required to immediately repatriate such funds to Thailand. Any foreign currency repatriated to Thailand must be converted to Thai Baht or deposited into a foreign currency deposit account opened with any commercial bank in Thailand acting as the authorized agent within 360 days from the date the funds are repatriated to Thailand. You are also required to inform the authorized agent of the details of the foreign currency transaction, including your identification information and the purpose of the transaction. The Employee is responsible for ensuring compliance with all exchange control laws in Thailand.

If you do not comply with the above obligations, you may be subject to penalties assessed by the Bank of Thailand. Because exchange control regulations change frequently and without notice, you should consult your legal advisor before selling any Shares (or receiving any other funds in connection with the Plan) to ensure compliance with current regulations. It is your responsibility to comply with exchange control laws in Thailand, and neither the Company nor your Employer will be liable for any fines or penalties resulting from failure to comply with applicable laws.

UNITED ARAB EMIRATES

NOTIFICATIONS

Securities Law Information. Options under the Plan are granted only to select Board members and Employees of the Company and its Affiliates and are for the purpose of providing equity incentives. The Plan and the Agreement are intended for distribution only to such Board members and Employees and must not be delivered to, or relied on by, any other person. You should conduct your own due diligence on the Options offered pursuant to this Agreement. If you do not understand the contents of the Plan and/or the Agreement, you should consult an authorized financial adviser. The Emirates Securities and Commodities Authority and the Dubai Financial Services Authority have no responsibility for reviewing or verifying any documents in connection with the Plan. Further, the Ministry of the Economy and the Dubai Department of Economic Development have not approved the Plan or the Agreement nor taken steps to verify the information set out therein, and have no responsibility for such documents.

UNITED KINGDOM

TERMS AND CONDITIONS

Tax Withholding. This provision supplements Section V of the Agreement:

Without limitation to Section V of the Agreement, you agree that you are liable for all Tax Obligations and hereby covenant to pay all such Tax Obligations as and when requested by the Company or your Employer or by Her Majesty's Revenue and Customs ("HMRC") (or any other tax authority or any other relevant authority). You also agree to indemnify and keep indemnified the Company and your Employer against any taxes that they are required to pay or withhold or have paid or will pay to HMRC (or any other tax authority or any other relevant authority) on your behalf.

Notwithstanding the foregoing, if you are an executive officer or director within the meaning of Section 13(k) of the Exchange Act, as amended from time to time, you understand that you may not be able to indemnify the Company or your Employer for the amount of income tax not collected from or paid by you, as it may be considered a loan. In the event that you are an executive officer or director and income tax is not collected from you within ninety (90) days after the end of the tax year in which the Taxable Event occurs, the amount of any uncollected income tax may constitute an additional benefit to you on which additional income tax and national insurance contributions ("NICs") may be payable. You acknowledge that you are responsible for reporting and paying any income tax due on this additional benefit directly to HMRC under the self-assessment regime and for paying your Employer for the amount of any NICs due on this additional benefit, which the Company or your Employer may obtain from you by any of the means set forth in Section V of the Agreement.

If the maximum applicable withholding rate is used, any over-withheld amount may be credited to you by the Company or your Employer (with no entitlement to the Common Stock equivalent) or if not so credited, you may seek a refund from the local tax authorities.

Joint Election. If you are a resident of the United Kingdom between the Grant Date and the vesting of the Option, as a condition of the Option granted hereunder, you agree to accept any liability for secondary Class 1 National Insurance Contributions (the "Employer NICs"), which may be payable by the Company or your Employer with respect to the exercise of the Option and issuance of Shares subject to the Option, the assignment or release of the Option for consideration, or the receipt of any other benefit in connection with the Option.

Without limitation to the foregoing, you agree to make an election (the "Election"), in the form specified and/or approved for such election by HMRC, that the liability for your Employer NICs payments on any such gains shall be transferred to you to the fullest extent permitted by law. You further agree to execute such other elections as may be required between you and any successor to the Company and/or your Employer. You hereby authorize the Company and your Employer to withhold such Employer NICs by any of the means set forth in Section V of the Agreement.

Failure by you to enter into an Election, withdrawal of approval of the Election by HMRC or a joint revocation of the Election by you and the Company or your Employer, as applicable, shall be grounds for the forfeiture and cancellation of the Option, without any liability to the Company or your Employer.

UNITED STATES

TERMS AND CONDITIONS

Nature of Grant. The following provision replaces Section IV(B)(1) of the Agreement:

(1) "termination of your employment" shall mean the last date you are either an active employee of the Company or an Affiliate or actively engaged as a Director of the Company or an Affiliate; in the event of termination of your employment (whether or not in breach of local labor laws), your right to exercise the Option and vest under the Plan, if any, will terminate effective as of the date that you are no longer actively employed; provided, however, that such right will be extended by any notice period mandated by law (e.g. the Worker Adjustment and Retraining Notification Act ("WARN Act") notice period or similar periods pursuant to local law) and any paid administrative leave (as applicable), unless the Company shall provide you with written notice otherwise before the commencement of such notice period or leave. Your right, if any, to exercise the Option after termination of employment will be measured by the date of termination of your active employment; provided, however, that such right will be extended by any notice period mandated by law (e.g. the Worker Adjustment and Retraining Notification Act ("WARN Act") notice period or similar periods pursuant to local law) and any paid administrative leave, unless the Company shall provide you with written notice otherwise before the commencement of such notice period or leave. Notwithstanding anything to the contrary herein, in no event shall the term of this Option extend beyond the Expiration Date set forth on the Award Notice and in this Agreement.

Form of Award Notice

[*The information set forth in this Award Notice will be contained on the related pages on Merrill Lynch Benefits Website (or the website of any successor company to Merrill Lynch Bank & Trust Co., FSB). This Award Notice shall be replaced by the equivalent pages on such website. References to Award Notice in this Agreement shall then refer to the equivalent pages on such website.*]

This notice of Award (the "Award Notice") sets forth certain details relating to the grant by the Company to you of the Award identified below, pursuant to the Plan. The terms of this Award Notice are incorporated into the Agreement that accompanies this Award Notice and made part of the Agreement. Capitalized terms used in this Award Notice that are not otherwise defined in this Award Notice have the meanings given to such terms in the Agreement.

Employee:
Employee ID:
Address:
Award Type:
Grant ID:
Plan: Amgen Inc. Amended and Restated 2009 Equity Incentive Plan, as amended and/or restated from time to time
Grant Date:
Grant Price: $_____
Number of Shares:
Number of Units
Vesting Date: Means the vesting date indicated in the Vesting Schedule
Vesting Schedule: Means the schedule of vesting set forth under Vesting Details
Vesting Details: Means the presentation (tabular or otherwise) of the Vesting Date and the quantity of Shares vesting

IMPORTANT NOTICE REGARDING ACCEPTANCE OF THE AWARD AND THE REQUIREMENT TO OPEN A BROKERAGE ACCOUNT[1]:

RESIDENTS OF THE U.S. AND PUERTO RICO: Please read this Award Notice, the Plan and the Agreement (collectively, the "Grant Documents") carefully. If you, as a resident of the U.S. or Puerto Rico, do **not** wish to receive this Award and/or you do **not** consent and agree to the terms and conditions on which this Award is offered, as set forth in the Grant Documents, then you must reject the Award by contacting the Merrill Lynch call center (800) 97AMGEN (800-972-6436) within the U.S., Puerto Rico and Canada or +1 (609) 818-8910 from all other countries (Merrill Lynch will accept the charges for your call) no later than the forty-fifth calendar day following the day on which this Award Notice is made available to you, in which case the Award will be cancelled. For the purpose of determining the forty-five calendar days, Day 1 will be the day **immediately** following the day on which this Award Notice is made available to you. Your failure to notify the Company of your rejection of the Award within this specified period will constitute your acceptance of the Award and your agreement with all terms and conditions of the Award, as set forth in the Grant Documents. If you agree to the terms and conditions of your grant and you desire to accept it, then no further action is needed on your part to accept the grant. However, you must still open a brokerage account as directed by the Company, by 1:00 pm Pacific Time on or before the date that is 11 months after the date of grant. This step is necessary to process transactions related to your equity grant. If you do not open a brokerage account by this deadline, **your grant will be cancelled**.

[1] *This provision is only for use on the form of grant used for the U.S. and Puerto Rico.*

RESTRICTED STOCK UNIT AGREEMENT

THE SPECIFIC TERMS OF YOUR GRANT OF RESTRICTED STOCK UNITS ARE FOUND IN THE PAGES RELATING TO THE GRANT OF RESTRICTED STOCK UNITS FOUND ON MERRILL LYNCH BENEFITS WEBSITE (OR THE WEBSITE OF ANY SUCCESSOR COMPANY TO MERRILL LYNCH BANK & TRUST CO., FSB) (THE "AWARD NOTICE") WHICH ACCOMPANIES THIS DOCUMENT. THE TERMS OF THE AWARD NOTICE ARE INCORPORATED INTO THIS RESTRICTED STOCK UNIT AGREEMENT.

On the Grant Date specified in the Award Notice, Amgen Inc., a Delaware corporation (the "Company"), has granted to you, the grantee named in the Award Notice, under the Amgen Inc. Amended and Restated 2009 Equity Incentive Plan, as amended and/or restated from time to time (the "Plan"), the Number of Units with respect to the number of shares of the $0.0001 par value common stock of the Company (the "Shares") specified in the Award Notice, on the terms and conditions set forth in this Restricted Stock Unit Agreement, any additional terms and conditions for your country set forth in the attached Appendix A and the Award Notice (together, the "Agreement"). The Units shall constitute Restricted Stock Units under Section 9.5 of the Plan, which is incorporated herein by reference. Capitalized terms not defined herein shall have the meanings assigned to such terms in the Plan.

I. Vesting Schedule and Termination of Units.

a. *General*. Subject to the terms and conditions of this Agreement, on each Vesting Date, the Number of Units indicated on the Vesting Schedule shall vest, provided that you have remained continuously and actively employed with the Company or an Affiliate (as defined in the Plan) through each applicable Vesting Date, unless (i) [your employment has terminated due to your Voluntary Termination (as defined in paragraph (d) of this Section I below)]*[2], [(ii)] you experience a Qualified Termination (as defined below), or (iii)[(ii)] as otherwise determined by the Company in the exercise of its discretion as provided in paragraph (f) of this Section I. The Units represent an unfunded, unsecured promise by the Company to deliver Shares. Only whole Shares shall be issued upon vesting of the Units, and the Company shall be under no obligation to issue any fractional Shares to you. If your employment with the Company or an Affiliate is terminated for any reason or for no reason, including if your active employment is terminated by the Company or an Affiliate without Cause (as defined below), or in the event of any other termination of your active employment caused directly or indirectly by the Company or an Affiliate, except as otherwise provided in paragraphs (b), (c), [(d),]*[(1)] (e) or (f) of this Section I below, your unvested Units shall automatically expire and terminate on the date of termination of your active employment. Notwithstanding anything herein to the contrary, the Vesting Schedule may be accelerated (by notice in writing) by the Company in its sole discretion at any time that the Units remain outstanding and unvested (in whole or in part). In addition, if not prohibited by local law, vesting may be suspended by the Company in its sole discretion during a leave of absence as provided from time to time according to Company policies and practices.

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[2] *Paragraph (d) of Section I of this Agreement is not applicable to awards identified by the Administrator as new hire, retention, special or promotion grants and the provisions of such paragraph shall be reserved and references thereto identified by an asterisk (*) shall be omitted from the agreements evidencing such grants.*

b. *Permanent and Total Disability.* Notwithstanding the provisions in paragraph (a) above, if your employment with the Company or an Affiliate terminates due to your Permanent and Total Disability (as defined below), then the vesting of Units granted under this Agreement shall be accelerated, subject to your execution of a general release and waiver in a form provided by the Company (for the purpose of resolving any potential or actual disputes arising from your employment and the termination of your employment with the Company), to vest as of the day immediately preceding such termination of your employment with respect to all Units granted hereunder, except that if the Units were granted in the calendar year in which such termination occurs, the Units shall be accelerated to vest with respect to a number of Units equal to the number of Units subject to this Agreement multiplied by a fraction, the numerator of which is the number of complete months you remained continuously and actively employed during such calendar year, and the denominator of which is twelve (12), and any Units that remain unvested shall automatically expire and terminate on the date of the termination of your active employment due to your Permanent and Total Disability without consideration therefor.

c. *Death*. Notwithstanding the provisions in paragraph (a) above, if your employment with the Company or an Affiliate terminates due to your death, then the vesting of Units granted under this Agreement shall be accelerated to vest as of the day immediately preceding your death with respect to all Units granted hereunder, except that if the Units were granted in the calendar year in which your death occurs the Units shall be accelerated to vest with respect to a number of Units equal to the number of Units subject to this Agreement multiplied by a fraction, the numerator of which is the number of complete months you remained continuously and actively employed during such calendar year, and the denominator of which is twelve (12), and any Units that remain unvested shall automatically expire and terminate on the date of the termination of your active employment due to your death without consideration therefor.

d. *[Retirement*. Notwithstanding the provisions in paragraph (a) above, if you terminate your employment with the Company or an Affiliate due to your voluntary termination (and such voluntary termination is not the result of Permanent and Total Disability (as defined below)) after you are at least sixty-five (65) years of age, or after you are at least fifty-five (55) years of age and have been an employee of the Company and/or an Affiliate for at least ten (10) years in the aggregate as determined by the Company in its sole discretion according to Company policies and practices as in effect from time to time ("Voluntary Termination"), then the Units will vest pursuant to the Vesting Schedule without regard to the termination of employment prior to the Vesting Date, subject to your execution of a general release and waiver in a form provided by the Company (for the purpose of resolving any potential or actual disputes arising from your employment and the termination of your employment with the Company), with respect to all Units granted hereunder; provided, however, that if the Units were granted in the calendar year in which the Voluntary Termination occurs, the Units will vest pursuant to the Vesting Schedule provided in the Award Notice, provided, that each tranche of Units scheduled to vest upon each remaining Vesting Date in the Vesting Schedule will vest only with respect to the number of Units in such tranche multiplied by a fraction, the numerator of which is the number of complete months you remained continuously and actively employed during such calendar year, and the denominator of which is twelve (12), and any Units that remain unvested in excess of such number of Units shall automatically expire and terminate on the date of termination of your active employment due to your Voluntary Termination without consideration therefor; provided, further, however, that in the event of your death following your Voluntary Termination, any Units that remain

outstanding as of the date of your death will become vested (and the Vesting Date with respect to such Units will occur) as of the day immediately preceding your death. Notwithstanding the definition of Voluntary Termination set forth above, if the Company receives an opinion of counsel that there has been a legal judgment and/or legal development in your jurisdiction that would likely result in the favorable treatment upon Voluntary Termination described above being deemed unlawful and/or discriminatory, then the Committee will not apply the favorable treatment described above.][Reserved]*[3]

e. *Qualified Termination after a Change of Control*. Notwithstanding the provisions in paragraph (a) above, in the event of a Qualified Termination (as defined below), then, to the extent permitted by applicable law, the vesting of Units granted under this Agreement shall be accelerated to vest as of the day immediately prior to the Qualified Termination.

f. *Continued Vesting*. Notwithstanding the provisions in paragraph (a) above, the Company may in its sole discretion at any time during the term of this Agreement, in writing, otherwise provide that the Units will vest pursuant to the Vesting Schedule without regard to the termination of employment prior to the Vesting Date, subject to any terms and conditions that the Company may determine.

For purposes of this Agreement:

(i) "termination of your active employment" shall mean the last date that you are either an active employee of the Company or an Affiliate or actively engaged as a Director of the Company or an Affiliate; in the event of termination of your employment (whether or not later found to be invalid or in breach of employment laws in the jurisdiction where you are working or the terms of your employment agreement, if any), your right to receive Units and vest under the Plan, if any, will terminate effective as of the date that you are no longer actively providing services and will not be extended by any notice period (*e.g.*, active employment would not include any period of "garden leave" or similar period mandated under employment laws in the jurisdiction where you are employed or the terms of your employment agreement, if any). The Company shall have exclusive discretion to determine when you are no longer actively providing services for purposes of this Agreement (including whether you may still be considered to be providing services while on a leave of absence);

(ii) "Cause" shall mean (i) your conviction of a felony (or similar crime under applicable law, as determined by the Company), or (ii) your engaging in conduct that constitutes willful gross neglect or willful gross misconduct in carrying out your duties, resulting, in either case, in material economic harm to the Company or any Affiliate, unless you believed in good faith that such conduct was in, or not contrary to, the best interests of the Company or any Affiliate. For purposes of clause (ii) above, no act, or failure to act, on your part shall be deemed "willful" unless done, or omitted to be done, by you not in good faith;

(iii) "Permanent and Total Disability" shall have the meaning ascribed to such term under Section 22(e)(3) of the Code and with such permanent and total disability being certified prior to termination of your employment by (i) the U.S. Social Security Administration, (ii) the comparable governmental authority applicable to an Affiliate, (iii) such other body having the

[3] *Paragraph(d) of Section I of this Agreement is not applicable to awards identified by the Administrator as new hire, retention, special or promotion grants and the provisions of such paragraph shall be reserved and references thereto identified by an asterisk (*) shall be omitted from the agreements evidencing such grants.*

relevant decision-making power applicable to an Affiliate, or (iv) an independent medical advisor appointed by the Company in its sole discretion, as applicable, in any such case;

(iv) "Qualified Termination" shall mean

(a) if you are an employee who participates in the Change of Control Plan (as defined below), your termination of employment within two (2) years following a Change of Control (i) by the Company other than for Cause, Disability (as defined below), or as a result of your death or (ii) by you for Good Reason (as defined in the Change of Control Plan); or

(b) if you are an employee who does not participate in the Change of Control Plan or the Change of Control Plan is no longer in effect, your termination of employment within two (2) years following a Change of Control by the Company other than for Cause, Disability (as defined below), or as a result of your death;

(v) "Change of Control" shall mean the occurrence of any of the following:

(A) the acquisition (other than from the Company) by any person, entity or "group," within the meaning of Section 13(d)(3) or 14(d)(2) of the Exchange Act (excluding, for this purpose, the Company or any of its Affiliates, or any employee benefit plan of the Company or any of its Affiliates which acquires beneficial ownership of voting securities of the Company), of beneficial ownership (within the meaning of Rule 13d-3 promulgated under the Exchange Act) of fifty percent (50%) or more of either the then-outstanding Shares or the combined voting power of the Company's then-outstanding voting securities entitled to vote generally in the election of directors; or

(B) the consummation by the Company of a reorganization, merger, consolidation, (in each case, with respect to which persons who were the stockholders of the Company immediately prior to such reorganization, merger or consolidation do not, immediately thereafter, own more than fifty percent (50%) of the combined voting power entitled to vote generally in the election of directors of the reorganized, merged or consolidated company's then-outstanding voting securities) or a liquidation or dissolution of the Company or of the sale of all or substantially all of the assets of the Company.

Notwithstanding anything herein or in the Agreement to the contrary, if a Change of Control constitutes a payment event with respect to any Unit that is subject to United States income tax and which provides for a deferral of compensation that is subject to Section 409A of the Code, the transaction or event described in subsection (A) or (B) above must also constitute a "change in control event," as defined in U.S. Treasury Regulation § 1.409A-3(i)(5), in order to constitute a Change of Control for purposes of payment of such Unit.

(vi) "Change of Control Plan" shall mean the Company's change of control and severance plan, including the Amgen Inc. Change of Control Severance Plan, as amended and restated, effective as of December 9, 2010 (and any subsequent amendments thereto), or equivalent plan governing the provision of benefits to eligible employees upon the occurrence of a Change of Control (including resulting from a termination of employment that occurs within a specified time period following a Change of Control), as in effect immediately prior to a Change of Control; and

(vii) "Disability" shall be determined in accordance with the Company's long-term disability plan as in effect immediately prior to a Change of Control.

II. Form and Timing of Settlement. Subject to satisfaction of Tax Obligations or similar obligations as provided for in Section III, any vested Units shall be settled by the Company delivering to you a number of Shares equal to the number of such vested Units or in a lump sum in cash with a value equal to the Fair Market Value of the number of Shares subject to the vested Units as of the applicable Vesting Date (without interest thereon), or in a combination of Shares and cash, as determined by the Administrator at any time prior to settlement and in its discretion, as soon as practicable, and in any event within 90 days, after the applicable Vesting Date, which for purposes of this Section II, includes the date of any accelerated vesting, if any (the "Settlement Period"). [(For the avoidance of doubt, in the event that any Units continue to vest following a Voluntary Termination in accordance with Section 1(d) above, the Vesting Date(s) for purposes of settlement pursuant to this Section II shall be the regularly scheduled Vesting Dates following such termination.)]*[4] Notwithstanding anything to the contrary in the foregoing, in the event that (i) the vesting and settlement of Units is conditioned on your execution and delivery of a release and (ii) the Settlement Period commences in one calendar year and ends in the next calendar year, the Units will be settled in the second calendar year. Shares issued in respect of a Unit shall be deemed to be issued in consideration of past services actually rendered by you to the Company or an Affiliate or for its benefit for which you have not previously been compensated or for future services to be rendered, as the case may be, which the Company deems to have a value at least equal to the aggregate par value thereof.

III. Tax Withholding; Issuance of Shares. Regardless of any action the Company or your actual employer (the "Employer") takes with respect to any or all income tax (including federal, state and local taxes), social insurance, payroll tax, fringe benefit tax, payment on account or other tax-related items related to your participation in the Plan and legally applicable to you ("Tax Obligations"), you acknowledge that the ultimate liability for all Tax Obligations is and remains your responsibility and may exceed the amount, if any, actually withheld by the Company and/or your Employer. You further acknowledge that the Company and/or your Employer (i) make no representations or undertakings regarding the treatment of any Tax Obligations in connection with any aspect of the Units or the underlying Shares, including the grant of the Units, the vesting of Units, the conversion of the Units into Shares or the receipt of an equivalent cash payment, the subsequent sale of any Shares acquired at vesting and the receipt of any Dividends (as defined in Section IV, below) or Dividend Equivalents, and (ii) do not commit to and are under no obligation to structure the terms of the grant or any aspect of the Units to reduce or eliminate your liability for Tax Obligations or achieve any particular tax result. Furthermore, if you become subject to tax in more than one jurisdiction, you acknowledge that the Company and/or your Employer (or former employer, as applicable) may be required to withhold or account for Tax Obligations in more than one jurisdiction.

Prior to any relevant taxable or tax withholding event, as applicable, you shall pay, or make adequate arrangements satisfactory to the Company or to your Employer (in their sole discretion) to satisfy all Tax Obligations. In this regard, you authorize the Company and/or your Employer or their respective agents, at their discretion, to satisfy all applicable Tax Obligations by one or a combination of the following:

(a) withholding from your wages or other cash compensation paid to you by the Company and/or your Employer; or

[4] *Paragraph (d) of Section I of this Agreement is not applicable to awards identified by the Administrator as new hire, retention, special or promotion grants and the provisions of such paragraph shall be reserved and references thereto identified by an asterisk (*) shall be omitted from the agreements evidencing such grants.*

(b) withholding from proceeds of the sale of Shares acquired upon vesting or payment of the Units either through your voluntary sale or through a mandatory sale arranged by the Company (on your behalf pursuant to this authorization); or

(c) withholding in Shares issuable, or cash payable, upon vesting or payment of the Units, provided that, if such Shares are withheld, the Company and your Employer shall only withhold an amount of Shares with a fair market value not to exceed the Tax Obligations as determined in the discretion of the Company or your Employer, as applicable.

Depending on the withholding method, the Company may withhold or account for Tax Obligations by considering applicable minimum statutory withholding rates or other applicable withholding rates, including maximum applicable rates. If the Tax Obligations are satisfied by withholding in Shares, for tax purposes you are deemed to have been issued the full number of Shares subject to the vested Units, notwithstanding that a number of the Shares is held back and not actually issued to you solely for the purpose of paying the Tax Obligations due as a result of any aspect of your participation in the Plan (any Shares withheld by the Company hereunder shall not be deemed to have been issued by the Company for any purpose under the Plan and shall remain available for issuance thereunder).

Finally, you shall pay to the Company or your Employer any amount of Tax Obligations that the Company or your Employer may be required to withhold or account for as a result of your participation in the Plan that cannot be or were not satisfied by the means previously described. You agree to take any further actions and execute any additional documents as may be necessary to effectuate the provisions of this Section III. Notwithstanding Section II above, the Company may refuse to issue or deliver the Shares or the proceeds of the sale of Shares if you fail to comply with your obligations in connection with the Tax Obligations.

IV. Dividend Equivalents

(a) Crediting and Payment of Dividend Equivalents. Subject to this Section IV, Dividend Equivalents shall be credited on each Unit granted to you under this Agreement in the manner set forth in the remainder of this Section IV. If the Company declares one or more dividends or distributions (each, a "Dividend") on its Common Stock with a record date which occurs during the period commencing on the Grant Date through and including the day immediately preceding the day the shares of Common Stock subject to the Units are issued to you, whether in the form of cash, Common Stock or other property, then on the date such Dividend is paid to the Company's stockholders you shall be credited with an amount equal to the amount or fair market value of such Dividend which would have been payable to you if you held a number of shares of Common Stock equal to the number of your Units as of the record date for such Dividend, unless the Units have been forfeited between the record date and payment date for such Dividend. Any such Dividend Equivalents shall be credited and deemed reinvested in the Common Stock as of the Dividend payment date. Dividend Equivalents shall be payable in full shares of Common Stock, unless the Administrator determines, at any time prior to payment and in its discretion, that they shall be payable in cash. Dividend Equivalents payable with respect to fractional shares of Common Stock shall be paid in cash.

(b) Treatment of Dividend Equivalents. Except as otherwise expressly provided in this Section IV, any Dividend Equivalents credited to you shall be subject to all of the provisions of this Agreement which apply to the Units with respect to which they have been credited and shall be payable, if at all, at the time and to the extent that the underlying Unit becomes payable. Dividend Equivalents shall not be payable on any Units that do not vest, or are forfeited, pursuant to the terms of this Agreement. Dividend Equivalent rights and any amounts that may become distributable in respect thereof shall be treated separately from the Units and the rights arising in connection therewith for purposes of the designation of time and

form of payments required by Section 409A of the Code (together with any Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the Grant Date, "Section 409A").

V. Transferability. No benefit payable under, or interest in, this Agreement or in the Shares that are scheduled to be issued to you hereunder shall be subject in any manner to anticipation, alienation, sale, transfer, assignment, pledge, encumbrance or charge and any such attempted action shall be void and no such benefit or interest shall be, in any manner, liable for, or subject to, your or your beneficiary's debts, contracts, liabilities or torts; provided, however, nothing in this Section V shall prevent transfer (i) by will or (ii) by applicable laws of descent and distribution.

VI. Notices. Any notices provided for in this Agreement or the Plan shall be given in writing or electronically and shall be deemed effectively given upon receipt or, in the case of notices delivered by the Company to you, five (5) days after deposit in the United States mail or equivalent foreign postal service, postage prepaid, addressed to you at such address as is currently maintained in the Company's records or at such other address as you hereafter designate by written notice to the Company Stock Administrator. Such notices may be given using any automated system for the documentation, granting or settlement of Awards, such as a system using an internet website or interactive voice response, as approved by the Company.

VII. Plan. This Agreement is subject to all the provisions of the Plan, which provisions are hereby made a part of this Agreement, including without limitation the provisions of Section 9.5 of the Plan relating to Restricted Stock Units, and is further subject to all interpretations, amendments, rules and regulations which may from time to time be promulgated and adopted pursuant to the Plan. In the event of any conflict between the provisions of this Agreement and those of the Plan, the provisions of the Plan shall control.

VIII. Governing Law and Venue. The terms of this Agreement shall be governed by the laws of the State of Delaware without giving effect to principles of conflicts of laws. For purposes of litigating any dispute that arises hereunder, the parties hereby submit to and consent to the jurisdiction of the State of Delaware, and agree that such litigation shall be conducted in the courts of the State of Delaware, or the federal courts for the United States for the federal district located in the State of Delaware, and no other courts, where this Agreement is made and/or to be performed.

IX. Code Section 409A. The time and form of payment of the Units is intended to comply with the requirements of Section 409A and this Agreement shall be interpreted in accordance with Section 409A. Accordingly, no acceleration or deferral of any payment shall be permitted if it would cause the payment of the Units to violate Section 409A. In addition, notwithstanding any provision herein to the contrary, in the event that following the Grant Date, the Committee (as defined in the Plan) determines that it may be necessary or appropriate to do so, the Committee may adopt such amendments to the Plan and/or this Agreement or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, that the Committee determines are necessary or appropriate to (a) exempt the Plan and/or the Units from the application of Section 409A and/or preserve the intended tax treatment of the benefits provided with respect to this Award, or (b) comply with the requirements of Section 409A; provided, however, that this paragraph shall not create an obligation on the part of the Committee to adopt any such amendment, policy or procedure or take any such other action. For purposes of Section 409A, the right to receive payment of Units at each Vesting Date shall be treated as a right to receive separate and distinct payments. No payment hereunder shall be made to you during the six (6)-month period following your "separation from service" (within the meaning of Section 409A) to the extent that the Company

determines that paying such amount at the time set forth herein would be a prohibited distribution under Section 409A(a)(2)(B)(i). If the payment of any such amounts is delayed as a result of the previous sentence, then within thirty (30) days following the end of such six (6)-month period (or, if earlier, your death), the Company shall pay to you (or to your estate) the cumulative amounts that would have otherwise been payable to you during such period, without interest.

X. Acknowledgement. By electing to accept this Agreement, you acknowledge receipt of this Agreement and hereby confirm your understanding that the terms set forth in this Agreement constitute, subject to the terms of the Plan, which terms shall control in the event of any conflict between the Plan and this Agreement, the entire agreement and understanding of the parties with respect to the matters contained herein and supersede any and all prior agreements, arrangements and understandings, both oral and written, between the parties concerning the subject matter of this Agreement. The Company may, in its sole discretion, decide to deliver any documents related to current or future participation in the Plan (including this Agreement) by electronic means. You hereby consent to receive such documents by electronic delivery and agree to participate in the Plan through an on-line or electronic system established and maintained by the Company or a third party designated by the Company.

XI. Acknowledgement of Nature of Plan and Units. In accepting this Agreement, you acknowledge, understand and agree that:

(a) the Plan is established voluntarily by the Company, is discretionary in nature and may be modified, amended, suspended or terminated by the Company at any time, as provided in the Plan;

(b) the grant of the Units is exceptional, voluntary and occasional and does not create any contractual or other right to receive future awards of Units, or benefits in lieu of Units even if Units have been awarded in the past;

(c) all decisions with respect to future awards, if any, will be at the sole discretion of the Company;

(d) your participation in the Plan is voluntary;

(e) the grant of Units, the Shares subject to the Units, and the income from and value of same, are not intended to replace any pension rights or compensation;

(f) neither the grant of Units nor any provision of this Agreement, the Plan or the policies adopted pursuant to the Plan confer upon you any right with respect to employment or continuation of current employment and shall not interfere with the ability of your Employer to terminate your employment or service relationship (if any) at any time;

(g) in the event that you are not an employee of the Company or any Affiliate, the Units shall not be interpreted to form an employment contract or relationship with the Company or any Affiliate;

(h) the future value of the underlying Shares is unknown, indeterminable and cannot be predicted with certainty;

(i) in consideration of the grant of Units hereunder, no claim or entitlement to compensation or damages arises from termination of Units, and no claim or entitlement to compensation or damages shall arise from forfeiture of the Units resulting from termination of your employment by the Company or an Affiliate (regardless of the reason for

such termination and whether or not later found to be invalid or in breach of employment laws in the jurisdiction where you are employed or the terms of your employment agreement, if any), and you irrevocably release the Company and your Employer from any such claim that may arise; if, notwithstanding the foregoing, any such claim is found by a court of competent jurisdiction to have arisen, you shall be deemed irrevocably to have waived your entitlement to pursue such claim;

(j) unless otherwise agreed with the Company, the Units, the Shares subject to the Units, and the income from and value of same, are not granted as consideration for, or in connection with, the service you may provide as a director of an Affiliate of the Company;

(k) except as otherwise provided in this Agreement or the Plan, the Units and the benefits evidenced by this Agreement do not create any entitlement to have the Units or any such benefits transferred to, or assumed by, another company nor to be exchanged, cashed out or substituted for, in connection with any corporate transaction affecting the shares of the Company;

(l) the following provisions apply only if you are providing services outside the United States:

(i) for employment law purposes outside the United States, the Units, Shares subject to the Units, and the income from and value of same, are not part of normal or expected compensation or salary for any purpose, including but not limited to for purposes of calculating any severance, resignation, termination, redundancy, dismissal, end of service payments, bonuses, holiday pay, long-service awards, pension or retirement benefits or similar mandatory payments; and

(ii) neither the Company, your Employer nor any Affiliate of the Company shall be liable for any foreign exchange rate fluctuation between your local currency and the United States Dollar that may affect the value of the Units or of any amounts due to you pursuant to the settlement of the Units or the subsequent sale of any Shares acquired upon settlement.

XII. No Advice Regarding Award. The Company is not providing any tax, legal or financial advice, nor is the Company making any recommendations regarding your participation in the Plan, or your acquisition or sale of the underlying Shares. You should consult with your own personal tax, legal and financial advisors regarding your participation in the Plan before taking any action related to the Plan.

XIII. Compliance with Laws. Notwithstanding any provision of this Agreement to the contrary, if you are employed by the Company or an Affiliate in any of the countries identified in the attached Appendix A (which constitutes a part of this Agreement), are subject to the laws of any foreign jurisdiction, or relocate to one of the countries included in the attached Appendix A, the Units granted hereunder shall be subject to any additional terms and conditions for your country set forth in Appendix A and to the following additional terms and conditions:

a. the terms and conditions of this Agreement, including Appendix A, are deemed modified to the extent necessary or advisable to comply with applicable foreign laws or facilitate the administration of the Plan;

b. if applicable, the effectiveness of your award of Units is conditioned upon its compliance with any applicable foreign laws, regulations, rules or local governmental

regulatory exemption and subject to receipt of any required foreign regulatory approvals;

c. to the extent necessary to comply with applicable foreign laws, the payment of any earned Units shall be made in cash or Common Stock, at the Company's election; and

d. the Company may take any other action, before or after an award of Units is made, that it deems advisable to obtain approval or comply with any necessary local governmental regulatory exemptions or approvals.

Notwithstanding anything to the contrary contained herein, the Company shall not take any actions hereunder that would violate the Securities Act, the Exchange Act, the Code, or any other securities or tax or other applicable law or regulation, or the rules of any Securities Exchange. Notwithstanding anything to the contrary contained herein, the Shares issuable upon vesting of the Unit shall not be issued unless such Shares are then registered under the Securities Act, or, if such Shares are not then so registered, the Company has determined that such vesting and issuance would be exempt from the registration requirements of the Securities Act, and that the issuance satisfied all other applicable legal requirements.

XIV. ***Data Privacy. In order for the Company to facilitate your participation in the Plan, the Company and your Employer must collect and use personal data about you. In accordance with applicable laws, reasonable security measures will be implemented and maintained to protect the security of your personal data; however, you understand that absolute security cannot be guaranteed.***

You understand that the Company and your Employer may hold certain personal information about you, including your name, home address and telephone number, email address, date of birth, social insurance/security number (to the extent permitted under applicable local law), passport or other identification number, salary, nationality, job title/work history/service periods, residency status, citizenship, tax withholding and payroll data, any shares of stock or directorships held in the Company, details of all equity compensation or any other entitlement to Shares awarded, cancelled, vested, unvested or outstanding in your favor, for the purposes of implementing, administering and managing the Plan ("personal data").

You authorize the transfer of your personal data to Merrill Lynch Bank & Trust Co., FSB, or any successor thereto, and any other third parties which may assist the Company (presently or in the future) with implementing, administering and managing your participation in the Plan to receive, possess, use, retain and transfer your personal data, in electronic or other form, for the purpose of implementing, administering and managing your participation in the Plan, including any requisite transfer of such personal data as may be required to any other broker, escrow agent or other third party with whom the Shares received in settlement of the Units may be deposited. You understand that such authorized recipients of your personal data may be located in countries that do not provide the same level of data privacy laws and protections as the country in which your personal data originated. Transfers of personal data among Company and its group entities follow applicable laws and our Binding Corporate Rules (BCRs). For more information on Company's BCRs, please visit http://www.amgen.com/bcr/. You acknowledge that the collection, use and transfer of your personal data is necessary to facilitate to your participation in the Plan, as well as to grant you Units or other equity awards and administer or maintain such awards.

You may correct or update your personal data previously provided to Company, by completing the form located at https://preferences.amgen.com. Subject to applicable law, you may have additional rights, including the right to object and/or request destruction of your

personal data. To exercise these rights, where applicable, please contact your local human resources representative.

XV. Severability. If one or more of the provisions of this Agreement shall be held invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby and the invalid, illegal or unenforceable provisions shall be deemed null and void; however, to the extent permissible by law, any provisions which could be deemed null and void shall first be construed, interpreted or revised retroactively to permit this Agreement to be construed so as to foster the intent of this Agreement and the Plan.

XVI. Language. By electing to accept this Agreement, you acknowledge that you are sufficiently proficient in English, or have consulted with an advisor who is sufficiently proficient in English, so as to allow you to understand the terms and conditions of this Agreement. Further, if you have received this Agreement or any other document related to the Plan translated into a language other than English and if the meaning of the translated version is different than the English version, the English version will control.

XVII. Imposition of Other Requirements. The Company reserves the right to impose other requirements on your participation in the Plan, on the Units and on any Shares acquired under the Plan, to the extent the Company determines it is necessary or advisable for legal or administrative reasons, and to require you to sign any additional agreements or undertakings that may be necessary to accomplish the foregoing.

XVIII. Compensation Subject to Recovery. The Units subject to this Award and all compensation payable with respect to them shall be subject to recovery by the Company pursuant to any and all of the Company's policies with respect to the recovery of compensation, as they shall be in effect and may be amended from time to time, to the maximum extent permitted by applicable law.

XIX. Waiver. You acknowledge that a waiver by the Company of breach of any provision of this Agreement shall not operate or be construed as a waiver of any other provision of this Agreement, or of any subsequent breach by you or any other grantee.

XX. Headings. This Agreement's section headings are for convenience only and shall not constitute a part of this Agreement or affect this Agreement's meaning.

Very truly yours,
AMGEN INC.

By:_____
Name:
Title:

APPENDIX A

ADDITIONAL TERMS AND CONDITIONS OF THE AMENDED AND RESTATED AMGEN INC. 2009 EQUITY INCENTIVE PLAN, AS AMENDED AND/OR RESTATED FROM TIME TO TIME

GRANT OF RESTRICTED STOCK UNITS (BY COUNTRY)

Certain capitalized terms used but not defined in this Appendix A shall have the meanings set forth in the Plan and/or the Agreement to which this Appendix is attached.

TERMS AND CONDITIONS

This Appendix includes additional terms and conditions that govern any Units granted under the Plan if, under applicable law, you are a resident of, are deemed to be a resident of or are working in one of the countries listed below. Furthermore, the additional terms and conditions that govern any Units granted hereunder may apply to you if you transfer employment and/or residency to one of the countries listed below and the Company shall, in its discretion, determine to what extent the terms and conditions contained herein shall apply to you.

NOTIFICATIONS

This Appendix also includes notifications relating to exchange control and other issues of which you should be aware with respect to your participation in the Plan. The information is based on the exchange control, securities and other laws in effect in the countries to which this Appendix refers as of October 2022. Such laws are often complex and change frequently. As a result, the Company strongly recommends that you not rely on the notifications herein as the only source of information relating to the consequences of your participation in the Plan because the information may be outdated when you vest in the Units and acquire Shares under the Plan, or when you subsequently sell Shares acquired under the Plan.

In addition, the notifications are general in nature and may not apply to your particular situation, and the Company is not in a position to assure you of any particular result. Accordingly, you should seek appropriate professional advice as to how the relevant laws in your country may apply to your situation. Finally, if you are a citizen or resident of a country other than the one in which you are currently residing and/or working or are considered a resident of another country for local law purposes, the information contained herein may not be applicable to you or you may be subject to the provisions of one or more jurisdictions.

ALL NON-U.S. JURISDICTIONS

TERMS AND CONDITIONS

Tax Withholding; Issuance of Shares. The following provision supplements Section III of the Agreement:

In the event the Company withholds or accounts for Tax Obligations by considering maximum applicable rates in your jurisdiction(s), in the event of over-withholding, you may receive a refund of any over-withheld amount in cash and will not be entitled to the equivalent amount in Shares, or if not refunded, you may seek a refund from the local tax authorities. In the event of under-withholding, you may be required to pay any additional Tax Obligations directly to the applicable tax authority or to the Company and/or your Employer.

NOTIFICATIONS

Insider Trading Restrictions/Market Abuse Laws. You may be subject to insider trading restrictions and/or market abuse laws based on the exchange on which the Shares are listed and in applicable jurisdictions including the United States and your country or your broker's country, if different, which may affect your ability to accept, acquire, sell or otherwise dispose of Shares, rights to Shares (*e.g.*, Units) or rights linked to the value of Shares (*e.g.*, Dividend Equivalents) during such times as you are considered to have "inside information" regarding the Company (as defined by the laws in applicable jurisdictions). Local insider trading laws and regulations may prohibit the cancellation or amendment of orders you place before you possessed inside information. Furthermore you could be prohibited from (i) disclosing the inside information to any third party, which may include fellow employees (other than on a "need to know" basis) and (ii) "tipping" third parties or causing them otherwise to buy or sell securities. Any restrictions under these laws or regulations are separate from and in addition to any restrictions that may be imposed under any applicable Company insider trading policy. You are responsible for ensuring your compliance with any applicable restrictions and you should speak with your personal legal advisor on this matter.

Foreign Asset/Account, Tax Reporting Information. Your country of residence may have certain foreign asset and/or account reporting requirements which may affect your ability to acquire or hold Shares under the Plan or cash received from participating in the Plan (including from any Dividends or Dividend Equivalents received, or sale proceeds arising from the sale of Shares) in a brokerage or bank account outside of your country. You may be required to report such accounts, assets or transactions to the tax or other authorities in your country. You also may be required to repatriate sale proceeds or other funds received as a result of participating in the Plan to your country within a certain time after receipt. You are responsible for ensuring your compliance with such regulations, and you should speak with your personal legal advisor on this matter.

ALL EUROPEAN ECONOMIC AREA ("EEA") / EUROPEAN UNION ("EU") JURISDICTIONS, UNITED KINGDOM AND SWITZERLAND

TERMS AND CONDITIONS

Data Privacy Notice. This provision replaces Section XIV of the Agreement:

Please refer to the Fair Processing Notice previously provided by your local human resources representative, which notice governs the collection, use and transfer of your personal data necessary for the Company to facilitate your participation in the Plan. If you have any questions or concerns regarding the Fair Processing Notice, including questions about your rights afforded thereunder, you should contact your local human resources representative or send an email to hrconnect@amgen.com.

For purposes of implementing, administering and managing the Plan, Company and your Employer may hold certain personal data about you, including your name, home address and telephone number, email address, date of birth, social insurance/security number (to the extent permitted under applicable local law), passport or other identification number, salary, nationality, job title/work history/service periods, residency status, citizenship, tax withholding and payroll data, any shares of stock or directorships held in the Company, details of all equity compensation or any other entitlement to Shares awarded, cancelled, vested, unvested or outstanding in your favor ("personal data").

You authorize the transfer of your personal data to Merrill Lynch Bank & Trust Co., FSB, or any successor thereto, and any other third parties which may assist the Company (presently or in the future) with implementing, administering and managing your participation in the Plan to receive, possess, use, retain and transfer your personal data, in electronic or other form, for the purpose of implementing, administering and managing your participation in the Plan, including any requisite transfer of such personal data as may be required to any other broker, escrow agent or other third party with whom the Shares received in settlement of the Units may be deposited.

ARGENTINA

TERMS AND CONDITIONS

Labor Law Acknowledgement. The following provision supplements Section XI of the Agreement:

In accepting this Agreement, you acknowledge, understand and agree that the grant of the Units is made by the Company (not your Employer) in its sole discretion and that the value of the Units or any Shares acquired under the Plan shall not constitute salary or wages for any purpose under Argentine labor law including, but not limited to, the calculation of (i) any labor benefits including, without limitation, vacation pay, thirteenth salary, compensation in lieu of notice, annual bonus, disability, and leave of absence payments, etc., or (ii) any termination or severance indemnities or similar payments.

NOTIFICATIONS

Securities Law Information. Neither the Units nor the underlying Shares are publicly offered or listed on any stock exchange in Argentina.

Exchange Control Information. Exchange control regulations in Argentina are subject to frequent change. You should consult with your personal legal advisor regarding any exchange

control obligations that you may have prior to receiving proceeds from Dividend Equivalents, the sale of Shares or dividends. You must comply with any and all Argentine currency exchange restrictions, approvals and reporting requirements in connection with your participation in the Plan.

Foreign Asset/Account Reporting Information. If you are an Argentine resident, you are required to report certain information regarding any Shares you hold as of December 31 each year to the Argentine tax authorities on your annual tax return.

AUSTRALIA

NOTIFICATIONS

Australia Offer Document. This grant of Units is being made under Division 1A, Part 7.12 of the Corporations Act 2001 (Cth).

Please note that if you offer Shares for sale to a person or entity resident in Australia, the offer may be subject to disclosure requirements under Australian law. You should obtain legal advice on your disclosure obligations prior to making any such offer.
Tax Information. Subdivision 83A-C of the Income Tax Assessment Act 1997 (Cth) applies to the Units granted under the Plan, such that the Units are intended to be subject to deferred taxation.

Exchange Control Information. If you are an Australian resident, exchange control reporting is required for cash transactions exceeding AUD10,000 and for international fund transfers. If an Australian bank is assisting with the transaction, the bank will file the report on your behalf. If there is no Australian bank involved in the transfer, you will be required to file the report.

AUSTRIA

NOTIFICATIONS

Foreign Asset/Account Reporting Information. If you are an Austrian resident and you hold Shares acquired under the Plan outside of Austria, you may be subject to reporting obligations to the Austrian National Bank.

Exchange Control Information. A separate reporting requirement applies when you sell Shares acquired under the Plan, receive a cash Dividend paid on such Shares or Dividend Equivalents paid in cash. In that case, there may be exchange control obligations if the cash proceeds are held outside of Austria. If the transaction volume of all cash accounts abroad meets or exceeds a specified threshold, the movements and balances of all accounts must be reported monthly, as of the last day of the month, on or before the 15th day of the following month, on the prescribed form (*Meldungen SI-Forderungen und/oder SI-Verpflichtungen*).

BELGIUM

NOTIFICATIONS

Tax Reporting; Foreign Asset/Account Reporting Information. If you are a Belgian resident, you are required to report any taxable income attributable to the Units granted hereunder on your annual tax return. You are also required to report any securities (*e.g.*, Shares acquired under the Plan) held and bank accounts (including brokerage accounts) opened and maintained outside of Belgium on your annual tax return. The first time you report the foreign security and/or bank

account on your annual income tax return you will have to provide the National Bank of Belgium Central Contact Point with the account details of any such foreign accounts (including the account number, bank name and country in which such account was opened) in a separate form. This report, as well as information on how to complete it, can be found on the website of the National Bank of Belgium, www.nbb.be, under the *Kredietcentrales / Centrales des crédits* caption.

Stock Exchange Tax Information. A stock exchange tax applies to transactions executed by a Belgian resident through a non-Belgian financial intermediary, such as a U.S. broker. The stock exchange tax likely will apply when Shares acquired under the Plan are sold. It is your responsibility to comply with this tax obligation and you should consult your personal tax advisor for additional details on your obligations with respect to the stock exchange tax.

Annual Securities Accounts Tax Information. An annual securities accounts tax may be payable if the total value of securities held in a Belgian or foreign securities account (e.g., Shares acquired under the Plan) exceeds a certain threshold on four reference dates within the relevant reporting period (i.e., December 31, March 31, June 30 and September 30). In such case, the tax will be due on the value of the qualifying securities held in such account. It is your responsibility to comply with this obligation and you should consult with your personal tax or financial advisor for additional details.

BRAZIL

TERMS AND CONDITIONS

Compliance with Law. By accepting the Units, you acknowledge that you agree to comply with applicable Brazilian laws and pay any and all applicable taxes associated with the vesting of the Units, the sale of Shares acquired under the Plan, the payment of Dividends on such Shares and the receipt of any Dividend Equivalents paid in cash.

Acknowledgement of Nature of Plan and Units. This provision supplements Section XI of the Agreement:

In accepting this Agreement, you acknowledge (i) that you are making an investment decision, (ii) that the Shares will be issued to you only if the vesting conditions are met and any necessary services are rendered by you during the vesting period set forth in the Vesting Schedule, and (iii) that the value of the underlying Shares is not fixed and may increase or decrease in value over the vesting period without compensation to you.

NOTIFICATIONS

Exchange Control Information. If you are resident or domiciled in Brazil, you will be required to submit annually a declaration of assets and rights held outside of Brazil to the Central Bank of Brazil if the aggregate value of such assets and rights on December 31 of each year exceeds US$1,000,000. If such amount exceeds US$100,000,000, the referenced declaration must be submitted quarterly, in the month following the end of each quarter. Assets and rights that must be reported include the following: (i) bank deposits; (ii) loans; (iii) financing transactions; (iv) leases; (v) direct investments; (vi) portfolio investments, including Shares acquired under the Plan; (vii) financial derivatives investments; and (viii) other investments, such as real estate. Please note that foreign individuals holding Brazilian visas are considered Brazilian residents for purposes of this reporting requirement and must declare at least the assets held abroad that were acquired subsequent to the date of admittance as a resident of Brazil. Individuals holding assets and rights outside of Brazil valued at less than US$1,000,000 are not required to submit a declaration.

BULGARIA

Foreign Asset/Account Reporting Information. You will be required to annually file statistical forms with the Bulgarian National Bank regarding your receivables in bank accounts abroad as well as your securities abroad (*e.g.*, Shares acquired under the Plan) if the total sum of all such receivables and securities equals or exceeds BGN 50,000 as of the previous calendar year-end. The reports are due by March 31. You should contact your bank in Bulgaria for additional information regarding this requirement.

CANADA

TERMS AND CONDITIONS

Termination of Employment. Section I(i) of the Agreement is amended to read as follows:

(i) "termination of your active employment" shall mean the last date that you are either an active employee of the Company or an Affiliate or actively engaged as a Director of the Company or an Affiliate; in the event of involuntary termination of your employment (regardless of the reason for such termination and whether or not later found to be invalid or unlawful, including for breaching employment laws in the jurisdiction where you are employed or the terms of your employment agreement, if any), your right to receive any Units and vest under the Plan, if any, will terminate effective as of the date that is the earlier of: (1) the date you receive written notice of termination of employment from the Company or your Employer, or (2) the date you are no longer actively employed by the Company or your Employer regardless of any period during which notice, pay in lieu of notice or related payments or damages are provided or required to be provided under local law. Your right, if any, to acquire Shares pursuant to the Units after termination of employment will be measured by the date of termination of your active employment and will not be extended by any notice period mandated under local law. You will not earn or be entitled to any pro-rated vesting for that portion of time before the date on which your right to vest terminates, nor will you be entitled to any compensation for lost vesting. Notwithstanding the foregoing, if applicable employment standards legislation explicitly requires continued vesting during a statutory notice period, your right to vest in the Units, if any, will terminate effective as of the last day of your minimum statutory notice period, but you will not earn or be entitled to pro-rated vesting if the vesting date falls after the end of your statutory notice period, nor will you be entitled to any compensation for lost vesting;

Form of Settlement – Units Payable Only in Shares. Notwithstanding any discretion in Section 9.5 of the Plan or anything to the contrary in the Agreement, the Units do not provide any right for you, as a resident of Canada, to receive a cash payment and shall be paid in Shares only.

The following provision will apply to you if you are a resident of Quebec:

French Language Documents. A French translation of this document and certain other documents related to this Award will be made available to Participant as soon as reasonably practicable. Participant understands that, from time to time, additional information related to the Award may be provided in English and such information may not be immediately available in French. However, upon request, the Company will provide a translation of such information into French as soon as reasonably practicable. Notwithstanding anything to the contrary in the Agreement, and unless Participant indicates otherwise, the French translation of this document

and certain other documents related to the Award will govern Participant's participation in the Plan.

Data Privacy Notice. This provision supplements Section XIV of the Agreement:

You hereby authorize the Company and the Company's representative to discuss with and obtain all relevant information from all personnel (professional or not) involved in the administration of the Plan. You further authorize the Company, your Employer and Merrill Lynch Bank & Trust Co., FSB (or any other stock plan service provider) to disclose and discuss your participation in the Plan with their advisors. You also authorize the Company and your Employer to record such information and keep it in your file.

NOTIFICATIONS

Securities Law Information. You are permitted to sell Shares acquired through the Plan through the designated broker appointed under the Plan, if any, provided that the resale of such Shares takes place outside of Canada through the facilities of a stock exchange on which the Shares are listed (*e.g.*, the Nasdaq Global Select Market).

Foreign Asset/Account Reporting Information. Specified foreign property, including Shares, stock options and other rights to receive Shares (*e.g.*, Units) of a non-Canadian company held by a Canadian resident employee generally must be reported annually on a Form T1135 (Foreign Income Verification Statement) if the total cost of the employee's specified foreign property exceeds C$100,000 at any time during the year. Thus, such stock options and Units must be reported – generally at nil cost – if the C$100,000 cost threshold is exceeded because other specified foreign property is held by the employee. When Shares are acquired, their cost generally is the adjusted cost base ("ACB") of the Shares. The ACB ordinarily would equal the fair market value of the Shares at the time of acquisition, but if the employee owns other shares of the same company, this ACB may have to be averaged with the ACB of the other shares.

CHINA

TERMS AND CONDITIONS

The following terms apply only to individuals who are subject to exchange control restrictions in the People's Republic of China (the "PRC"), as determined by the Company in its sole discretion:

Vesting of the Units. [Notwithstanding anything to the contrary in Section I(d) of the Agreement, if your employment with the Company or an Affiliate terminates due to your Voluntary Termination, as defined in Section I(d), then the vesting of Units granted under this Agreement shall be accelerated to vest as of the day immediately preceding such Voluntary Termination with respect to all Units granted hereunder.]*[5]

Sale Requirement. Notwithstanding anything to the contrary in the Agreement, due to exchange control laws in the PRC, you agree that the Company reserves the right to require the immediate sale of any Shares issued upon settlement of the Units. You understand and agree that any such immediate sale of Shares will occur as soon as is practical following settlement of the Units. Alternatively, if the Shares are not immediately sold upon settlement of the Units, the Company will require the sale of any Shares you may then hold within six (6) months (or such

[5] *Paragraph (d) of Section I of the Agreement is not applicable to awards identified by the Administrator as new hire, retention, special or promotion grants and the provisions of such paragraph shall be reserved and references thereto identified by an asterisk (*) shall be omitted from the agreements evidencing such grants.*

other period as may be required under applicable legal or exchange control requirements) following the termination of your employment with the Company including its Affiliates.

You agree that the Company is authorized to instruct Merrill Lynch Bank & Trust Co., FSB or such other designated broker as may be selected by the Company to assist with the sale of the Shares on your behalf pursuant to this authorization, and you expressly authorize such broker to complete the sale of such Shares. You also agree to sign any agreements, forms and/or consents that may be reasonably requested by the Company (or the Company's designated broker) to effectuate the sale of the Shares (including, without limitation, as to the transfers of the proceeds and other exchange control matters noted below) and to otherwise cooperate with the Company with respect to such matters, provided that you shall not be permitted to exercise any influence over how, when or whether the sales occur. Upon the sale of the Shares, you will receive the cash proceeds from the sale, less any applicable Tax Obligations, brokerage fees or commissions, in accordance with applicable exchange control laws and regulations.

You acknowledge that Merrill Lynch Bank & Trust Co., FSB or such other designated broker as may be selected by the Company is under no obligation to arrange for the sale of the Shares at any particular price. Due to fluctuations in the Share price and/or applicable exchange rates between the settlement date and (if later) the date on which the Shares are sold, the amount of proceeds ultimately distributed to you may be more or less than the market value of the Shares on the settlement date (which is the amount relevant to determining your liability for Tax Obligations). You understand and agree that the Company is not responsible for the amount of any loss that you may incur and that the Company assumes no liability for any fluctuations in the Share price and/or any applicable exchange rate.

Designated Broker Account. If Shares issued upon the settlement of the Units are not immediately sold, you acknowledge that you are required to maintain the Shares in an account with Merrill Lynch Bank & Trust Co., FSB or such other designated broker as may be selected by the Company until the Shares are sold through such Company-designated broker.

Exchange Control Requirements. You understand and agree that, pursuant to local exchange control requirements, you will be required to repatriate the cash proceeds from the sale of the Shares issued to you upon settlement of the Units and from the receipt of any Dividends or Dividend Equivalents to China. You further understand that, under applicable laws, such repatriation of your cash proceeds will need to be effectuated through a special exchange control account established by the Company or any Affiliate, including your Employer, and you hereby consent and agree that any proceeds may be transferred to such special account prior to being delivered to you. You also understand that the Company will deliver the proceeds to you as soon as possible, but that there may be delays in distributing the funds to you due to exchange control requirements in China. Proceeds may be paid to you in U.S. dollars or local currency at the Company's discretion. If the proceeds are paid to you in U.S. dollars, you will be required to set up a U.S. dollar bank account in China so that the proceeds may be deposited into this account. If the proceeds are paid to you in local currency, the Company is under no obligation to secure any particular currency conversion rate and the Company may face delays in converting the proceeds to local currency due to exchange control restrictions. You further agree to comply with any other requirements that may be imposed by the Company in the future in order to facilitate compliance with exchange control requirements in China.

COLOMBIA

TERMS AND CONDITIONS

Labor Law Acknowledgement. The following provision supplements Section XI of the Agreement:

You acknowledge that pursuant to Article 15 of Law 50/1990 (Article 128 of the Colombian Labor Code), the Plan and related benefits do not constitute a component of "salary" for any purpose. Therefore, they are considered to be of an extraordinary nature and will not be included and/or considered for purposes of calculating any and all labor benefits, such as legal/fringe benefits, vacations, indemnities, payroll taxes, social insurance contributions and/or any other labor-related amounts, subject to the limitations provided in Law 1393/2010.

NOTIFICATIONS

Securities Law Information. The Shares are not and will not be registered with the Colombian registry of publicly traded securities (*Registro Nacional de Valores y Emisores*) and therefore the Shares may not be offered to the public in Colombia. Nothing in this document should be construed as the making of a public offer of securities in Colombia.

Exchange Control Information. Investment in assets located abroad (such as Shares acquired under the Plan) does not require prior approval from the Central Bank (*Banco de la República*). Nonetheless, such investments are subject to registration before the Central Bank as foreign investments held abroad, regardless of value. In addition, you must file an annual informative return with the local tax authority detailing assets you hold abroad, which must include the Shares acquired at vesting (every year as long as you keep them). This obligation is only applicable if the assets held abroad exceed the amount of 2,000 Tax Units (approx. US$22.000).

Any payments for your investment originating in Colombia (and the liquidation of such investments) must be transferred through the Colombian foreign exchange market (*e.g.*, local banks), which includes the obligation to correctly complete and file the appropriate foreign exchange form (*declaración de cambio*).

Foreign Asset/Account Reporting Notice. An annual information return may need to be filed with the Colombian Tax Office detailing any assets held abroad (including Shares acquired under the Plan). If the individual value of any of these assets exceeds a certain threshold, each asset must be described (*e.g.*, its nature and its value) and the jurisdiction in which it is located must be disclosed. It is your responsibility to comply with this tax reporting requirement.

CROATIA

NOTIFICATIONS

Exchange Control Information. Croatian residents may be required to report any foreign investments (including Shares acquired under the Plan) to the Croatian National Bank for statistical purposes. You should be aware that exchange control regulations in Croatia are subject to frequent change and you are solely responsible for ensuring your continued compliance with current Croatian exchange control laws.

CZECH REPUBLIC

NOTIFICATIONS

Exchange Control Information. A Czech resident may be required to notify the Czech National Bank ("CNB") of the acquisition of Shares under the Plan or maintenance of a foreign account if (i) he or she maintains foreign direct investments with a value of 2,500,000 Kč or more in the aggregate, (ii) he or she maintains other foreign financial assets with a value of 200,000,000 Kč or more, or (iii) the Czech resident is specifically requested to do so by the CNB.

DENMARK

TERMS AND CONDITIONS

Danish Stock Option Act. In accepting the Units, you acknowledge that you have received an Employer Statement translated into Danish, which is being provided to comply with the Danish Stock Option Act. To the extent more favorable to you and required to comply with the Stock Option Act, as amended with effect from January 1, 2019.

NOTIFICATIONS

Foreign Asset/Account Reporting Information. The requirement to report certain information to the Danish Tax Administration via Form V or K was eliminated effective January 1, 2019. However, you still must report the foreign bank/brokerage accounts and their deposits, and Shares held in a foreign bank or brokerage account in your tax return under the section on foreign affairs and income.

EGYPT

NOTIFICATIONS

Exchange Control Information. If you transfer funds into Egypt in connection with the Units, you are required to transfer the funds through a registered bank in Egypt.

FINLAND

NOTIFICATIONS

Foreign Asset/Account Reporting Information. There are no specific reporting requirements with respect to foreign assets/accounts. However, please note that you must check your pre-completed tax return to confirm that the ownership of Shares and other securities (foreign or domestic) are correctly reported. If you find any errors or omissions, you must make the necessary corrections electronically or by sending specific paper forms to the local tax authorities.

FRANCE

TERMS AND CONDITIONS

Language Consent. By accepting the grant, you confirm having read and understood the Plan and Agreement which were provided in the English language. You accept the terms of these documents accordingly.

Consentement Relatif à la Langue Utilisée. *En acceptant l'attribution, vous confirmez avoir lu et compris le Plan et le Contrat, qui ont été communiqués en langue anglaise. Vous acceptez les termes de ces documents en connaissance de cause.*

NOTIFICATIONS

Foreign Asset/Account Reporting Information. French residents and non-residents must declare to the Customs Authorities the cash and securities they import or export without the use of a financial institution when the value of such cash or securities exceeds €10,000. French residents also must report all foreign bank and brokerage accounts on an annual basis (including

accounts opened or closed during the tax year) on Form N° 3916, together with the income tax return. Failure to comply could trigger significant penalties.

GERMANY

NOTIFICATIONS

Foreign Asset/Account Reporting Information. If your acquisition of Shares under the Plan leads to a qualified participation at any point during the calendar year, you will need to report the acquisition when you file your tax return for the relevant year. A qualified participation is attained only in the unlikely event (i) you own at least 1% of the Company and the value of the Shares acquired exceeds €150,000 or (ii) you hold Shares exceeding 10% of the Company's total Common Stock.

Exchange Control Information. Cross-border payments in excess of €12,500 must be reported monthly to the German Federal Bank (*Bundesbank*). In case of payments in connection with securities (including proceeds realized upon the sale of Shares or the receipt of Dividends or Dividend Equivalents), the report must be made by the 5th day of the month following the month in which the payment was received and must be filed electronically. The form of report (*Allgemeines Meldeportal Statistik*) can be accessed via the *Bundesbank's* website (www.bundesbank.de) and is available in both German and English. In addition, you may be required to report the acquisition or sale of Shares to the *Bundesbank* if the value of the Shares acquired or sold exceeds €12,500. You are responsible for satisfying any applicable reporting obligation.

GREECE

NOTIFICATIONS

Foreign Asset/Account Reporting Information. The reporting of foreign assets (including Shares and other investments) is your own obligation and takes place through your annual tax return.

HONG KONG

TERMS AND CONDITIONS

Form of Settlement – Units Payable Only in Shares. Notwithstanding any discretion in Section 9.5 of the Plan or anything to the contrary in the Agreement, the Units do not provide any right for you to receive a cash payment and shall be paid in Shares only.

Sale of Shares. Shares received at vesting are accepted as a personal investment. In the event that Shares are issued in respect of the Units within six (6) months of the Grant Date, you agree that you will not offer to the public or otherwise dispose of the Shares prior to the six (6)-month anniversary of the Grant Date.

NOTIFICATIONS

SECURITIES WARNING: *The contents of this document have not been reviewed by any regulatory authority in Hong Kong. You should exercise caution in relation to the offer. If you are in doubt about any of the contents of the Agreement, including this Appendix, or the Plan, you should obtain independent professional advice. The Units and any Shares issued in respect of the Units do not constitute a public offering of securities under Hong Kong law and are available only to members of the Board and Employees. The Agreement, including this*

Appendix, the Plan and other incidental communication materials have not been prepared in accordance with and are not intended to constitute a "prospectus" for a public offering of securities under the applicable securities legislation in Hong Kong. The Units and any documentation related thereto are intended solely for the personal use of each member of the Board and/or Employee and may not be distributed to any other person.

HUNGARY

There are no country-specific provisions.

ICELAND

NOTIFICATIONS

Exchange Control Information. Approval by the Central Bank of Iceland is no longer required to participate in the Plan, regardless of the value of the Shares acquired under the Plan. Despite the recent relaxation of the exchange control requirements, you should consult with your personal advisor to ensure compliance with applicable exchange control regulations in Iceland as such regulations are subject to frequent change. You are responsible for ensuring compliance with all exchange control laws in Iceland.

INDIA

NOTIFICATIONS

Exchange Control Information. You understand that you must repatriate any cash Dividends paid on Shares acquired under the Plan to India or any Dividend Equivalents paid in cash, as well as any proceeds from the sale of Shares acquired under the Plan within a prescribed period of time (currently, within one hundred and eighty (180) days of receipt of cash Dividends or Dividend Equivalents, and within ninety (90) days of receipt of sale proceeds), or such other period of time as may be required under applicable regulations. You will receive a foreign inward remittance certificate ("FIRC") from the bank where you deposit the foreign currency, and you must maintain the FIRC as proof of repatriation of funds in the event that the Reserve Bank of India or your Employer requests proof of repatriation. It is your responsibility to comply with these requirements.

Foreign Asset/Account Reporting Information. You are required to declare foreign bank accounts and any foreign financial assets (including Shares held outside of India) in your annual tax return. It is your responsibility to comply with this reporting obligation and you should consult your personal tax advisor in this regard.

IRELAND

TERMS AND CONDITIONS

Acknowledgement of Nature of Plan and Units. This provision supplements Section XI of the Agreement:

In accepting this Agreement, you understand and agree that the benefits received under the Plan will not be taken into account for any redundancy or unfair dismissal claim.

ITALY

TERMS AND CONDITIONS

Acknowledgement of Nature of Agreement. In accepting this Agreement, you acknowledge that (1) you have received a copy of the Plan, the Agreement and this Appendix; (2) you have reviewed the applicable documents in their entirety and fully understand the contents thereof; and (3) you accept all provisions of the Plan, the Agreement and this Appendix.

For any Units granted, you further acknowledge that you have read and specifically and explicitly approve, without limitation, the following sections of the Agreement: Section I; Section II; Section III; Section VIII; Section X; Section XI; Section XVI; Section XVII; and the Data Privacy Notice for All European Economic Area ("EEA") / European Union ("EU") Jurisdictions, United Kingdom and Switzerland in this Appendix.

NOTIFICATIONS

Foreign Asset/Account Reporting Information. Italian residents who, at any time during the fiscal year, hold foreign financial assets (including cash and Shares) which may generate income taxable in Italy are required to report these assets on their annual tax returns (UNICO Form, RW Schedule) for the year during which the assets are held, or on a special form if no tax return is due. These reporting obligations will also apply to Italian residents who are the beneficial owners of foreign financial assets under Italian money laundering provisions.

Foreign Financial Assets Tax. The fair market value of any Shares held outside of Italy is subject to a foreign assets tax at a flat rate. The fair market value is considered to be the value of the Shares on the Nasdaq Global Select Market on December 31 of the applicable year in which you held the Shares (or when the Shares are acquired during the course of the year, the tax is levied in proportion to the actual days of holding over the calendar year). No tax payment duties arise if the amount of the foreign financial assets tax calculated on all financial assets held abroad does not exceed a certain threshold. You should consult with your personal tax advisor about the foreign financial assets tax.

JAPAN

NOTIFICATIONS

Foreign Asset/Account Reporting Information. You will be required to report to the Japanese tax authorities details of any assets held outside of Japan as of December 31st (including any Shares acquired under the Plan) to the extent such assets have a total net fair market value exceeding ¥50,000,000. Such report will be due by March 15 each year. You should consult with your personal tax advisor as to whether the reporting obligation applies to you and whether you will be required to include in the report details of any Shares or cash that you hold.

KOREA

NOTIFICATIONS

Foreign Asset/Account Reporting Information. You are required to declare all foreign financial accounts (*e.g.* non-Korean bank accounts, brokerage accounts holding Shares, etc.) to the Korean tax authority and file a report regarding such accounts if the monthly balance of such accounts exceeds a certain threshold. It is your responsibility to comply with this reporting obligation and you should consult your personal tax advisor to ensure compliance with this requirement.

LITHUANIA

NOTIFICATIONS

Foreign Asset/Account Reporting Information. If you (i) hold certain job positions established by the law or (ii) donate to political parties or political campaigners, you must file an Annual Asset Return of the Individual (Family) in Form No. FR0001 with respect to assets held outside of Lithuania (*e.g.*, Shares). If you open an account in a foreign financial institution and annual turnover in the account exceeds EUR 15,000, you must file a foreign account report.

MEXICO

TERMS AND CONDITIONS

Acknowledgement of the Agreement. In accepting the Award granted hereunder, you acknowledge that you have received a copy of the Plan, have reviewed the Plan and the Agreement, including this Appendix, in their entirety and fully understand and accept all provisions of the Plan and the Agreement, including this Appendix. You further acknowledge that you have read and specifically and expressly approve the terms and conditions of Section XI of the Agreement, in which the following is clearly described and established:

(1) Your participation in the Plan does not constitute an acquired right.

(2) The Plan and your participation in the Plan are offered by Amgen Inc. on a wholly discretionary basis.

(3) Your participation in the Plan is voluntary.

(4) Amgen Inc. and its Affiliates are not responsible for any decrease in the value of the Units granted and/or Shares issued under the Plan.

Labor Law Acknowledgement and Policy Statement. In accepting any Award granted hereunder, you expressly recognize that Amgen Inc., with registered offices at One Amgen Center Drive, Thousand Oaks, California 91320, U.S.A., is solely responsible for the administration of the Plan and that your participation in the Plan and acquisition of Shares do not constitute an employment relationship between you and Amgen Inc. since you are participating in the Plan on a wholly commercial basis and your sole employer is Amgen Mexico S.A. de C.V. ("Amgen-Mexico"). Based on the foregoing, you expressly recognize that the Plan and the benefits that you may derive from participation in the Plan do not establish any rights between you and your Employer, Amgen-Mexico, and do not form part of the employment conditions and/or benefits provided by Amgen-Mexico and any modification of the Plan or its termination shall not constitute a change or impairment of the terms and conditions of your employment.

You further understand that your participation in the Plan is as a result of a unilateral and discretionary decision of Amgen Inc.; therefore, Amgen Inc. reserves the absolute right to amend and/or discontinue your participation in the Plan at any time without any liability to you.

Finally, you hereby declare that you do not reserve to yourself any action or right to bring any claim against Amgen Inc. for any compensation or damages regarding any provision of the Plan or the benefits derived under the Plan, and you therefore grant a full and broad release to Amgen Inc., its Affiliates, stockholders, officers, agents or legal representatives with respect to any claim that may arise.

Spanish Translation

Reconocimiento del Otorgamiento. Al aceptar cualquier Otorgamiento bajo el presente documento, usted reconoce que ha recibido una copia del Plan, que ha revisado el mismo en su totalidad, así como también el Acuerdo de Opción, el Acuerdo, incluyendo este Apéndice, además que comprende y está de acuerdo con todas las disposiciones tanto del Plan y del Otorgamiento, incluyendo este Apéndice. Asimismo, usted reconoce que ha leído y manifiesta específicamente y expresamente la conformidad con los términos y condiciones establecidos en la Sección XI del Acuerdo, en los que se establece y describe claramente que:

(1) Su participación en el Plan de ninguna manera constituye un derecho adquirido.

(2) El Plan y su participación en el mismo son ofrecidos por Amgen Inc. de forma completamente discrecional.

(3) Su participación en el Plan es voluntaria.

(4) Amgen Inc. y sus Afiliados no son responsables de ninguna disminución en el valor de Unidades o de las Acciones Comunes emitidas mediante el Plan.

Reconocimiento de la Ley Laboral y Declaración de Política. Al aceptar cualquier Otorgamiento de Acciones bajo el presente, usted reconoce expresamente que Amgen Inc., con oficinas registradas localizadas en One Amgen Center Drive, Thousand Oaks, California 91320, U.S.A., es la única responsable de la administración del Plan y que su participación en el mismo y la adquisición de Acciones Comunes no constituyen de ninguna manera una relación laboral entre usted y Amgen Inc., debido a que su participación en el Plan es únicamente una relación comercial y que su único empleador es Amgen Mexico S.A. de C.V. ("Amgen-México"). Derivado de lo anterior, usted reconoce expresamente que el Plan y los beneficios a su favor que pudieran derivar de la participación en el mismo, no establecen ningún derecho entre usted y su empleador, Amgen – México, y no forman parte de las condiciones laborales y/o los beneficios otorgados por Amgen – México, y cualquier modificación del Plan o la terminación del mismo no constituirá un cambio o desmejora de los términos y condiciones de su trabajo.

Asimismo, usted entiende que su participación en el Plan es resultado de la decisión unilateral y discrecional de Amgen Inc., por lo tanto, Amgen Inc. se reserva el derecho absoluto de modificar y/o descontinuar su participación en el Plan en cualquier momento y sin ninguna responsabilidad para usted.

Finalmente, usted manifiesta que no se reserva ninguna acción o derecho que origine una demanda en contra de Amgen Inc., por cualquier compensación o daños y perjuicios, en relación con cualquier disposición del Plan o de los beneficios derivados del mismo, y en consecuencia usted exime amplia y completamente a Amgen Inc. de toda responsabilidad, como así también a sus Afiliadas, accionistas, directores, agentes o representantes legales con respecto a cualquier demanda que pudiera surgir.

NOTIFICATIONS

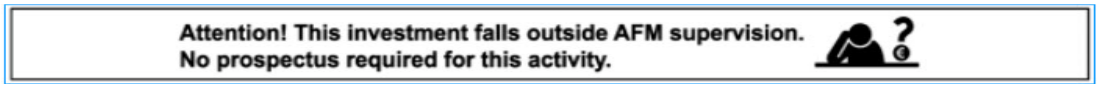
Securities Law Information. The Units and the Shares offered under the Plan have not been registered with the National Register of Securities maintained by the Mexican National Banking and Securities Commission and cannot be offered or sold publicly in Mexico. In addition, the Plan, the Agreement and any other document relating to the Units may not be publicly distributed in Mexico. These materials are addressed to you only because of your existing relationship with the Company and your Employer and these materials should not be reproduced or copied in any form. The offer contained in these materials does not constitute a public offering

of securities but rather constitutes a private placement of securities addressed specifically to individuals who are present employees of Amgen-Mexico made in accordance with the provisions of the Mexican Securities Market Law, and any rights under such offering shall not be assigned or transferred.

NETHERLANDS

NOTIFICATIONS

Securities Law Information.



NORWAY

NOTIFICATIONS

Foreign Asset/Account Reporting Information. Norwegian residents may be subject to foreign asset reporting as part of their ordinary tax return. Norwegian banks, financial institutions, limited companies etc. must report certain information to the Tax Administration. Such information may then be pre-completed in a Norwegian resident's tax return. However, if the resident has traded, or is the owner of, financial instruments (*e.g.*, Shares) not pre-completed in the tax return, the Norwegian resident must enter this information in Form RF-1159, which is an appendix to the tax return.

Exchange Control Information. In general, Norwegian residents should not be subject to any foreign exchange requirements in connection with their acquisition or sale of Shares under the Plan, except normal reporting requirements to the Norwegian Currency Registry. If any transfer of funds into or out of Norway is made through a Norwegian bank, the bank will make the registration.

POLAND

NOTIFICATIONS

Foreign Asset/Account Reporting Information. Polish residents holding foreign securities (including Shares) and maintaining accounts abroad must file reports with the National Bank of Poland if the aggregate value of Shares and cash held in such foreign accounts exceeds PLN 7,000,000. If required, the reports are due on a quarterly basis by the 20th day following the end of each quarter and must be filed on special forms available on the website of the National Bank of Poland.

Exchange Control Information. In addition, Polish residents are required to transfer funds through a bank account in Poland if the transferred amount in any single transaction exceeds a specified threshold (currently €15,000 (or PLN 15,000 if such transfer of funds is associated with the business activity of a consultant)). You must store all documents connected with any foreign exchange transactions you engage in for a period of five (5) years from the end of the year when such transactions were made. Penalties may apply for failure to comply with exchange control requirements.

PORTUGAL

TERMS AND CONDITIONS

Consent to Receive Information in English. You hereby expressly declare that you have full knowledge of the English language and have read, understood and fully accepted and agreed with the terms and conditions established in the Plan and Agreement.

Conhecimento da Lingua. *Por meio do presente, eu declaro expressamente que tem pleno conhecimento da língua inglesa e que li, compreendi e livremente aceitei e concordei com os termos e condições estabelecidas no Plano e no Acordo.*

ROMANIA

NOTIFICATIONS

Exchange Control Information. Certain transfers of funds may need to be reported to the National Office for Prevention and Control of Money Laundering on specific forms by the relevant bank or financial institution. If you deposit proceeds from the sale of Shares or the receipt of Dividends or Dividend Equivalents in a bank account in Romania, you may be required to provide the Romanian bank assisting with the transaction with appropriate documentation explaining the source of the income. You should consult with a legal advisor to determine whether you will be required to submit such documentation to the Romanian bank.

RUSSIA

TERMS AND CONDITIONS

Exchange Control Requirements. You may be required to repatriate certain cash amounts received with respect to the Units to Russia (*e.g.*, cash Dividends, sale proceeds) as soon as you intend to use those cash amounts for any purpose, including reinvestment. If the repatriation requirement applies, such funds must initially be credited to you through a foreign currency account at an authorized bank in Russia. After the funds are initially received in Russia, they may be further remitted to foreign banks in accordance with Russian exchange control laws. Under the Directive N 5371-U of the Russian Central Bank (the "CBR"), the repatriation requirement may not apply in certain cases with respect to cash amounts received in an account that is considered by the CBR to be a foreign brokerage account. Statutory exceptions to the repatriation requirement also may apply.

The exchange control rules and regulations in Russia, including temporary restrictions imposed by the Russian government in March 2022, are subject to frequent change. You should consult with your personal legal advisor to determine the applicability of any repatriation requirements applicable to any Shares or cash received in connection with the Plan and held in an account outside Russia.

Securities Law Requirements. Any Units granted hereunder, the Agreement, including this Appendix, the Plan and all other materials you may receive regarding your participation in the Plan or any Units granted hereunder do not constitute advertising or an offering of securities in Russia. The issuance of Shares under the Plan has not and will not be registered in Russia; therefore, Shares may not be offered or placed in public circulation in Russia.

In no event will Shares acquired under the Plan be delivered to you in Russia; all Shares will be maintained on your behalf in the United States.

You are not permitted to sell any Shares acquired under the Plan directly to a Russian legal entity or resident.

Labor Law Acknowledgement. You acknowledge that if you continue to hold Shares acquired under the Plan after an involuntary termination of your employment, you will not be eligible to receive unemployment benefits in Russia.

Data Privacy Notice. The following provision supplements Section XIV of the Agreement:

You understand and agree that you must complete and return a Consent to Processing of Personal Data (the "Consent") form to the Company. Further, you understand and agree that if you do not complete and return a Consent form to the Company, the Company will not be able to administer or maintain the Units. Therefore, you understand that refusing to complete a Consent form or withdrawing your consent may affect your ability to participate in the Plan.

NOTIFICATIONS

Foreign Asset/Account Reporting Information. Russian residents are required to file the following reports or notifications with the Russian tax authorities, if applicable: (i) annual cash flow reporting for an offshore brokerage account (due by June 1 each year for the previous year, with the first reporting due by June 1, 2022 for calendar year 2021); (ii) financial asset (including Shares) reporting for an offshore brokerage account (due by June 1 each year for the previous year, with the first reporting due by June 1, 2022 for calendar year 2021); and (ii) a one-time notification within one (1) month of opening, closing, or changing details of an offshore brokerage account.

You are encouraged to contact your personal tax advisor before remitting your proceeds from participation in the Plan to Russia to ensure compliance with applicable requirements.

Anti-Corruption Legislation Information. Individuals holding public office in Russia, as well as their spouses and dependent children, may be prohibited from opening or maintaining a foreign brokerage or bank account and holding any securities, whether acquired directly or indirectly, in a foreign company (including Shares acquired under the Plan). You should consult with your personal legal advisor to determine whether this restriction applies to your circumstances.

SINGAPORE

TERMS AND CONDITIONS

Restriction on Sale and Transferability. You hereby agree that any Shares acquired pursuant to the Units will not be offered for sale in Singapore prior to the six (6)-month anniversary of the Grant Date, unless such sale or offer is made pursuant to one or more exemptions under Part XIII Division 1 Subdivision (4) (other than section 280) of the Securities and Futures Act (Chap. 289, 2006 Ed.) ("SFA"), or pursuant to, and in accordance with the conditions of, any other applicable provisions of the SFA.

NOTIFICATIONS

Securities Law Information. The grant of the Units is being made pursuant to the "Qualifying Person" exemption under section 273(1)(f) of the SFA, on which basis it is exempt from the prospectus and registration requirements under the SFA, and is not made with a view to the Units being subsequently offered for sale to any other party. The Plan has not been, and will not be, lodged or registered as a prospectus with the Monetary Authority of Singapore.

Director Notification Requirement. Directors (including alternate, substitute, associate and shadow directors) of a Singapore Affiliate are subject to certain notification requirements under the Singapore Companies Act, regardless of whether they are resident or employed in Singapore. Directors of a Singapore Affiliate must notify the Singapore Affiliate in writing of an interest (*e.g.*, Units, Shares, etc.) in the Company or any related company within two (2) business days of (i) its acquisition or disposal, (ii) any change in a previously disclosed interest (*e.g.,* when the Shares are sold), or (iii) becoming a director.

SLOVAK REPUBLIC

NOTIFICATIONS

Foreign Asset/Account Reporting Notice. Slovak Republic residents who carry on business activities as an independent entrepreneur (in Slovakian, *podnikatel*), must report foreign assets (including any Shares) to the National Bank of Slovakia (provided that the value of the foreign assets exceeds an amount of EUR 2,000,000). These reports must be submitted on a monthly basis by the 15th day of the respective calendar month, as well as on a quarterly basis by the 15th day of the calendar month following the respective calendar quarter, using notification form DEV (NBS) 1-12, which may be found at the National Bank of Slovakia's website at www.nbs.sk.

SLOVENIA

There are no country-specific provisions.

SPAIN

TERMS AND CONDITIONS

Labor Law Acknowledgement. The following provision supplements Section XI of the Agreement:
By accepting the Units granted hereunder, you consent to participation in the Plan and acknowledge that you have received a copy of the Plan.

You understand that the Company has unilaterally, gratuitously and in its sole discretion decided to grant any Units under the Plan to individuals who may be members of the Board or Employees of the Company or its Affiliates throughout the world. The decision is a limited decision, which is entered into upon the express assumption and condition that any Units granted will not economically or otherwise bind the Company or any of its Affiliates on an ongoing basis, other than as expressly set forth in the Agreement, including this Appendix. Consequently, you understand that the Units granted hereunder are given on the assumption and condition that they shall not become a part of any employment contract (either with the Company or any of its Affiliates) and shall not be considered a mandatory benefit, salary for any purposes (including severance compensation) or any other right whatsoever. Further, you understand and freely accept that there is no guarantee that any benefit whatsoever shall arise from any gratuitous and discretionary grant of Units since the future value of the Units and the underlying Shares is unknown and unpredictable. In addition, you understand that any Units granted hereunder would not be made but for the assumptions and conditions referred to above; thus, you understand, acknowledge and freely accept that, should any or all of the assumptions be mistaken or should any of the conditions not be met for any reason, then any grant of Units or right to Units shall be null and void.

Further, the vesting of the Units is expressly conditioned on your continued and active rendering of service, such that if your employment terminates for any reason whatsoever, the Units may cease vesting immediately, in whole or in part, effective on the date of your termination of employment (unless otherwise specifically provided in Section I of the Agreement). This will be the case, for example, even if (1) you are considered to be unfairly dismissed without good cause (*i.e.*, subject to a "despido improcedente"); (2) you are dismissed for disciplinary or objective reasons or due to a collective dismissal; (3) you terminate service due to a change of work location, duties or any other employment or contractual condition; (4) you terminate service due to a unilateral breach of contract by the Company or an Affiliate; or (5) your employment terminates for any other reason whatsoever. Consequently, upon termination of your employment for any of the above reasons, you may automatically lose any rights to Units that were not vested on the date of your termination of employment, as described in the Plan and the Agreement.

You acknowledge that you have read and specifically accept the conditions referred to in Section I of the Agreement.

NOTIFICATIONS

Securities Law Information. No "offer of securities to the public," as defined under Spanish law, has taken place or will take place in the Spanish territory. The Agreement (including this Appendix) has not been nor will it be registered with the *Comisión Nacional del Mercado de Valores*, and does not constitute a public offering prospectus.

Exchange Control Information. If you acquire Shares under the Plan, you must declare the acquisition to the *Direccion General de Comercio e Inversiones* (the "DGCI"). If you acquire the Shares through the use of a Spanish financial institution, that institution will automatically make the declaration to the DGCI for you; otherwise, you will be required to make the declaration by filing a D-6 form. You must declare ownership of any Shares with the DGCI each January while the Shares are owned and must also report, in January, any sale of Shares that occurred in the previous year for which the report is being made, unless the sale proceeds exceed the applicable threshold, in which case the report is due within one (1) month of the sale.

Foreign Asset/Account Reporting Information. You are required to declare electronically to the Bank of Spain any securities accounts (including brokerage accounts held abroad), as well as the Shares held in such accounts if the value of the transactions during the prior tax year or the balances in such accounts as of December 31 of the prior tax year exceed €1,000,000.

To the extent that you hold Shares and/or have bank accounts outside of Spain with a value in excess of €50,000 (for each type of asset) as of December 31 each year, you will be required to report information on such assets in your tax return (tax form 720) for such year. After such Shares and/or accounts are initially reported, the reporting obligation will apply for subsequent years only if the value of any previously-reported Shares or accounts increases by more than €20,000 or if you sell or otherwise dispose of previously-reported Shares or accounts. If the value of such Shares and/or accounts as of December 31 does not exceed €50,000, a summarized form of declaration may be presented.

SWEDEN

TERMS AND CONDITIONS

Authorization to Withhold. This provision supplements Section III of the Agreement:

Without limiting the Company's and the Employer's authority to satisfy their withholding obligations for Tax Obligations as set forth in the Agreement, in accepting the Units, you authorize the Company to withhold Shares or to sell Shares otherwise issuable to you upon vesting or settlement to satisfy Tax Obligations, regardless of whether the Company and/or Employer have an obligation to withhold such Tax Obligations, provided that such withholding would not, in the Company's determination, result in adverse accounting consequences to the Company.

SWITZERLAND

NOTIFICATIONS

Securities Law Information. Neither this document nor any other materials relating to the Awards (i) constitutes a prospectus according to articles 35 et seq. of the Swiss Federal Act on Financial Services ("FinSA"), (ii) may be publicly distributed or otherwise made publicly available in Switzerland to any person other than an employee of the Company or one of its Subsidiaries or (iii) has been or will be filed with, approved or supervised by any Swiss reviewing body according to article 51 of FinSA or any Swiss regulatory authority, including the Swiss Financial Market Supervisory Authority.

TAIWAN

NOTIFICATIONS

Exchange Control Information. You may acquire and remit foreign currency (including proceeds from the sale of Shares or the receipt of Dividends or Dividend Equivalents) up to US$5,000,000 per year without justification. If the transaction amount is TWD500,000 or more in a single transaction, you must submit a Foreign Exchange Transaction Form. If the transaction amount is US$500,000 or more in a single transaction, you must also provide supporting documentation to the satisfaction of the remitting bank.

THAILAND

NOTIFICATIONS

Exchange Control Information. If proceeds from the sale of Shares or the receipt of any Dividends or Dividend Equivalents exceed US$1,000,000, you must (i) immediately repatriate such funds to Thailand and (ii) report the inward remittance to the Bank of Thailand on a Foreign Exchange Transaction Form. In addition, within three hundred and sixty (360) days of repatriation, you must either convert any funds repatriated to Thailand to Thai Baht or deposit the funds in a foreign exchange account with a Thai commercial bank. Any such commercial bank must be duly authorized by the Bank of Thailand to engage in the purchase, exchange and withdrawal of foreign currency. The Employee is responsible for ensuring compliance with all exchange control laws in Thailand.

UNITED ARAB EMIRATES

NOTIFICATIONS

Securities Law Information. Units under the Plan are granted only to select Board members and Employees of the Company and its Affiliates and are for the purpose of providing equity incentives. The Plan and the Agreement are intended for distribution only to such Board members and Employees and must not be delivered to, or relied on by, any other person. You should conduct your own due diligence on the Units offered pursuant to this Agreement. If you

do not understand the contents of the Plan and/or the Agreement, you should consult an authorized financial adviser. The Emirates Securities and Commodities Authority and the Dubai Financial Services Authority have no responsibility for reviewing or verifying any documents in connection with the Plan. Further, the Ministry of the Economy and the Dubai Department of Economic Development have not approved the Plan or the Agreement nor taken steps to verify the information set out therein, and have no responsibility for such documents.

UNITED KINGDOM

TERMS AND CONDITIONS

Tax Withholding. This provision supplements Section III of the Agreement:

Without limitation to Section III of the Agreement, you agree that you are liable for all Tax Obligations and hereby covenant to pay all such Tax Obligations as and when requested by the Company or your Employer or by Her Majesty's Revenue and Customs ("HMRC") (or any other tax authority or any other relevant authority). You also agree to indemnify and keep indemnified the Company and your Employer against any taxes that they are required to pay or withhold or have paid or will pay to HMRC (or any other tax authority or any other relevant authority) on your behalf.

Notwithstanding the foregoing, if you are an executive officer or director (as within the meaning of Section 13(k) of the Exchange Act, as amended from time to time), you understand that you may not be able to indemnify the Company or your Employer for the amount of income tax not collected from or paid by you, as it may be considered a loan. In the event that you are an executive officer or director and income tax is not collected from you within ninety (90) days after the end of the tax year in which the Taxable Event occurs, the amount of any uncollected income tax may constitute an additional benefit to you on which additional income tax and national insurance contributions ("NICs") may be payable. You acknowledge that you are responsible for reporting and paying any income tax due on this additional benefit directly to HMRC under the self-assessment regime and for paying your Employer for the amount of any NICs due on this additional benefit, which the Company or your Employer may obtain from you by any of the means set forth in Section III of the Agreement.

If the maximum applicable withholding rate is used, any over-withheld amount may be credited to you by the Company or your Employer (with no entitlement to the Common Stock equivalent) or if not so credited, you may seek a refund from the local tax authorities.

Joint Election. If you are a resident of the United Kingdom between the Grant Date and the vesting of the Units, as a condition of the Units granted hereunder, you agree to accept any liability for secondary Class 1 National Insurance Contributions (the "Employer NICs"), which may be payable by the Company or your Employer with respect to the Units and/or payment of the Units and issuance of Shares pursuant to the Units, the assignment or release of the Units for consideration, or the receipt of any other benefit in connection with the Units.

Without limitation to the foregoing, you agree to make an election (the "Election"), in the form specified and/or approved for such election by HMRC, that the liability for your Employer NICs payments on any such gains shall be transferred to you to the fullest extent permitted by law. You further agree to execute such other elections as may be required between you and any successor to the Company and/or your Employer. You hereby authorize the Company and your Employer to withhold such Employer NICs by any of the means set forth in Section III of the Agreement.

Failure by you to enter into an Election, withdrawal of approval of the Election by HMRC or a joint revocation of the Election by you and the Company or your Employer, as applicable, shall be grounds for the forfeiture and cancellation of the Units, without any liability to the Company or your Employer.

UNITED STATES

TERMS AND CONDITIONS

Termination of Employment. The following provision replaces Section I(i) of the Agreement:

(i) "termination of your active employment" shall mean the last date that you are either an active employee of the Company or an Affiliate or actively engaged as a Director of the Company or an Affiliate; in the event of termination of your employment (whether or not in breach of local labor laws), your right to receive Units and vest under the Plan, if any, will terminate effective as of the date that you are no longer actively employed; *provided*, *however*, that such right will be extended by any notice period mandated by law (*e.g.*, the Worker Adjustment and Retraining Notification Act ("WARN Act") notice period or similar periods pursuant to local law) and any paid administrative leave (as applicable), unless the Company shall provide you with written notice otherwise before the commencement of such notice period or leave; *provided further*, that notwithstanding the effect of any such extension, in no event will the Units be paid later than the 90th day following your termination of employment;

Form of Award Notice

[*The information set forth in this Award Notice will be contained on the related pages on Merrill Lynch Benefits Website (or the website of any successor company to Merrill Lynch Bank & Trust Co., FSB). This Award Notice shall be replaced by the equivalent pages on such website. References to Award Notice in this Agreement shall then refer to the equivalent pages on such website.*]

This notice of Award (the "Award Notice") sets forth certain details relating to the grant by the Company to you of the Award identified below, pursuant to the Plan. The terms of this Award Notice are incorporated into the Agreement that accompanies this Award Notice and made part of the Agreement. Capitalized terms used in this Award Notice that are not otherwise defined in this Award Notice have the meanings given to such terms in the Agreement.

Employee:
Employee ID:
Address:
Award Type:
Grant ID:
Plan: Amgen Inc. Amended and Restated 2009 Equity Incentive Plan, as amended and/or restated from time to time
Program Amgen Inc. 2009 Performance Award Program, as amended and/or restated from time to time
Grant Date:
Number of Shares:
Number of
Performance Units:
Performance Period: The Performance Period beginning on and ending on .
Resolutions: The Resolutions of the Compensation and Management Development Committee of the Board of Directors of Amgen Inc. establishing the performance goals and Performance Period applicable to this Award.
Vesting Date: Means the vesting date indicated in the Vesting Schedule
Vesting Schedule: Means the schedule of vesting set forth under Vesting Details
Vesting Details: Means the presentation (tabular or otherwise) of the Vesting Date and the quantity of Shares vesting.

IMPORTANT NOTICE REGARDING ACCEPTANCE OF THE AWARD AND THE REQUIREMENT TO OPEN A BROKERAGE ACCOUNT [1]**:**

***RESIDENTS OF THE U.S. AND PUERTO RICO*:** Please read this Award Notice, the Plan and the Agreement (collectively, the "Grant Documents") carefully. If you, as a resident of the U.S. or Puerto Rico, do **not** wish to receive this Award and/or you do **not** consent and agree to the terms and conditions on which this Award is offered, as set forth in the Grant Documents, then you must reject the Award by contacting the Merrill Lynch call center (800) 97AMGEN (800-972-6436) within the U.S., Puerto Rico and Canada or +1 (609) 818-8910 from all other countries (Merrill Lynch will accept the charges for your call) no later than the forty-fifth calendar day following the day on which this Award Notice is made available to you, in which case the Award will be cancelled. For the purpose of determining the forty-five calendar days, Day 1 will be the day **immediately** following the day on which this Award Notice is made

[1] *This provision is only for use on the form of grant used for the U.S. and Puerto Rico.*

available to you. Your failure to notify the Company of your rejection of the Award within this specified period will constitute your acceptance of the Award and your agreement with all terms and conditions of the Award, as set forth in the Grant Documents. If you agree to the terms and conditions of your grant and you desire to accept it, then no further action is needed on your part to accept the grant. However, you must still open a brokerage account as directed by the Company, by 1:00 pm Pacific Time on or before the date that is 11 months after the date of grant. This step is necessary to process transactions related to your equity grant. **If you do not open a brokerage account by this deadline, your grant will be cancelled**.

PERFORMANCE UNIT AGREEMENT

THE SPECIFIC TERMS OF YOUR GRANT OF PERFORMANCE UNITS ARE FOUND IN THE PAGES RELATING TO THE GRANT OF PERFORMANCE UNITS FOUND ON MERRILL LYNCH BENEFITS WEBSITE (OR THE WEBSITE OF ANY SUCCESSOR COMPANY TO MERRILL LYNCH BANK & TRUST CO., FSB) (THE "AWARD NOTICE") WHICH ACCOMPANIES THIS DOCUMENT. THE TERMS OF THE AWARD NOTICE ARE INCORPORATED INTO THIS PERFORMANCE UNIT AGREEMENT.

On the Grant Date specified in the Award Notice, Amgen Inc., a Delaware corporation (the "Company"), has granted to you, the grantee named in the Award Notice, under the Amgen Inc. Amended and Restated 2009 Equity Incentive Plan, as amended and/or restated from time to time (the "Plan"), the Number of Performance Units (the "Performance Units") specified in the Award Notice on the terms and conditions set forth in this Performance Unit Agreement (and any applicable additional terms and conditions for your country set forth in the attached Appendix A (as described in greater detail in Section XIV below)) (collectively, this "Agreement"), the Plan, the Amgen Inc. 2009 Performance Award Program, as amended and/or restated from time to time (the "Program") and the Resolutions (as defined in the Award Notice). Capitalized terms not defined herein shall have the meanings assigned to such terms in the Program.

I. Performance Period. The Performance Period shall have the meaning set forth in the Award Notice.

II. Value of Performance Units. The value of each Performance Unit is equal to a share of Common Stock.

III. Performance Goals. An amount of the Performance Units up to the maximum amount specified in the Resolutions shall be earned, depending on the extent to which the Company achieves objectively determinable performance goals established by the Committee pursuant to the Resolutions. The Performance Units earned shall be calculated in accordance with the Resolutions and the Program.

IV. Form and Timing of Settlement.

(a) *General*. Subject to Section XIII and subject to satisfaction of Tax Obligations or similar obligations as provided in Section V, and except as set forth in the Program, any Performance Units earned pursuant to Section III above shall be settled by the Company delivering to you a number of Shares equal to the number of Shares covered by the earned Performance Units or in a lump sum in cash with a value equal to the Fair Market Value of the number of Shares subject to the earned Performance Units as of the last day of the Performance Period (without interest thereon), or in a combination of Shares and cash, as determined by the Administrator at any time prior to settlement and in its discretion, as soon as practicable, and in any event within 90 days, after the last day of the Performance Period, in each case, subject to the terms of the Program (including Section 4.2 thereof). Shares issued in respect of a Performance Unit shall be deemed to be issued in consideration of past services actually rendered by you to the Company or an Affiliate or for its benefit for which you have not previously been compensated or for future services to be rendered, as the case may be, which the Company deems to have a value at least equal to the aggregate par value thereof.

(b) *Retirement*. In the event that your employment with the Company or an Affiliate is terminated prior to the last business day of the Performance Period by reason of your Voluntary Retirement and you are Retirement-Eligible on the date of such termination,

the full or prorated amount of your Award, if any, applicable to the Performance Period shall be paid in accordance with the provisions of Article VI of the Program. For purposes of the foregoing, the amount of your Award (rounded down to the nearest whole number) shall be determined based on the Company's performance as compared to the Performance Goals for the Performance Period and (i) if the Award was granted with respect to a Performance Period commencing in a calendar year prior to the calendar year in which your Voluntary Retirement occurs, the full amount of the Award is payable, and (ii) if the Award was granted with respect to the Performance Period commencing in the calendar year in which your Voluntary Retirement occurs, the Award otherwise payable is multiplied by a fraction (rounded to two decimal places), the numerator of which is the number of complete months of employment during such calendar year, and the denominator of which is twelve (12). Notwithstanding the foregoing, you shall not be entitled to such full or prorated amount of your Award pursuant to this paragraph (b) unless either you sign a general release and waiver in a form provided by the Company (for the purpose of resolving any potential or actual disputes arising from your employment and the termination of your employment with the Company) and deliver it to the Company no later than the date specified by the Company, or the Company waives such release requirement in writing; *provided, however,* that in no event shall payment of such full or prorated amount of your Award be made later than the specified payment date as set forth in Section 6.1 of the Program. This paragraph (b) shall supersede Section 7.1(a) of the Program.

(c) *Death and Disability*. In the event that your employment with the Company or an Affiliate is terminated prior to the last business day of the Performance Period by reason of your death or Permanent and Total Disability, the full or prorated amount of your Award, if any, applicable to such Performance Period shall be paid in accordance with the provisions of Article VI of the Program. For purposes of the foregoing, the amount of your Award (rounded down to the nearest whole number) shall be determined based on the Company's performance as compared to the Performance Goals for the Performance Period and (i) if the Award was granted with respect to a Performance Period commencing in a calendar year prior to the calendar year in which such termination occurs, the full amount of the Award is payable, and (ii) if the Award was granted with respect to the Performance Period commencing in the calendar year in which such termination occurs, the Award otherwise payable is multiplied by a fraction (rounded to two decimal places), the numerator of which is the number of complete months of employment during such calendar year, and the denominator of which is twelve (12). Notwithstanding the foregoing, if your employment is terminated due to your Permanent and Total Disability, you shall not be entitled to such full or prorated amount of your Award pursuant to this paragraph (c) unless either you sign a general release and waiver in a form provided by the Company (for the purpose of resolving any potential or actual disputes arising from your employment and the termination of your employment with the Company) and deliver it to the Company no later than the date specified by the Company, or the Company waives such release requirement in writing; *provided*, *however*, that in no event shall payment of such full or prorated amount of your Award be made later than the specified payment date as set forth in Section 6.1 of the Program. This paragraph (c) shall supersede Section 7.1(b) of the Program.

(d) *Other*. In the event that your employment with the Company or an Affiliate is terminated prior to the last business day of the Performance Period for any reason other than as specified in paragraphs (b) and (c) above, all of your rights to an Award for the Performance Period shall be forfeited, unless, prior to the payment date described in Article VI of the Program, the Company, in its sole discretion, makes a written determination to otherwise pay the full or prorated amount of your Award, if any, applicable to the Performance Period, which full or prorated amount shall be paid in

accordance with the provisions of Article VI of the Program. For purposes of the foregoing, if the payment of your Award is prorated, the amount of your Award (rounded down to the nearest whole number) shall be determined based on the Company's performance as compared to the Performance Goals for the Performance Period and (i) if the Award was granted with respect to a Performance Period commencing in a calendar year prior to the calendar year in which such termination occurs, the full amount of the Award is payable, and (ii) if the Award was granted with respect to the Performance Period commencing in the calendar year in which such termination occurs, the Award otherwise payable is multiplied by a fraction (rounded to two decimal places), the numerator of which is the number of complete months of employment during such calendar year, and the denominator of which is twelve (12). Notwithstanding the foregoing, you shall not be entitled to such full or prorated amount of your Award pursuant to this paragraph (d) unless either you sign a general release and waiver in a form provided by the Company (for the purpose of resolving any potential or actual disputes arising from your employment and the termination of your employment with the Company) and deliver it to the Company no later than the date specified by the Company, or the Company waives such release requirement in writing; *provided*, *however*, that in no event shall payment of such full or prorated amount of your Award be made later than the specified payment date as set forth in Section 6.1 of the Program. This paragraph (d) shall supersede Section 7.1(c) of the Program.

V. Issuance of Shares; Tax Withholding. Regardless of any action the Company or your actual employer (the "Employer") takes with respect to any or all income tax (including federal, state and local taxes), social insurance, payroll tax, fringe benefit tax, payment on account or other tax-related items related to your participation in the Plan and the Program and legally applicable to you (the "Tax Obligations"), you acknowledge that the ultimate liability for all Tax Obligations is and remains your responsibility and may exceed the amount, if any, actually withheld by the Company and/or your Employer. You further acknowledge that the Company and/or your Employer (i) make no representations or undertakings regarding the treatment of any Tax Obligations in connection with any aspect of the Performance Units or the underlying Shares, including the grant of the Performance Units, the vesting of the Performance Units, the conversion of the Performance Units into shares or the receipt of an equivalent cash payment, the subsequent sale of any shares acquired at settlement and the receipt of any Dividends (as defined in Section VI, below) or Dividend Equivalents; and (ii) do not commit to and are under no obligation to structure the terms of the grant or any aspect of the Performance Units to reduce or eliminate your liability for Tax Obligations or to achieve any particular tax result. Furthermore, if you become subject to tax in more than one jurisdiction, you acknowledge that the Company and/or your Employer (or former employer, as applicable) may be required to withhold or account for Tax Obligations in more than one jurisdiction.

Prior to any relevant taxable or tax withholding event, as applicable, you shall pay or make adequate arrangements satisfactory to the Company or to your Employer (in their sole discretion) to satisfy all Tax Obligations. In this regard, you authorize the Company and/ or your Employer, or their respective agents, at their discretion, to satisfy all applicable Tax Obligations by one or a combination of the following:

(a) withholding from your wages or other cash compensation paid to you by the Company and/or your Employer; or

(b) withholding from proceeds of the sale of Shares issued upon settlement of the Performance Units, either through your voluntary sale or through a mandatory sale arranged by the Company (on your behalf pursuant to this authorization); or

(c) withholding in Shares issuable, or cash payable, upon settlement of the Performance Units provided that, if such Shares are withheld, the Company and your Employer shall only withhold an amount of Shares with a fair market value not to exceed the Tax Obligations as determined in the discretion of the Company or your Employer, as applicable.

Depending on the withholding method, the Company may withhold or account for Tax Obligations by considering applicable minimum statutory withholding rates or other applicable withholding rates, including maximum applicable rates. If the Tax Obligations are satisfied by withholding in Shares, for tax purposes you are deemed to have been issued the full number of Shares subject to the earned Performance Units, notwithstanding that a number of Shares is held back and not actually issued to you solely for the purpose of paying the Tax Obligations due as a result of any aspect of your participation in the Plan (any Shares withheld by the Company hereunder shall not be deemed to have been issued by the Company for any purpose under the Plan and shall remain available for issuance thereunder).

Finally, you shall pay to the Company or your Employer any amount of Tax Obligations that the Company or your Employer may be required to withhold or account for as a result of your participation in the Plan and the Program that cannot be or were not satisfied by the means previously described. You agree to take any further actions and to execute any additional documents as may be necessary to effectuate the provisions of this Section V. Notwithstanding Section IV above, the Company may refuse to issue or deliver the Shares or the proceeds of the sale of Shares if you fail to comply with your obligations in connection with the Tax Obligations.

VI. Dividend Equivalents

(a) Crediting of Dividend Equivalents. Subject to this Section VI, Dividend Equivalents shall be credited on each Performance Unit granted to you under this Agreement in the manner set forth in the remainder of this Section VI. If the Company declares one or more dividends or distributions (each, a "Dividend") on its Common Stock with a record date which occurs during the period commencing on the Grant Date through and including the day immediately preceding the day the Shares subject to the Performance Units are issued to you, whether in the form of cash, Common Stock or other property, then, on the date such Dividend is paid to the Company's stockholders, you shall be credited with an amount equal to the amount or fair market value of such Dividend which would have been payable to you if you held a number of Shares equal to the number of Performance Units granted to you on the Grant Date (including any previously credited Dividends which have been deemed to have been reinvested in Common Stock as provided by the next succeeding sentence), as of each such record date for each such Dividend (not including on any Performance Units which were previously paid or forfeited) as if each such amount had been reinvested in Common Stock as of the date of the payment of such Dividend (such accumulated dividends, the "Target Accumulated Dividends"). Each such Dividend Equivalent shall be deemed to have been reinvested in Common Stock as of the Dividend payment date. Dividend Equivalents shall be payable in full Shares, unless the Administrator determines, at any time prior to payment and in its discretion, that they shall be payable in cash. Dividend Equivalents payable with respect to fractional Shares shall be paid in cash.

(b) Treatment of Dividend Equivalents. Except as otherwise expressly provided in this Section VI any Dividend Equivalents credited to you shall be subject to all of the provisions of this Agreement which apply to the Performance Units with respect to which they have been credited and shall be payable, if at all, at the time and to the extent that the underlying Performance Unit becomes payable. Dividend Equivalents shall not be payable on any

Performance Units that do not vest, or are forfeited, pursuant to the terms of this Agreement. Dividend Equivalent rights and any amounts that may become distributable in respect thereof shall be treated separately from the Performance Units and the rights arising in connection therewith for purposes of the designation of time and form of payments required by Section 409A of the Internal Revenue Code of 1986, as amended (the "Code") (together with any Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the Grant Date, "Section 409A").

VII. Nontransferability. No benefit payable under, or interest in, this Agreement or in the Shares that may become issuable to you hereunder shall be subject in any manner to anticipation, alienation, sale, transfer, assignment, pledge, encumbrance or charge and any such attempted action shall be void and no such benefit or interest shall be, in any manner, liable for, or subject to, your or your beneficiary's debts, contracts, liabilities or torts; *provided, however*, nothing in this Section VII shall prevent transfer (i) by will or (ii) by applicable laws of descent and distribution.

VIII. No Contract for Employment. This Agreement is not an employment or service contract with the Company or an Affiliate and nothing in this Agreement shall be deemed to create in any way whatsoever any obligation on your part to continue in the employ or service of the Company or an Affiliate, or of the Company or an Affiliate to continue your employment or service with the Company or an Affiliate.

IX. Nature of Grant. In accepting the grant of Performance Units, you acknowledge, understand and agree that:

(a) the Plan and the Program are established voluntarily by the Company, are discretionary in nature and may be modified, amended, suspended or terminated by the Company at any time, as provided in the Plan and in the Program;

(b) the grant of the Performance Units is exceptional, voluntary and occasional and does not create any contractual or other right to receive future awards of Performance Units, or benefits in lieu of Performance Units, even if Performance Units have been awarded in the past;

(c) all decisions with respect to future awards, if any, will be at the sole discretion of the Company;

(d) your participation in the Plan and the Program is voluntary;

(e) the grant of Performance Units, the Shares subject to the Performance Units, and the income from and value of same, are not intended to replace any pension rights or compensation;

(f) neither the grant of Performance Units nor any provision of this Agreement, the Plan, the Program or the policies adopted pursuant to the Plan or Program confer upon you any right with respect to employment or continuation of current employment and shall not interfere with the ability of your Employer to terminate your employment or service relationship (if any) at any time;

(g) in the event that you are not an employee of the Company or any Affiliate, the Performance Units shall not be interpreted to form an employment contract or relationship with the Company or any Affiliate;

(h) the future value of the Shares that may be earned upon the end of the Performance Period is unknown, indeterminable, and cannot be predicted with certainty;

(i) in consideration of the grant of Performance Units hereunder, no claim or entitlement to compensation or damages arises from termination of Performance Units, and no claim or entitlement to compensation or damages shall arise from forfeiture of the Performance Units resulting from termination of your employment by the Company or an Affiliate (regardless of the reason for such termination and whether or not later found to be invalid or in breach of employment laws in the jurisdiction where you are employed or the terms of your employment agreement, if any) and you irrevocably release the Company and your Employer from any such claim that may arise; if, notwithstanding the foregoing, any such claim is found by a court of competent jurisdiction to have arisen, you shall be deemed irrevocably to have waived your entitlement to pursue such claim;

(j) in the event of termination of your employment (regardless of the reason for such termination and whether or not later found to be invalid or in breach of employment laws in the jurisdiction where you are employed or the terms of your employment agreement, if any), your right to receive Performance Units and receive shares under the Plan and the Program, if any, will terminate effective as of the date that you are no longer actively employed and will not be extended by any notice period (*e.g.*, active employment would not include a period of "garden leave" or similar period mandated under employment laws in the jurisdiction where you are employed or the terms of your employment agreement, if any);

(k) unless otherwise agreed with the Company, the Performance Units, the Shares subject to the Performance Units, and the income from and value of same, are not granted as consideration for, or in connection with, the service you may provide as a director of an Affiliate of the Company;

(l) except as otherwise provided in this Agreement or the Plan, the Performance Units and the benefits evidenced by this Agreement do not create any entitlement to have the Performance Units or any such benefits transferred to, or assumed by, another company nor to be exchanged, cashed out or substituted for, in connection with any corporate transaction affecting the shares of the Company; and

(m) the following provisions apply only if you are providing services outside the United States:

(A) for employment law purposes outside the United States, the Performance Units, the Shares subject to the Performance Units, and the income from and value of same, are not part of normal or expected compensation or salary for any purpose, including but not limited to for purposes of calculating any severance, resignation, termination, redundancy, dismissal, end of service payments, bonuses, holiday pay, long-service awards, pension or retirement benefits or similar mandatory payments; and

(B) neither the Company, your Employer nor any Affiliate of the Company shall be liable for any foreign exchange rate fluctuation between your local currency and the United States Dollar that may affect the value of the Performance Units or of any amounts due to you pursuant to the settlement of the Performance Units or the subsequent sale of any Shares acquired upon settlement.

X. No Advice Regarding Grant. The Company is not providing any tax, legal or financial advice, nor is the Company making any recommendations regarding your participation in the Plan and the Program, or your acquisition or sale of the underlying Shares. You should

consult with your personal tax, legal and financial advisors regarding your participation in the Plan and the Program before taking any action related thereto.

XI. Notices. Any notices provided for in this Agreement, the Plan or the Program shall be given in writing or electronically and shall be deemed effectively given upon receipt or, in the case of notices delivered by the Company to you, five (5) days after deposit in the United States mail or equivalent foreign postal service, postage prepaid, addressed to you at such address as is currently maintained in the Company's records or at such other address as you hereafter designate by written notice to the Company Stock Administrator. Such notices may be given using any automated system for the documentation, granting or settlement of Awards, such as a system using an internet website or interactive voice response, as approved by the Company.

XII. Resolutions, Plan and Program. This Agreement is subject to all of the provisions of the Resolutions, the Plan and the Program and their provisions are hereby made a part of this Agreement and incorporated herein by reference, including, without limitation, the provisions of Articles 5 and 9 of the Plan (relating to Performance-Based Compensation and Performance Awards, respectively) and Section 13.2 of the Plan (relating to adjustments upon changes in the Common Stock), and is further subject to all interpretations, amendments, rules and regulations which may from time to time be promulgated and adopted pursuant to the Plan. In the event of any conflict between the provisions of this Agreement and those of the Resolutions, the Plan and the Program, the provisions of the Plan shall control. Notwithstanding any provision of this Agreement or the Program to the contrary, any earned Performance Units paid in cash rather than Shares shall not be deemed to have been issued by the Company for any purpose under the Plan.

XIII. Code Section 409A. The time and form of payment of the Performance Units is intended to comply with the requirements of Section 409A and this Agreement shall be interpreted in accordance with Section 409A. Accordingly, no acceleration or deferral of any payment shall be permitted if it would cause the payment of the Performance Units to violate Section 409A. In addition, notwithstanding any provision herein to the contrary, in the event that following the Grant Date, the Committee determines that it may be necessary or appropriate to do so, the Committee may adopt such amendments to the Plan, Program and/or this Agreement or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, that the Committee determines are necessary or appropriate to (a) exempt the Plan, Program and/or the Performance Units from the application of Section 409A and/or preserve the intended tax treatment of the benefits provided with respect to this Award, or (b) comply with the requirements of Section 409A; *provided*, *however*, that this paragraph shall not create an obligation on the part of the Committee to adopt any such amendment, policy or procedure or take any such other action. No payment hereunder shall be made to you during the six (6)-month period following your "separation from service" (within the meaning of Section 409A) to the extent that the Company determines that paying such amount at the time set forth herein would be a prohibited distribution under Section 409A(a)(2)(B)(i). If the payment of any such amounts is delayed as a result of the previous sentence, then within thirty (30) days following the end of such six (6)-month period (or, if earlier, your death), the Company shall pay to you (or to your estate) the cumulative amounts that would have otherwise been payable to you during such period, without interest.

XIV. Provisions Applicable to Participants in Foreign Jurisdictions. Notwithstanding any provision of this Agreement or the Program to the contrary, if you are employed by the Company or an Affiliate in any of the countries identified in the attached Appendix A (which constitutes a part of this Agreement), are subject to the laws of any foreign jurisdiction, or relocate to one of the countries included in the attached Appendix A, your award of Performance Units shall be subject to any additional terms and conditions for such country set forth in Appendix A and to the following additional terms and conditions:

(a) the terms and conditions of this Agreement, including Appendix A, are deemed modified to the extent necessary or advisable to comply with applicable foreign laws or facilitate the administration of the Plan and the Program;

(b) if applicable, the effectiveness of your Award is conditioned upon its compliance with any applicable foreign laws, regulations, rules or local governmental regulatory exemption and subject to receipt of any required foreign regulatory approvals;

(c) to the extent necessary to comply with applicable foreign laws, the payment of any earned Performance Units shall be made in cash or Common Stock, at the Company's election; and

(d) the Committee may take any other action, before or after an award of Performance Units is made, that it deems necessary or advisable to obtain approval or comply with any necessary local governmental regulatory exemptions or approvals.

Notwithstanding anything to the contrary contained herein, the Company shall not take any actions hereunder, and no Award of Performance Units shall be granted, and no Shares payable with respect to an Award shall be issued, that would violate the Securities Act, the Exchange Act, the Code, or any other securities or tax or other applicable law or regulation, or the rules of any Securities Exchange. Notwithstanding anything to the contrary contained herein, no Shares issuable with respect to an Award shall be issued unless such shares are then registered under the Securities Act, or, if such shares are not then so registered, the Company has determined that such issuance would be exempt from the registration requirements of the Securities Act and that the issuance satisfied all other applicable legal requirements.

XV. ***Data Privacy. In order for the Company to facilitate your participation in the Plan and the Program, the Company and your Employer must collect and use personal data about you. In accordance with applicable laws, reasonable security measures will be implemented and maintained to protect the security of your personal data; however, you understand that absolute security cannot be guaranteed.***

You understand that the Company and your Employer may hold certain personal information about you, including your name, home address and telephone number, email address, date of birth, social insurance/security number (to the extent permitted under applicable local law), passport or other identification number, salary, nationality, job title/work history/service periods, residency status, citizenship, tax withholding and payroll data, any shares of stock or directorships held in the Company, details of all equity compensation or any other entitlement to Shares awarded, cancelled, vested, unvested or outstanding in your favor, for the purposes of implementing, administering and managing the Plan and the Program ("personal data").

You authorize the transfer of your personal data to Merrill Lynch Bank & Trust Co., FSB, or any successor thereto, and any other third parties which may assist the Company (presently or in the future) with implementing, administering and managing your participation in the Plan and the Program to receive, possess, use, retain and transfer your personal data, in electronic or other form, for the purpose of implementing, administering and managing your participation in the Plan and the Program, including any requisite transfer of such personal data as may be required to any other broker, escrow agent or other third party with whom the Shares received in settlement of the Performance Units may be deposited. You understand that such authorized recipients of your personal data may be located in countries that do not provide the same level of data privacy laws and protections as the country in which your personal data originated. Transfers of personal data among Company and its group entities follow applicable laws and our Binding Corporate Rules (BCRs). For more information on

Company's BCRs, please visit http://www.amgen.com/bcr/. You acknowledge that the collection, use and transfer of your personal data is necessary to facilitate to your participation in the Plan, as well as to grant you Performance Units or other equity awards and administer or maintain such awards.

You may correct or update your personal data previously provided to Company, by completing the form located at https://preferences.amgen.com. Subject to applicable law, you may have additional rights, including the right to object and/or request destruction of your personal data. To exercise these rights, where applicable, please contact your local human resources representative.

XVI. Language. By electing to accept this Agreement, you acknowledge that you are sufficiently proficient in English, or have consulted with an advisor who is sufficiently proficient in English, so as to allow you to understand the terms and conditions of this Agreement. Furthermore, if you have received this Agreement or any other document related to the Plan and/or the Program translated into a language other than English and if the meaning of the translated version is different than the English version, the English version will control.

XVII. Governing Law and Venue. The terms of this Agreement shall be governed by the laws of the State of Delaware without giving effect to principles of conflicts of laws. For purposes of litigating any dispute that arises hereunder, the parties hereby submit to and consent to the jurisdiction of the State of Delaware, and agree that such litigation shall be conducted in the courts of the State of Delaware, or the federal courts for the United States for the federal district located in the State of Delaware, and no other courts, where this Agreement is made and/or to be performed.

XVIII. Severability. If one or more of the provisions of this Agreement shall be held invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby and the invalid, illegal or unenforceable provisions shall be deemed null and void; however, to the extent permissible by law, any provisions which could be deemed null and void shall first be construed, interpreted or revised retroactively to permit this Agreement to be construed so as to foster the intent of this Agreement and the Plan.

XIX. Electronic Delivery and Participation. The Company may, in its sole discretion, decide to deliver any documents related to current or future participation in the Plan and/or the Program (including this Agreement) by electronic means. You hereby consent to receive such documents by electronic delivery and agree to participate in the Plan through an on-line or electronic system established and maintained by the Company or another third party designated by the Company.

XX. Imposition of Other Requirements. The Company reserves the right to impose other requirements on your participation in the Plan and the Program, on the Performance Units and on any Shares acquired under the Plan and the Program, to the extent the Company determines it is necessary or advisable for legal or administrative reasons, and to require you to sign any additional agreements or undertakings that may be necessary to accomplish the foregoing.

XXI. Waiver. You acknowledge that a waiver by the Company of breach of any provision of this Agreement shall not operate or be construed as a waiver of any other provision of this Agreement, or of any subsequent breach by you or any other grantee.

XXII. Headings. This Agreement's section headings are for convenience only and shall not constitute a part of this Agreement or affect this Agreement's meaning.

Very truly yours,
AMGEN INC.

By:_____
Name:
Title:

APPENDIX A

ADDITIONAL TERMS AND CONDITIONS OF THE AMENDED AND RESTATED AMGEN INC. 2009 EQUITY INCENTIVE PLAN, AS AMENDED AND/OR RESTATED FROM TIME TO TIME

AWARD OF PERFORMANCE UNITS (BY COUNTRY)

Certain capitalized terms used but not defined in this Appendix A shall have the meanings set forth in the Plan and/or the Agreement to which this Appendix is attached.

TERMS AND CONDITIONS

This Appendix includes additional terms and conditions that govern any Performance Units granted under the Plan if, under applicable law, you are a resident of, are deemed to be a resident of or are working in one of the countries listed below. Furthermore, the additional terms and conditions that govern the Performance Units granted hereunder may apply to you if you transfer employment and/or residency to one of the countries listed below and the Company shall, in its discretion, determine to what extent the terms and conditions contained herein shall apply to you.

NOTIFICATIONS

This Appendix also includes notifications relating to exchange control and other issues of which you should be aware with respect to your participation in the Plan. The information is based on the exchange control, securities and other laws in effect in the countries to which this Appendix refers as of October 2022. Such laws are often complex and change frequently. As a result, the Company strongly recommends that you not rely on the notifications herein as the only source of information relating to the consequences of your participation in the Plan because the information may be outdated when you acquire Shares under the Plan, or when you subsequently sell Shares acquired under the Plan and the Program.

In addition, the notifications are general in nature and may not apply to your particular situation, and the Company is not in a position to assure you of any particular result. Accordingly, you should seek appropriate professional advice as to how the relevant laws in your country may apply to your situation. Finally, if you are a citizen or resident of a country other than the one in which you are currently residing and/or working or are considered a resident of another country for local law purposes, the information contained herein may not be applicable to you or you may be subject to the provisions of one or more jurisdictions.

ALL NON-U.S. JURISDICTIONS

TERMS AND CONDITIONS

Issuance of Shares; Tax Withholding. The following provision supplements Section V. of the Agreement:

In the event the Company withholds or accounts for Tax Obligations by considering maximum applicable rates in your jurisdiction(s), in the event of over-withholding, you may receive a refund of any over-withheld amount in cash and will not be entitled to the equivalent amount in Shares, or if not refunded, you may seek a refund from the local tax authorities. In the event of under-withholding, you may be required to pay any additional Tax Obligations directly to the applicable tax authority or to the Company and/or your Employer.

NOTIFICATIONS

Insider Trading Restrictions/Market Abuse Laws. You may be subject to insider trading restrictions and/or market abuse laws based on the exchange on which the Shares are listed and in applicable jurisdictions including the United States and your country or your broker's country, if different, which may affect your ability to accept, acquire, sell or otherwise dispose of Shares, rights to Shares (*e.g.*, Performance Units) or rights linked to the value of Shares (*e.g.*, Dividend Equivalents) during such times as you are considered to have "inside information" regarding the Company (as defined by the laws in applicable jurisdictions). Local insider trading laws and regulations may prohibit the cancellation or amendment of orders you place before you possessed inside information. Furthermore you could be prohibited from (i) disclosing the inside information to any third party, which may include fellow employees (other than on a "need to know" basis) and (ii) "tipping" third parties or causing them otherwise to buy or sell securities. Any restrictions under these laws or regulations are separate from and in addition to any restrictions that may be imposed under any applicable Company insider trading policy. You are responsible for ensuring your compliance with any applicable restrictions and you should speak with your personal legal advisor on this matter.

Foreign Asset/Account, Tax Reporting Information. Your country of residence may have certain foreign asset and/or account reporting requirements which may affect your ability to acquire or hold Shares under the Plan or cash received from participating in the Plan (including from any Dividends or Dividend Equivalents received, or sale proceeds arising from the sale of Shares) in a brokerage or bank account outside of your country. You may be required to report such accounts, assets or transactions to the tax or other authorities in your country. You also may be required to repatriate sale proceeds or other funds received as a result of participating in the Plan to your country within a certain time after receipt. You are responsible for ensuring your compliance with such regulations, and you should speak with your personal legal advisor on this matter.

ALL EUROPEAN ECONOMIC AREA ("EEA") / EUROPEAN UNION ("EU") JURISDICTIONS, UNITED KINGDOM AND SWITZERLAND

TERMS AND CONDITIONS

Data Privacy Notice. This provision replaces Section XV of the Agreement:

Please refer to the Fair Processing Notice previously provided by your local human resources representative, which notice governs the collection, use and transfer of your personal data necessary for the Company to facilitate your participation in the Plan and the Program. If you have any questions or concerns regarding the Fair Processing Notice, including questions about your rights afforded thereunder, you should contact your local human resources representative or send an email to hrconnect@amgen.com.

For purposes of implementing, administering and managing the Plan, Company and your Employer may hold certain personal data about you, including your name, home address and telephone number, email address, date of birth, social insurance/security number (to the extent permitted under applicable local law), passport or other identification number, salary, nationality, job title/work history/service periods, residency status, citizenship, tax withholding and payroll data, any shares of stock or directorships held in the Company, details of all equity compensation or any other entitlement to Shares awarded, cancelled, vested, unvested or outstanding in your favor ("personal data").

You authorize the transfer of your personal data to Merrill Lynch Bank & Trust Co., FSB, or any successor thereto, and any other third parties which may assist the Company (presently or in the future) with implementing, administering and managing your participation in the Plan and the Program to receive, possess, use, retain and transfer your personal data, in electronic or other form, for the purpose of implementing, administering and managing your participation in the Plan and the Program, including any requisite transfer of such personal data as may be required to any other broker, escrow agent or other third party with whom the Shares received in settlement of the Performance Units may be deposited.

ARGENTINA

TERMS AND CONDITIONS

Labor Law Acknowledgement. The following provision supplements Section IX of the Agreement:

In accepting the grant of Performance Units, you acknowledge, understand and agree that the grant of the Performance Units is made by the Company (not your Employer) in its sole discretion and that the value of the Performance Units or any Shares acquired under the Plan and the Program shall not constitute salary or wages for any purpose under Argentine labor law including, but not limited to, the calculation of (i) any labor benefits including, without limitation, vacation pay, thirteenth salary, compensation in lieu of notice, annual bonus, disability, and leave of absence payments, etc., or (ii) any termination or severance indemnities or similar payments.

NOTIFICATIONS

Securities Law Information. Neither the Performance Units nor the underlying Shares are publicly offered or listed on any stock exchange in Argentina.

Exchange Control Information. Exchange control regulations in Argentina are subject to frequent change. You should consult with your personal legal advisor regarding any exchange control obligations that you may have prior to receiving proceeds from Dividend Equivalents, the sale of Shares or dividends. You must comply with any and all Argentine currency exchange restrictions, approvals and reporting requirements in connection with your participation in the Plan and the Program.

Foreign Asset/Account Reporting Information. If you are an Argentine resident, you are required to report certain information regarding any Shares you hold as of December 31 each year to the Argentine tax authorities on your annual tax return.

AUSTRALIA

NOTIFICATIONS

Australia Offer Document. This grant of Units is being made under Division 1A, Part 7.12 of the Corporations Act 2001 (Cth).

Please note that if you offer Shares for sale to a person or entity resident in Australia, the offer may be subject to disclosure requirements under Australian law. You should obtain legal advice on your disclosure obligations prior to making any such offer.

Tax Information. Subdivision 83A-C of the Income Tax Assessment Act 1997 (Cth) applies to the Performance Units granted under the Plan, such that the Performance Units are intended to be subject to deferred taxation.

Exchange Control Information. If you are an Australian resident, exchange control reporting is required for cash transactions exceeding AUD10,000 and for international fund transfers. If an Australian bank is assisting with the transaction, the bank will file the report on your behalf. If there is no Australian bank involved in the transfer, you will be required to file the report.

AUSTRIA

NOTIFICATIONS

Foreign Asset/Account Reporting Information. If you are an Austrian resident and you hold Shares acquired under the Plan and the Program outside of Austria, you may be subject to reporting obligations to the Austrian National Bank.

Exchange Control Information. A separate reporting requirement applies when you sell Shares acquired under the Plan and the Program, receive a cash Dividend paid on such Shares or Dividend Equivalents paid in cash. In that case, there may be exchange control obligations if the cash proceeds are held outside of Austria. If the transaction volume of all cash accounts abroad meets or exceeds a specified threshold, the movements and balances of all accounts must be reported monthly, as of the last day of the month, on or before the 15th day of the following month, on the prescribed form (*Meldungen SI-Forderungen und/oder SI-Verpflichtungen*).

BELGIUM

NOTIFICATIONS

Tax Reporting; Foreign Asset/Account Reporting Information. If you are a Belgian resident, you are required to report any taxable income attributable to the Award granted hereunder on your annual tax return. You are also required to report any securities (*e.g.*, Shares acquired

under the Plan and the Program) held and bank accounts (including brokerage accounts) opened and maintained outside of Belgium on your annual tax return. The first time you report the foreign security and/or bank account on your annual income tax return you will have to provide the National Bank of Belgium Central Contact Point with the account details of any such foreign accounts (including the account number, bank name and country in which such account was opened) in a separate form. This report, as well as information on how to complete it, can be found on the website of the National Bank of Belgium, www.nbb.be, under the *Kredietcentrales / Centrales des crédits* caption.

Stock Exchange Tax Information. A stock exchange tax applies to transactions executed by a Belgian resident through a non-Belgian financial intermediary, such as a U.S. broker. The stock exchange tax likely will apply when Shares acquired under the Plan and the Program are sold. It is your responsibility to comply with this tax obligation and you should consult your personal tax advisor for additional details on your obligations with respect to the stock exchange tax.

Annual Securities Accounts Tax Information. An annual securities accounts tax may be payable if the total value of securities held in a Belgian or foreign securities account (e.g., Shares acquired under the Plan and the Program) exceeds a certain threshold on four reference dates within the relevant reporting period (i.e., December 31, March 31, June 30 and September 30). In such case, the tax will be due on the value of the qualifying securities held in such account. It is your responsibility to comply with this obligation and you should consult with your personal tax or financial advisor for additional details.

BRAZIL

TERMS AND CONDITIONS

Compliance with Law. By accepting the Performance Units, you acknowledge that you agree to comply with applicable Brazilian laws and pay any and all applicable taxes associated with the vesting of the Performance Units, the sale of Shares acquired under the Plan and the Program, the payment of Dividends on such Shares and the receipt of any Dividend Equivalents paid in cash.

Nature of Grant. This provision supplements Section IX of the Agreement:

In accepting the grant of Performance Units, you acknowledge (i) that you are making an investment decision, (ii) that the Shares will be issued to you only if the vesting conditions are met and any necessary services are rendered by you during the vesting period set forth in the Vesting Schedule, and (iii) that the value of the underlying Shares is not fixed and may increase or decrease in value over the vesting period without compensation to you.

NOTIFICATIONS

Exchange Control Information. If you are resident or domiciled in Brazil, you will be required to submit annually a declaration of assets and rights held outside of Brazil to the Central Bank of Brazil if the aggregate value of such assets and rights on December 31 of each year exceeds US$1,000,000. If such amount exceeds US$100,000,000, the referenced declaration must be submitted quarterly, in the month following the end of each quarter. Assets and rights that must be reported include the following: (i) bank deposits; (ii) loans; (iii) financing transactions; (iv) leases; (v) direct investments; (vi) portfolio investments, including Shares acquired under the Plan and the Program; (vii) financial derivatives investments; and (viii) other investments, such as real estate. Please note that foreign individuals holding Brazilian visas are considered Brazilian residents for purposes of this reporting requirement and must declare at least the assets held abroad that were acquired subsequent to the date of admittance as a resident of Brazil.

Individuals holding assets and rights outside of Brazil valued at less than US$1,000,000 are not required to submit a declaration.

BULGARIA

Foreign Asset/Account Reporting Information. You will be required to annually file statistical forms with the Bulgarian National Bank regarding your receivables in bank accounts abroad as well as your securities abroad (*e.g.*, Shares acquired under the Plan) if the total sum of all such receivables and securities equals or exceeds BGN 50,000 as of the previous calendar year-end. The reports are due by March 31. You should contact your bank in Bulgaria for additional information regarding this requirement.

CANADA

TERMS AND CONDITIONS

Termination of Service. This provision supplements Section IX(j) of the Agreement:

in the event of involuntary termination of your employment (regardless of the reason for such termination and whether or not later found to be invalid or unlawful, including for breaching employment laws in the jurisdiction where you are employed or the terms of your employment agreement, if any), your right to receive an Award and vest in such Award under the Plan and the Program, if any, will terminate effective as of the date that is the earlier of: (1) the date you receive written notice of termination of employment from the Company or your Employer, or (2) the date you are no longer actively employed by the Company or your Employer regardless of any period during which notice, pay in lieu of notice or related payments or damages are provided or required to be provided under local law. Your right, if any, to acquire Shares pursuant to an Award after termination of employment will be measured by the date of termination of your active employment and will not be extended by any notice period mandated under local law. You will not earn or be entitled to any pro-rated vesting for that portion of time before the date on which your right to vest terminates, nor will you be entitled to any compensation for lost vesting. Notwithstanding the foregoing, if applicable employment standards legislation explicitly requires continued vesting during a statutory notice period, your right to vest in the Performance Units, if any, will terminate effective as of the last day of your minimum statutory notice period, but you will not earn or be entitled to pro-rated vesting if the vesting date falls after the end of your statutory notice period, nor will you be entitled to any compensation for lost vesting;

Form of Settlement - Performance Units Payable Only in Shares. Notwithstanding any discretion in Section 9.5 of the Plan or the Program or anything to the contrary in the Agreement, the Award does not provide any right for you, as a resident of Canada, to receive a cash payment and shall be paid in Shares only.

The following provision will apply to you if you are a resident of Quebec:

French Language Documents. A French translation of this document and certain other documents related to this Award will be made available to Participant as soon as reasonably practicable. Participant understands that, from time to time, additional information related to the Award may be provided in English and such information may not be immediately available in French. However, upon request, the Company will provide a translation of such information into French as soon as reasonably practicable. Notwithstanding anything to the contrary in the Agreement, and unless Participant indicates otherwise, the French translation of this document and certain other documents related to the Award will govern Participant’s participation in the Plan.

Data Privacy Notice. This provision supplements Section XV of the Agreement:

You hereby authorize the Company and the Company's representative to discuss with and obtain all relevant information from all personnel (professional or not) involved in the administration of the Plan and the Program. You further authorize the Company, your Employer and Merrill Lynch Bank & Trust Co., FSB (or any other stock plan service provider) to disclose and discuss your participation in the Plan with their advisors. You also authorize the Company and your Employer to record such information and keep it in your file.

NOTIFICATIONS

Securities Law Information. You are permitted to sell Shares acquired through the Plan through the designated broker appointed under the Plan, if any, provided that the resale of such Shares takes place outside of Canada through the facilities of a stock exchange on which the Shares are listed (*e.g.*, the Nasdaq Global Select Market).

Foreign Asset/Account Reporting Information. Specified foreign property, including Shares, stock options and other rights to receive Shares (*e.g.*, Performance Units) of a non-Canadian company held by a Canadian resident employee generally must be reported annually on a Form T1135 (Foreign Income Verification Statement) if the total cost of the employee's specified foreign property exceeds C$100,000 at any time during the year. Thus, such stock options and Performance Units must be reported – generally at nil cost – if the C$100,000 cost threshold is exceeded because other specified foreign property is held by the employee. When Shares are acquired, their cost generally is the adjusted cost base ("ACB") of the Shares. The ACB ordinarily would equal the fair market value of the Shares at the time of acquisition, but if the employee owns other shares of the same company, this ACB may have to be averaged with the ACB of the other shares.

CHINA

TERMS AND CONDITIONS

The following terms apply only to individuals who are subject to exchange control restrictions in the People's Republic of China (the "PRC"), as determined by the Company in its sole discretion:

Vesting of the Performance Units. Notwithstanding anything to the contrary in Article 7.1 of the Program, if your employment with the Company or an Affiliate terminates at any time during the Performance Period, you shall forfeit all Performance Units.

Sale Requirement. Notwithstanding anything to the contrary in the Agreement, due to exchange control laws in the PRC, you agree that the Company reserves the right to require the immediate sale of any Shares acquired upon settlement of the Performance Units. You understand and agree that any such immediate sale of Shares will occur as soon as is practical following settlement of the Performance Units. Alternatively, if the Shares are not immediately sold upon settlement of the Performance Units, the Company will require the sale of any Shares you may then hold within six (6) months (or such other period as may be required under applicable legal or exchange control requirements) following the termination of your employment with the Company, including its Affiliates.

You agree that the Company is authorized to instruct Merrill Lynch Bank & Trust Co., FSB or such other designated broker as may be selected by the Company to assist with the sale of the Shares on your behalf pursuant to this authorization, and you expressly authorize such broker to

complete the sale of such Shares. You also agree to sign any agreements, forms and/or consents that may be reasonably requested by the Company (or the Company's designated broker) to effectuate the sale of the Shares (including, without limitation, as to the transfers of the proceeds and other exchange control matters noted below) and to otherwise cooperate with the Company with respect to such matters, provided that you shall not be permitted to exercise any influence over how, when or whether the sales occur. Upon the sale of the Shares, you will receive the cash proceeds from the sale, less any applicable Tax Obligations, brokerage fees or commissions, in accordance with applicable exchange control laws and regulations.

You acknowledge that Merrill Lynch Bank & Trust Co., FSB or such other designated broker as may be selected by the Company is under no obligation to arrange for the sale of the Shares at any particular price. Due to fluctuations in the Share price and/or applicable exchange rates between the settlement date and (if later) the date on which the Shares are sold, the amount of proceeds ultimately distributed to you may be more or less than the market value of the Shares on the settlement date (which is the amount relevant to determining your liability for Tax Obligations). You understand and agree that the Company is not responsible for the amount of any loss that you may incur and that the Company assumes no liability for any fluctuations in the Share price and/or any applicable exchange rate.

Designated Broker Account. If Shares issued upon the settlement of the Performance Units are not immediately sold, you acknowledge that you are required to maintain the Shares in an account with Merrill Lynch Bank & Trust Co., FSB or such other designated broker as may be selected by the Company until the Shares are sold through such Company-designated broker.

Exchange Control Requirements. You understand and agree that, pursuant to local exchange control requirements, you will be required to repatriate the cash proceeds from the sale of the Shares issued upon settlement of the Performance Units and from the receipt of any Dividends or Dividend Equivalents to China. You further understand that, under applicable laws, such repatriation of your cash proceeds will need to be effectuated through a special exchange control account established by the Company or any Affiliate, including your Employer, and you hereby consent and agree that any proceeds may be transferred to such special account prior to being delivered to you. You also understand that the Company will deliver the proceeds to you as soon as possible, but that there may be delays in distributing the funds to you due to exchange control requirements in China. Proceeds may be paid to you in U.S. dollars or local currency at the Company's discretion. If the proceeds are paid to you in U.S. dollars, you will be required to set up a U.S. dollar bank account in China so that the proceeds may be deposited into this account. If the proceeds are paid to you in local currency, the Company is under no obligation to secure any particular currency conversion rate and the Company may face delays in converting the proceeds to local currency due to exchange control restrictions. You further agree to comply with any other requirements that may be imposed by the Company in the future in order to facilitate compliance with exchange control requirements in China.

COLOMBIA

TERMS AND CONDITIONS

Labor Law Acknowledgement. The following provision supplements Section IX of the Agreement:

You acknowledge that pursuant to Article 15 of Law 50/1990 (Article 128 of the Colombian Labor Code), the Plan, the Program and related benefits do not constitute a component of "salary" for any purpose. Therefore, they are considered to be of an extraordinary nature and will not be included and/or considered for purposes of calculating any and all labor benefits, such as

legal/fringe benefits, vacations, indemnities, payroll taxes, social insurance contributions and/or any other labor-related amounts, subject to the limitations provided in Law 1393/2010.

NOTIFICATIONS

Securities Law Information. The Shares are not and will not be registered with the Colombian registry of publicly traded securities (*Registro Nacional de Valores y Emisores*) and therefore the Shares may not be offered to the public in Colombia. Nothing in this document should be construed as the making of a public offer of securities in Colombia.

Exchange Control Information. Investment in assets located abroad (such as Shares acquired under the Plan and the Program) does not require prior approval from the Central Bank (Banco de la República). Nonetheless, such investments are subject to registration before the Central Bank as foreign investments held abroad, regardless of value. In addition, you must file an annual informative return with the local tax authority detailing assets you hold abroad, which must include the Shares acquired at vesting (every year as long as you keep them). This obligation is only applicable if the assets held abroad exceed the amount of 2,000 Tax Units (approx. US $22.000).

Any payments for your investment originating in Colombia (and the liquidation of such investments) must be transferred through the Colombian foreign exchange market (*e.g.*, local banks), which includes the obligation to correctly complete and file the appropriate foreign exchange form (*declaración de cambio*).

Foreign Asset/Account Reporting Notice. An annual information return may need to be filed with the Colombian Tax Office detailing any assets held abroad (including Shares acquired under the Plan). If the individual value of any of these assets exceeds a certain threshold, each asset must be described (*e.g.*, its nature and its value) and the jurisdiction in which it is located must be disclosed. It is your responsibility to comply with this tax reporting requirement.

CROATIA

NOTIFICATIONS

Exchange Control Information. Croatian residents may be required to report any foreign investments (including Shares acquired under the Plan and the Program) to the Croatian National Bank for statistical purposes. You should be aware that exchange control regulations in Croatia are subject to frequent change and you are solely responsible for ensuring your continued compliance with current Croatian exchange control laws.

CZECH REPUBLIC

NOTIFICATIONS

Exchange Control Information. A Czech resident may be required to notify the Czech National Bank ("CNB") of the acquisition of Shares under the Plan or maintenance of a foreign account if (i) he or she maintains foreign direct investments with a value of 2,500,000 Kč or more in the aggregate, (ii) he or she maintains other foreign financial assets with a value of 200,000,000 Kč or more, or (iii) the Czech resident is specifically requested to do so by the CNB.

DENMARK

TERMS AND CONDITIONS

Danish Stock Option Act. In accepting the Performance Units, you acknowledge that you have received an Employer Statement translated into Danish, which is being provided to comply with the Danish Stock Option Act. To the extent more favorable to you and required to comply with the Stock Option Act, as amended with effect from January 1, 2019.

NOTIFICATIONS

Foreign Asset/Account Reporting Information. The requirement to report certain information to the Danish Tax Administration via Form V or K was eliminated effective January 1, 2019. However, you still must report the foreign bank/brokerage accounts and their deposits, and Shares held in a foreign bank or brokerage account in your tax return under the section on foreign affairs and income.

EGYPT

NOTIFICATIONS

Exchange Control Information. If you transfer funds into Egypt in connection with the Performance Units, you are required to transfer the funds through a registered bank in Egypt.

FINLAND

NOTIFICATIONS

Foreign Asset/Account Reporting Information. There are no specific reporting requirements with respect to foreign assets/accounts. However, please note that you must check your pre-completed tax return to confirm that the ownership of Shares and other securities (foreign or domestic) are correctly reported. If you find any errors or omissions, you must make the necessary corrections electronically or by sending specific paper forms to the local tax authorities.

FRANCE

TERMS AND CONDITIONS

Language Consent. By accepting the Award, you confirm having read and understood the Plan and Agreement which were provided in the English language. You accept the terms of these documents accordingly.

Consentement Relatif à la Langue Utilisée. *En acceptant l'prix, vous confirmez avoir lu et compris le Plan et le Contrat, qui ont été communiqués en langue anglaise. Vous acceptez les termes de ces documents en connaissance de cause.*

NOTIFICATIONS

Foreign Asset/Account Reporting Information. French residents and non-residents must declare to the Customs Authorities the cash and securities they import or export without the use of a financial institution when the value of such cash or securities exceeds €10,000. French residents also must report all foreign bank and brokerage accounts on an annual basis (including accounts opened or closed during the tax year) on Form N° 3916, together with the income tax return. Failure to comply could trigger significant penalties.

GERMANY

NOTIFICATIONS

Foreign Asset/Account Reporting Information. If your acquisition of Shares under the Plan leads to a qualified participation at any point during the calendar year, you will need to report the acquisition when you file your tax return for the relevant year. A qualified participation is attained only in the unlikely event (i) you own at least 1% of the Company and the value of the Shares acquired exceeds €150,000 or (ii) you hold Shares exceeding 10% of the Company's total Common Stock.

Exchange Control Information. Cross-border payments in excess of €12,500 must be reported monthly to the German Federal Bank (*Bundesbank*). In case of payments in connection with securities (including proceeds realized upon the sale of Shares or the receipt of Dividends or Dividend Equivalents), the report must be made by the 5th day of the month following the month in which the payment was received and must be filed electronically. The form of report (*Allgemeines Meldeportal Statistik*) can be accessed via the Bundesbank's website (www.bundesbank.de) and is available in both German and English. In addition, you may be required to report the acquisition or sale of Shares to the *Bundesbank* if the value of the Shares acquired or sold exceeds €12,500. You are responsible for satisfying any applicable reporting obligation.

GREECE

NOTIFICATIONS

Foreign Asset/Account Reporting Information. The reporting of foreign assets (including Shares and other investments) is your own obligation and takes place through your annual tax return.

HONG KONG

TERMS AND CONDITIONS

Form of Settlement - Performance Units Payable Only in Shares. Notwithstanding any discretion in Section 9.5 of the Plan or the Program or anything to the contrary in the Agreement, the Award does not provide any right for you, as a resident of Hong Kong, to receive a cash payment and shall be paid in Shares only.

Sale of Shares. Shares received at vesting are accepted as a personal investment. In the event that Shares are issued in respect of Performance Units within six (6) months of the Grant Date, you agree that you will not offer to the public or otherwise dispose of such Shares prior to the six (6)-month anniversary of the Grant Date.

NOTIFICATIONS

SECURITIES WARNING: *The contents of this document have not been reviewed by any regulatory authority in Hong Kong. You should exercise caution in relation to the offer. If you are in doubt about any of the contents of the Agreement, including this Appendix, or the Plan, you should obtain independent professional advice. The Performance Units and any Shares issued in respect of the Performance Units do not constitute a public offering of securities under Hong Kong law and are available only to members of the Board and Employees. The Agreement, including this Appendix, the Plan and other incidental communication materials have not been prepared in accordance with and are not intended to constitute a "prospectus" for*

a public offering of securities under the applicable securities legislation in Hong Kong. The Performance Units and any documentation related thereto are intended solely for the personal use of each member of the Board and/or Employee and may not be distributed to any other person.

HUNGARY

There are no country-specific provisions.

ICELAND

NOTIFICATIONS

Exchange Control Information. Approval by the Central Bank of Iceland is no longer required to participate in the Plan and the Program, regardless of the value of the Shares acquired under the Plan and the Program. Despite the recent relaxation of the exchange control requirements, you should consult with your personal advisor to ensure compliance with applicable exchange control regulations in Iceland as such regulations are subject to frequent change. You are responsible for ensuring compliance with all exchange control laws in Iceland.

INDIA

NOTIFICATIONS

Exchange Control Information. You understand that you must repatriate any cash Dividends paid on Shares acquired under the Plan and the Program to India or any Dividend Equivalents paid in cash, as well as any proceeds from the sale of Shares within a prescribed period of time (currently, within one hundred and eighty (180) days of receipt of cash Dividends or Dividend Equivalents, and within ninety (90) days of receipt of sale proceeds), or such other period of time as may be required under applicable regulations. You will receive a foreign inward remittance certificate ("FIRC") from the bank where you deposit the foreign currency, and you must maintain the FIRC as proof of repatriation of funds in the event that the Reserve Bank of India or your Employer requests proof of repatriation. It is your responsibility to comply with these requirements.

Foreign Asset/Account Reporting Information. You are required to declare foreign bank accounts and any foreign financial assets (including Shares held outside of India) in your annual tax return. It is your responsibility to comply with this reporting obligation and you should consult your personal tax advisor in this regard.

IRELAND

TERMS AND CONDITIONS

Nature of Grant. This provision supplements Section IX of the Agreement:

In accepting the grant of Performance Units, you acknowledge that the benefits received under the Plan will not be taken into account for any redundancy or unfair dismissal claim.

ITALY

TERMS AND CONDITIONS

Nature of Grant. In accepting the grant of Performance Units, you acknowledge that (1) you have received a copy of the Plan, the Program, the Agreement and this Appendix; (2) you have reviewed the applicable documents in their entirety and fully understand the contents thereof; and (3) you accept all provisions of the Plan, the Program, the Agreement and this Appendix.

You further acknowledge that you have read and specifically and explicitly approve, without limitation, the following sections of the Agreement: Section III, Section IV, Section V, Section IX, Section IV, Section XVI, Section XX and the Data Privacy Notice for All European Economic Area ("EEA") / European Union ("EU") Jurisdictions, United Kingdom and Switzerland in this Appendix.

NOTIFICATIONS

Foreign Asset/Account Reporting Information. Italian residents who, at any time during the fiscal year, hold foreign financial assets (including cash and Shares) which may generate income taxable in Italy are required to report these assets on their annual tax returns (UNICO Form, RW Schedule) for the year during which the assets are held, or on a special form if no tax return is due. These reporting obligations will also apply to Italian residents who are the beneficial owners of foreign financial assets under Italian money laundering provisions.

Foreign Financial Assets Tax. The fair market value of any Shares held outside of Italy is subject to a foreign assets tax at a flat rate. The market value is considered to be the value of the Shares on the Nasdaq Global Select Market on December 31 of the applicable year in which you held the Shares (or when the Shares are acquired during the course of the year, the tax is levied in proportion to the actual days of holding over the calendar year). No tax payment duties arise if the amount of the foreign financial assets tax calculated on all financial assets held abroad does not exceed a certain threshold. You should consult with your personal tax advisor about the foreign financial assets tax.

JAPAN

NOTIFICATIONS

Foreign Asset/Account Reporting Information. You will be required to report to the Japanese tax authorities details of any assets held outside of Japan as of December 31st (including any Shares acquired under the Plan and the Program) to the extent such assets have a total net fair market value exceeding ¥50,000,000. Such report will be due by March 15 each year. You should consult with your personal tax advisor as to whether the reporting obligation applies to you and whether you will be required to include in the report details of any Shares or cash that you hold.

KOREA

NOTIFICATIONS

Foreign Asset/Account Reporting Information. You are required to declare all foreign financial accounts (*e.g.* non-Korean bank accounts, brokerage accounts holding Shares, etc.) to the Korean tax authority and file a report regarding such accounts if the monthly balance of such accounts exceeds a certain threshold. It is your responsibility to comply with this reporting obligation and you should consult your personal tax advisor to ensure compliance with this requirement.

LITHUANIA

NOTIFICATIONS

Foreign Asset/Account Reporting Information. If you (i) hold certain job positions established by the law or (ii) donate to political parties or political campaigners, you must file an Annual Asset Return of the Individual (Family) in Form No. FR0001 with respect to assets held outside of Lithuania (*e.g.*, Shares). If you open an account in a foreign financial institution and annual turnover in the account exceeds EUR 15,000, you must file a foreign account report.

MEXICO

TERMS AND CONDITIONS

Acknowledgement of the Grant. In accepting the Award granted hereunder, you acknowledge that you have received a copy of the Plan and the Program, have reviewed the Plan and the Program and the Agreement, including this Appendix, in their entirety and fully understand and accept all provisions of the Plan, the Program and the Agreement, including this Appendix. You further acknowledge that you have read and specifically and expressly approve the terms and conditions of Section IX of the Agreement, in which the following is clearly described and established:

(1) Your participation in the Plan and the Program do not constitute an acquired right.

(2) The Plan and your participation in the Plan and the Program are offered by Amgen Inc. on a wholly discretionary basis.

(3) Your participation in the Plan and the Program is voluntary.

(4) Amgen Inc. and its Affiliates are not responsible for any decrease in the value of any Shares issued with respect to the Award.

Labor Law Acknowledgement and Policy Statement. In accepting any Award granted hereunder, you expressly recognize that Amgen Inc., with registered offices at One Amgen Center Drive, Thousand Oaks, California 91320, U.S.A., is solely responsible for the administration of the Plan and that your participation in the Plan and acquisition of Shares do not constitute an employment relationship between you and Amgen Inc. since you are participating in the Plan on a wholly commercial basis and your sole employer is Amgen Mexico S.A. de C.V. ("Amgen-Mexico"). Based on the foregoing, you expressly recognize that the Plan and the Program and the benefits that you may derive from participation in the Plan and the Program do not establish any rights between you and your Employer, Amgen-Mexico, and do not form part of the employment conditions and/or benefits provided by Amgen-Mexico and any modification of the Plan or its termination shall not constitute a change or impairment of the terms and conditions of your employment.

You further understand that your participation in the Plan and the Program is as a result of a unilateral and discretionary decision of Amgen Inc.; therefore, Amgen Inc. reserves the absolute right to amend and/or discontinue your participation in the Plan at any time without any liability to you.

Finally, you hereby declare that you do not reserve to yourself any action or right to bring any claim against Amgen Inc. for any compensation or damages regarding any provision of the Plan or the benefits derived under the Plan, and you therefore grant a full and broad release to Amgen Inc., its Affiliates, stockholders, officers, agents or legal representatives with respect to any claim that may arise.

Spanish Translation

Reconocimiento del Otorgamiento. Al aceptar cualquier Otorgamiento de Acciones bajo el presente documento, usted reconoce que ha recibido una copia del Plan y del Programa, que ha revisado el Plan y el Programa, así como también el Apéndice en su totalidad, además que comprende y está de acuerdo con todas las disposiciones tanto del Plan, del Programa y del Otorgamiento, incluyendo este Apéndice. Asimismo, usted reconoce que ha leído y manifiesta específicamente y expresamente la conformidad con los términos y condiciones establecidos en la Sección IX del Acuerdo del Otorgamiento, en los que se establece y describe claramente que:

(1) Su participación en el Plan y en el Programa de ninguna manera constituye un derecho adquirido.

(2) Su participación en Plan y en el Programa son ofrecidos por Amgen Inc. de forma completamente discrecional.

(3) Su participación en el Plan y en el Programa es voluntaria.

(4) Amgen Inc. y sus Afiliados no son responsables de ninguna disminución en el valor de las Acciones Comunes emitidas mediante el Plan.

Reconocimiento de la Ley Laboral y Declaración de Política. Al aceptar cualquier Otorgamiento bajo el presente, usted reconoce expresamente que Amgen Inc., con oficinas registradas localizadas en One Amgen Center Drive, Thousand Oaks, California 91320, U.S.A., es la única responsable de la administración del Plan y que su participación en el mismo y la adquisición de Acciones Comunes no constituyen de ninguna manera una relación laboral entre usted y Amgen Inc., debido a que su participación en el Plan es únicamente una relación comercial y que su único empleador es Amgen Mexico S.A. de C.V. ("Amgen-Mexico"). Derivado de lo anterior, usted reconoce expresamente que el Plan y el Programa y los beneficios a su favor que pudieran derivar de la participación en el mismo, no establecen ningún derecho entre usted y su empleador, Amgen – México, y no forman parte de las condiciones laborales y/o los beneficios otorgados por Amgen – México, y cualquier modificación del Plan o la terminación del mismo no constituirá un cambio o desmejora de los términos y condiciones de su trabajo.

Asimismo, usted entiende que su participación en el Plan y en el Programa es resultado de la decisión unilateral y discrecional de Amgen Inc., por lo tanto, Amgen Inc. se reserva el derecho absoluto de modificar y/o descontinuar su participación en el Plan en cualquier momento y sin ninguna responsabilidad para usted.

Finalmente, usted manifiesta que no se reserva ninguna acción o derecho que origine una demanda en contra de Amgen Inc., por cualquier compensación o daños y perjuicios, en relación con cualquier disposición del Plan o de los beneficios derivados del mismo, y en consecuencia usted exime amplia y completamente a Amgen Inc. de toda responsabilidad, como así también a sus Afiliadas, accionistas, directores, agentes o representantes legales con respecto a cualquier demanda que pudiera surgir.

NOTIFICATIONS

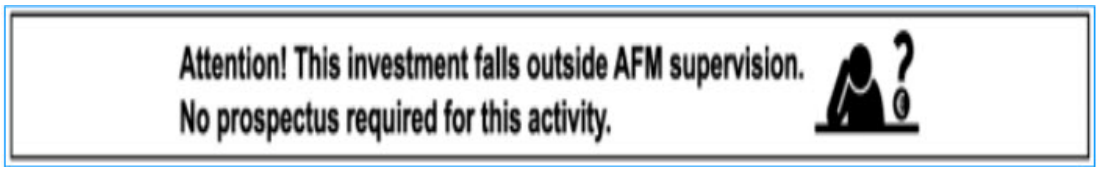
Securities Law Information. The Performance Units and the Shares offered under the Plan have not been registered with the National Register of Securities maintained by the Mexican National Banking and Securities Commission and cannot be offered or sold publicly in Mexico. In addition, the Plan, the Agreement and any other document relating to the Performance Units may not be publicly distributed in Mexico. These materials are addressed to you only because of your

existing relationship with the Company and your Employer and these materials should not be reproduced or copied in any form. The offer contained in these materials does not constitute a public offering of securities but rather constitutes a private placement of securities addressed specifically to individuals who are present employees of Amgen-Mexico made in accordance with the provisions of the Mexican Securities Market Law, and any rights under such offering shall not be assigned or transferred.

NETHERLANDS

NOTIFICATIONS

Securities Law Information.



NORWAY

NOTIFICATIONS

Foreign Asset/Account Reporting Information. Norwegian residents may be subject to foreign asset reporting as part of their ordinary tax return. Norwegian banks, financial institutions, limited companies etc. must report certain information to the Tax Administration. Such information may then be pre-completed in a Norwegian resident's tax return. However, if the resident has traded, or is the owner of, financial instruments (*e.g.*, Shares) not pre-completed in the tax return, the Norwegian resident must enter this information in Form RF-1159, which is an appendix to the tax return.

Exchange Control Information. In general, Norwegian residents should not be subject to any foreign exchange requirements in connection with their acquisition or sale of Shares under the Plan, except normal reporting requirements to the Norwegian Currency Registry. If any transfer of funds into or out of Norway is made through a Norwegian bank, the bank will make the registration.

POLAND

NOTIFICATIONS

Foreign Asset/Account Reporting Information. Polish residents holding foreign securities (including Shares) and maintaining accounts abroad must file reports with the National Bank of Poland if the aggregate value of Shares and cash held in such foreign accounts exceeds PLN 7,000,000. If required, the reports are due on a quarterly basis by the 20th day following the end of each quarter and must be filed on special forms available on the website of the National Bank of Poland.

Exchange Control Information. In addition, Polish residents are required to transfer funds through a bank account in Poland if the transferred amount in any single transaction exceeds a specified threshold (currently €15,000 (or PLN 15,000 if such transfer of funds is associated with the business activity of a consultant)). You must store all documents connected with any foreign

exchange transactions you engage in for a period of five (5) years from the end of the year when such transactions were made. Penalties may apply for failure to comply with exchange control requirements.

PORTUGAL

TERMS AND CONDITIONS

Consent to Receive Information in English. You hereby expressly declare that you have full knowledge of the English language and have read, understood and fully accepted and agreed with the terms and conditions established in the Plan, the Program and Agreement.

Conhecimento da Lingua. *Por meio do presente, eu declaro expressamente que tem pleno conhecimento da língua inglesa e que li, compreendi e livremente aceitei e concordei com os termos e condições estabelecidas no Plano, no Programa e no Acordo.*

ROMANIA

NOTIFICATIONS

Exchange Control Information. Certain transfers of funds may need to be reported to the National Office for Prevention and Control of Money Laundering on specific forms by the relevant bank or financial institution. If you deposit proceeds from the sale of Shares or the receipt of Dividends or Dividend Equivalents in a bank account in Romania, you may be required to provide the Romanian bank assisting with the transaction with appropriate documentation explaining the source of the income. You should consult with a legal advisor to determine whether you will be required to submit such documentation to the Romanian bank.

RUSSIA

TERMS AND CONDITIONS

Exchange Control Requirements. You may be required to repatriate certain cash amounts received with respect to the Award to Russia (*e.g.*, cash Dividends, sale proceeds) as soon as you intend to use those cash amounts for any purpose, including reinvestment. If the repatriation requirement applies, such funds must initially be credited to you through a foreign currency account at an authorized bank in Russia. After the funds are initially received in Russia, they may be further remitted to foreign banks in accordance with Russian exchange control laws. Under the Directive N 5371-U of the Russian Central Bank (the "CBR"), the repatriation requirement may not apply in certain cases with respect to cash amounts received in an account that is considered by the CBR to be a foreign brokerage account. Statutory exceptions to the repatriation requirement also may apply.

The exchange control rules and regulations in Russia, including temporary restrictions imposed by the Russian government in March 2022, are subject to frequent change. You should consult with your personal legal advisor to determine the applicability of any repatriation requirements applicable to any Shares or cash received in connection with the Plan and held in an account outside Russia.

Securities Law Requirements. The Award granted hereunder, the Agreement, including this Appendix, the Program, the Plan and all other materials you may receive regarding your participation in the Plan and the Program or the Award granted hereunder do not constitute

advertising or an offering of securities in Russia. The issuance of Shares in respect of the Award has not and will not be registered in Russia; therefore, such Shares may not be offered or placed in public circulation in Russia.

In no event will Shares acquired under the Plan and the Program be delivered to you in Russia; all Shares will be maintained on your behalf in the United States.

You are not permitted to sell any Shares acquired under the Plan and the Program directly to a Russian legal entity or resident.

Labor Law Acknowledgement. You acknowledge that if you continue to hold Shares acquired under the Plan and the Program after an involuntary termination of your employment, you will not be eligible to receive unemployment benefits in Russia.

Data Privacy Notice. The following provision supplements Section XV of the Agreement:

You understand and agree that you must complete and return a Consent to Processing of Personal Data (the "Consent") form to the Company. Further, you understand and agree that if you do not complete and return a Consent form to the Company, the Company will not be able to administer or maintain the Performance Units. Therefore, you understand that refusing to complete a Consent form or withdrawing your consent may affect your ability to participate in the Plan.

NOTIFICATIONS

Foreign Asset/Account Reporting Information. Russian residents are required to file the following reports or notifications with the Russian tax authorities, if applicable: (i) annual cash flow reporting for an offshore brokerage account (due by June 1 each year for the previous year, with the first reporting due by June 1, 2022 for calendar year 2021); (ii) financial asset (including Shares) reporting for an offshore brokerage account (due by June 1 each year for the previous year, with the first reporting due by June 1, 2022 for calendar year 2021); and (ii) a one-time notification within one (1) month of opening, closing, or changing details of an offshore brokerage account. You are encouraged to contact your personal tax advisor before remitting your proceeds from participation in the Plan to Russia to ensure compliance with applicable requirements.

Anti-Corruption Legislation Information. Individuals holding public office in Russia, as well as their spouses and dependent children, may be prohibited from opening or maintaining a foreign brokerage or bank account and holding any securities, whether acquired directly or indirectly, in a foreign company (including Shares acquired under the Plan and the Program). You should consult with your personal legal advisor to determine whether this restriction applies to your circumstances.

SINGAPORE

TERMS AND CONDITIONS

Restriction on Sale and Transferability. You hereby agree that any Shares acquired pursuant to the Performance Units will not be offered for sale in Singapore prior to the six (6)-month anniversary of the Grant Date, unless such sale or offer is made pursuant to one or more exemptions under Part XIII Division 1 Subdivision (4) (other than section 280) of the Securities and Futures Act (Chap. 289, 2006 Ed.) ("SFA"), or pursuant to, and in accordance with the conditions of, any other applicable provisions of the SFA.

NOTIFICATIONS

Securities Law Information. The grant of the Performance Units is being made pursuant to the "Qualifying Person" exemption under section 273(1)(f) of the SFA, on which basis it is exempt from the prospectus and registration requirements under the SFA, and is not made with a view to the Performance Units being subsequently offered for sale to any other party. The Plan has not been, and will not be, lodged or registered as a prospectus with the Monetary Authority of Singapore.

Director Notification Requirement. Directors (including alternate, substitute, associate and shadow directors) of a Singapore Affiliate are subject to certain notification requirements under the Singapore Companies Act , regardless of whether they are resident or employed in Singapore. Directors of a Singapore Affiliate must notify the Singapore Affiliate in writing of an interest (*e.g.*, Performance Units, Shares, etc.) in the Company or any related company within two (2) business days of (i) its acquisition or disposal, (ii) any change in a previously disclosed interest (*e.g.*, when the Shares are sold), or (iii) becoming a director.

SLOVAK REPUBLIC

NOTIFICATIONS

Foreign Asset/Account Reporting Notice. Slovak Republic residents who carry on business activities as an independent entrepreneur (in Slovakian, *podnikatel*), must report foreign assets (including any Shares) to the National Bank of Slovakia (provided that the value of the foreign assets exceeds an amount of EUR 2,000,000). These reports must be submitted on a monthly basis by the 15th day of the respective calendar month, as well as on a quarterly basis by the 15th day of the calendar month following the respective calendar quarter, using notification form DEV (NBS) 1-12, which may be found at the National Bank of Slovakia's website at www.nbs.sk.

SLOVENIA

There are no country-specific provisions.

SPAIN

TERMS AND CONDITIONS

Labor Law Acknowledgement. The following provision supplements Section IX of the Agreement:

By accepting the Award granted hereunder, you consent to participation in the Plan and the Program and acknowledge that you have received a copy of the Plan and the Program.

You understand that the Company has unilaterally, gratuitously and in its sole discretion decided to grant the Award under the Plan and the Program to individuals who may be members of the Board or Employees of the Company or its Affiliates throughout the world. The decision is a limited decision that is entered into upon the express assumption and condition that the Awards granted will not economically or otherwise bind the Company or any of its Affiliates on an ongoing basis, other than as expressly set forth in the applicable Agreement, including this Appendix. Consequently, you understand that the Award granted hereunder is given on the assumption and condition that it shall not become a part of any employment contract (either with the Company or any of its Affiliates) and shall not be considered a mandatory benefit, salary for any purposes (including severance compensation) or any other right whatsoever. Further, you understand and freely accept that there is no guarantee that any benefit whatsoever shall arise

from any gratuitous and discretionary grant of the Award since the future value of the Award and any Shares that may be issued in respect of such Award is unknown and unpredictable. In addition, you understand that the Award granted hereunder would not be made but for the assumptions and conditions referred to above; thus, you understand, acknowledge and freely accept that, should any or all of the assumptions be mistaken or should any of the conditions not be met for any reason, then the grant of the Award or right to the Award shall be null and void.

Further, the vesting of the Performance Units is expressly conditioned your continued and active rendering of service, such that if your employment terminates for any reason whatsoever, the Performance Units may cease vesting immediately, in whole or in part, effective on the date of your termination of employment (unless otherwise specifically provided in Section I of the Agreement). This will be the case, for example, even if (1) you are considered to be unfairly dismissed without good cause (*i.e.*, subject to a "despido improcedente"); (2) you are dismissed for disciplinary or objective reasons or due to a collective dismissal; (3) you terminate service due to a change of work location, duties or any other employment or contractual condition; (4) you terminate service due to a unilateral breach of contract by the Company or an Affiliate; or (5) your employment terminates for any other reason whatsoever. Consequently, upon termination of your employment for any of the above reasons, you may automatically lose any rights to Performance Units that were not vested on the date of your termination of employment, as described in the Plan and the Agreement.

You acknowledge that you have read and specifically accept the conditions referred to in Section I of the Agreement.

NOTIFICATIONS

Securities Law Information. No "offer of securities to the public," as defined under Spanish law, has taken place or will take place in the Spanish territory. The Agreement (including this Appendix) has not been nor will it be registered with the *Comisión Nacional del Mercado de Valores*, and does not constitute a public offering prospectus.

Exchange Control Information. If you acquire Shares under the Plan, you must declare the acquisition to the *Direccion General de Comercio e Inversiones* ("DGCI"). If you acquire the Shares through the use of a Spanish financial institution, that institution will automatically make the declaration to the DGCI for you; otherwise, you will be required to make the declaration by filing a D-6 form. You must declare ownership of any Shares with the DGCI each January while the Shares are owned and must also report, in January, any sale of Shares that occurred in the previous year for which the report is being made, unless the sale proceeds exceed the applicable threshold, in which case the report is due within one (1) month of the sale.

Foreign Asset/Account Reporting Information. You are required to declare electronically to the Bank of Spain any securities accounts (including brokerage accounts held abroad), as well as the Shares held in such accounts if the value of the transactions during the prior tax year or the balances in such accounts as of December 31 of the prior tax year exceed €1,000,000.

To the extent that you hold Shares and/or have bank accounts outside of Spain with a value in excess of €50,000 (for each type of asset) as of December 31 each year, you will be required to report information on such assets in your tax return (tax form 720) for such year. After such Shares and/or accounts are initially reported, the reporting obligation will apply for subsequent years only if the value of any previously-reported Shares or accounts increases by more than €20,000 or if you sell or otherwise dispose of previously-reported Shares or accounts. If the value of such Shares and/or accounts as of December 31 does not exceed €50,000, a summarized form of declaration may be presented.

SWEDEN

TERMS AND CONDITIONS

Authorization to Withhold. This provision supplements Section III of the Agreement:

Without limiting the Company's and the Employer's authority to satisfy their withholding obligations for Tax Obligations as set forth in the Agreement, in accepting the Performance Units, you authorize the Company to withhold Shares or to sell Shares otherwise issuable to you upon vesting or settlement to satisfy Tax Obligations, regardless of whether the Company and/or Employer have an obligation to withhold such Tax Obligations, provided that such withholding would not, in the Company's determination, result in adverse accounting consequences to the Company

SWITZERLAND

NOTIFICATIONS

Securities Law Information. Neither this document nor any other materials relating to the Performance Units (i) constitutes a prospectus according to articles 35 et seq. of the Swiss Federal Act on Financial Services ("FinSA"), (ii) may be publicly distributed or otherwise made publicly available to any person other than an employee of the Company or one of its Subsidiaries in Switzerland or (iii) has been or will be filed with, approved or supervised by any Swiss reviewing body according to article 51 of FinSA or any Swiss regulatory authority, including the Swiss Financial Market Supervisory Authority.

TAIWAN

NOTIFICATIONS

Exchange Control Information. You may acquire and remit foreign currency (including proceeds from the sale of Shares or the receipt of Dividends or Dividend Equivalents) up to US$5,000,000 per year without justification. If the transaction amount is TWD500,000 or more in a single transaction, you must submit a Foreign Exchange Transaction Form. If the transaction amount is US$500,000 or more in a single transaction, you must also provide supporting documentation to the satisfaction of the remitting bank.

THAILAND

NOTIFICATIONS

Exchange Control Information. If proceeds from the sale of Shares or the receipt of any Dividends or Dividend Equivalents exceed US$1,000,000, you must (i) immediately repatriate such funds to Thailand and (ii) report the inward remittance to the Bank of Thailand on a Foreign Exchange Transaction Form. In addition, within three hundred and sixty (360) days of repatriation, you must either convert any funds repatriated to Thailand to Thai Baht or deposit the funds in a foreign exchange account with a Thai commercial bank. Any such commercial bank must be duly authorized by the Bank of Thailand to engage in the purchase, exchange and withdrawal of foreign currency.

UNITED ARAB EMIRATES

NOTIFICATIONS

Securities Law Information. Performance Units under the Plan are available only to Participants under the Program and are for the purpose of providing equity incentives. The Plan, the Program and the Agreement are intended for distribution only to such Participants and must not be delivered to, or relied on by, any other person. You should conduct your own due diligence on the Performance Units offered pursuant to this Agreement. If you do not understand the contents of the Plan and/or the Agreement, you should consult an authorized financial adviser. The Emirates Securities and Commodities Authority and the Dubai Financial Services Authority have no responsibility for reviewing or verifying any documents in connection with the Plan. Further, the Ministry of the Economy and the Dubai Department of Economic Development have not approved the Plan or the Agreement nor taken steps to verify the information set out therein, and have no responsibility for such documents.

UNITED KINGDOM

TERMS AND CONDITIONS

Tax Withholding. This provision supplements Section V of the Agreement:

Without limitation to Section V of the Agreement, you agree that you are liable for all Tax Obligations and hereby covenant to pay all such Tax Obligations as and when requested by the Company or your Employer or by Her Majesty's Revenue and Customs ("HMRC") (or any other tax authority or any other relevant authority). You also agree to indemnify and keep indemnified the Company and your Employer against any taxes that they are required to pay or withhold or have paid or will pay to HMRC (or any other tax authority or any other relevant authority) on your behalf.

Notwithstanding the foregoing, if you are an executive officer or director (as within the meaning of Section 13(k) of the Exchange Act, as amended, from time to time), you understand that you may not be able to indemnify the Company or your Employer for the amount of income tax not collected from or paid by you, as it may be considered a loan. In the event that you are an executive officer or director and income tax is not collected from you within ninety (90) days after the end of the tax year in which the Taxable Event occurs, the amount of any uncollected income tax may constitute an additional benefit to you on which additional income tax and national insurance contributions ("NICs") may be payable. You acknowledge that you are responsible for reporting and paying any income tax due on this additional benefit directly to HMRC under the self-assessment regime and for paying your Employer for the amount of any NICs due on this additional benefit, which the Company or your Employer may obtain from you by any of the means set forth in Section V of the Agreement.

If the maximum applicable withholding rate is used, any over-withheld amount may be credited to you by the Company or your Employer (with no entitlement to the Common Stock equivalent) or if not so credited, you may seek a refund from the local tax authorities.

Joint Election. If you are a resident of the United Kingdom between the Grant Date and the vesting of the Performance Units, as a condition of the Award, you agree to accept any liability for secondary Class 1 National Insurance Contributions (the "Employer NICs") which may be payable by the Company or your Employer with respect to the earning and/or payment of the Performance Units and issuance of Shares in respect of the Performance Units, the assignment or release of the Performance Units for consideration or the receipt of any other benefit in connection with the Performance Units.

Without limitation to the foregoing, you agree to make an election (the "Election"), in the form specified and/or approved for such election by HMRC, that the liability for your Employer NICs

payments on any such gains shall be transferred to you to the fullest extent permitted by law. You further agree to execute such other elections as may be required between you and any successor to the Company and/or your Employer. You hereby authorize the Company and your Employer to withhold such Employer NICs by any of the means set forth in Section V of the Agreement.

Failure by you to enter into an Election, withdrawal of approval of the Election by HMRC or a joint revocation of the Election by you and the Company or your Employer, as applicable, shall be grounds for the forfeiture and cancellation of the Performance Units, without any liability to the Company or your Employer.

UNITED STATES

TERMS AND CONDITIONS

Nature of Grant. The following provision replaces Section IX(j) of the Award Agreement:

(j) in the event of termination of your employment (whether or not in breach of local labor laws), your right to receive Performance Units and receive Shares under the Plan and the Program, if any, will terminate effective as of the date that you are no longer actively employed; *provided*, *however*, that such right will be extended by any notice period mandated by law (*e.g*., the Worker Adjustment and Retraining Notification Act ("WARN Act") notice period or similar periods pursuant to local law) and any paid administrative leave (as applicable), unless the Company shall provide you with written notice otherwise before the commencement of such notice period or leave. In such event, payment of the Performance Units shall be made in accordance with Section IV; *provided*, *further*, *however*, that notwithstanding the effect of any such extension, subject to Section 4.2 of the Program, in no event will the Performance Units be paid later than the 90th day following the last day of the Performance Period.

FOURTH AMENDMENT TO THE
AMGEN INC. SUPPLEMENTAL RETIREMENT PLAN
AS AMENDED AND RESTATED EFFECTIVE OCTOBER 16, 2013

The Amgen Inc. Supplemental Retirement Plan, as Amended and Restated Effective October 16, 2013 (the "Plan"), is hereby amended, effective October 20, 2022, as follows:

1. Section 2.27 is amended by adding the following at the end thereof:

   If you were employed by ChemoCentryx, Inc. or any affiliate of ChemoCentryx, Inc. (collectively "ChemoCentryx") immediately preceding the Closing Date (as defined in the Agreement and Plan of Merger dated as of August 3, 2022, among ChemoCentryx, Inc., Amgen Inc. and Carnation Merger Sub, Inc.) and effective as of the Closing Date, your employment continues with ChemoCentryx or you transition to employment with the Company, then for purposes of calculating your Years of Service under the Plan, you will receive credit for your years of service with ChemoCentryx and with ChemoCentryx-recognized predecessors prior to the Closing Date.

To record this Fourth Amendment to the Amgen Inc. Supplemental Retirement Plan, as Amended and Restated Effective October 16, 2013, as set forth herein, the Company has caused its authorized officer to execute this document this 19th day of December, 2022.

AMGEN INC.

By: /s/ Derek Miller
Name: Derek Miller
Title: Senior Vice President, Human Resources

AMENDMENT NO. 1 TO THE CREDIT AGREEMENT

Dated as of December 29, 2022

AMENDMENT NO. 1 TO THE CREDIT AGREEMENT (this "**Amendment**") among Amgen Inc., a Delaware corporation (the "**Company**"), each financial institution whose name is set forth on the signature pages hereof as a Bank, Citibank, N.A. ("**Citibank**"), as the Administrative Agent and an Issuing Bank.

PRELIMINARY STATEMENTS:

(1) The Company, the Banks and the Administrative Agent have entered into that certain Second Amended and Restated Credit Agreement, dated as of December 12, 2019 (the "**Credit Agreement**"). Capitalized terms not otherwise defined in this Amendment have the same meanings as specified in the Credit Agreement.

(2) Pursuant to Section 3.8(e) of the Credit Agreement, the parties hereby agree to amend, consistent with the authority provided under such Section, the Credit Agreement and Exhibit E thereto as set forth in, and in accordance with the terms and conditions of, this Amendment (the Credit Agreement as so amended, the "**Amended Credit Agreement**").

SECTION 1. Amendments to Credit Agreement. In accordance with Section 3.8(e) of the Credit Agreement, the Administrative Agent has posted a copy of this Amendment on December 21, 2022 (the "Posting Date"). As of the Amendment Effective Date (as defined below), subject to the satisfaction of the conditions precedent set forth in Section 2 below, the Banks and the Company hereby agree to amend the Credit Agreement and Exhibit E thereto to delete the stricken text (indicated textually in the same manner as the following example: ~~stricken text~~) and to add the double-underlined text (indicated textually in the same manner as the following example: double-underlined text) as set forth in the pages of the Amended Credit Agreement attached as Annex A hereto and as set forth in the pages of the amended Exhibit E attached as Annex B hereto.

SECTION 2. Conditions of Effectiveness. This Amendment shall become effective on and as of the date hereof (the "Amendment Effective Date") on which each of the following conditions precedent shall have been satisfied or waived:

(a) The Administrative Agent shall have received counterparts of this Amendment executed by the Company and the Administrative Agent.

(b) The Administrative Agent shall not have received, within five Business Days of the Posting Date, a written notice from the Majority Banks stating that such Majority Banks object to this Amendment.

SECTION 3. Reference to and Effect on the Loan Documents. (a) On and after the effectiveness of this Amendment, each reference in the Credit Agreement to "this Agreement", "hereunder", "hereof" or words of like import referring to the Credit Agreement, and each reference in the other Loan Documents to "the Credit Agreement", "thereunder",

"thereof" or words of like import referring to the Credit Agreement, shall mean and be a reference to the Amended Credit Agreement.

(b) The Credit Agreement, as specifically amended by this Amendment, are and shall continue to be in full force and effect and are hereby in all respects ratified and confirmed.

(c) The execution, delivery and effectiveness of this Amendment shall not, except as expressly provided herein, operate as a waiver of any right, power or remedy of any Bank or the Administrative Agent under the Credit Agreement or any other Loan Document, nor constitute a waiver of any provision of the Credit Agreement or any other Loan Document.

(d) This Amendment is subject to the provisions of Section 13.2 of the Amended Credit Agreement.

SECTION 4. Costs and Expenses. The Company agrees to pay on demand all reasonable costs and expenses of the Administrative Agent (supported by invoices) in connection with the negotiation, preparation, execution and delivery of this Amendment (including, without limitation, the reasonable fees and expenses of Shearman & Sterling LLP and Davis Polk & Wardwell LLP) in accordance with the terms of Section 13.3 of the Amended Credit Agreement.

SECTION 5. Execution in Counterparts. This Amendment may be executed in any number of counterparts and any party hereto may execute any counterpart, each of which when executed and delivered will be deemed to be an original and all of which counterparts of this Amendment when taken together will be deemed to be but one and the same instrument. Delivery of an executed counterpart of a signature page to this Amendment by telecopier shall be effective as delivery of a manually executed counterpart of this Amendment. The words "execution," "signed," "signature," and words of like import in this Amendment shall be deemed to include electronic signatures or electronic records, each of which shall be of the same legal effect, validity or enforceability as a manually executed signature or the use of a paper-based recordkeeping system, as the case may be, to the extent and as provided for in any applicable law, including the Federal Electronic Signatures in Global and National Commerce Act, the New York State Electronic Signatures and Records Act, or any other similar state laws based on the Uniform Electronic Transactions Act.

SECTION 6. Governing Law. THIS AMENDMENT AND THE RIGHTS AND OBLIGATIONS OF THE PARTIES HEREUNDER SHALL BE GOVERNED BY, AND SHALL BE CONSTRUED AND ENFORCED IN ACCORDANCE WITH, THE INTERNAL LAWS OF THE STATE OF NEW YORK (INCLUDING SECTION 5-1401 OF THE GENERAL OBLIGATIONS LAW OF THE STATE OF NEW YORK) WITHOUT REGARD TO CONFLICTS OF LAWS PRINCIPLES.

[REMAINDER OF THIS PAGE IS LEFT BLANK INTENTIONALLY]

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be executed by their respective officers thereunto duly authorized, as of the date first above written.

THE COMPANY:

AMGEN INC.

By: /s/ Justin G. Claeys Name: Justin G. Claeys
Title: Vice President, Finance and Treasurer

CITIBANK, N.A., as Administrative Agent

By: /s/ Richard Rivera Name: Richard Rivera
Title: Vice President

ANNEX A

Amended Credit Agreement

#96432517v6

EXECUTION COPY

ANNEX A TO AMENDMENT NO. 1 DATED AS OF DECEMBER 29, 2022

SECOND AMENDED AND RESTATED CREDIT AGREEMENT

Dated as of December 12, 2019 among
Amgen Inc.,

The Borrowing Subsidiaries Herein Named, The Banks Herein Named,

Citibank, N.A.,
as Administrative Agent,

JPMorgan Chase Bank, N.A., as Syndication Agent,

Citibank, N.A.
JPMorgan Chase Bank, N.A. Barclays Bank PLC BofA Securities, Inc.
Goldman Sachs Bank USA and
Morgan Stanley Senior Funding, Inc.
as Joint Lead Arrangers and Joint Book Runners

Bank of America, N.A. Barclays Bank PLC
Goldman Sachs Bank USA and
Morgan Stanley Senior Funding, Inc. as Co-Documentation Agents

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SECOND AMENDED AND RESTATED CREDIT AGREEMENT

Dated as of December 12, 2019

This **SECOND AMENDED AND RESTATED CREDIT AGREEMENT** is dated as of December 12, 2019 and is entered into by and among Amgen Inc., a Delaware corporation (the **"Company"**), each financial institution whose name is set forth on the signature pages hereof as a Bank, Citibank, N.A. ("**Citibank**"), as the Administrative Agent and an Issuing Bank, and JPMorgan Chase Bank, N.**A. ("J PMorgan**"), as Syndication Agent.

PRELIMINARY STATEMENT.

The Company, the lenders parties thereto and Citibank, as administrative agent, are parties to that certain Amended and Restated Credit Agreement dated as of July 30, 2014 (as amended to date, the "**Existing Credit Agreement**"). Subject to the satisfaction of the conditions set forth in Section 3.1, the Company, the parties hereto and Citibank, as Administrative Agent, desire to amend and restate the Existing Credit Agreement as herein set forth. In consideration of the mutual covenants and agreements herein contained, the parties hereto covenant and agree as follows:

ARTICLE 1 ~~ARTICLE 1~~
~~DEFINITIONS AND ACCOUNTING TERMS~~DEFINITIONS AND ACCOUNTING TERMS

1.1 Defined Terms. As used in this Agreement, the following terms shall have the meanings set forth below:

"Additional Bank" has the meaning set forth in Section 2.8(b).

"Additional Commitment Bank" has the meaning set forth in Section 2.9(d).

"Adjusted Term SOFR" means, for purposes of any calculation, the rate per annum equal to (a) Term SOFR for such calculation plus (b) 0.10%; provided that if Adjusted Term SOFR as so determined shall ever be less than zero, such rate shall be deemed to be zero for the purposes of this Agreement.

"Adjusted Term SOFR Rate Advance" means an Advance that bears interest based on Adjusted Term SOFR. All Adjusted Term SOFR Advances shall be denominated in Dollars.

"Administrative Agent" means Citibank, when acting in its capacity as the administrative agent under any of the Loan Documents.

"Administrative Agent's Office" means the Administrative Agent's address as set forth on the signature pages of this Agreement, or such other address as the Administrative Agent hereafter may designate by written notice to the Company and the Banks.

"Administrative Questionnaire" means an Administrative Questionnaire in a form supplied by the Administrative Agent.

"Advance" means any Advance made or to be made by any Bank to any Borrower as provided in Article 2, and includes each Base Rate Advance and each ~~EURO~~Term Rate Advance.

"Affiliate" means, as to any Person, any other Person which directly or indirectly controls, or is under common control with, or is controlled by, such Person. As used in this definition, "control" (and the correlative terms, "contr olled by" and "under common control with") shall mean possession, directly or indirectly, of power to direct or cause the direction of management or policies (whether through ownership of securities or partnership or other ownership interests, by contract or otherwise).

"Agent Parties" has the meaning set forth in Section 13.7(d)(ii).

"Agreement" means this Second Amended and Restated Credit Agreement, either as originally executed or as it may from time to time be supplemented, modified, amended, restated or extended in accordance with Section 13.2.

"Agreement to Participate" means an Agreement to Participate, substantially in the form of Exhibit A.

"Alternative Currency" means Euro.

"Alternative Currency Equivalent" means, with respect to any amount denominated in Dollars on any date of determination, the amount of the Alternative Currency that could be purchased with such amount of Dollars using the reciprocal of the foreign exchange rate(s) specified in the definition of "Dollar Equivalent," as determined by the Administrative Agent.

"Alternative Currency Loan" means any Loan denominated in the Alternative Currency. Each Alternative Currency Loan must be composed of EURIBOR Rate Advances.

"Alternative Currency Payment Office" means such office of Citibank as shall be from time to time selected by the Administrative Agent and notified by the Administrative Agent to the Company and the Banks.

"Applicable Lending Office" means, as to each Bank, its office or branch so designated by written notice to the Company and the Administrative Agent as its Applicable Lending Office. If no Applicable Lending Office is designated by a Bank, its Applicable Lending Office shall be its office at its address for purposes of notices hereunder.

"Approved Fund" means any Fund that is administered or managed by (a) a Bank, (b) an Affiliate of a Bank or (c) an entity or an Affiliate of an entity that administers or manages a Bank.

"Arranger" means each of Citibank, JPMorgan, BofA Securities, Inc., Barclays Bank PLC, Goldman Sachs Bank USA and Morgan Stanley Senior Funding, Inc. when acting in its capacity as an arranger and a bookrunner under any of the Loan Documents.

"Assignment Agreement" means an Assignment Agreement in substantially the form of Exhibit F, executed by a Bank and an Eligible Assignee of all or part of that Bank's interest hereunder.

"Available Amount" of any Letter of Credit means, at any time, the maximum amount available to be drawn under such Letter of Credit at such time (assuming compliance at such time with all conditions to drawing).

"Bail-In Action" has the meaning set forth in Section 13.25.

"Bank" means the Persons identified as "Banks" and listed on the signature pages of this Agreement and each Eligible Assignee that shall become a party hereto pursuant to Section 13.9.

"Bank Insolvency Event" means that (a) a Bank or its Parent Company is insolvent, or is generally unable to pay its debts as they become due, or admits in writing its inability to pay its debts as they become due, or makes a general assignment for the benefit of its creditors, or (b) such Bank or its Parent Company is the subject of (i) a Bail-In Action or (ii) a bankruptcy, insolvency, reorganization, liquidation or similar proceeding, or a receiver, trustee, conservator, intervenor or sequestrator or the like has been appointed for such Bank or its Parent Company, or such Bank or its Parent Company has taken any action in furtherance of or indicating its consent to or acquiescence in any such proceeding or appointment.

"Banking Day" means (a) any Monday, Tuesday, Wednesday, Thursday or Friday, other than a day on which banks are authorized or required to be closed in California or New York and, (b) if used in relation to a ~~EURO~~EURIBOR Rate Advance, ~~is also a Eurocurrency Banking~~a TARGET Day.

"**Base Rate"**, for any day, means the highest of (i) the rate of interest in effect on such day as publicly announced by Citibank from time to time as its base commercial lending rate (such base rate is not intended to be the lowest rate of interest charged by Citibank) (the "Prime Rate"), (ii) the Federal Funds Effective Rate in effect on such day plus ~~1/2~~½ of 1% and
(iii) ~~the ICE Benchmark Administration Settlement Rate applicable to Dollars for a period of one month ("One Month LIBOR") plus 1.00% (for the avoidance of doubt, the One Month LIBOR for any day shall be based on the rate appearing on the Bloomberg BBAM Screen (or any successor thereto) that displays an average ICE Benchmark Administration Settlement Rate for deposits in Dollars with a term equivalent to such Interest Period at approximately 11:00 a.m. London time on such day); provided that if One Month LIBOR shall be less than zero, such rate shall be deemed to be zero for the purposes of this Agreement~~Adjusted Term SOFR for a one-month tenor in effect on such day plus 1.00%. Any change in the Base Rate due to a change in the Prime Rate, the Federal Funds Effective Rate or ~~One Month LIBOR~~Adjusted Term SOFR shall be effective on the effective day of such change in the Prime Rate, the Federal Funds Effective Rate or ~~One Month LIBOR~~Adjusted Term SOFR, respectively.

"Base Rate Advance" means an Advance made hereunder that bears interest as set forth in Section 3.1(b) and designated as a Base Rate Advance in accordance with Article 2.

"Beneficial Ownership Certification" means a certification regarding beneficial ownership as required by the Beneficial Ownership Regulation.

"Beneficial Ownership Regulation" means 31 C.F.R. § 1010.230. "Benefit Plan" means any of (a) an "employee benefit plan" (as defined in ERISA) that is subject to Title I of ERISA, (b) a "plan" as defined in and subject to Section 4975 of the Code or (c) any Person whose assets include (for purposes of ERISA Section 3(42) or otherwise for purposes of Title I of ERISA or Section 4975 of the Code) the assets of any such "employee benefit plan"or"plan".

"Borrower" means the Company and any Borrowing Subsidiary; "Borrowers" means the Company and each other Borrower, collectively.

"Borrowing Subsidiary" means any Eligible Subsidiary that has executed an Agreement to Participate pursuant to Section 12.1.

"Borrowing Subsidiary Obligations" has the meaning set forth in Section 11.1. **"Calculation Date"** means, in

respect of a EURIBOR Rate Advance, (a) the date

falling two Banking Days (or such other period as is customary in the relevant foreign exchange market for delivery on the date of the relevant Advance) prior to the date of each Advance,
(b) the date falling two Banking Days (or such other period as is customary in the relevant foreign exchange market for delivery on the date of the relevant conversion or continuation of a Loan) prior to the date of conversion or continuation of any Advance pursuant to Section 2.5, or
(c) such additional dates as the Administrative Agent or the Majority Banks shall specify or as any Borrower may reasonably request, in which case the Administrative Agent's specification shall prevail.

"Cash" means, when used in connection with any Person, all monetary and non-monetary items owned by that Person that are treated as cash in accordance with Generally Accepted Accounting Principles, except for amounts held by, or on deposit with, another Person as cash collateral or other security.

"Cash Collateralize" means, in respect of an obligation, provide and pledge (as a first priority perfected security interest) cash collateral in Dollars, at a location and pursuant to documentation in form and substance reasonably satisfactory to the Administrative Agent and each Issuing Bank (and "Cash Collateralization" has a corresponding meaning).

"Certificate of a Senior Officer" means a certificate signed by a Senior Officer of the Person providing the certificate.

"Citibank" has the meaning set forth in the introductory paragraph.

"Closing Date" means the time and Banking Day on which the conditions set forth in Section 8.1 are satisfied.

"Code" means the Internal Revenue Code of 1986, as amended or replaced and as in effect from time to time.

"Commitment" means the aggregate commitment of the Banks (i) to make Advances pursuant to Section 2.1(a) in an aggregate principal amount up to the Dollar Equivalent of $2,500,000,000 and (ii) to purchase an undivided interest in any Letters of Credit issued pursuant to Section 2.6(a), as the Commitment may be reduced in accordance with Section 2.4 or increased in accordance with Section 2.8. The respective Pro Rata Shares of the Banks on the Closing Date with respect to the Commitment are set forth in Schedule 2.1.

"Communications" has the meaning set forth in Section 13.7(d)(ii). "Company" has the meaning set forth in the introductory paragraph. "Compliance Certificate" means a certificate in the form of Exhibit C, properly completed and signed by a Senior Officer of the Company.

"Consolidated EBITDA" means, for any period, Consolidated Net Income for such period plus, without duplication and to the extent deducted in determining Consolidated Net Income for such period, the sum of (a) interest expense, (b) provision for taxes based on income, (c) depreciation expense, (d) amortization expense, (e) unusual or non-recurring charges, expenses or losses and (f) other non-cash charges, expenses or losses (excluding any such non-cash charge to the extent it represents an accrual or reserve for potential cash charge in any future period or amortization of a prepaid cash charge that was paid in a prior period), minus, to the extent included in determining Consolidated Net Income for such period, the sum of (i) unusual or non-recurring gains and non-cash income, (ii) any other non-cash income or gains increasing Consolidated Net Income for such period (excluding any such non-cash gain to the extent it represents the reversal of an accrual or reserve for potential cash charge in any prior period) and (iii) any gains realized from the disposition of property outside of the ordinary course of business, all as determined on a consolidated basis; provided, that the Consolidated EBITDA for any entity or business acquired by the Company or any Subsidiary pursuant to an acquisition the aggregate consideration for which equals or exceeds $1,000,000,000 during such period shall be included on a pro forma basis for such period (as determined in good faith by the Company, assuming the consummation of such acquisition and the incurrence or assumption of any indebtedness by the Company and its Subsidiaries in connection therewith incurred as of the first day of such period), and provided further that the Consolidated EBITDA for any entity or business sold or otherwise disposed of for aggregate consideration of $1,000,000,000 or more by the Company or any Subsidiary shall be deducted on a pro forma basis for such period (as determined in good faith by the Company, assuming the consummation of such sale or other disposition occurred on the first day of such period).

"Consolidated Interest Coverage Ratio" means, as of any date of determination, the ratio of (a) Consolidated EBITDA for the period of the four fiscal quarters most recently ended to (b) Consolidated Interest Expense for such period.

"Consolidated Interest Expense" means, for any period, total interest expense (including that attributable to leases recorded as Finance Leases in accordance with Generally Accepted Accounting Principles) of the Company and its Subsidiaries on a consolidated basis for such period with respect to all outstanding Indebtedness of the Company and its Subsidiaries.

"Consolidated Net Income" means, for any period, the consolidated net income (or loss) of the Company and its Subsidiaries on a consolidated basis; provided that there shall be excluded the income (or deficit) of any Person (other than a Subsidiary of the Company) in which the Company or any of its Subsidiaries has an ownership interest, except to the extent that any such income is actually received by the Company or such Subsidiary in the form of dividends or similar distributions.

"Consolidated Net Worth" means, as of any date of determination, the Shareholders' Equity of the Company and its Consolidated Subsidiaries on that date as set forth or reflected on the consolidated balance sheet of the Company and its Subsidiaries.

"Consolidated Subsidiary" means, as of any date of determination and with respect to any Person, any Subsidiary of that Person whose financial data is, in accordance with Generally Accepted Accounting Principles, reflected in that Person's consolidated financial statements.

"Consolidated Total Debt to Capitalization Ratio" means, as of any date of determination, the ratio of (a) Consolidated Total Debt to (b) Consolidated Capitalization.

"Contractual Obligation" means, as to any Person, any provision of any outstanding Securities issued by that Person or of any material agreement, instrument or undertaking to which that Person is a party or by which it or any of its Property is bound.

"Convert," "Conversion" and **"Converted"** each refers to a conversion of Advances of one Type into Advances of another Type pursuant to Section 2.5.

"Current ERISA Affiliate", as applied to any Person, means (i) any corporation which is a member of a controlled group of corporations within the meaning of Section 414(b) of the Code of which that Person is a member; (ii) any trade or business (whether or not incorporated) which is a member of a group of trades or businesses under common control within the meaning of Section 414(c) of the Code of which that Person is a member; and (iii) any member of an affiliated service group within the meaning of Section 414(m) or (o) of the Code of which that Person, any corporation described in clause (i) above or any trade or business described in clause (ii) above is a member.

"Daily Margin" means, for any date of determination, for the designated Level and the Type of Advance, the following interest rates per annum:

Daily Margin

~~Daily Margin~~

TYPE OF ADVANCE	
Base Rate	~~EURO~~Term

	Advance	Rate Advance
Level 1	0.000%	0.700%
Level 2	0.000%	0.805%
Level 3	0.000%	0.910%
Level 4	0.025%	1.025%
Level 5	0.125%	1.125%

For purposes of this definition, (a) if any change in the rating established by S&P or Moody's with respect to Long-Term Debt shall result in a change in the Level, the change in the Daily Margin shall be effective as of the date on which such rating change is publicly announced, and
(b) if the ratings established by both of S&P and Moody's with respect to Long-Term Debt are unavailable for any reason for any day, then the applicable level for such day shall be deemed to be Level 5 (or, if the Majority Banks consent in writing, such other Level as may be reasonably determined by the Majority Banks from a rating with respect to Long-Term Debt for such day established by another rating agency reasonably acceptable to the Majority Banks).

"Debtor Relief Laws" means the Bankruptcy Code of the United States of America, as amended from time to time, and all other applicable liquidation, conservatorship, bankruptcy, moratorium, rearrangement, receivership, insolvency, reorganization, or similar debtor relief Laws from time to time in effect affecting the rights of creditors generally.

"Default" means any Event of Default or any event that, with the giving of any applicable notice or passage of time specified in Section 9.1, or both, would be an Event of Default.

"Default Rate" means the interest rate described in Section 3.9.

"Defaulting Bank" means at any time, subject to Section 2.10(c), (i) any Bank that has failed for two or more Banking Days to comply with its obligations under this Agreement to make an Advance, make a payment to an Issuing Bank in respect of drawing under a Letter of Credit, or make any other payment due hereunder (each, a "funding obligation"), unless such Bank has notified the Administrative Agent and the Company in writing that such failure is the result of such Bank's determination that one or more conditions precedent to funding has not been satisfied (which conditions precedent, together with the applicable default, if any, will be specifically identified in such writing), (ii) any Bank that has notified the Administrative Agent, the Company or an Issuing Bank in writing, or has stated publicly, that it does not intend to comply with its funding obligations hereunder, unless such writing or statement states that such position is based on such Bank's determination that one or more conditions precedent to funding cannot be satisfied (which conditions precedent, together with the applicable default, if any, will be specifically identified in such writing or public statement), (iii) any Bank that has defaulted on its funding obligations under other loan agreements or credit agreements generally under which it has commitments to extend credit or that has notified, or whose Parent Company has notified, the Administrative Agent or the Company in writing, or has stated publicly, that it does not intend to comply with its funding obligations under loan agreements or credit agreements generally, (iv) any Bank that has, for two or more Banking Days after written request of the Administrative Agent or the Company, failed to confirm in writing to

the Administrative Agent and the Company that it will comply with its prospective funding obligations hereunder (provided that such Bank will cease to be a Defaulting Bank solely pursuant to this clause (iv) upon the Administrative Agent's and the Company's receipt of such written confirmation), or (v) any Bank with respect to which a Bank Insolvency Event has occurred and is continuing with respect to such Bank or its Parent Company; provided that a Bank Insolvency Event shall not be deemed to occur with respect to a Bank or its Parent Company solely as a result of the acquisition or maintenance of an ownership interest in such Bank or Parent Company by a Governmental Agency or instrumentality thereof where such action does not result in or provide such Bank with immunity from the jurisdiction of courts within the United States or from the enforcement of judgments or writs of attachment on its assets or permit such Bank (or such Governmental Agency or instrumentality) to reject, repudiate, disavow or disaffirm any contracts or agreements made with such Bank . Any determination by the Administrative Agent that a Bank is a Defaulting Bank under any of clauses (i) through (v) above will be conclusive and binding absent manifest error, and such Bank will be deemed to be a Defaulting Bank (subject to Section 2.10(c)) upon notification of such determination by the Administrative Agent to the Company, the Issuing Banks, and the Banks.

"Designated Deposit Account" means a deposit account designated by a Borrower in its Request for Loan submitted with respect to each Loan.

"Dollar Equivalent" means, as of any date of determination (a) with respect to any amount denominated in Dollars, such amount, and (b) with respect to any amount denominated in any currency other than Dollars, the amount of Dollars that would be required to purchase the amount of the Alternative Currency based on the spot rate for the purchase by Citibank of the Alternative Currency through its foreign exchange trading office prior to 11:00 A.M. (London time) on such date.

"Dollar Loan" means any Loan denominated in Dollars.

"Dollars" or "**$**" means United States Dollars.

"Eligible Assignee" means any Person that meets the requirements to be an assignee under Section 13.9(b)(iii), (v) and (vi) (subject to such consents, if any, as may be required under Section 13.9(b)(iii)).

"**Eligible Subsidiary**" means any of the wholly-owned Subsidiaries of the Company.

"Employee Benefit Plan" means any "employee benefit plan" as defined in Section 3(3) of ERISA which is, or was at any time, maintained or contributed to by the Company or with respect to any such plan that is subject to Section 302 of ERISA or Title IV of ERISA or Section 412 of the Code, any of its ERISA Affiliates.

"EMU" means the economic and monetary union in accordance with the Treaty of Rome 1957, as amended by the Single European Act 1986, the Maastrict Treaty of 1992 and the Amsterdam Treaty of 1998, as amended from time to time.

"EMU Legislation" means the legislative measures of the European Council for the introduction of, changeover to or operation of a single or unified European currency (whether known as the "euro" or otherwise).

"Environmental Laws" means all plans, policies or decrees binding on the Company and its Subsidiaries in accordance with applicable statutes, ordinances, orders, rules or regulations and all statutes, ordinances, orders, rules or regulations and the like, in each case, relating to (i) environmental matters, including, without limitation, those relating to fines, injunctions, penalties, damages, contribution, cost recovery compensation, losses or injuries resulting from the release or threatened release of hazardous materials, (ii) the generation, use, storage, transportation or disposal of hazardous materials, or (iii) occupational safety and health, industrial hygiene, land use or the protection of human, plant or animal health or welfare, in any manner applicable to the Company or any of its Subsidiaries or any of their respective properties, including, without limitation, the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. § 9601 et seq.), the Hazardous Materials Transportation Act (49 U.S.C.§ 1801 et seq.), the Resource Conservation and Recovery Act (42 U.S.C. § 6901 et seq.), the Federal Water Pollution Control Act (33 U.S.C. § 1251 et seq.), the Clean Air Act (42 U.S.C. § 7401 et seq.), the Toxic Substances Control Act (15 U.S.C. § 2601 et seq.), the Federal Insecticide, Fungicide and Rodenticide Act (7 U.S.C. §136 et seq.), the Occupational Safety and Health Act (29 U.S.C. § 651 et seq.) and the Emergency Planning and Community Right-to-Know Act (42 U.S.C. § 11001 et seq.), each as amended or supplemented, and any analogous future or present local, state and federal statutes and regulations promulgated pursuant thereto, each as in effect as of the date of determination.

"ERISA" means the Employee Retirement Income Security Act of 1974, and any regulations issued pursuant thereto, as amended or replaced and as in effect from time to time.

"ERISA Affiliate", as applied to any Person, means (i) any corporation which is, or was at any time, a member of a controlled group of corporations within the meaning of Section 414(b) of the Code of which that Person is, or was at any time, a member; (ii) any trade or business (whether or not incorporated) which is, or was at any time, a member of a group of trades or businesses under common control within the meaning of Section 414(c) of the Code of which that Person is, or was at any time, a member; and (iii) any member of an affiliated service group within the meaning of Section 414(m) or (o) of the Code of which that Person, any corporation described in clause (i) above or any trade or business described in clause (ii) above is, or was at any time, a member.

"ERISA Event" means (i) a "reportable event" within the meaning of Section 4043 of ERISA and the regulations issued thereunder with respect to any Pension Plan (excluding those for which the provision for 30-day notice to the PBGC, or the penalty for failure to provide such notice, has been waived by regulation or by PBGC technical update); (ii) the failure to meet the minimum funding standard of Sections 412 and 430 of the Code with respect to any Pension Plan (whether or not waived in accordance with Section 412(c) of the Code) or the failure to make by its due date a required installment under Section 430(j) of the Code with respect to any Pension Plan or the failure to make any required contribution to a Multiemployer Plan; (iii) the provision by the administrator of any Pension Plan pursuant to Section 4041(a)(2) of ERISA of a notice of intent to terminate such plan in a distress termination described in

Section 4041(c) of ERISA; (iv) the withdrawal by the Company or any of its ERISA Affiliates from any Pension Plan with two or more contributing sponsors or the termination of any such Pension Plan resulting in liability therefor pursuant to Sections 4063 or 4064 of ERISA; (v) the institution by the PBGC of proceedings to terminate under Section 4042 of ERISA any Pension Plan, or the occurrence of any event or condition which might constitute grounds under Section 4042 of ERISA for the termination of, or the appointment of a trustee to administer, any Pension Plan; (vi) the imposition of liability on the Company or any of its ERISA Affiliates pursuant to Section 4062(e) or 4069 of ERISA or by reason of the application of Section 4212(c) of ERISA;
(vii) the withdrawal by the Company or any of its ERISA Affiliates in a complete or partial withdrawal (within the meaning of Sections 4203 and 4205 of ERISA) from any Multiemployer Plan if there is any potential liability therefor, or the receipt by the Company or any of its ERISA Affiliates of notice from any Multiemployer Plan that it is in reorganization or insolvency pursuant to Section 4241 or 4245 of ERISA, or that it intends to terminate or has terminated under Section 4041A or 4042 of ERISA; (viii) the imposition on the Company or any of its ERISA Affiliates of fines, penalties, taxes or related charges under Chapter 43 of the Code or under Section 409 or 502(c), (i) or (l) or 4071 of ERISA in respect of any Pension Plan; (ix) the assertion of a material claim (other than routine claims for benefits) against any Pension Plan or the assets thereof, or against the Company or any of its ERISA Affiliates in connection with any such Pension Plan; (x) receipt from the Internal Revenue Service of notice of the failure of any Pension Plan (or any other Employee Benefit Plan intended to be qualified under Section 401(a) of the Code) to qualify under Section 401(a) of the Code, or the failure of any trust forming part of any Pension Plan to qualify for exemption from taxation under Section 501(a) of the Code; or (xi) the conditions for imposition of a Lien under Section 303(k) of ERISA shall have been met with respect to any Pension Plan.

"EURIBOR Rate" means, for any Interest Period for each EURIBOR Rate Advance, an interest rate per annum equal to the offered quotation which appears on the page of the Bloomberg Screen which displays an average rate of the Banking Federation of the EMU for the Euro for such period at or about 10:00 a.m. (London time) two ~~Eurocurrency~~ Banking Days before the first day of such Interest Period or, if such page or such service shall cease to be available, such other page or such other service for the purpose of displaying an average rate of the Banking Federation of the EMU as the Administrative Agent, after consultation with the Banks and the Company, shall reasonably select; provided that if the EURIBOR Rate shall be less than zero, such rate shall be deemed to be zero for the purposes of this Agreement.

"EURIBOR Rate Advance" means an Advance in Euros which bears interest at a rate per annum determined on the basis of the EURIBOR Rate. All EURIBOR Rate Advances shall be denominated in Euros.

"Euro" and **"€"** means the lawful currency of the Participating Member States introduced in accordance with the EMU Legislation.

~~"EURO~~ Rate Advance" means, as the context may require, a Eurodollar ~~Rate Advance or a EURIBOR Rate Advance.~~

~~"Eurocurrency Banking Day" means (a) if such day relates to any Eurodollar Rate Advance, any Banking Day on which dealings in Dollar deposits are conducted by and~~

among banks in the London interbank offer market for Dollar deposits or (b) if such day ~~relates to any EURIBOR Rate Advance, a TARGET Day.~~

~~"Eurocurrency Lending Office" means, as to each Bank, its office or branch so~~ designated by written notice to the Company and the Administrative Agent as its ~~Eurocurrency Lending Office. If no Eurocurrency Lending Office is designated by a Bank, its Eurocurrency Lending Office shall be its office at its address for purposes of notices hereunder.~~

"Eurocurrency Market" means, with respect to any EURO Rate Advance, the London ~~interbank offer market for Dollar and Euro deposits.~~

"Eurodollar Rate" means, for any Interest Period for each Eurodollar Rate Advance, an ~~interest rate per annum equal to the offered rate (if any) appearing on the Bloomberg~~ BBAM Screen (or any successor thereto) which displays ICE Benchmark Administration Settlement Rates for deposits of Dollars for a period equal to the Interest Period relating to that Advance at or about 11:00 a.m. (London time) two Eurocurrency Banking Days ~~before the first day of such Interest Period with respect to each Eurodollar Rate Advance~~ or, if such page or such service shall cease to be available, such other page or such other ~~service for the purpose of displaying an average rate for deposits of Dollars in the London~~ interbank market as the Administrative Agent, after consultation with the Banks and the ~~Company, shall reasonably select; provided that if the Eurodollar Rate shall be less than zero, such rate shall be deemed to be zero for the purposes of this Agreement.~~

"~~Eurodollar~~ Rate Advance" means an Advance that bears interest based on the ~~Eurodollar Rate. All Eurodollar Rate Advances shall be denominated in Dollars.~~

"Event of Default" shall have the meaning provided in Section 9.1. **"Excluded Taxes"** has the meaning set forth in Section 3.12(d)(i).

"Existing Credit Agreement" has the meaning set forth in the preliminary statement.

"Extending Bank" has the meaning set forth in Section 2.9(e).

"Extension Date" has the meaning set forth in Section 2.9(a).

"FATCA" means Sections 1471 through 1474 of the Code, as of the date of this Agreement (or any amended or successor version that is substantively comparable and not materially more onerous to comply with), any current or future regulations or official interpretations thereof, any agreements entered into pursuant to Section 1471(b)(1) of the Code, any published intergovernmental agreement entered into in connection with the implementation of such Sections of the Code and any fiscal or regulatory legislation, rules or practices adopted pursuant to such published intergovernmental agreements.

"Federal Funds Effective Rate" means for any day, the rate per annum (expressed, as a decimal, rounded upwards, if necessary, to the next higher 1/100 of 1%) equal to

the rate on overnight federal funds transactions with members of the Federal Reserve System, as published by the Federal Reserve Bank of New York on the Banking Day next succeeding such day; provided that (i) if such day is not a Banking Day, the Federal Funds Effective Rate for such day shall be such rate on such transactions on the next preceding Banking Day as so published on the next succeeding Banking Day, and (ii) if no such rate is so published on such next succeeding Banking Day, the Federal Funds Effective Rate for such day shall be the average rate charged to Administrative Agent, in its capacity as a Bank, on such day on such transactions as determined by the Administrative Agent; provided that if the Federal Funds Effective Rate shall be less than zero, such rate shall be deemed to be zero for the purposes of this Agreement.

"Finance Lease" means, as to any Person, a lease of any Property by that Person as lessee that is, or should be recorded as a "finance lease" on the balance sheet of that Person prepared in accordance with Generally Accepted Accounting Principles.

"Fiscal Quarter" means the fiscal quarter of the Company consisting of a three month fiscal period ending on each March 31, June 30, September 30 and December 31.

"Fiscal Year" means the fiscal year of the Company consisting of a twelve month fiscal period ending on each December 31.

"Foreign Bank" has the meaning set forth in Section 13.27(a)(i).

"Fronting Exposure" means, at any time there is a Defaulting Bank with respect to any Issuing Bank, such Defaulting Bank's Pro Rata Share of the LC Obligations with respect to Letters of Credit issued by such Issuing Bank, other than LC Obligations as to which such Defaulting Bank's participation obligation has been reallocated to other Banks or Cash Collateralized in accordance with the terms hereof.

"Fund" means any Person (other than a natural person) that is (or will be) engaged in making, purchasing, holding or otherwise investing in commercial loans and similar extensions of credit in the ordinary course of its business.

"Generally Accepted Accounting Principles" means generally accepted accounting principles in the United States of America. The term "Generally Accepted Accounting Principles" shall be read in each instance as if the words "consistently applied" followed immediately thereafter, meaning that the accounting principles applied are consistent in all material respects (except for changes concurred in by the Company's independent public accountants) to those applied at prior dates or for prior periods.

"Governmental Agency" means (a) any foreign, federal, state, county or municipal government, or political subdivision thereof, (b) any governmental or quasi-governmental agency, authority, board, bureau, commission, department, instrumentality or public body, (c) any court or administrative tribunal or (d) with respect to any Person, any arbitration tribunal or other nongovernmental authority to whose jurisdiction that Person has consented.

"Guaranty" has the meaning set forth in Section 11.1.

"Hostile Acquisition" means the acquisition of over 50% of the capital stock or other equity interests of a Person (the "Target") through a tender offer or similar solicitation of the owners of such capital stock or other equity interests which has not been approved (prior to such acquisition) by resolutions of the Board of Directors or shareholders of the Target or by similar action if the Target is not a corporation and as to which such approval has not been withdrawn.

"Increase Date" has the meaning set forth in Section 2.8(c).

"Increased Commitment" has the meaning set forth in Section 2.8(a). "**Indebtedness"** means, as to any Person, (a) all indebtedness of such Person for borrowed money, (b) that portion of the obligations of such Person under Finance Leases which is properly recorded as a liability on a balance sheet of that Person prepared in accordance with Generally Accepted Accounting Principles, (c) to the extent of the outstanding Indebtedness thereunder, any obligation of such Person that is evidenced by a promissory note or other similar instrument representing an extension of credit to such Person, whether or not for borrowed money, (d) any obligation of such Person for the deferred purchase price of Property or services (other than trade or other accounts payable in the ordinary course of business), (e) any obligation of such Person of the nature described in clauses (a), (b), (c) or (d) above that is secured by a Lien on assets of such Person, whether or not that Person has assumed such obligation or whether or not such obligation is non-recourse to the credit of such Person, but only to the extent of the lesser of the face amount of the obligation or the fair market value of the assets so subject to the Lien, (f) obligations of such Person arising under acceptance facilities or under facilities for the discount of accounts receivable of such Person, (g) any obligation of such Person to reimburse the issuer of any letter of credit issued for the account of such Person upon which and only to the extent a draw has been made and (h) in the case of the Company, the net obligations of the Company under Swap Agreements. Notwithstanding the provisions listed above, Indebtedness shall not include any intercompany loans made by the Company to a Subsidiary or by any Subsidiary to another Subsidiary or by any Subsidiary to the Company. As of any date of determination, the amount of the Company's Indebtedness with respect to (1) Swap Agreements shall be equal to the net marked-to-market value (if negative) for the Company for all such Swap Agreements taken as a whole and (2) obligations under clause (d) shall be the stated balance sheet amount of such obligations, determined on a consolidated basis in accordance with Generally Accepted Accounting Principles, of the Company and its Consolidated Subsidiaries on that date.

"Indemnified Taxes" has the meaning set forth in Section 3.12(d)(i). **"Indemnitees"** has the meaning set forth in Section ~~3.12~~13.12.

"Inter bank Market" means, with respect to EURIBOR Rate Advances, the applicable interbank offer market for Euro deposits.

"Interest Period" means, as to each EUROTerm Rate Advance, the period commencing on the date specified by the Borrower of such Advance pursuant to Section 2.1(b) and ending 1, 3 or 6 months thereafter ~~(or (i) in the case of EURO Rate Advances denominated~~

~~in Dollars, 2 months or (ii) if agreed to by all Banks, 12 months or a period of shorter than 1 month)~~, as specified by the applicable Borrower in the applicable Request for Loan; provided that:

~~(a)~~ (a) The first day of any Interest Period shall be a ~~Eurocurrency~~ Banking Day;

~~(b)~~ (b) Any Interest Period that would otherwise end on a day that is not a ~~Eurocurrency~~ Banking Day shall be extended to the next succeeding ~~Eurocurrency~~ Banking Day unless such ~~Eurocurrency~~ Banking Day falls in another calendar month, in which case such Interest Period shall end on the next preceding ~~Eurocurrency~~ Banking Day; and

~~(c)~~ (c) No Interest Period shall extend beyond the final Maturity Date.

"Issue" means the issuance or extension of, or amendment to, any Letter of Credit.

"Issuing Bank" means Citibank, JPMorgan, Bank of America, N.A., Barclays Bank PLC, Goldman Sachs Bank USA, Morgan Stanley Bank, N.A. and any other Bank acceptable to the Company and the Administrative Agent that agrees in writing to perform the duties of an Issuing Bank under this Agreement.

"J PMorgan" has the meaning set forth in the introductory paragraph.

"Laws" means, collectively, all foreign, federal, state and local statutes, treaties, rules, regulations, ordinances, codes and administrative or controlling precedents of any Governmental Agency.

"LC Commitment" means, with respect to each Issuing Bank, the amount set forth on Schedule 2.1 or such other amount as may be agreed by such Issuing Bank and the Company from time to time. Each Issuing Bank's LC Commitment is part of, and not in addition to, its respective Pro Rata Share of the Commitment.

"LC Issuance Fee" means a fee payable to the applicable Issuing Bank as provided in Section 3.4.

"LC Obligations" means, as of any date, the aggregate Available Amount of outstanding Letters of Credit and Advances made by an Issuing Bank in accordance with Section 2.6 that have not been funded by the Banks and, in the case of any Letters of Credit denominated in Euro, shall be the Alternate Currency Equivalent in Dollars of such amount, determined as of the third Banking Day prior to such date.

"LC Reimbursement Fee" means a fee payable to the Administrative Agent, for the pro rata benefit of the Banks, as provided in Section 3.5.

"Letters of Credit" means any letters of credit issued by an Issuing Bank pursuant to Section 2.6(a), either as originally executed or as the same may from time to time be supplemented, modified, reviewed, extended or supplanted.

"Level" means Level 1, Level 2, Level 3, Level 4 or Level 5, as the case may be, provided, however that if, as of any date of determination, (a) there is a one Level difference between (x) the Level that would be applicable if such Level were determined solely by reference to the rating assigned by S&P (the **"Hypothetical S&P Level"**) and (y) the Level that would be applicable if such Level were determined solely by reference to the rating assigned by Moody's (the **"Hypothetical Moody's Level"**) then the "Level" for such date shall be deemed to be the higher of the Hypothetical S&P Level and the Hypothetical Moody's Level and (b) there is a two Level or more difference between the Hypothetical S&P Level and the Hypothetical Moody's Level, then the "Level" for such date shall be deemed to be the middle Level between the Hypothetical S&P Level and the Hypothetical Moody's Level, and if such middle Level does not exist, then the "Level" for such date shall be deemed to be the lower of the middle two Levels between the Hypothetical S&P Level and the Hypothetical Moody's Level (for these purposes Level 1 being higher than Level 2, etc.).

"Level 1" means that, as of any date of determination, the Long-Term Debt carries either of the following ratings:

"A+" or higher from S&P "A1" or higher from Moody's.

"Level 2" means that, as of any date of determination, the criteria of Level 1 are not satisfied and the Long-Term Debt carries either of the following ratings:

"A" from S&P
"A2" from Moody's.

"Level 3" means that, as of any date of determination, the criteria of neither Level 1 nor Level 2 are satisfied and the Long-Term Debt carries either of the following ratings:

"A-" from S&P "A3" from Moody's.

"Level 4" means that, as of any date of determination, the criteria of none of Level 1, Level 2 or Level 3 are satisfied and the Long-Term Debt carries either of the following ratings:

"BBB+" from S&P "Baa1" from Moody's.

"Level 5" means that, as of any date of determination, the criteria of none of Level 1, Level 2, Level 3 or Level 4 are satisfied.

"Lien" means any mortgage, deed of trust, pledge, hypothecation, assignment for security, security interest, encumbrance, lien or charge of any kind, whether voluntarily incurred

or arising by operation of Law or otherwise, affecting any Property, including any agreement to grant any of the foregoing, any conditional sale or other title retention agreement, any lease in the nature of a security interest, and/or the filing of or agreement to give any financing statement (other than a precautionary financing statement with respect to a lease that is not in the nature of a security interest) under the Uniform Commercial Code or comparable Law of any jurisdiction with respect to any Property.

"Loan" means any group of Advances made at any one time by the Banks pursuant to Article 2.

"Loan Documents" means, collectively, this Agreement, the Notes, any Request for Loan, any Agreement to Participate, any Letter of Credit, and any Request for Letter of Credit, in each case either as originally executed or as the same may from time to time be supplemented, modified, amended, restated, extended or supplanted.

"Long-Term Debt" means senior, unsecured, long-term-debt securities of the Company.

"Majority Banks" means, as of any date of determination, Banks to which more than 50% of the aggregate Total Outstandings is owed or, if Total Outstandings at such time are zero, Banks whose aggregate Pro Rata Shares are greater than 50% of the Commitment then in effect; provided that if any Bank shall be a Defaulting Bank at such time, there shall be excluded from the determination of Majority Banks at such time the Total Outstandings owed to such Defaulting Bank at such time or, if the Total Outstandings at such time are zero, the Pro Rata Share of the Commitment of such Bank at such time, as applicable. For purposes of this definition, Total Outstandings in respect of the then undrawn portion of outstanding Letters of Credit and unreimbursed drawings under Letters of Credit shall be deemed to be owing to each Bank ratably in accordance with their respective Pro Rata Shares.

"Material Adverse Effect" means a circumstance or set of circumstances or events affecting the business, financial condition or operations of the Company and its Subsidiaries, taken as a whole, that have a material adverse effect, individually or in the aggregate, upon the ability (i) of the Company and its Subsidiaries, taken as a whole, to perform under the Loan Documents or (ii) of the Banks to enforce, the Obligations under the Loan Documents.

"Maturity Date" means December 12, 2024, subject to the extension thereof pursuant to Section 2.9; provided, however that the Maturity Date for any Bank that is a Non-Extending Bank to any requested extension pursuant to Section 2.9 shall be the Maturity Date in effect immediately prior to the applicable Extension Date for all purposes of this Agreement.

"Moody's" means Moody's Investors Service, Inc. or any successor thereto.

"Multiemployer Plan" means any employee benefit plan which is a "multiemployer plan" (as defined in Section 4001(a)(3) of ERISA) to which the Company or any of its ERISA Affiliates is contributing, or within the preceding six (6) years has contributed, or to

which the Company or any of its ERISA Affiliates has, or within the preceding six (6) years has had, an obligation to contribute.

"Non-Defaulting Bank" means, at any time, a Bank that is not a Defaulting Bank or a Potential Defaulting Bank.

"Non-Extending Bank" has the meaning set forth in Section 2.9(b).

"Notes" means any of the promissory notes made by the Borrowers in favor of a Bank in accordance with Section 2.1(e) to evidence revolving Advances made by that Bank under the Commitment, substantially in the form of Exhibit B, as originally executed or as the same may from time to time be supplemented, modified, amended, renewed or extended.

"Notice Date" has the meaning set forth in Section 2.9(b).

"Notice of Conversion/Continuation" has the meaning specified in Section 2.5(a).

"Obligations" means all present and future monetary obligations of every kind or nature of the Borrowers at any time and from time to time owed to the Arrangers, the Administrative Agent, the Syndication Agent, any Issuing Bank or the Banks or any one or more of them under any one or more of the Loan Documents, whether due or to become due, matured or unmatured, liquidated or unliquidated, or contingent or noncontingent, including interest that accrues after the commencement of any proceeding under any Debtor Relief Law by or against the Company or any Subsidiary of the Company.

"Original Currency" has the meaning set forth in Section 13.26(a).

"Other Connection Taxes" means, with respect to the Administrative Agent or any Bank, Taxes imposed as a result of a present or former connection between the Administrative Agent or such Bank and the jurisdiction imposing such Tax (other than connections arising from the Administrative Agent or such Bank having executed, delivered, become a party to, performed its obligations under, received payments under, received or perfected a security interest under, engaged in any other transaction pursuant to or enforced any Loan Document, or sold or assigned an interest in any Loan or Loan Document).

"Other Currency" has the meaning set forth in Section 13.26(a). **"Other Taxes"** has the

meaning set forth in Section 3.12(d)(ii).

"Parent Company" means, with respect to a Bank, the bank holding company (as defined in Federal Reserve Board Regulation Y), if any, of such Bank, or if such Bank does not have a bank holding company, then any corporation, association, partnership or other business entity owning, beneficially or of record, directly or indirectly, a majority of the shares of such Bank.

"Participant" has the meaning set forth in Section 13.9(c).

"Participant Register" has the meaning set forth in Section 13.9(e).

"Participating Member State" means each state so described in any EMU Legislation.

"Patriot Act" has the meaning set forth in Section 13.30. thereto.)

"PBGC" means the Pension Benefit Guaranty Corporation (or any successor

"Pension Plan" means any Employee Benefit Plan other than a Multiemployer

Plan, that is subject to Section 412 of the Code or Section 302 of ERISA or Title IV of ERISA. "Permitted Encumbrances"

means:

~~(a)~~ (a) inchoate Liens incident to construction or maintenance of real property, or Liens incident to construction or maintenance of real property, now or hereafter filed of record for sums not yet delinquent or being contested in good faith, if reserves or other appropriate provisions, if any, as shall be required by Generally Accepted Accounting Principles shall have been made therefor;

~~(b)~~ (b) Liens for taxes and assessments on real property which are not yet past due, or Liens for taxes and assessments on real property for which adequate reserves have been set aside and are being contested in good faith by appropriate proceedings and have not proceeded to judgment, provided that, by reason of non-payment of the obligations secured by such Liens, no such material real property is subject to a material risk of loss or forfeiture;

~~(c)~~ (c) easements, exceptions, reservations, or other agreements granted or entered into for the purpose of pipelines, conduits, cables, wire communication lines, power lines and substations, streets, trails, walkways, drainage, irrigation, water, and sewerage purposes, dikes, canals, ditches, the removal of oil, gas, coal, or other minerals, and other like purposes affecting real property which in the aggregate do not materially burden or impair the fair market value or use of such real property for the purposes for which it is or may reasonably be expected to be held;

~~(d)~~ (d) rights reserved to or vested in any Governmental Agency by Law to control or regulate, or obligations or duties under Law to any Governmental Agency with respect to, the use of any real property;

~~(e)~~ (e) rights reserved to or vested in any Governmental Agency by Law to control or regulate, or obligations or duties under Law to any Governmental Agency with respect to, any right, power, franchise, grant, license, or permit;

~~(f)~~ (f) present or future zoning laws and ordinances or other laws and ordinances restricting the occupancy, use, or enjoyment of real property;

~~(g)~~ (g) statutory Liens, other than those described in clauses (a) or (b) above, arising in the ordinary course of business with respect to obligations which are not delinquent or

are being contested in good faith, if reserves or other appropriate provisions, if any, as shall be required by Generally Accepted Accounting Principles shall have been made therefor;

~~(h)~~ (h) Liens consisting of pledges or deposits to secure obligations under workers' compensation laws or similar legislation, including Liens of judgments thereunder which are not currently dischargeable;

~~(i)~~ (i) Liens consisting of pledges or deposits of Property to secure performance in connection with operating leases made in the ordinary course of business to which the Company or a Subsidiary is a party as lessee, provided the aggregate value of all such pledges and deposits in connection with any such lease does not at any time exceed 16-2/3% of the annual fixed rentals payable under such lease;

~~(j)~~ (j) Liens consisting of deposits of Property to secure statutory obligations of the Company or a Subsidiary of the Company in the ordinary course of its business;

~~(k)~~ (k) Liens consisting of deposits of Property to secure (or in lieu of) surety, appeal or customs bonds in proceedings to which the Company or a Subsidiary of the Company is a party in the ordinary course of its business;

~~(l)~~ (l) purchase money Liens or purchase money security interests upon or in any property acquired or held by the Company or any Subsidiary in the ordinary course of business to secure the purchase price of such property or to secure indebtedness incurred solely for the purpose of financing the acquisition of such property;

~~(m)~~ (m) Liens on an asset to secure all or any part of the cost of development or construction of such asset or improvements thereon and which shall be released or satisfied within 120 days after completion of such development or construction;

~~(n)~~ (n) Liens on an asset created in connection with the acquisition, construction or development of additions, extensions or improvements to such asset which shall be financed by obligations described in Sections 142, 144(a) or 144(c) of the Code, as amended, or by obligations entitled to substantially similar tax benefits under other legislation or regulations in effect from time to time;

~~(o)~~ (o) Liens on property subject to escrow or similar arrangements established in connection with litigation settlements;

~~(p)~~ (p) Liens on an asset required in connection with any program, law, statute or regulation of any state or local authority which provides financial or tax benefits not available without such Lien, provided that substantially all of the obligations secured by such Lien are obligations that are in lieu of, or reduce, a property tax or other payment obligation that itself would have been secured by a Lien permitted hereunder; and

~~(q)~~ (q) Liens on Property securing any intercompany loans made by the Company to a Subsidiary or by any Subsidiary to another Subsidiary.

"Person" means any entity, whether an individual, trustee, corporation, general partnership, limited partnership, limited liability company, joint stock company, trust, estate, unincorporated organization, business association, tribe, firm, joint venture, Governmental Agency, or otherwise.

"Platform" has the meaning set forth in Section 13.7(d)(i).

"Potential Defaulting Bank" means, at any time, (i) any Bank with respect to which an event of the kind referred to in the definition of "Bank Insolvency Event" has occurred and is continuing in respect of any financial institution affiliate of such Bank, (ii) any Bank that has notified, or whose Parent Company or a financial institution affiliate thereof has notified, the Administrative Agent, the Company or the Issuing Banks in writing, or has stated publicly, that it does not intend to comply with its funding obligations under any other loan agreement or credit agreement or other similar/other financing agreement, unless such writing or statement states that such position is based on such Bank's determination that one or more conditions precedent to funding cannot be satisfied (which conditions precedent, together with the applicable default, if any, will be specifically identified in such writing or public statement), or (iii) any Bank that has, or whose Parent Company has, a non-investment grade rating from Moody's or S&P or another nationally recognized rating agency. Any determination by the Administrative Agent that a Bank is a Potential Defaulting Bank under any of clauses (i) through (iii) above will be conclusive and binding absent manifest error, and such Bank will be deemed a Potential Defaulting Bank (subject to Section 2.10(c)) upon notification of such determination by the Administrative Agent to the Company, the Issuing Banks and the Banks.

"Pro Rata Share" means, with respect to each Bank, with respect to the Commitment, and any Loan made under any portion of the Commitment, the percentage set forth opposite the name of that Bank and that portion of the Commitment on Schedule 2.1 as modified from time to time. The Pro Rata Share of each Bank shall be deemed to have been modified at each time the Commitment is modified in accordance with Section 2.8, 2.9, 2.10 or 13.9.

"Property" means any interest in any kind of property or asset, whether real, personal or mixed, or tangible or intangible.

"PTE" means a prohibited transaction class exemption issued by the U.S. Department of Labor, as any such exemption may be amended from time to time.

"Reference Rate" means (a) the ~~Eurodollar~~Term SOFR Reference Rate, (b) the EURIBOR Rate or (c) ~~One Month LIBOR~~Adjusted Term SOFR.

"Register" has the meaning set forth in Section 13.9(g).

"Regulation D" means Regulation D, as at any time amended, of the Board of Governors of the Federal Reserve System, or any other regulation in substance substituted therefor.

"Regulation U" means Regulation U, as at any time amended, of the Board of Governors of the Federal Reserve System, or any other regulation in substance substituted therefor.

"Related Parties" means, with respect to any Person, such Person's Affiliates and the partners, directors, officers, employees, agents and advisors of such Person and of such Person's Affiliates.

"Request for Letter of Credit" means a written request for a Letter of Credit substantially in the form of Exhibit D, together with the standard form of application for letter of credit used by the applicable Issuing Bank, signed by a Senior Officer of the applicable Borrower and properly completed to provide all information required to be provided therein.

"Request for Loan" means a written request for a Loan substantially in the form of Exhibit E, signed by a Senior Officer of the applicable Borrower and properly completed to provide all information required to be included therein.

"Requirement of Law" means, as to any Person, the articles or certificate of incorporation and by-laws or other organizational or governing documents of such Person, and any Law, or judgment, award, decree, writ or determination of a Governmental Agency, in each case applicable to or binding upon such Person or any of its Property or to which such Person or any of its Property is subject.

"S&P" means S&P Global Ratings, or any successor thereto.

"Securities" means any capital stock, share, voting trust certificate, bond, debenture, note or other evidence of indebtedness, limited partnership interest, or any warrant, option or other right to purchase or acquire any of the foregoing.

"Senior Officer" means the (a) chief executive officer, (b) chief operating officer, (c) chief financial officer, (d) chief accounting officer, (e) corporate controller, (f) treasurer, (g) assistant treasurer, (h) any senior vice president, or (i) any executive vice president, in each case whatever the title nomenclature may be, of the Person designated.

"Shareholders' Equity" means, as of any date of determination, shareholders' equity as of that date determined in accordance with Generally Accepted Accounting Principles; provided that there shall be excluded from Shareholders' Equity any amount attributable to capital stock that is, directly or indirectly, required to be redeemed or repurchased by the issuer thereof at a specified date or upon the occurrence of specified events or at the election of the holder thereof.

"Significant Subsidiary" has the meaning set forth in Section 4.4.

"SOFR" means a rate equal to the secured overnight financing rate as administered by the SOFR Administrator.

"SOFR Administrator" means the Federal Reserve Bank of New York (or a successor administrator of the secured overnight financing rate).

"Subsidiary" means, as of any date of determination and with respect to any Person, any corporation, limited liability company, partnership or joint venture, whether now existing or hereafter organized or acquired: (a) in the case of a corporation or limited liability company, of which a majority of the securities or other ownership interests having ordinary voting power for the election of directors or other governing body (other than securities or other ownership interests having such power only by reason of the happening of a contingency) are at the time beneficially owned by such Person and/or one or more Subsidiaries of such Person, or

(b) in the case of a partnership or joint venture, of which such Person or a Subsidiary of such Person is a general partner or joint venturer or of which a majority of the partnership or other ownership interests are at the time beneficially owned by such Person and/or one or more of its Subsidiaries, excluding any partnership or joint venture over which the Person or Subsidiary of such Person does not exercise actual control.

"Successor Rate Conforming Changes" means, with respect to any proposed Successor Rate, any conforming changes to the definition of Base Rate, Interest Period, Daily Margin, timing and frequency of determining rates and making payments of interest and other administrative matters as may be appropriate, in the discretion of the Administrative Agent and the Company, to reflect the adoption of such Successor Rate and to permit the administration thereof by the Administrative Agent in a manner substantially consistent with market practice (or, if the Administrative Agent and the Company determine in good faith and in a commercially reasonable manner that adoption of any portion of such market practice is not administratively feasible or that no market practice for the administration of such Successor Rate exists, in such other manner of administration as determined in the good faith and commercially reasonable discretion of the Administrative Agent and the Company).

"Swap Agreement" means a written agreement between the Company and one or more financial institutions providing for "swap", "collar " or other interest rate protection (other than "caps") with respect to any Indebtedness.

"Syndication Agent" means JPMorgan, when acting in its capacity as the syndication agent under any of the Loan Documents.

"TARGET Day" means any day on which the ~~Trans-European~~Trans-European Automated Real-time Gross Settlement Express Transfer (TARGET2) System (or, if such payment system ceases to be operative, such other payment system (if any) determined by the Administrative Agent to be a suitable replacement) is open for the settlement of payments in Euro.

"Taxes" has the meaning set forth in Section 3.12(d)(i).

"Term Rate Advance" means, as the context may require, an Adjusted Term SOFR Rate Advance or a EURIBOR Rate Advance.

"Term SOFR" means,

(a) for any calculation with respect to an Adjusted Term SOFR Advance, the Term SOFR Reference Rate for a tenor comparable to the applicable Interest Period on the day (such day, the **"Periodic Term SOFR Determination Day"**) that is two (2) U.S. Government Securities Business Days prior to the first day of such Interest Period, as such rate is published by the Term SOFR Administrator; provided, however, that if as of 5:00 p.m. (New York City time) on any Periodic Term SOFR Determination Day the Term SOFR Reference Rate for the applicable tenor has not been published by the Term SOFR Administrator and this Agreement has not been amended to implement a Successor Rate, then Term SOFR will be the Term SOFR Reference Rate for such tenor as published by the Term SOFR Administrator on the first preceding U.S. Government Securities Business Day for which such Term SOFR Reference Rate for such tenor was published by the Term SOFR Administrator so long as such first preceding U.S. Government Securities Business Day is not more than three (3) U.S. Government Securities Business Days prior to such Periodic Term SOFR Determination Day, and

(b) for any calculation with respect to a Base Rate Advance on any day, the Term **SOFR Reference Rate** for a tenor of one month on the day (such day, the "ABR Term SOFR Determination Day") that is two (2) U.S. Government Securities Business Days prior to such day, as such rate is published by the Term SOFR Administrator; provided, however, that if as of 5:00 p.m. (New York City time) on any ABR Term SOFR Determination Day the Term SOFR Reference Rate for the applicable tenor has not been published by the Term SOFR Administrator and this Agreement has not been amended to implement a Successor Rate, then Term SOFR will be the Term SOFR Reference Rate for such tenor as published by the Term SOFR Administrator on the first preceding U.S. Government Securities Business Day for which such Term SOFR Reference Rate for such tenor was published by the Term SOFR Administrator so long as such first preceding U.S. Government Securities Business Day is not more than three (3) U.S. Government Securities Business Days prior to such ABR Term SOFR Determination Day; provided that if Term SOFR determined as provided under this clause (b) shall ever be less than zero, such rate shall be deemed to be zero for the purposes of this Agreement.

"Term SOFR Administrator" means CME Group Benchmark Administration Limited (CBA) (or a successor administrator of the Term SOFR Reference Rate selected by the Administrative Agent in its reasonable discretion).

"Term SOFR Reference Rate" means the forward-looking term rate based on SOFR.

"Total Outstandings" means, as of any date of determination, the sum on that date of (a) the aggregate Dollar Equivalent of the outstanding principal amount of the Advances, plus (b) the aggregate then undrawn portion of Letters of Credit which are issued and outstanding, plus (c) the aggregate unreimbursed drawings under Letters of Credit.

"Type" when used with respect to any Loan or Advance, means the designation of whether such Loan or Advance is a Base Rate Advance or a ~~EURO~~Term Rate Advance.

"Unused Portion" means the Commitment, less Total Outstandings as to the Commitment.

"U.S. Government Securities Business Day" means any day except for (a) a Saturday, (b) a Sunday or (c) a day on which the Securities Industry and Financial Markets Association recommends that the fixed income departments of its members be closed for the entire day for purposes of trading in United States government securities.

1.2 Use of Defined Terms. Any defined term used in the plural shall refer to all members of the relevant class, and any defined term used in the singular shall refer to any one or more of the members of the relevant class.

1.3 Accounting Terms. Unless otherwise specified herein, all accounting terms used herein shall be interpreted, all accounting determinations hereunder shall be made and all financial statements required to be delivered hereunder shall be prepared in accordance with Generally Accepted Accounting Principles as in effect from time to time, applied on a basis consistent (except for changes concurred in by the Company's independent public accountants) with the audited consolidated financial statements of the Company and its Consolidated Subsidiaries most recently delivered to the Banks; provided, that, if the Company notifies the Administrative Agent that the Company wishes to amend any covenant in Article 6 to eliminate the effect of any change in Generally Accepted Accounting Principles on the operation of such covenant (or if the Administrative Agent notifies the Company that the Majority Banks wish to amend Article 6 for such purpose), then the Company's compliance with such covenant shall be determined on the basis of Generally Accepted Accounting Principles in effect immediately before the relevant change in Generally Accepted Accounting Principles became effective, until either such notice is withdrawn or such covenant is amended in a manner satisfactory to the Company and the Majority Banks.

1.4 Rounding. Any financial ratios required to be maintained by the Company pursuant to this Agreement shall be calculated by dividing the appropriate component by the other component, carrying the result to one place more than the number of places by which such ratio is expressed in this Agreement and rounding the result up or down to the nearest number (with a round-up if there is no nearest number) to the number of places by which such ratio is expressed in this Agreement.

1.5 Exhibits and Schedules. All Exhibits and Schedules to this Agreement, either as originally existing or as the same may from time to time be supplemented, modified or amended, are incorporated herein by this reference. A matter disclosed on any Schedule shall be deemed disclosed on all Schedules.

1.6 References to "the Company and its Subsidiaries". Any reference herein to "the Company and its Subsidiaries" or the like shall refer solely to the Company during such times, if any, as the Company shall have no Subsidiaries.

1.7 Miscellaneous Terms. The term "or" is disjunctive; the term "and" is conjunctive. The term "shall" is mandatory; the term "may" is permissive. Masculine terms also apply to females; feminine terms also apply to males. The term "including" is by way of example and not limitation.

1.8 Exchange Rates; Alternative Currency Equivalents. On each Calculation Date, the Administrative Agent shall determine the exchange rate as of such Calculation Date to be used for calculating relevant Dollar Equivalent and Alternative Currency Equivalent amounts. The exchange rates so determined shall become effective on such Calculation Date and shall for all purposes of this Agreement (other than any provision expressly requiring the use of a current exchange rate) be the exchange rates employed in converting any amounts between the applicable currencies. Wherever in this Agreement in connection with an Advance, conversion or continuation of a Loan, an amount, such as a required minimum or multiple amount, is expressed in Dollars, but such Advance or Loan is denominated in the Alternative Currency, such amount shall be the Alternative Currency Equivalent of such Dollar amount (rounded to the nearest 1,000 units of the Alternative Currency), as determined by the Administrative Agent.

1.9 Divisions. For all purposes under this Agreement, in connection with any division or plan of division under Delaware law (or any comparable event under a different jurisdiction's laws): (a) if any asset, right, obligation or liability of any Person becomes the asset, right, obligation or liability of a different Person, then it shall be deemed to have been transferred from the original Person to the subsequent Person, and (b) if any new Person comes into existence, such new Person shall be deemed to have been organized and acquired on the first date of its existence by the holders of its equity interests at such time.

1.10 Rates. The Administrative Agent does not warrant or accept responsibility for, and shall not have any liability with respect to (a) the continuation of, administration of, submission of, calculation of or any other matter related to the Base Rate, the Term SOFR Reference Rate, Adjusted Term SOFR, Term SOFR or EURIBOR Rate, or any component definition thereof or rates referred to in the definition thereof, or any alternative, successor or replacement rate thereto (including any Successor Rate), including whether the composition or characteristics of any such alternative, successor or replacement rate (including any Successor Rate) will be similar to, or produce the same value or economic equivalence of, or have the same volume or liquidity as, the Base Rate, the Term SOFR Reference Rate, Adjusted Term SOFR, Term SOFR, EURIBOR Rate or any other Successor Rate prior to its discontinuance or unavailability, or (b) the effect, implementation or composition of any Successor Rate Conforming Changes. The Administrative Agent and its affiliates or other related entities may engage in transactions that affect the calculation of the Base Rate, the Term SOFR Reference Rate, Term SOFR, Adjusted Term SOFR, EURIBOR Rate any alternative, successor or replacement rate (including any Successor Rate) or any relevant adjustments thereto, in each case, in a manner adverse to the Company. The Administrative Agent may select information sources or services in its reasonable discretion to ascertain the Base Rate, the Term SOFR Reference Rate, Term SOFR, Adjusted Term SOFR, EURIBOR Rate or any Successor Rate, in each case pursuant to the terms of this Agreement, and shall have no liability to the Company, any Bank or any other person or entity for damages of any kind, including direct or indirect, special, punitive, incidental or consequential damages, costs, losses or expenses (whether in tort, contract or otherwise and whether at law or in equity), for any error or calculation of any such rate (or component thereof) provided by any such information source or service.

2.1 Advances - General.

(a) Subject to the terms and conditions set forth in this Agreement, each Bank shall, at any time and from time to time from the Closing Date through the Maturity Date applicable to such Bank, according to its Pro Rata Share of the Commitment, make Advances to the Borrowers under the Commitment in such amounts in Dollars or in the Alternative Currency as the Borrowers may request that do not exceed in the aggregate at any one time outstanding the amount of that Bank's Pro Rata Share of the Commitment; provided that, giving effect to the Loan of which such Advance is a part, (i) the Total Outstandings shall not exceed the Commitment and (ii) the sum of all Advances then outstanding plus the face amount of all Letters of Credit then outstanding plus the sum of all unreimbursed drawings under Letters of Credit shall not exceed the Commitment. Subject to the limitations set forth herein, the Borrowers may borrow and repay under the Commitment without premium or penalty.

(b) Subject to the next sentence, each Loan under this Section 2.1 shall be made pursuant to a Request for Loan which shall specify the requested (i) date of such Loan, (ii) type of Loan, (iii) amount of such Loan and (iv) Interest Period for such Loan. Unless the Administrative Agent has notified, in its sole and absolute discretion, the Borrowers to the contrary, a Loan may be requested by telephone by a Senior Officer of the applicable Borrower, in which case such Borrower shall promptly confirm such request by transmitting a telecopy or other electronic communication of, or at the Administrative Agent's request by mailing, a Request for Loan executed by a Senior Officer of such Borrower conforming to the preceding sentence to the Administrative Agent.

(c) Promptly following receipt of a Request for Loan (or the receipt of a substitute request permitted under the second sentence of Section 2.1(b)), the Administrative Agent shall notify each Bank by telephone (so long as such notice by telephone is promptly followed by a notice in writing) or telecopier or other electronic communication (the method of notice shall be at the Administrative Agent's option) of the date and type of the Loan, the applicable Interest Period and the amount of that Bank's Pro Rata Share of the Loan. Not later than 2:00 p.m., New York time, on the date specified for any Loan subject to the provisions of Sections 2.2 and 2.3, each Bank shall make its Pro Rata Share of the Loan in immediately available funds available to the Administrative Agent at the Administrative Agent's Office. Upon fulfillment of the applicable conditions set forth in Article 8 and subject to the provisions of Sections 2.2 and 2.3, all Advances shall be credited in immediately available funds to the Designated Deposit Account.

(d) Each Loan under the Commitment shall be in a minimum amount of $2,000,000 (or €2,000,000, if the applicable borrowing is in Euros) and multiples of $1,000,000 or €1,000,000, as applicable, in excess of that amount.

(e) If so requested by any Bank by written notice to the Company (with a copy to the Administrative Agent) at least two Banking Days prior to the Closing Date or at any time thereafter, each Borrower shall execute and deliver to such Bank (and/or, if applicable and if so specified in such notice, to any Person who is an assignee of such Bank pursuant to Section 13.9) on the Closing Date (or, if such notice is delivered after the Closing Date, promptly after the Company's

receipt of such notice) a promissory note or promissory notes to evidence such Bank's Advances under its Pro Rata Share of the Commitment, substantially in the form of Exhibit B.

(f) A Request for Loan shall be irrevocable upon the Administrative Agent's first notification thereof.

(g) In connection with the use, administration, adoption or implementation of Adjusted Term SOFR, the Administrative Agent and the Borrower will have the right to make Successor Rate Conforming Changes from time to time and, notwithstanding anything to the contrary herein or in any other Loan Document, any amendments implementing such Successor Rate Conforming Changes will become effective without any further action or consent of any other party to this Agreement. The Administrative Agent will promptly notify the Banks of the effectiveness of any Successor Rate Conforming Changes in connection with the use or administration of Adjusted Term SOFR.

2.2 Base Rate Advances. Each request by a Borrower for a Base Rate Advance shall be made pursuant to a Request for Loan (or telephonic request for Loan referred to in the second sentence of Section 2.1(b), if applicable) received by the Administrative Agent, at the Administrative Agent's Office, not later than 12:00 noon, New York time, on the date of a proposed Base Rate Advance. All Advances denominated in Dollars shall constitute Base Rate Advances unless properly designated as ~~Eurodollar~~Adjusted Term SOFR Rate Advances pursuant to Section 2.3.

2.3 ~~EURO~~Term Rate Advances.

(a) Each request by a Borrower for ~~a Eurodollar~~an Adjusted Term SOFR Rate Advance shall be made pursuant to a Request for Loan (or telephonic request for Loan referred to in the second sentence of Section 2.1(b), if applicable) received by the Administrative Agent, at the Administrative Agent's Office, not later than 1:00 p.m., New York time, at least three (3) ~~Eurocurrency Banking~~U.S. Government Securities Business Days before the first day of the applicable Interest Period. Each request by a Borrower for a EURIBOR Rate Advance shall be made pursuant to a Request for Loan (or telephonic request for Loan referred to in the second sentence of Section 2.1(b), if applicable) received by the Administrative Agent, at the Administrative Agent's Office, not later than 9:30 a.m., London time, at least three (3) ~~Eurocurrency~~ Banking Days before the first day of the applicable Interest Period.

(b) On the second ~~Eurocurrency~~U.S. Government Securities Business Day before the first day of the applicable Interest Period in the case of Adjusted Term SOFR Rate Advances, the Administrative Agent shall determine the applicable Adjusted Term SOFR and on the second Banking Day before the first day of the applicable Interest Period in the case of ~~Eurodollar Rate Advances and~~ EURIBOR Rate Advances, the Administrative Agent shall determine the applicable ~~Eurodollar Rate or~~ EURIBOR Rate, as the case may be (which determination shall be conclusive in the absence of manifest error), and prior to 1:00 p.m., New York time on that same day shall give notice of the same to the applicable Borrower and the Banks by telephone or

telecopier or other electronic communication (the method of notice shall be at the Administrative Agent's option).

(c) Unless all of the Banks otherwise consent, no ~~EURO~~Term Rate Advance may be requested during the continuance of an Event of Default.

(d) Prior to the submission of a Request for Loan with respect to a ~~EURO~~Term Rate Advance, any Borrower may request the Administrative Agent to provide a non-binding estimate of ~~the Eurodollar Rate~~Adjusted Term SOFR or EURIBOR Rate that would then apply in the event such Borrower submitted a Request for Loan.

2.4 Voluntary Reduction of Commitment. ~~(a)~~ (a) The Company shall have the right, at any time and from time to time, without penalty or charge, upon at least two (2) days' prior written notice to the Administrative Agent, to voluntarily reduce, permanently and irrevocably, in a minimum amount of $5,000,000 and multiples of $1,000,000 in excess thereof, or to terminate, all or a portion of the then Unused Portion of the Commitment; provided that any such reduction or termination shall be accompanied by payment of all accrued and unpaid facility fees with respect to the portion of the Commitment being reduced or terminated. Any such notice of reduction may be conditioned upon the successful closing of a new financing and the Administrative Agent will promptly notify each Bank thereof and of such Bank's portion of the Commitments being reduced.

~~(b)~~ (b) The Company shall have the right, at any time, upon at least three Banking Days' notice to a Defaulting Bank (with a copy to the Administrative Agent), to terminate in whole such Defaulting Bank's Commitment under this Section 2.4(b). The Borrowers will pay all principal of, and interest accrued to the date of such payment on, Advances owing to such Defaulting Bank and pay any accrued facility fee payable to such Defaulting Bank pursuant to Section 3.2 and all other amounts payable to such Defaulting Bank hereunder (including but not limited to any increased costs, additional interest or other amounts owing under Sections 3.7 and 3.8 and any indemnification for Taxes under Section 3.12) and upon such payments, the obligations of such Defaulting Bank hereunder shall, by the provisions hereof, be released and discharged; provided, however, that (i) such Defaulting Bank's rights under Sections 3.7 and 3.8 shall survive such release and discharge as to matters occurring prior to such date and (ii) no claim that the Borrowers may have against such Defaulting Bank arising out of such Defaulting Bank's default hereunder shall be released or impaired in any way. The aggregate amount of the Commitments of the Banks once reduced pursuant this Section 2.4(b) may not be reinstated; provided, however, that if pursuant to this Section 2.4(b), the Borrowers shall pay to a Defaulting Bank any principal of, or interest accrued on, the Advances owing to such Defaulting Bank, then the Borrowers shall either (x) confirm to the Administrative Agent that, except as disclosed by the Company and approved in writing by the Administrative Agent, acting at the direction of the Majority Banks, the representations and warranties contained in Article 4, other than Sections 4.4, 4.6 and 4.8, are true and correct in all material respects (except that to the extent any representation or warranty is qualified by materiality, it is true and correct in all respects) on and as of such date of payment as though made on that date (except to the extent such representations and warranties specifically relate to an earlier date in which case they are true and correct in all material respects (except that to the extent any representation or warranty is qualified by materiality, it is true and correct in all respects) as of such earlier date) and no Default has

occurred and is continuing or (y) pay or cause to be paid a ratable payment of principal and interest to all Banks who are not Defaulting Banks.

2.5 Voluntary Conversion or Continuation of Advances.

(a) Each Borrower may on any Banking Day upon notice given to the Administrative Agent not later than 12:00 noon (New York City time) on the third ~~Eurocurrency~~ U.S. Government Securities Business Day (in the case of a notice relating to Advances in Dollars) or on the third Banking Day (in the case of a notice relating to EURIBOR Rate Advances) prior to the date of the proposed Conversion or continuance (a "Notice of Conversion/Continuation") and subject to the provisions of Section 2.3, (1) Convert all or any portion of Advances of one Type into Advances made to such Borrower of another Type and (2) upon the expiration of any Interest Period applicable to Advances which are ~~EURO~~Term Rate Advances, continue all (or, subject to Section 2.3, any portion of) such Advances as ~~EURO~~Term Rate Advances and the succeeding Interest Period(s) of such continued Advances shall commence on the last day of the Interest Period of the Advances to be continued; provided, however, that any Conversion of any ~~EURO~~Term Rate Advances into Base Rate Advances shall be made on, and only on, the last day of an Interest Period for such ~~EURO~~Term Rate Advances. Each such Notice of Conversion/Continuation shall, within the restrictions specified above, specify (i) the date of such continuation or Conversion, (ii) the Advances (or, subject to Section 2.3, any portion thereof) to be continued or Converted, (iii) if such continuation is of, or such Conversion is into, ~~EURO~~Term Rate Advances, whether such ~~EURO~~Term Rate Advance is ~~a Eurodollar~~an Adjusted Term SOFR Rate Advance or a EURIBOR Rate Advance and the duration of the Interest Period of each such Advance, and (iv) in the case of a continuation of or a Conversion into a ~~EURO~~Term Rate Advance, that no Event of Default has occurred and is continuing. Each Conversion or continuation shall be in a minimum amount of $2,000,000 or
€2,000,000, as applicable, and multiples of $1,000,000 or €1,000,000, as applicable.

(b) If upon the expiration of the then existing Interest Period applicable to any Advance which is a ~~EURO~~Term Rate Advance, the Borrower thereof shall not have delivered a Notice of Conversion/Continuation in accordance with this Section 2.5, then such Advance if it is an Advance of Dollars shall upon such expiration automatically be continued as ~~a Eurodollar~~an Adjusted Term SOFR Rate Advance with an Interest Period of one month; provided, however, that in the case of a failure to timely request a continuation of Advances denominated in the Alternative Currency, such Advances shall be continued as EURIBOR Rate Advances in the Alternative Currency with an Interest Period of one month. No ~~Eurodollar~~Adjusted Term SOFR Rate Advance may be converted into or continued as a EURIBOR Rate Advance, but instead must be prepaid in Dollars and reborrowed in the Alternative Currency, and no EURIBOR Rate Advance may be converted into or continued as ~~a Eurodollar~~an Adjusted Term SOFR Rate Advance, but instead must be prepaid in the Alternative Currency and reborrowed in Dollars.

(c) After the occurrence of and during the continuation of an Event of Default, the Borrowers may not elect to have an Advance be made or continued as, or Converted into, a ~~EURO~~Term Rate Advance after the expiration of any Interest Period then in effect for that Advance.

2.6 Letters of Credit.

(a) Subject to the terms and conditions hereof, at any time and from time to time from the Closing Date through the date that is thirty (30) days before the Maturity Date of the applicable Issuing Bank, each Issuing Bank shall issue such Letters of Credit denominated in Dollars as a Borrower may request by delivering a Request for Letter of Credit to such Issuing Bank and to the Administrative Agent; provided that, giving effect to such Letter of Credit (i) the aggregate effective face amounts of all outstanding Letters of Credit will not exceed
$300,000,000, (ii) the sum of all Advances then outstanding plus the face amount of all Letters of Credit then outstanding plus the sum of all unreimbursed drawings under Letters of Credit shall not exceed the Commitment, (iii) Total Outstandings will not exceed the Commitment and
(iv) the aggregate effective face amounts of all outstanding Letters of Credit issued by any Issuing Bank will not exceed such Issuing Bank's LC Commitment; and provided, further, that none of Barclays Bank PLC, Goldman Sachs Bank USA or Morgan Stanley Bank, N.A. shall be required to issue trade or commercial Letters of Credit. Letters of Credit issued under the Commitment may be issued for terms up to five (5) years from the date of issuance but in no event shall the term of any such Letter of Credit extend beyond the Maturity Date applicable to the Issuing Bank of such Letter of Credit and no Letter of Credit may expire after the Maturity Date of any Non-Extending Bank if, after giving effect to such issuance, the aggregate Pro Rata Shares of the Commitment held by the Extending Banks (including any replacement Banks) for the period following such Maturity Date would be less than the face amounts of the Letters of Credit and Advances expiring after such Maturity Date. Each Letter of Credit shall be in a minimum amount of $500,000, unless otherwise consented to by the applicable Issuing Bank. The issuance of any Letter of Credit shall constitute usage of the Commitment. Subject to the limitations set forth herein, the Borrowers may request Letters of Credit, reimburse drawings under Letters of Credit and request further Letters of Credit without premium or penalty.

(b) No Issuing Bank shall Issue any Letter of Credit if it has received written notice from the Majority Banks, the Administrative Agent or the Company on or prior to the Banking Day prior to the requested date of issuance of such Letter of Credit, that one or more of the applicable conditions contained in Section 8.2 is not then satisfied. Each Issuing Bank is under no obligation to Issue any Letter of Credit if:

(i) any order, judgment or decree of any Governmental Agency or arbitrator shall by its terms purport to enjoin or restrain such Issuing Bank from issuing such Letter of Credit, or any Requirement of Law applicable to such Issuing Bank or any request or directive (whether or not having the force of law) from any Governmental Agency with jurisdiction over such Issuing Bank shall prohibit, or request that such Issuing Bank refrain from, the issuance of Letters of Credit generally or such Letter of Credit in particular; or

(ii) any requested Letter of Credit is not in form reasonably acceptable to such Issuing Bank, or the issuance of a Letter of Credit shall violate any generally applicable policies of such Issuing Bank.

(c) Each Request for Letter of Credit shall be submitted to any Issuing Bank and the Administrative Agent at least three (3) Banking Days prior to the date when the issuance of a

Letter of Credit is requested. Upon issuance of a Letter of Credit, the applicable Issuing Bank shall promptly notify the Banks of the amount and terms thereof. Any Letter of Credit issued shall conform with the applicable Issuing Bank's generally applicable policies regarding form and substance.

(d) Upon the issuance of a Letter of Credit, each Bank shall be deemed to have irrevocably purchased from the Issuing Bank of such Letter of Credit, without recourse to or warranty from such Issuing Bank, a pro rata undivided participation in the Letter of Credit, in an amount equal to that Bank's Pro Rata Share. Without limiting the scope and nature of each Bank's participation in any Letter of Credit, to the extent that any Issuing Bank has not been reimbursed by the applicable Borrower, in accordance with Section 2.6(e), for any payment made by such Issuing Bank under any Letter of Credit, each Bank shall reimburse such Issuing Bank promptly upon demand for the amount of such payment in accordance with its Pro Rata Share of the Commitment, as the case may be. The obligation of each Bank to so reimburse each Issuing Bank shall be absolute and unconditional and shall not be affected by the occurrence of an Event of Default or any other occurrence or event. Any such reimbursement shall not relieve or otherwise impair the obligation of the applicable Borrower to reimburse the applicable Issuing Bank for the amount of any payment made by such Issuing Bank under any Letter of Credit together with interest as hereinafter provided. The participation of the Bank in each Letter of Credit shall be automatically adjusted at each time the Pro Rata Shares are modified in accordance with Sections 2.8, 2.9, 2.10 or 13.9.

(e) After any drawing on a Letter of Credit, the applicable Issuing Bank shall notify the applicable Borrower and the Administrative Agent by telephone or telecopier or other electronic communication of such drawing by 2:00 p.m., New York time, on the date such payment is to be made and such Borrower shall reimburse such Issuing Bank, in immediately available funds for any amount paid or to be paid by such Issuing Bank under such Letter of Credit by 4:00 p.m., New York time on the date of such notice.

(f) If the applicable Borrower fails to make the payment required by Section 2.6(e), the Administrative Agent shall notify the Banks by telephone (promptly followed in writing) or telecopier or other electronic communication (the method of notification shall be at the Administrative Agent's option) of the unreimbursed amount of such payment. Each Bank irrevocably and unconditionally agrees (irrespective of the occurrence of an Event of Default or any other circumstance) that it shall make available to the Administrative Agent (for the account of the applicable Issuing Bank) an amount equal to its respective participation in same day funds, at the Administrative Agent's Office, not later than the close of business (New York time) on the date notified by the Administrative Agent. In the event that any Bank fails to make available to the Administrative Agent the amount of such Bank's participation in such Letter of Credit as provided above, the applicable Issuing Bank (through the Administrative Agent) shall be entitled to recover such amount on demand from such Bank together with interest thereon, for each day from the date of such payment until the date such amount is paid to such Issuing Bank, at the rate per annum equal to the average overnight federal funds rate. Any amount made available by a Bank to the Administrative Agent as such Bank's participation in such Letter of Credit shall constitute a demand loan to the applicable Borrower bearing interest at a rate per annum equal to
(i) from the date of any payment made by the applicable Issuing Bank through the date ten days
after such payment, the Base Rate plus the weighted average of the Daily Margin for each day

during the applicable period, and (ii) thereafter, the Base Rate plus the weighted average of the Daily Margin for each day during the applicable period plus 2%; provided, that if a Bank is prevented from making such demand loans by the provisions of the United States Bankruptcy Code or otherwise, the amount so paid to such Issuing Bank by such Bank shall constitute a funding and purchase by it of a participation in such Letter of Credit disbursement by such Issuing Bank and all obligations of the applicable Borrower with respect thereto, including interest thereon to the extent accruing from the date of such purchase. The Administrative Agent shall promptly pay to the applicable Issuing Bank all funds paid by the Banks to reimburse such Issuing Bank for the payment made by it under the Letter of Credit.

(g) The issuance of any supplement, modification, amendment, renewal, or extension to or of any Letter of Credit shall be treated for the purposes of Article 8 the same as the issuance of a new Letter of Credit.

(h) Reserved.

(i) The obligation of the Borrowers to reimburse each Issuing Bank for the amount of any payment made by such Issuing Bank under any Letter of Credit issued by it, and the obligations of the Banks under their respective participations under the Letters of Credit, shall be absolute, unconditional, and irrevocable and shall not be affected by any of the following circumstances:

(i) any lack of validity or enforceability of the Letter of Credit, this Agreement, or any other agreement or instrument relating thereto;

(ii) any amendment or waiver of or any consent to departure from the Letter of Credit, this Agreement, or any other agreement or instrument relating thereto;

(iii) the existence of any claim, setoff, defense, or other rights which any Borrower may have at any time against any Bank, any beneficiary of the Letter of Credit (or any persons or entities for whom any such beneficiary may be acting) or any other Person, whether in connection with the Letter of Credit, this Agreement, or any other agreement or instrument relating thereto, or any unrelated transactions;

(iv) any demand, statement, or any other document presented under the Letter of Credit proving to be forged, fraudulent, invalid, or insufficient in any respect or any statement therein being untrue or inaccurate in any respect whatsoever so long as any such document appeared to comply with the terms of the Letter of Credit;

(v) the solvency or financial responsibility of any party issuing any documents in connection with a Letter of Credit;

(vi) any failure or delay in notice of shipments or arrival of any property;

(vii) any error in the transmission of any message relating to a Letter of Credit not caused by such Issuing Bank, or any delay or interruption in any such message;

(viii) any error, neglect or default of any correspondent of any Bank in connection with a Letter of Credit;

(ix) any consequence arising from acts of God, war, insurrection, disturbances, labor disputes, emergency conditions or other causes beyond the control of such Issuing Bank;

(x) so long as such Issuing Bank in good faith determines that the draft, contract or document appears to comply with the terms of the Letter of Credit, the form, accuracy, genuineness or legal effect of any contract or document referred to in any document submitted to such Issuing Bank in connection with a Letter of Credit; and

(xi) where such Issuing Bank has acted in good faith and without gross negligence or willful misconduct and observed general banking usage, any other circumstance whatsoever.

(j) each Issuing Bank shall be entitled to the protection accorded to the Administrative Agent pursuant to Section 10.3, mutatis mutandis.

(k) As between any Borrower and each Issuing Bank, such Borrower assumes all risks of the acts and omissions of, or misuse of any Letter of Credit by, the respective beneficiaries of the Letters of Credit. In furtherance and not in limitation of the foregoing, no Issuing Bank shall be responsible: (1) for the validity, genuineness or legal effect of any document submitted by any party in connection with the issuance of or any drawing under the Letters of Credit, even if it should in fact prove to be in any or all respects invalid, fraudulent or forged; (2) for the validity or sufficiency of any instrument transferring or assigning or purporting to transfer or assign any Letter of Credit or the rights or benefits thereunder or proceeds thereof, in whole or in part, which may prove to be invalid or ineffective for any reason; (3) for errors in interpretation of technical terms; (4) for the misapplication by the beneficiary of any Letter of Credit of the proceeds of any drawing under such Letter of Credit; provided that none of the events set forth in the foregoing clauses (1) through (4) shall have been caused by the gross negligence or willful misconduct of such Issuing Bank; and (5) for any consequences arising from causes beyond the control of such Issuing Bank. None of the above shall affect, impair, or prevent the vesting of any of such Issuing Bank's rights or powers hereunder. In furtherance and extension and not in limitation of the specific provisions hereinabove set forth, any action taken or omitted by an Issuing Bank under or in connection with the Letters of Credit, if taken or omitted in good faith, without gross negligence or willful misconduct, shall not put such Issuing Bank under any resulting liability to the Borrowers or the Banks.

(l) No Issuing Bank shall have any obligation whatsoever to make any factual or legal determinations as to the correctness of any demand or payment under any Letter of Credit strictly complying with the terms of such Letter of Credit before such Issuing Bank makes any payment under the Letter of Credit. The Borrowers and the Banks hereby waive (A) diligence, presentment, demand, protest or notice of any kind, (B) any requirement that the applicable Issuing Bank exhaust any right or remedy against the Borrowers, the Administrative Agent, any other participant in the credit, or any other Person, and (C) any claim or defense based on any

time or other indulgence granted to any Borrower, the Administrative Agent or any other Person and any right of subrogation to any rights or remedies of such Issuing Bank in respect of any of the Letters of Credit or any defense that such Issuing Bank has impaired any such right of subrogation.

(m) In the event that any payment made by or on behalf of any Borrower pursuant to or in connection with any Letter of Credit is rescinded or must otherwise be restored or returned to such Borrower or other relevant party, as applicable, including as a result of any insolvency, bankruptcy or reorganization or similar proceedings in respect of such Borrower, the obligations of the Banks under this Section 2.6(m) in respect of such rescinded, restored or returned payment shall be reinstated in full and the Banks shall be liable to indemnify the applicable Issuing Bank hereunder as fully as if such payment had never been made. The provision of this Section 2.6(m) shall survive the payment of the obligations of the Borrowers under the Letters of Credit.

(n) All amounts to be paid to any Issuing Bank by the Banks under this Agreement shall be paid by the Banks to the Administrative Agent for the account of such Issuing Bank, without any set-off or counterclaim whatsoever and free and clear of and without deduction for or on account of any taxes, duties or other charges whatsoever, and without any liability therefor.

2.7 Administrative Agent's Right to Assume Funds Available for Advances. Unless the Administrative Agent shall have been notified by any Bank no later than the time of the funding by the Administrative Agent of any Loan that such Bank does not intend to make available to the Administrative Agent such Bank's Pro Rata Share of the total amount of such Loan, the Administrative Agent may assume that such Bank has made such amount available to the Administrative Agent on the date of the Loan and the Administrative Agent may, in reliance upon such assumption, make available to the applicable Borrower a corresponding amount. If the Administrative Agent has made funds available to any Borrower based on such assumptions and such corresponding amount is not in fact made available to the Administrative Agent by such Bank, the Administrative Agent shall be entitled to recover such corresponding amount on demand from such Bank, which demand shall be made in a reasonably prompt manner. If such Bank does not pay such corresponding amount forthwith upon the Administrative Agent's demand therefor, the Administrative Agent promptly shall notify the applicable Borrower and such Borrower shall pay such corresponding amount to the Administrative Agent. The Administrative Agent also shall be entitled to recover from such Bank interest on such corresponding amount in respect of each day from the date such corresponding amount was made available by the Administrative Agent to such Borrower to the date such corresponding amount is recovered by the Administrative Agent, at a rate per annum equal to the average overnight federal funds rate. Nothing herein shall be deemed to relieve any Bank from its obligation to fulfill its Pro Rata Share of the Commitment or to prejudice any rights that the Administrative Agent or any Borrower may have against any Bank as a result of any default by such Bank hereunder.

2.8 Increased Commitment; Additional Banks.

(a) On a single occasion during each year subsequent to the Closing Date, the Company may, upon at least thirty (30) days' notice to the Administrative Agent (which shall promptly provide a copy of such notice to such Banks and such Eligible Assignees identified by the Company), propose to increase the amount of the Commitment in an aggregate minimum amount of $10,000,000 and an aggregate maximum amount not to exceed $750,000,000 (the amount of any such increase, the "Increased Commitment"); provided that the conditions set forth in Section 2.8(c) are satisfied. Each such Bank and each such Eligible Assignee shall have the right (but no obligation), for a period of fifteen (15) days following receipt of such notice, to elect by notice to the Company and the Administrative Agent to participate in the Increased Commitment.

(b) (b) Each such Bank and Eligible Assignee that agrees to participate in the Increased Commitment shall agree to (i) in the case of any such Bank that is an existing Bank, increase its Pro Rata Share of the Commitment and (ii) in the case of any such Eligible Assignee (an "Additional Bank"), become a party to this Agreement, provided that the Pro Rata Share of the Commitment of each Additional Bank equals or exceeds $10,000,000. The sum of the increases in the Pro Rata Shares of the Commitment of the existing Banks pursuant to this subsection (b) plus the Pro Rata Shares of the Commitment of the Additional Banks shall not in the aggregate exceed the Increased Commitments.

(c) (c) An increase in the aggregate amount of the Commitment pursuant to this Section 2.8 shall become effective on the date (the "Increase Date") on which the Administrative Agent receives an agreement in form and substance satisfactory to the Administrative Agent signed by the Company, by each Additional Bank and by each other Bank whose Pro Rata Share of the Commitment is to be increased, setting forth the new Pro Rata Shares of the Commitment of such Banks and setting forth the agreement of each Additional Bank to become a party to this Agreement and to be bound by all the terms and provisions hereof, together with (x) a certificate dated as of the Increase Date (i) certifying and attaching the resolutions adopted by the Company approving or consenting to such extension and (ii) certifying that, before and after giving effect to such extension, (A) the representations and warranties contained in Article 4 are true and correct in all material respects (except that to the extent any representation or warranty is qualified by materiality, it shall be true and correct in all respects) on and as of the Increase Date, except to the extent that such representations and warranties specifically refer to an earlier date, in which case they are true and correct in all material respects as of such earlier date, and except that for purposes of this Section 2.8, the representations and warranties contained in Sections 4.5, 4.6 and 4.8 shall be deemed to refer to the most recent statements furnished pursuant to subsections (a) and (b), respectively, of Section 7.1, and (B) no Default exists, and (y) such opinions of counsel for the Company with respect to the Increased Commitment as the Administrative Agent may reasonably request.

2.9 Extension of Maturity Date.

~~(a)~~ (a) Requests for Extension. The Company may, by notice to the Administrative Agent (who shall promptly notify the Banks in writing) not earlier than 60 days and not later than 45 days prior to any anniversary of the Closing Date (each, an "Extension Date"), request that each Bank extend such Bank's Maturity Date for an additional one year from

the Maturity Date applicable to such Bank, provided that the Company shall not request more than two extensions of the Maturity Date hereunder.

~~(b)~~ (b) Bank Elections to Extend. Each Bank, acting in its sole and individual discretion, shall, by notice to the Administrative Agent given not later than the date (the **"Notice Date"**) that is 25 days prior to such Extension Date, advise the Administrative Agent whether or not such Bank agrees to such extension (and each Bank that determines not to so extend its Maturity Date (a **"Non-Extending Bank"**) shall notify the Administrative Agent of such fact promptly after such determination (but in any event no later than the Notice Date) and any Bank that does not so advise the Administrative Agent on or before the Notice Date shall be deemed to be a Non-Extending Bank). The election of any Bank to agree to such extension shall not obligate any other Bank to so agree.

~~(c)~~ (c) Notification by Administrative Agent. The Administrative Agent shall notify the Company of each Bank's determination under this Section 2.9 no later than the date 20 days prior to the applicable Extension Date (or, if such date is not a Banking Day, on the next preceding Banking Day).

~~(d)~~ (d) Additional Commitment Banks. The Company shall have the right to replace each Non-Extending Bank with another bank or other banks (which may be, but need not be, one or more of the existing Banks, but which shall be an Eligible Assignee) which at the time agree to (i) in the case of any such Bank that is an existing Bank, increase its Pro Rata Share of the Commitment and (ii) in the case of any other such Bank, become a party to this Agreement (each, an **"Additional Commitment Bank"**) as provided in Section 13.9; provided that each of such Additional Commitment Banks shall enter into an Assignment Agreement pursuant to which such Additional Commitment Bank shall, effective as of the applicable Extension Date, undertake a Pro Rata Share of the Commitment (and, if any such Additional Commitment Bank is already a Bank, its Pro Rata Share of the Commitment shall be in addition to such Bank's Pro Rata Share of the Commitment hereunder on such date).

~~(e)~~ (e) Minimum Extension Requirement. If (and only if) the total of the Pro Rata Shares of the Commitment of the Banks that have agreed so to extend their Maturity Date (each, an **"Extending Bank"**) and the additional Pro Rata Shares of the Commitment of the Additional Commitment Banks shall be more than 50% of the Commitment in effect immediately prior to the Extension Date, then, effective as of the Extension Date, the Maturity Date of each Extending Bank and of each Additional Commitment Bank shall be extended to the date falling one year after the Maturity Date then applicable to such Bank (except that, if such date is not a Banking Day, such Maturity Date as so extended shall be the next preceding Banking Day) and each Additional Commitment Bank shall thereupon become a "Bank" for all purposes of this Agreement.

~~(f)~~ (f) Conditions to Effectiveness of Extensions. As a condition precedent to such extension, the Company shall deliver to the Administrative Agent a certificate dated as of the Extension Date (i) certifying and attaching the resolutions adopted by the Company approving or consenting to such extension and (ii) certifying that, before and after giving effect to such extension, (A) the representations and warranties contained in Article 4 are true and correct in all material respects (except that to the extent any representation or warranty is

qualified by materiality, it shall be true and correct in all respects) on and as of the Extension Date, except to the extent that such representations and warranties specifically refer to an earlier date, in which case they are true and correct in all material respects as of such earlier date, and except that for purposes of this Section 2.9, the representations and warranties contained in Sections 4.5, 4.6 and 4.8 shall be deemed to refer to the most recent statements furnished pursuant to subsections (a) and (b), respectively, of Section 7.1, and (B) no Default exists. In addition, on the Maturity Date of each Non-Extending Bank, the Company shall repay all Loans owing to such Non-Extending Bank and outstanding on such date (and pay any additional amounts required pursuant to Section 3.8(c)) to the extent necessary to keep outstanding Loans ratable with any revised Pro Rata Shares of the respective Banks effective as of such date.

2.10 Defaulting Banks.

~~(a)~~ (a) If a Bank becomes, and during the period it remains, a Defaulting Bank, the following provisions shall apply:

~~(i)~~ (i) such Defaulting Bank's Pro Rata Share of the LC Obligations will, subject to the limitation in the proviso below, automatically be reallocated (effective on the day such Bank becomes a Defaulting Bank) among the Non-Defaulting Banks pro rata in accordance with their respective Pro Rata Shares of the Commitment; provided that (A) the sum of each
Non-Defaulting Bank's aggregate principal amount of Advances and Pro Rata Share of the LC Obligations may not in any event exceed the Pro Rata Share of the Commitment of such
Non-Defaulting Bank as in effect at the time of such reallocation and (B) subject to Section 13.25, neither such reallocation nor any payment by a Non-Defaulting Bank pursuant thereto will constitute a waiver or release of any claim the Company, any other Borrower, the Administrative Agent, any Issuing Bank, or any other Bank may have against such Defaulting Bank or cause such Defaulting Bank to be a Non-Defaulting Bank;

~~(ii)~~ (ii) to the extent that any portion (the "unreallocated portion") of the Defaulting Bank's share of the LC Obligations cannot be so reallocated, whether by reason of the proviso in clause (i) above or otherwise, the Borrowers will, not later than three Banking Days after demand by the Administrative Agent (at the direction of an Issuing Bank), (A) Cash Collateralize the obligations of the Borrowers in respect of such LC Obligations in an amount equal to the aggregate amount of the unreallocated portion of such LC Obligations, or (B) make other arrangements satisfactory to the Administrative Agent and each Issuing Bank, as the case may be, in their sole discretion to protect them against the risk of non-payment by such Defaulting Bank;

~~(iii)~~ (iii) any amount paid by the Borrowers or otherwise received by the Administrative Agent for the account of a Defaulting Bank under this Agreement (whether on account of principal, interest, fees, indemnity payments or other amounts) will not be paid or distributed to such Defaulting Bank, but will instead be retained by the Administrative Agent in a segregated non-interest bearing account until (subject to Section 2.10(c)) the termination of the Commitment and payment in full of all obligations of the Borrowers hereunder and will be applied by the Administrative Agent, to the fullest extent permitted by law, to the making of payments from time to time in the following order of priority: first to the payment of any amounts owing by such Defaulting Bank to the Administrative Agent under this Agreement,

second to the payment of any amounts owing by such Defaulting Bank to an Issuing Bank (pro rata as to the respective amounts owing to each of them) under this Agreement, third to the payment of post-default interest and then current interest due and payable to the Banks hereunder other than Defaulting Banks, ratably among them in accordance with the amounts of such interest then due and payable to them, fourth to the payment of fees then due and payable to the Non-Defaulting Banks hereunder, ratably among them in accordance with the amounts of such fees then due and payable to them, fifth to pay principal then due and payable to the
Non-Defaulting Banks hereunder ratably in accordance with the amounts thereof then due and payable to them, sixth to the ratable payment of other amounts then due and payable to the
Non-Defaulting Banks, and seventh after the termination of the Commitment and payment in full of all obligations of the Borrowers hereunder, to pay amounts owing under this Agreement to such Defaulting Bank or as a court of competent jurisdiction may otherwise direct. Any payments, prepayments or other amounts paid or payable to a Defaulting Bank that are applied (or held) to pay amounts owed by a Defaulting Bank or to post cash collateral pursuant to this Section 2.10 shall be deemed paid to and redirected by such Defaulting Bank, and each Bank irrevocably consents hereto; and

~~(iv)~~ (iv) so long as such Bank is a Defaulting Bank or a Potential Defaulting Bank, the Issuing Banks shall not be required to issue, amend or increase any Letter of Credit, unless it is satisfied that the related exposure and such Defaulting Bank's or such Potential Defaulting Bank's Pro Rata Share of the then outstanding LC Obligations will be 100% covered by the Pro Rata Shares of the Commitment of the Non-Defaulting Banks and/or cash collateral will be provided by the Borrowers in accordance with Section 2.10(a)(ii), and participating interests in any newly issued or increased Letter of Credit shall be allocated among Non-Defaulting Banks in a manner consistent with Section 2.10(a)(i) (and such Defaulting Bank or Potential Defaulting Bank shall not participate therein).

In furtherance of the foregoing, if any Bank becomes, and during the period it remains, a Defaulting Bank or a Potential Defaulting Bank, each Issuing Bank is hereby authorized by each Borrower (which authorization is irrevocable and coupled with an interest) to give, in its discretion, through the Administrative Agent, a Request for Loan pursuant to Section 8.2 in such amounts and in such times as may be required to (i) reimburse an outstanding drawing under a Letter of Credit, and/or (ii) Cash Collateralize the obligations of the Borrowers in respect of outstanding Letters of Credit in an amount at least equal to the aggregate amount of the obligations (contingent or otherwise) of such Defaulting Bank or Potential Defaulting Bank in respect of such Letter of Credit.

~~(b)~~ (b) No Pro Rata Share of the Commitment of any Bank shall be increased or, except as otherwise expressly provided in this Section 2.10, otherwise affected, and performance by each Borrower of its obligations shall not be excused or otherwise modified as a result of the operation of this Section 2.10. The rights and remedies against a Defaulting Bank under this Section 2.10 are in addition to any other rights and remedies which the Company, any other Borrower, the Administrative Agent, any Issuing Bank or any Bank may have against such Defaulting Bank.

~~(c)~~ (c) If the Company and the Administrative Agent agree in writing in their reasonable determination that a Defaulting Bank or a Potential Defaulting Bank should no longer

be deemed to be a Defaulting Bank or a Potential Defaulting Bank, as the case may be, the Administrative Agent will so notify the parties hereto, whereupon as of the effective date specified in such notice and subject to any conditions set forth therein (which may include arrangements with respect to any cash collateral), that Bank will, to the extent applicable, purchase that portion of outstanding Advances of the other Banks or take such other actions as the Administrative Agent may determine to be necessary to cause the Advances to be funded and held on a pro rata basis by the Banks in accordance with their Pro Rata Share, whereupon such Bank will cease to be a Defaulting Bank or Potential Defaulting Bank; provided that no adjustments will be made retroactively with respect to fees accrued or payments made by or on behalf of the Borrowers while that Bank was a Defaulting Bank; and provided, further, that except to the extent otherwise expressly agreed by the affected parties, no change hereunder from Defaulting Bank or Potential Defaulting Bank to Bank will constitute a waiver or release of any claim of any party hereunder arising from such Bank's having been a Defaulting Bank or Potential Defaulting Bank.

ARTICLE 3 ~~ARTICLE 3~~
~~Payments and Fees~~PAYMENTS AND FEES

3.1 Principal and Interest.

(a) Interest shall be payable on the outstanding daily unpaid principal amount of each Loan from the date thereof until payment in full is made and shall accrue and be payable at the rates set forth herein before and after default, before and after maturity, before and after judgment, and before and after the commencement of any proceeding under any Debtor Relief Law, with interest on overdue interest to bear interest at the Default Rate to the fullest extent permitted by applicable Laws.

(b) Interest accrued on each Base Rate Advance shall be payable quarterly in arrears on the last day of each March, June, September and December commencing on the first such date to occur after the Closing Date. Except as otherwise provided in Section 3.9, the unpaid principal amount of any Base Rate Advance shall bear interest at a fluctuating rate per annum equal to the Base Rate plus the weighted average of the Daily Margin for each day during the applicable period. Each change in the interest rate hereunder shall take effect simultaneously with the corresponding change in the Base Rate. Each change in the Base Rate shall be effective as of 12:01 a.m., New York time, on the Banking Day on which the change in the Base Rate is announced, unless otherwise specified in such announcement, in which case the change shall be effective as so specified.

(c) Interest accrued on each ~~EURO~~Term Rate Advance, the Interest Period for which is three months or less, shall be due and payable on the last day of the applicable Interest Period. Interest accrued on each other ~~EURO~~Term Rate Advance shall be due and payable on every three month anniversary of the date which is three months after the date such ~~EURO~~Term Rate Advance was made, converted or continued pursuant to Section 2.5 and on the last day of the Interest Period. Except as otherwise provided in Section 3.9, (i) the unpaid principal amount of any ~~Eurodollar~~Adjusted Term SOFR Rate Advance shall bear interest at a rate per annum

equal to ~~the Eurodollar Rate~~Adjusted Term SOFR for that ~~Eurodollar~~Adjusted Term SOFR Rate Advance plus the weighted average of the Daily Margin for each day during the applicable period and (ii) the unpaid principal amount of any EURIBOR Rate Advance shall bear interest at a rate per annum equal to the EURIBOR Rate for that EURIBOR Rate Advance plus the weighted average of the Daily Margin for each day during the applicable period.

(d) If not sooner paid, the principal amount of each Advance shall be payable to each Bank on the Maturity Date applicable to such Bank.

(e) If the Administrative Agent notifies the Company at any time that the Dollar Equivalent of the Total Outstandings exceeds the Commitment, by reason of fluctuations in exchange rates or otherwise, the Borrowers shall, within two Banking Days after receipt of such notice, prepay Loans in an aggregate amount sufficient to reduce the Dollar Equivalent thereof as of the date of such payment to an amount not to exceed the Commitment then in effect.

(f) The Loans may, at any time and from time to time, voluntarily be paid or prepaid in whole or in part without premium or penalty, except that with respect to any voluntary prepayment under this subsection, (i) any partial prepayment shall be in minimum amount of
$2,000,000 and €2,000,000 and multiples of $1,000,000 and €1,000,000, as applicable, in excess thereof, (ii) the Administrative Agent shall have received written notice of any prepayment by
(x) 11:00 a.m. (New York time) on the date of prepayment (which shall be a Banking Day), in the case of a Base Rate Advance, (y) by 1:00 p.m. (New York time) three (3) ~~Banking~~U.S. Government Securities Business Days before the date of prepayment, in the case of ~~a Eurodollar~~an Adjusted Term SOFR Rate Advance, and (z) by 9:30 a.m. (London time) three (3) Banking Days before the date of prepayment, in the case of a EURIBOR Rate Advance, which notice shall identify the date and amount of the prepayment and the Loan(s) being prepaid,
(iii) each prepayment of principal shall be accompanied by payment of interest accrued through the date of payment on the amount of principal paid and (iv) in any event, any payment or prepayment of all or any part of any ~~EURO~~Term Rate Advance on a day other than the last day of the applicable Interest Period shall be subject to Section 3.8(c). Any such notice of prepayment may be conditioned upon the successful closing of a new financing and the Administrative Agent will promptly notify each Bank thereof and of such Bank's portion of the outstanding Loans being prepaid; provided that, to the extent such notice of prepayment is rescinded and/or the prepayment is not made, the Borrowers shall pay any amounts required to be made under Section 3.8(c).

3.2 Facility Fee. The Company agrees to pay to the Administrative Agent for the account of each Bank (other than a Defaulting Bank for such time as such Bank is a Defaulting Bank solely in respect of its unused Pro Rata Share of the Commitment) a facility fee on such Bank's daily average Pro Rata Share of the Commitment, whether used or unused, from the Closing Date in the case of each Bank and from the effective date specified in the Assignment Agreement pursuant to which it became a Bank in the case of each other Bank until the Maturity Date applicable to such Bank, payable quarterly in arrears on the last day of each March, June, September and December, commencing on December 31, 2019, in an amount equal to the product of (i) such Bank's daily average Pro Rata Share of the Commitment, whether used or unused, in effect during the period for which such payment that is to be made times (ii) the weighted average rate per annum that is derived from the following rates: (a) a rate of 0.05% per

annum with respect to each day during such period that the ratings with respect to Long-Term Debt were at Level 1, (b) a rate of 0.07% per annum with respect to each day during such period that such ratings were at Level 2, (c) a rate of 0.09% per annum with respect to each day during such period that such ratings were at Level 3, (d) a rate of 0.10% per annum with respect to each day during such period that such ratings were at Level 4 and (e) a rate of 0.125% per annum with respect to each day during such period that such ratings were at Level 5. If any change in the rating established by S&P or Moody's with respect to Long-Term Debt shall result in a change in the Level, the change in the facility fee shall be effective as of the date on which such rating change is publicly announced. If the ratings established by S&P or Moody's with respect to Long-Term Debt are unavailable for any reason for any day, then the applicable Level for purposes of calculating the facility fee for such day shall be deemed to be Level 5 (or, if the Majority Banks consent in writing, such other Level as may be reasonably determined by the Majority Banks from a rating with respect to Long-Term Debt for such day established by another rating agency reasonably acceptable to the Majority Banks).

3.3 Arranger Fees and Agency Fees. On the Closing Date, the Company shall pay to the Arrangers fees in the amounts agreed upon by letter agreements dated November 6, 2019 among the Company and the Arrangers. Such fees are for the sole account of the Arrangers and are fully earned upon receipt and non-refundable. The Company shall pay to the Administrative Agent agency fees in the amounts agreed upon by letter agreement dated November 6, 2019 between the Company and Citigroup Global Markets Inc. Such agency fees shall be payable annually in advance as set forth in such letter agreements. The agency fees are for the sole account of the Administrative Agent and are fully earned upon receipt and non-refundable; provided, however that in the event the facilities hereunder are terminated, the agency fees deemed earned shall be pro rated over the number of days from the last quarterly date on which the agency fees were paid to the termination date of the facilities.

3.4 LC Issuance Fee. The Company shall pay, on the last day of each Fiscal Quarter, a LC Issuance Fee to the Administrative Agent for the account of each Issuing Bank, in the amounts agreed upon in writing between the Company and such Issuing Bank. The LC Issuance Fees are for the sole account of the applicable Issuing Bank and are fully earned upon receipt and non-refundable.

3.5 LC Reimbursement Fee. The Company shall pay, on the last day of each Fiscal Quarter, a LC Reimbursement Fee to the Administrative Agent, for the pro rata benefit of the Banks in accordance with their respective Pro Rata Shares of the Commitment, in an amount equal to the average daily face amount of Letters of Credit outstanding during such Fiscal Quarter times the weighted average of the Daily Margin for ~~EURO~~Term Rate Advances for each day during such period; provided, that (a) to the extent that all or a portion of the Fronting Exposure in respect of any Defaulting Bank is reallocated to the Non-Defaulting Banks pursuant to Section 2.10(a), such fees that would have accrued for the benefit of such Defaulting Bank will instead accrue for the benefit of and be payable to such Non-Defaulting Banks, pro rata in accordance with their respective Pro Rata Shares of the Commitment, and (b) to the extent that all or any portion of such Fronting Exposure cannot be so reallocated, such fees will instead accrue for the benefit of and be payable to the respective Issuing Banks ratably according to the outstanding Letters of Credit issued by each Issuing Bank; provided further that, with respect to this subclause (b), to the extent that any portion of the Fronting Exposure in respect of any

Defaulting Bank is Cash Collateralized pursuant to Section 2.10(b) or otherwise, no such fees shall be payable to the respective Issuing Banks with respect to such Cash Collateralized portion of such Fronting Exposure.

3.6 LC Drawing Fee. The Company shall pay a drawing fee to each Issuing Bank in the amount of $250 for each drawing under any Letters of Credit issued by it, payable on the date of such drawing or promptly upon notice to the Company of the draw under any Letter of Credit.

3.7 Capital Adequacy. If any Bank (including an Issuing Bank) determines in good faith that compliance with any Law or regulation or with any guideline or request (excluding any published as of the date hereof or currently scheduled to take effect) from any central bank or other Governmental Agency (whether or not having the force of Law), in each case adopted or effective after the date hereof has or would have the effect of reducing the rate of return on the capital of such Bank or any corporation controlling such Bank as a consequence of, or with reference to, such Bank's Pro Rata Share of any portion of the Commitment or its making or maintaining of Advances, or its issuance of any Letter of Credit, below the rate which such Bank or such other corporation could have achieved but for such compliance (taking into account the policies of such Bank or corporation with regard to capital), then the Company shall from time to time, upon demand by such Bank (with a copy of such demand to the Administrative Agent), immediately pay to such Bank additional amounts sufficient to compensate such Bank or other corporation for such reduction. A certificate as to such amounts, setting forth in reasonable detail the basis for such calculations, submitted to the Company and the Administrative Agent by such Bank, shall be conclusive and binding for all purposes, absent manifest error. Each Bank agrees promptly to notify the Company and the Administrative Agent of any circumstances that would cause the Company to pay additional amounts pursuant to this Section 3.7.

3.8 Increased Costs.

(a) If, after the date hereof, by reason of (i) the adoption of any Law by any Governmental Agency, central branch or comparable authority with respect to activities in the ~~Eurocurrency~~Interbank Market, or (ii) any change in the interpretation or administration of any existing Law by any Governmental Agency, central bank or comparable authority charged with the interpretation or administration thereof, or (iii) compliance by any Bank or its ~~Eurocurrency~~Applicable Lending Office or any Issuing Bank with any request or directive (whether or not having the force of Law) of any such Governmental Agency, central bank or comparable authority, or (iv) the existence or occurrence of circumstances affecting the ~~Eurocurrency~~Interbank Market generally that are beyond the reasonable control of the Banks:

(1) (A) any reserve (including, without limitation, any reserve imposed by the Board of Governors of the Federal Reserve System), liquidity, special deposit, compulsory loan, insurance charge or similar requirements shall be imposed, modified or deemed applicable against assets of, deposits with or for the account of, or credit extended by, any Bank or its ~~Eurocurrency~~Applicable Lending Office or any Issuing Bank; or

~~(1)~~ (B) any Bank or its ~~Eurocurrency~~Applicable Lending Office or the ~~Eurocurrency~~Interbank Market or any Issuing Bank shall have imposed on it any other condition, cost or expense affecting any Advance, any of its Notes, its obligation to make Advances or this Agreement, or its obligation to make or maintain Letters of Credit hereunder, or any of the same shall otherwise be adversely affected;

and the result of any of the foregoing, as determined by such Bank, increases the cost to such Bank or its ~~Eurocurrency~~Applicable Lending Office of making, converting to, continuing or maintaining any Advance or in respect of any Advance, any of its Notes or its obligation to make Advances or the issuance or maintenance of any Letter of Credit or reduces the amount of any sum received or receivable by such Bank or its ~~Eurocurrency~~Applicable Lending Office with respect to any Advance, any of its Notes or its obligation to make Advances (assuming such Bank's ~~Eurocurrency~~Applicable Lending Office had funded 100% of its ~~EURO~~EURIBOR Rate Advance in the ~~Eurocurrency~~Interbank Market) or in respect of Letters of Credit or its participation therein, then, upon demand by such Bank or such Issuing Bank (with a copy to the Administrative Agent), the Company shall pay to such Bank or such Issuing Bank, as the case may be, such additional amount or amounts as will compensate such Bank or such Issuing Bank, as the case may be, for such increased cost or reduction; provided, however, that this Section 3.8 shall not apply to any increased cost resulting from Indemnified Taxes, which are covered by Section 3.12 or Excluded Taxes. A statement of any Bank or such Issuing Bank claiming compensation under this subsection and setting forth the additional amount or amounts to be paid to it hereunder shall be conclusive in the absence of manifest error. Each Bank and each Issuing Bank agree to endeavor promptly to notify the Company of any event of which it has actual knowledge (and, in any event, within 90 days from the date on which it obtained such knowledge), occurring after the Closing Date, which will entitle such Bank or such Issuing Bank to compensation pursuant to this Section 3.8, and agrees to designate a different ~~Eurocurrency~~Applicable Lending Office if such designation will avoid the need for or reduce the amount of such compensation and will not, in the judgment of such Bank or such Issuing Bank, otherwise be disadvantageous to such Bank or such Issuing Bank. If any Bank claims compensation under this Section 3.8, the Company may at any time, upon at least four (4) Banking Days' prior notice to the Administrative Agent and Banks and upon payment in full of the amounts provided for in this Section 3.8 through the date of such payment plus any fee required by Section 3.8(c), pay in full all Advances or request that all ~~EURO~~Term Rate Advances be converted to Base Rate Advances or all Base Rate Advances be converted to ~~EURO~~Term Rate Advances.

~~(2)~~ If any Bank shall have reasonably determined that it shall be unlawful for such Bank or its ~~Eurocurrency~~Applicable Lending Office to make, maintain or fund its portion of any ~~EURO~~Term Rate Advance, or the authority of such Bank to purchase or sell, or to take deposits of, ~~Dollars or~~ Euros in the ~~Eurocurrency~~Interbank Market, or to determine or charge interest rates based upon ~~the Eurodollar Rate~~Adjusted Term SOFR or EURIBOR Rate has become unlawful, then such Bank shall so notify the Administrative Agent and the other Banks, and such Bank's obligation to make ~~EURO~~Term Rate Advances shall be

suspended for the duration of such illegality and the Administrative Agent forthwith shall give notice thereof to the Company and such Bank shall make a Base Rate Advance as part of any successive ~~EURO~~Term Rate Advance. Upon receipt of such notice, the outstanding principal amount of all ~~EURO~~Term Rate Advances made by such Bank~~, together with accrued interest thereon,~~ automatically shall be converted to Base Rate Advances with Interest Periods corresponding to the ~~EURO~~Term Rate Advances of which such ~~EURO~~Term Rate Advances were a part and, if, on the date of any such conversion, any such ~~EURO~~Term Rate Advance is an Alternative Currency Loan, it shall be redenominated into a Dollar Loan in a principal amount equal to the Dollar Equivalent of the amount of such Alternative Currency Loan on either (A) the last day of the Interest Period(s) applicable to such ~~EURO~~Term Rate Advances if the affected Bank may lawfully continue to maintain and fund such ~~EURO~~Term Rate Advances to such day(s) or (B) immediately if the affected Bank may not lawfully continue to fund and maintain such ~~EURO~~Term Rate Advances to such day(s), provided that in such event the conversion shall not be subject to payment of a fee under Section 3.8(c).

(b) ~~I~~if, with respect to any proposed ~~EURO~~Term Rate Advance:

(i) the Majority Banks reasonably determine that, by reason of circumstances affecting the ~~Eurocurrency~~Interbank Market generally that are beyond the reasonable control of the Banks, deposits in ~~Dollars or~~ Euros (in the applicable amounts) are not being offered to each of the Banks in the ~~Eurocurrency~~Interbank Market for the applicable Interest Period; or

(ii) the Majority Banks advise the Administrative Agent that ~~the Eurodollar Rate~~Adjusted Term SOFR or EURIBOR Rate, as the case may be, as determined by the Administrative Agent (1) does not represent the effective pricing to such Banks for deposits in ~~Dollars or~~ Euros~~, as the case may be,~~ in the ~~Eurocurrency~~Interbank Market in the relevant amount for the applicable Interest Period, or (2) will not adequately and fairly reflect the cost to such Banks of making the applicable ~~EURO~~Term Rate Advances;

then the Administrative Agent forthwith shall give notice thereof to the Company and the Banks, whereupon until the Administrative Agent notifies the Company that the circumstances giving rise to such suspension no longer exist, the obligation of the Banks to make any future ~~EURO~~Term Rate Advances shall be suspended. If at the time of such notice there is then pending a Request for Loan that specifies a ~~EURO~~Term Rate Advance, such Request for Loan shall be deemed to specify a Base Rate Advance in Dollars. If at the time of such notice there are any Term Rate Advances outstanding, all such Term Rate Advances automatically shall be converted to Base Rate Advances in Dollars on the last day of the Interest Period(s) applicable to such Term Rate Advances.

(c) The Company shall compensate each Bank for any loss sustained by that Bank in connection with the liquidation or re-employment of funds, excluding any loss of margin, and, without duplication, all actual out-of-pocket expenses (excluding allocations of any expense

internal to such Bank) reasonably attributable thereto that such Bank may sustain: (i) if for any reason (other than a default by that Bank) a borrowing of any ~~EURO~~Term Rate Advance does not occur on a date or in the amount specified therefor in a Request for Loan or a telephonic request for loan or a Conversion to or continuation of any ~~EURO~~Term Rate Advance does not occur on a date specified therefor in a Notice of Conversion/Continuation or a telephone request for Conversion or continuation; (ii) if any prepayment or other principal payment or any conversion (other than as a result of a conversion required under Section 3.8(a)(2)) or assignment in accordance with Section 3.19 of any of its ~~EURO~~Term Rate Advances occurs on a date prior to the last day of an Interest Period applicable to that Loan, or (iii) if any prepayment of any of its ~~EURO~~Term Rate Advances is not made on any date specified in a notice of prepayment given by the Company. Each Bank's determination of any amount payable under this Section 3.8(c) shall be conclusive in the absence of manifest error. Each Bank shall submit an invoice to the Administrative Agent of the amount payable by the Company under this Section 3.8(c) setting forth in reasonable detail the basis for such amount and the Administrative Agent shall notify the Company of such amount. The Company shall pay such amount to the Administrative Agent for the account of the relevant Bank, and the Administrative Agent shall promptly pay each relevant Bank the portion of the amount owed to it.

(d) Anything in this Agreement to the contrary notwithstanding, to the extent any notice under Section 3.7, 3.8 or 3.12 is given by any Bank more than 180 days after such Bank has knowledge (or should have had knowledge) of the occurrence of the event (or, in the case of a claim under Section 3.12, of the amount of such claim) giving rise to the additional cost, reduction in amounts, loss, Tax or other additional amounts described in such Section 3.7, 3.8 or 3.12 , as the case may be, such Bank shall not be entitled to compensation under such Section for any such amounts incurred or accruing prior to the giving of such notice (except that, if such event giving rise to the cost, reduction in amounts, loss, Tax or other amounts described in such Section 3.7, 3.8 or 3.12 is retroactive, then the 180 day period referred to above shall be extended to include the period of retroactive effective thereof).

(e) Notwithstanding anything to the contrary in this Agreement or any other Loan Documents, if the Administrative Agent determines (which determination shall be conclusive absent manifest error) that:

~~(i)~~ (i) adequate and reasonable means do not exist for ascertaining the applicable Reference Rate for any requested Interest Period, including, without limitation, because the applicable Reference Rate is not available or published on a current basis and such circumstances are unlikely to be temporary; or

~~(ii)~~ (ii) the supervisor for the administrator of the applicable Reference Rate or a governmental authority having jurisdiction over the Administrative Agent has made a public statement identifying a specific date after which the applicable Reference Rate shall no longer be used for determining the interest rate of loans (such specific date, the **"Scheduled Unavailability Date"),**

then, after such determination by the Administrative Agent, the Administrative Agent and the Company may amend this Agreement (i) to replace the applicable Reference Rate with an alternate benchmark rate (including any mathematical or other adjustments to the benchmark (if any) incorporated therein) that gives due consideration to the then prevailing market convention for determining a rate of interest for syndicated loans in the United States at such time in lieu of the applicable Reference Rate (any such proposed rate, a "Successor Rate"; provided that if the Successor Rate shall be less than zero, such rate shall be deemed to be zero for the purposes of this Agreement), and (ii) to make any Successor Rate Conforming Changes (as defined below) and, notwithstanding anything to the contrary in Section ~~3.2~~13.2, any such amendment shall become effective without any further action or consent of any other party to this Agreement at 5:00 p.m. (New York time) on the fifth Business Day after the Administrative Agent shall have posted such proposed amendment to all Banks and the Company unless, prior to such time, Banks comprising the Majority Banks have delivered to the Administrative Agent notice that such Majority Banks do not accept such amendment.

If no Successor Rate has been determined and the circumstances under clause (i) above exist or the Scheduled Unavailability Date has occurred, the obligation of the Banks to make or maintain ~~EURO~~Term Rate Advances shall be suspended (to the extent of the affected ~~EURO~~Term Rate Advances or Interest Periods). Upon receipt of notice from the Administrative Agent regarding its determination, the Borrowers may revoke any pending request for a Borrowing of, conversion to, or continuation of, ~~EURO~~Term Rate Advances (to the extent of the affected ~~EURO~~Term Rate Advances or Interest Periods) or, failing that, will be deemed to have converted such request into a request for a Borrowing of Base Rate Advances in the amount specified therein (or, in the case of a ~~EURO~~Term Rate Advance denominated in an Alternative Currency, in an amount equal to the Dollar Equivalent thereof).

3.9 Default Rate. Upon the occurrence and during the continuation of any Event of Default under Section 9.1(a) or (b), the outstanding principal amount of all Advances and, to the extent permitted by applicable Law, any interest payments thereon not paid when due and any fees and other amounts then due and payable hereunder, shall thereafter bear interest at a fluctuating interest rate per annum at all times equal to 2% in excess of the interest rate otherwise payable under this Agreement with respect to the applicable Advances (or, in the case of any such fees and other amounts, at a rate which is 2% per annum in excess of the interest rate otherwise payable under this Agreement for Base Rate Advances), to the fullest extent permitted by applicable Laws; provided that, in the case of ~~EURO~~Term Rate Advances, upon the expiration of the Interest Period in effect at the time any such increase in interest rate is effective such ~~EURO~~Term Rate Advances shall thereupon become Base Rate Advances and shall thereafter bear interest payable upon demand at a rate which is 2% per annum in excess of the interest rate otherwise payable under this Agreement for Base Rate Advances. Accrued and unpaid interest on past due amounts (including, without limitation, interest on past due interest) shall be compounded daily and shall be payable on demand, to the fullest extent permitted by applicable Laws.

3.10 Computation of Interest and Fees. Computation of interest on Base Rate Advances when the Base Rate is calculated by reference to Citibank's base commercial lending rate shall be calculated on the basis of a year of 365 or 366 days, as the case may be, and actual days elapsed. Computation of all fees and other interest (including in the case of interest on Base Rate Advances determined by reference to ~~One-Month LIBOR~~Adjusted Term SOFR or the Federal Funds Effective Rate and ~~Eurodollar~~Adjusted Term SOFR Rate Advances) shall be

calculated on the basis of a year of 360 days and the actual number of days elapsed. Any Advance that is repaid on the same day on which it is made shall bear interest for one day.

3.11 Non-Banking Days. If any payment to be made by a Borrower or any other party under any Loan Document shall come due on a day other than a Banking Day, payment shall instead be considered due on the next succeeding Banking Day and the extension of time shall be reflected in computing the amount of such payment.

3.12 Manner and Treatment of Payments.

(a) Except as set forth in the next sentence, each payment hereunder or on the Notes or under any other Loan Document in Dollars shall be made to the Administrative Agent, at the Administrative Agent's Office, for the account of each of the appropriate Banks or the applicable Issuing Bank, as the case may be, in immediately available funds, without any set-off or counterclaim, not later than 2:00 p.m., New York time, on the day of payment (which must be a Banking Day). Each Borrower shall make each payment hereunder with respect to amounts denominated in the Alternative Currency not later than 2:00 p.m. (local time) (at the Alternative Currency Payment Office) on the day when due in such currency to the Administrative Agent in same day funds by deposit of such funds to the Administrative Agent's account maintained at the Alternative Currency Payment Office. All payments received after 2:00 p.m., New York time or local time (as the case may be), on any particular Banking Day, shall be deemed received on the next succeeding Banking Day. The amount of all payments received by the Administrative Agent for the account of each Bank or Issuing Bank shall be promptly paid by the Administrative Agent to the applicable Bank or the applicable Issuing Bank, as the case may be, in immediately available funds. All payments of principal and interest shall be made in the currency of the applicable Advance. All other payments shall be made in Dollars.

(b) Prior to the occurrence of any Event of Default, each payment or prepayment received by the Administrative Agent on account of any Loan shall be applied:

(i) To the Loans, pro rata in accordance with the aggregate principal amount thereof owed to each Bank,

(ii) Any mandatory prepayment of Loans shall be applied first to Base Rate Advances to the full extent thereof before application to ~~EURO~~Term Rate Advances as determined by Administrative Agent, in each case in a manner which minimizes the amount of any payments required to be made by Company pursuant to Section 3.8(c).

(c) Each Bank shall use its best efforts to keep a record of Advances made by it and payments received by it with respect to its Loans and, subject to Section 13.9(g), such record shall be presumptive evidence of the amounts owing. Notwithstanding the foregoing sentence, no Bank shall be liable to any party for any failure to keep such a record.

(d) ~~(i)~~ (i) Any and all payments by any Borrower to or for the account of the Administrative Agent or any Bank under this Agreement or any other Loan Document and by the Company acting in its capacity as guarantor under Article 11 shall be made free and clear of and without deduction for any and all present or future taxes, duties, levies, imposts, deductions, assessments, fees, withholdings or similar charges imposed

by any Governmental Agency, and all liabilities with respect thereto (collectively, **"Taxes"**), excluding, in the case of the Administrative Agent and each Bank, (A) any Taxes imposed on or measured by its net income (however denominated), franchise taxes imposed on it (in lieu of net income Taxes) and branch profits Taxes, in each case, (1) imposed by the jurisdiction (or any political subdivision thereof) under the Laws of which the Administrative Agent or such Bank, as the case may be, is organized or maintains a lending office or (2) that are Other Connection Taxes, (B) any Taxes attributable to the Administrative Agent's or such Bank's failure or inability to provide the forms set forth in Section 13.27, other than as a result of a change in applicable Law after the date such Person became a party to this Agreement, (C) United States withholding Taxes imposed on amounts payable to or for the account of a Bank with respect to an applicable interest in a Loan or Commitment pursuant to a Law in effect on the date on which (1) such Bank acquires such interest in the Loan or Commitment or (2) such Bank changes its lending office,~~:~~ except in each case to the extent that, if at the date of the Assignment Agreement pursuant to which a Bank assignee becomes a party to this Agreement or at the date of such Bank changing its lending office, the assignor or such Bank was entitled to payments under this Section 3.12(d)(i) or (iii) in respect of such United States withholding Tax paid at such date and (D) Taxes imposed under FATCA (all such non-excluded Taxes being hereinafter referred to as **"Indemnified Taxes"** and all such excluded Taxes being hereinafter referred to as **"Excluded Taxes"**). If any Borrower, the Company acting in its capacity as guarantor under Article 11 or the Administrative Agent shall be required by any Laws to deduct any Taxes from or in respect of any sum payable under any Loan Document to the Administrative Agent or any Bank, as applicable, (i) if such Taxes are Indemnified Taxes, then the sum payable by any Borrower or the Company shall be increased as necessary so that after all such required deductions are made (including deductions applicable to additional sums payable under this Section 3.12(d)), each of the Administrative Agent and such Bank receives an amount equal to the sum it would have received had no such deductions been made, (ii) such Borrower, the Company or the Administrative Agent, as applicable, shall make such deductions, ~~(iii)~~ such Borrower, the Company or the Administrative Agent, as applicable, shall pay the full amount deducted to the relevant Governmental Agency in accordance with applicable Laws, and (iv) as soon as practicable after the date of such payment, such Borrower or the Company shall furnish to the Administrative Agent (which shall forward the same to such Bank) the original or a certified copy of a receipt evidencing payment thereof (to the extent available).

~~(ii)~~ (ii) In addition, any Borrower or the Company acting in its capacity as guarantor under Article 11 agrees to pay any and all present or future stamp, court or documentary Taxes and any other excise or property Taxes or charges or similar levies which arise from any payment made under any Loan Document or from the execution, delivery, performance, enforcement or registration of, or otherwise with respect to, any Loan Document, except any such Taxes imposed as a result of a grant of a participation, designation of a new lending office, transfer or assignment (other than an assignment pursuant to a request by a Borrower under Section 3.19) (hereinafter referred to as "**Other Taxes"**).

~~(iii)~~ (iii) Each Borrower and the Company acting in its capacity as guarantor under Article 11 agrees to indemnify the Administrative Agent and each Bank for (A) the full amount of Indemnified Taxes and Other Taxes (including any Indemnified Taxes or Other Taxes imposed or asserted by any jurisdiction on amounts payable under this Section 3.12) paid by the Administrative Agent and such Bank and (B) any interest, penalties or additions to tax arising therefrom or with respect thereto, in each case whether or not such Indemnified Taxes or Other Taxes were correctly or legally imposed or asserted by the relevant Governmental Agency. Payment under this Section 3.12(d)(iii) shall be made within 30 days after the date the Bank or the Administrative Agent makes a written demand therefor.

~~(iv)~~ (iv) If a Borrower or the Company acting in its capacity as guarantor under Article 11 is required to pay additional amounts to or for the account of any Bank pursuant to this Section 3.12, then such Bank will change the jurisdiction of its applicable lending office if, in the judgment of such Bank, such change (A) will eliminate or reduce any such additional payment that may thereafter accrue and (B) is not otherwise disadvantageous to such Bank.

~~(v)~~ (v) If the Administrative Agent, any Bank or any Issuing Bank determines, in its sole discretion exercised in good faith, that it has received a refund of any Taxes as to which it has been indemnified or reimbursed by any Borrower (or by the Company acting in its capacity as guarantor under Article 11) or with respect to which any Borrower (or the Company acting in its capacity as guarantor under Article 11) has paid an additional or indemnification amount hereunder, the Administrative Agent, such Bank or such Issuing Bank shall pay to the Borrowers or the Company as guarantor (within thirty (30) days after such Person became aware it received such refund) an amount equal to such refund. In the event such indemnified party is required by the relevant Governmental Agency to repay any portion of such refund, then such indemnifying party, upon the request of such indemnified party, shall repay to such indemnified party such portion of any refund previously paid over to such indemnifying party (plus any penalties, interest or other charges imposed by such Governmental Agency with respect to such portion of such refund). Notwithstanding anything to the contrary in this Section 3.12(d)(v), in no event will the Administrative Agent or any Bank or Issuing Bank be required to pay any amount to any Borrower pursuant to this Section 3.12(d)(v) to the extent such payment would place the Administrative Agent or such Bank or Issuing Bank in a less favorable net after-Tax position than the Administrative Agent or such Bank or Issuing Bank would have been in if the Tax subject to indemnification and giving rise to such refund had not been deducted, withheld or otherwise imposed and the indemnification payments or additional amounts with respect to such Tax had never been paid.

~~(vi)~~ (vi) For purposes of this Section 3.12(d), the term “Law” includes FATCA.

3.13 Funding Sources. Nothing in this Agreement shall be deemed to obligate any Bank to obtain the funds for any Loan or Advance in any particular place or manner or to constitute a representation by any Bank that it has obtained or will obtain the funds for any Loan

or Advance in any particular place or manner. Each of the Borrowers agrees that, for the purposes of any determination to be made under Section 3.8, each Bank shall be deemed to have funded its ~~EURO~~EURIBOR Rate Advances with ~~Dollar or~~ Euro deposits~~, as the case may be,~~ in the ~~London interbank market~~Interbank Market.

3.14 Failure to Charge Not Subsequent Waiver . Any decision by any Bank not to require payment of any interest (including interest arising under Section 3.9), fee, cost or other amount payable under any Loan Document, or to calculate any amount payable by a particular method, on any occasion shall in no way limit or be deemed a waiver of such Bank's right to require full payment of any interest (including interest arising under Section 3.9), fee, cost or other amount payable under any Loan Document, or to calculate an amount payable by another method, on any other or subsequent occasion.

3.15 Administrative Agent's Right to Assume Payments Will be Made by Borrower . Unless the Administrative Agent shall have been notified by a Borrower prior to the date on which any payment to be made by that Borrower hereunder is due that such Borrower does not intend to remit such payment, the Administrative Agent may, in its discretion, assume that such Borrower has remitted such payment when so due and the Administrative Agent may, in its discretion and in reliance upon such assumption, make available to each Bank on such payment date an amount equal to such Bank's share of such assumed payment. If a Borrower has not in fact remitted such payment to the Administrative Agent, each Bank shall forthwith on demand repay to the Administrative Agent the amount of such assumed payment made available to such Bank, together with interest thereon in respect of each day from and including the date such amount was made available by the Administrative Agent to such Bank to the date such amount is repaid to the Administrative Agent at a rate per annum equal to the average overnight federal funds rate.

3.16 Fee Determination Detail. The Administrative Agent, any Issuing Bank and any Bank, shall provide reasonable detail to the Company regarding the manner in which the amount of any payment to the Banks, or that Bank, under Article 3 has been determined.

3.17 Survivability. All of the Company's obligations under Sections 3.7 and 3.8 shall survive for thirty (30) days following the termination of this Agreement; provided, however, that such obligations shall not, from and after the termination of this Agreement, be deemed Obligations for any purpose under the Loan Documents.

3.18 Dodd-Frank, Etc. For the avoidance of doubt and notwithstanding anything herein to the contrary, for the purposes of Sections 3.7 and 3.8, (a) the Dodd-Frank Wall Street Reform and Consumer Protection Act and all requests, rules, regulations, guidelines, interpretations or directives thereunder or issued in connection therewith (whether or not having the force of law) and (b) all requests, rules, regulations, guidelines, interpretations or directives promulgated by the Bank for International Settlements, the Basel Committee on Banking Supervision (or any successor or similar authority) or the United States or foreign regulatory authorities (whether or not having the force of law), in case for this clause (b) pursuant to Basel III, shall in each case be deemed to be a change in Law regardless of the date enacted, adopted, issued, promulgated or implemented.

3.19 Replacement of Banks. If (a) any Bank requests compensation under Sections 3.7 or 3.8, (b) any Borrower is required to pay additional amounts to any Bank or any Governmental Agency for the account of any Bank pursuant to Section 3.12, (c) any Bank is a Defaulting Bank or (d) any Bank fails to consent to a requested amendment, waiver or modification to any Loan Document in which the Majority Banks have already consented to such amendment, waiver or modification but the consent of each Bank (or each Bank directly affected thereby, as applicable) is required with respect thereto, then the Company may, at its sole expense and effort, upon notice to such Bank and the Administrative Agent, require such Bank to assign and delegate, without recourse (in accordance with and subject to the restrictions contained in, and consents required by, Section 13.9(b)), all of its interests, rights and obligations under this Agreement to an Eligible Assignee that shall assume such obligations (which assignee may be another Bank that is not a Defaulting Bank, if such Bank accepts such assignment); provided that:

~~(1)~~ (1) the Administrative Agent shall have received the assignment fee (if any) specified in Section 13.9(b);

~~(2)~~ (2) such Bank shall have received payment of an amount equal to the outstanding principal of its Advances, accrued interest thereon, accrued fees and all other amounts payable to it hereunder (including any amounts under Section 3.8(c)) from the assignee (to the extent of such outstanding principal and accrued interest and fees) or the Borrowers (in the case of all other amounts);

~~(3)~~ (3) in the case of any such assignment resulting from a claim for compensation under Section 3.8(c) or payments required to be made pursuant to Section 3.12, such assignment will result in a reduction in such compensation or payments thereafter;

~~(4)~~ (4) such assignment does not conflict with applicable law; and

~~(5)~~ (5) in the case of any assignment pursuant to clause (d) of this Section 3.19, the applicable assignee shall have consented to the applicable amendment, waiver or consent.

A Bank shall not be required to make any such assignment or delegation if, prior thereto, as a result of a waiver by such Bank or otherwise, the circumstances entitling the Company to require such assignment and delegation cease to apply.

ARTICLE 4 ~~ARTICLE 4~~ ~~REPRESENTATIONS AND WARRANTIES~~REPRESENTATIONS AND WARRANTIES

The Company represents and warrants to the Banks and each other Borrower represents and warrants to the Banks (with respect to itself only) that:

4.1 Existence and Qualification; Power; Compliance With Laws. Each Borrower is an organization duly formed, validly existing and in good standing under the Laws of the jurisdiction of its incorporation. Each Borrower is duly qualified to transact business, and is in good standing, in any jurisdiction in which the conduct of its business or the ownership or leasing of its Properties makes such qualification or registration necessary, except where the

failure so to qualify or register and to be in good standing would not constitute a Material Adverse Effect. Each Borrower has all requisite corporate power and authority to conduct its business and to own and lease its Properties. Each Borrower has all requisite corporate power and authority to execute and deliver each Loan Document to which it is a party and to perform its Obligations. Each Borrower has obtained all authorizations, consents, approvals, orders, licenses and permits from, and has accomplished all filings, registrations and qualifications with, or obtained exemptions from any of the foregoing from, any Governmental Agency that are necessary for the transaction of its business, except where the failure so to comply, file, register, qualify or obtain exemptions does not constitute a Material Adverse Effect.

4.2 Authority; Compliance With Other Agreements and Instruments and Government Regulations. The execution, delivery and performance of the Loan Documents by such Borrower have been duly authorized by all necessary corporate action, and do not:

(a) Require any consent or approval not heretofore obtained of any partner, director, stockholder, security holder or creditor of such Borrower;

(b) Result in or require the creation or imposition of any Lien upon or with respect to any Property now owned or leased or hereafter acquired by such Borrower;

(c) Violate, to the best knowledge of such Borrower, any Requirement of Law applicable to such Borrower;

(d) Result (or, with the giving of notice or passage of time or both, would result) in a breach of or default under, or cause or permit the acceleration of any obligation owed under any Contractual Obligation to which such Borrower is a party or by which such Borrower or any of its Property is bound or affected;

except where failure to receive such consent or approval or creation of such Lien or violation of, or default under, any such Requirement of Law or Contractual Obligation would not constitute a Material Adverse Effect.

4.3 No Governmental Approvals Required. No authorization, consent, approval, order, license or permit from, or filing, registration or qualification with, any Governmental Agency is required to authorize or permit under applicable Laws the execution, delivery and performance of the Loan Documents by such Borrower.

4.4 Subsidiaries. Schedule 4.4 hereto correctly sets forth as of December 31, 2018 the names of each Subsidiary of the Company that would constitute a Significant Subsidiary ("Significant Subsidiary") under Rule 1-02(w) of Regulation S-X as adopted by the SEC under the provisions of the Securities Act of 1933 and the Securities Exchange Act of 1934 as in force on the date of this Agreement.

4.5 Financial Statements. The Company has made available to the Banks the audited consolidated financial statements of the Company and its Consolidated Subsidiaries as of December 31, 2018. Such financial statements (including the footnotes thereto) fairly present in all material respects the consolidated financial condition and the consolidated results of operations of the Company as of such date and for such period in accordance with Generally

Accepted Accounting Principles. Also, the Company has made available the unaudited condensed consolidated financial statements of the Company and its Consolidated Subsidiaries as of September 30, 2019 and for the nine months then ended (the "interim financial statements"). The interim financial statements (including the footnotes thereto) were prepared in accordance with applicable Securities and Exchange Commission regulations and include all adjustments (consisting of normal recurring accruals, unless otherwise indicated) the Company considers necessary for the fair presentation, in all material respects, of the results of operations for those periods.

4.6 No Other Liabilities; No Material Adverse Effect. As of the Closing Date, the Company and its Consolidated Subsidiaries do not have any material liability or material contingent liability not reflected or disclosed in the consolidated balance sheet or notes thereto described in Section 4.5, other than liabilities and contingent liabilities: (i) arising in the ordinary course of business subsequent to December 31, 2018, (ii) described in materials filed with or furnished to the Securities and Exchange Commission and available to the public, or (iii) set forth on Schedule 4.8. Except for matters described in documents filed with or furnished to Governmental Agencies and available to the public or in materials delivered to the Banks prior to the Closing Date, there has been no event or circumstance that constitutes a Material Adverse Effect with respect to the Company and its Subsidiaries taken as a whole since December 31, 2018.

4.7 Governmental Regulation. No Borrower is subject to regulation under the Investment Company Act of 1940.

4.8 Litigation. Except for (a) any matter fully covered (subject to applicable deductibles and retentions) by insurance for which the insurance carrier has assumed full responsibility, (b) matters described in documents filed with or furnished to Governmental Agencies and available to the public or in materials delivered to the Banks prior to the Closing Date, and (c) matters disclosed on Schedule 4.8 hereto, there are no actions, suits, proceedings or investigations pending as to which the Company or any of its Subsidiaries have been served or have received written notice or, to the best knowledge of the Company, threatened against or affecting the Company or any of its Subsidiaries or any Property of any of them before any Governmental Agency which could reasonably be expected to constitute a Material Adverse Effect.

4.9 Binding Obligations. Each of the Loan Documents will, when executed and delivered by such Borrower, constitute the legal, valid and binding obligation of such Borrower, enforceable against such Borrower in accordance with its terms, except as enforcement may be limited by Debtor Relief Laws or equitable principles relating to the granting of specific performance and other equitable remedies as a matter of judicial discretion.

4.10 No Default. No event has occurred and is continuing that is a Default or Event of Default.

4.11 Employee Benefit Plans.

(a) The Company and, to the knowledge of the Company, each of its ERISA Affiliates are in compliance with all applicable provisions and requirements of ERISA and the regulations and published interpretations thereunder with respect to each Employee Benefit Plan, and have performed all of their obligations under each Employee Benefit Plan, except where the failure to be in such compliance or to perform such obligation would not constitute a Material Adverse Effect.

(b) No ERISA Event that would constitute a Material Adverse Effect has occurred or is reasonably expected to occur.

(c) Except as set forth on Schedule 4.11(c) and to the extent required under Section 4980B of the Code, no Employee Benefit Plan maintained by the Company or any of its Current ERISA Affiliates provides health or welfare benefits (through the purchase of insurance or otherwise) for any retired or former employees of the Company or any of its Current ERISA Affiliates.

(d) As of the most recent valuation date for any Pension Plan with respect to which the Company or a Subsidiary has any financial liability (including potential joint and several liability) in the event any such Pension Plan were to terminate, the "amount of unfunded benefit liabilities" (as defined in Section 4001(a)(18) of ERISA), individually or in the aggregate for all Pension Plans (excluding for purposes of such computation any Pension Plans with respect to which assets exceed benefit liabilities), does not exceed $60,000,000.

4.12 Regulation U. No part of the proceeds of any Advance hereunder will be used to purchase or carry, or to extend credit to others for the purpose of purchasing or carrying, any "margin stock" (as such term is defined in Regulation U) in violation of Regulation U. Neither the Company nor any of its Subsidiaries is engaged principally, or as one of its important activities, in the business of extending credit for the purpose of purchasing or carrying any such "margin stock."

4.13 Disclosure. All written information heretofore supplied by the Company to the Administrative Agent for the purposes of this Agreement (either directly or as documents filed with or furnished to Governmental Agencies and available to the public) is true and accurate in all material respects on the date as of which such information is stated. The Company has disclosed to the Administrative Agent (either directly or as documents filed with or furnished to Governmental Agencies and available to the public) all facts which could reasonably be expected to, in the good faith opinion of the Company, materially and adversely affect (to the extent the Company can reasonably foresee) the financial condition of the Company and its Subsidiaries, taken as a whole, or the ability of the Company to perform its obligations under this Agreement.

4.14 Tax Liability. Each of the Company and its Subsidiaries has filed or caused to be filed all tax returns which are required to have been filed by it, and has paid or caused to be paid, or made provision for the payment of, all taxes with respect to the periods, Property or transactions covered by said returns, or pursuant to any assessment received by the

Company or any of its Subsidiaries, except (a) taxes for which the Company has been fully indemnified, (b) such taxes, if any, as are being contested in good faith by appropriate proceedings and as to which adequate reserves have been established and maintained or (c) where the failure to so file or pay would not reasonably be expected to have a Material Adverse Effect.

4.15 Environmental Matters. As of the Closing Date, except as set forth in the Company's annual report on Form 10-K for the year ended December 31, 2018 to the Securities and Exchange Commission, or as disclosed in Schedule 4.15 annexed hereto, (a) the Company and each Subsidiary have complied with all Environmental Laws, except to the extent that the failure to so comply would not be reasonably expected to result in a Material Adverse Effect, (b) the Company's and its Subsidiaries' facilities do not manage any hazardous wastes, hazardous substances, hazardous materials, toxic substances or toxic pollutants in any manner that would result in a violation of any Environmental Law, except for violations that would not be reasonably expected to result in a Material Adverse Effect and (c) the Company is aware of no events, conditions or circumstances involving environmental pollution or contamination or public or employee health or safety, in each case applicable to it or its Subsidiaries, that has resulted or would be reasonably expected to result in a Material Adverse Effect.

4.16 Sanctions. Neither the Company nor any of its Subsidiaries nor, to the knowledge of the Company, any director, officer, employee or agent of the Company or any of its Subsidiaries is (i) a Person whose name appears on the list of Specially Designated Nationals and Blocked Persons published by the Office of Foreign Assets Control of the U.S. Department of Treasury ("OFAC"), the Consolidated List of Financial Sanctions Targets in the UK maintained by Her Majesty's Treasury or the Consolidated List of Persons, Groups and Entities Subject to EU Financial Sanctions maintained by the European Union (a "Sanctioned Person");
(ii) a Person who is engaged in a transaction with any Person who is a Sanctioned Person; or (iii) a department, agency or instrumentality of, or is otherwise controlled by or acting on behalf of, directly or indirectly, (x) any Sanctioned Person, or (y) the government of a country that is the target of comprehensive economic sanctions administered by OFAC, the European Union or Her Majesty's Treasury (as of the date of this Agreement, Iran, Cuba, Syria, the Crimea region of Ukraine and North Korea) (collectively, "Sanctioned Countries").

4.17 Foreign Corrupt Practices Act. The Company has implemented and maintains in effect policies and procedures reasonably designed to promote reasonable compliance by the Company, its Subsidiaries and their respective directors, officers and employees with the Foreign Corrupt Practices Act of 1977 (the "FCPA"), and is in compliance with the FCPA in all material respects.

4.18 EEA Financial Institution. No Borrower is an EEA Financial Institution.

4.19 Beneficial Ownership Certification. In respect of each Borrower that is a "legal entity customer" under the Beneficial Ownership Regulation, the information included in the Beneficial Ownership Certification delivered in respect of such Borrower, as of the date such Beneficial Ownership Certification is delivered, is true and correct in all respects.

ARTICLE 5 ~~ARTICLE 5~~
~~Affirmative Covenants~~
~~(Other than Information and Reporting Requirements~~AFFIRMATIVE COVENANTS (OTHER THAN INFORMATION AND REPORTING REQUIREMENTS)

So long as any Advance remains unpaid, or any other Obligation (other than indemnity obligations for which no claim has been made) remains unpaid or unperformed, or any portion of the Commitment remains in force, each Borrower shall, and shall cause each of its Subsidiaries to, unless the Administrative Agent (acting with the approval of the Majority Banks) otherwise consents in writing:

5.1 Payment of Taxes and Other Potential Liens. Pay and discharge promptly all taxes, assessments and governmental charges or levies imposed upon any of them, upon their respective Property or any part thereof, or upon their respective income or profits or any part thereof, except that the Company and its Subsidiaries shall not be required to pay or cause to be paid any tax, assessment, charge or levy (a) that is not yet past due, or is being contested in good faith by appropriate proceedings, so long as the relevant entity has established and maintains adequate reserves for the payment of the same and by reason of such nonpayment and contest no material item or portion of Property of the Company and its Subsidiaries, taken as a whole, is in jeopardy of being seized, levied upon or forfeited or (b) the nonpayment of which in the aggregate could not reasonably be expected to have a Material Adverse Effect.

5.2 Preservation of Existence. Preserve and maintain their respective existences in the jurisdiction of their formation and all authorizations, rights, franchises, privileges, consents, approvals, orders, licenses, permits, or registrations from any Governmental Agency that are necessary for the transaction of their respective business, and qualify and remain qualified to transact business in each jurisdiction in which such qualification is necessary in view of their respective business or the ownership or leasing of their respective Properties except where the failure to maintain such preservation or maintenance of existence, authorizations, rights, franchises, privileges, consents, approvals, orders, licenses, permits or registration or to do so qualify would not constitute a Material Adverse Effect and; provided that a merger permitted under Section 6.2 shall not constitute a violation of this covenant. Nothing herein contained shall prevent the termination of the business or corporate existence of any Subsidiary (other than a Borrower) that, in the judgment of the Company, is no longer necessary or desirable, as long as immediately after giving effect to any such transaction, no Default shall have occurred and be continuing.

5.3 Maintenance of Properties. Maintain, preserve and protect all of their respective depreciable Properties in good order and condition, subject to wear and tear in the ordinary course of business, and not permit any waste of their respective Properties, except that any failure to so maintain, preserve or protect such Properties that does not constitute a Material Adverse Effect shall not constitute a violation of this covenant.

5.4 Maintenance of Insurance. Maintain liability, casualty and other insurance (subject to customary deductibles and retentions), with responsible insurance companies in such amounts and against such risks as is carried by responsible companies engaged in similar

businesses and owning similar assets in the general areas in which the Company and its Subsidiaries operate; provided that, notwithstanding the foregoing, the Company may self-insure if reasonable and consistent with sound business practice.

5.5 Compliance With Laws. Comply with all Requirements of Law noncompliance with which constitutes a Material Adverse Effect, except that the Company and its Subsidiaries need not comply with a Requirement of Law then being contested by any of them in good faith by appropriate proceedings.

5.6 Visitation. Upon reasonable notice permit the Administrative Agent or representatives of any Bank at the Administrative Agent's or such Bank's expense to visit any of its major properties, during normal business hours, to inspect and make abstracts from its financial and accounting records (other than materials protected by the attorney-client privilege and materials which are proprietary in nature or which may not be disclosed without violation of a binding confidentiality obligation), and to discuss its affairs and finances with its officers and independent public accountants, all at such reasonable times and as often as may reasonably be requested; provided that so long as no Default or Event of Default has occurred and is continuing, visitation by representatives of the Banks shall be limited to not more than one visit in any calendar year for each Bank.

5.7 Keeping of Records and Books of Account. Keep adequate records and books of account reflecting all financial transactions in conformity with Generally Accepted Accounting Principles, and in material conformity with all applicable requirements of any Governmental Agency having regulatory jurisdiction over the Company or any of its Subsidiaries.

5.8 Use of Proceeds. Use the proceeds of Advances only for general corporate purposes of the Borrowers; provided that proceeds of Advances shall not be used for any Hostile Acquisition. Use the Letters of Credit only for trade, commercial and standby letters of credit in the ordinary course of business.

ARTICLE 6 ~~ARTICLE 6~~
~~Negative Covenants~~NEGATIVE COVENANTS

So long as any Advance remains unpaid, or any other Obligation (other than indemnity obligations for which no claim has been made) remains unpaid or unperformed, or any portion of the Commitment remains in force, the Company shall not, and shall not permit any of its Subsidiaries to, unless the Administrative Agent (acting with the approval of the Majority Banks) otherwise consents in writing:

6.1 Change in Nature of Business. Make any material change in the nature of the business of the Company and its Subsidiaries, taken as a whole, as at present conducted.

6.2 Mergers. Merge, consolidate or amalgamate with or into any Person, or convey substantially all of its Properties and assets to another Person, unless each of the following conditions are met:

(a) no Default or Event of Default exists or would exist immediately following the consummation of such merger, consolidation, amalgamation or conveyance;

(b) in a merger, consolidation or amalgamation of the Company with another Person or Persons, the Company is the surviving entity; and

(c) in the case of a conveyance of Properties and assets, the Properties and assets conveyed do not consist of substantially all of the Properties and assets of the Company and its Subsidiaries taken as a whole.

6.3 Liens; Sales and Leasebacks. Create, incur, assume or suffer to exist any Lien of any nature upon or with respect to any of their respective Properties, whether now owned or hereafter acquired, or engage in any sale and leaseback transaction with respect to its Property, except:

(a) Permitted Encumbrances;

(b) Liens in favor of the Administrative Agent or the Banks under the Loan Documents;

(c) Liens existing on the date hereof and listed on Schedule 6.3 and Liens on the same Property which secure Indebtedness or obligations which replaces or refinances the Indebtedness (or commitment) or obligations originally secured by those Liens; provided that the Indebtedness or obligations secured thereby are not increased;

(d) pre-existing Liens on assets acquired by the Company or any of its Subsidiaries after the Closing Date; and

(e) additional Liens securing Indebtedness or obligations (including sale and leaseback transactions to which the Company or any Subsidiary is a party as vendor and lessee), the outstanding amount of which Indebtedness or obligation together with Indebtedness of the Company's Subsidiaries permitted under Section 6.5, does not in the aggregate exceed 35% of Consolidated Net Worth (measured as of the last day of the most recently ended Fiscal Quarter).

6.4 Transactions with Affiliates. Enter into any transaction of any kind which is material to the Company and its Subsidiaries taken as a whole with any Affiliate of the Company other than (a) transactions between or among the Company and its Subsidiaries or between or among its Subsidiaries; provided that, for the purposes of this Section 6.4, the term "Subsidiary" shall include any partnership and joint venture that is excluded from the definition of the term "Subsidiary" but as to which the Company or Subsidiary owns 50% or more of the ownership interests, (b) transactions on terms at least as favorable to the Company or its Subsidiaries as would be the case in an arm's-length transaction between unrelated parties of equal bargaining power, and (c) transactions approved by a majority of the disinterested members of the Board of Directors of Company or the applicable Subsidiary.

6.5 Subsidiary Indebtedness. Permit Indebtedness of the Company's Subsidiaries (other than under this Agreement) at any time that, when aggregated (without duplication) with Indebtedness permitted to be secured by Liens in accordance with Section

6.3(e), exceeds 35% of Consolidated Net Worth (measured as of the last day of the most recently ended Fiscal Quarter).

6.6 Financial Covenant. Permit the Consolidated Interest Coverage Ratio as of the end of any Fiscal Quarter to be less than 3.50 to 1.00.

6.7 Use of Proceeds.

(a) Use the proceeds of any Advance for the purpose of funding any activity or business in any Sanctioned Countries or for the purpose of funding any prohibited activity or business of any Person located, organized or residing in any Sanctioned Country or who is a Sanctioned Person or, to the Company's knowledge, any person owned by or controlled by, or acting for or on behalf of a Sanctioned Person, in any case, absent valid and effective licenses and permits issued by the relevant government sanctioning authorities described in Section 4.16 (collectively, the **"Sanctioning Authorities**") or otherwise in accordance with applicable laws, or in any other manner that will result in any violation by any Bank or the Agent of the sanctions administered or enforced by the Sanctioning Authorities; nor

(b) Use the proceeds of any Advance for the purpose of funding an offer, payment, promise to pay, or authorization of the payment or giving of money, or anything else of value, to any Person, in violation of the FCPA (as defined in Section 4.17).

ARTICLE 7 ~~ARTICLE 7~~
~~Information and Reporting Requirements~~INFORMATION AND REPORTING REQUIREMENTS

7.1 Financial and Business Information. So long as any Advance remains unpaid, or any other Obligation (other than indemnity obligations for which no claim has been made) remains unpaid or unperformed, or any portion of the Commitment remains in force, the Company shall, unless the Administrative Agent (with the approval of the Majority Banks) otherwise consents in writing, deliver to the Banks and the Administrative Agent, at the Company's sole expense:

(a) As soon as practicable, and in any event within 45 days after the end of each Fiscal Quarter (other than the fourth Fiscal Quarter in any Fiscal Year), (i) the consolidated balance sheets of the Company and its Subsidiaries as at the end of such Fiscal Quarter, (ii) consolidated statements of income and (iii) consolidated statements of cash flow, in each case described in clauses (ii) and (iii) of this Section 7.1(a) of the Company and its Subsidiaries for such Fiscal Quarter and for the portion of the Fiscal Year ended with such Fiscal Quarter, all in reasonable detail. Such financial statements shall be certified by a Senior Officer of the Company as fairly presenting the financial condition, results of operations and changes in financial position of the Company and its Subsidiaries in accordance with Generally Accepted Accounting Principles (other than any requirement for footnote disclosures), as at such date and for such periods, subject only to normal year-end accruals and audit adjustments;

(b) As soon as practicable, and in any event within 90 days after the end of each Fiscal Year, (i) the consolidated balance sheets of the Company and its Subsidiaries as at the end of such Fiscal Year, (ii) consolidated statements of income of the Company and its Subsidiaries for such Fiscal Year and (iii) consolidated statements of cash flow of the Company and its Subsidiaries for such Fiscal Year, all in reasonable detail. Such financial statements shall be prepared in accordance with Generally Accepted Accounting Principles, and such consolidated balance sheet and consolidated statements shall be accompanied by a report and opinion of Ernst & Young or other independent public accountants of recognized national standing selected by the Company, which report and opinion shall be prepared in accordance with generally accepted auditing standards as at such date;

(c) Promptly after the same are available, copies of each annual report, proxy or financial statement or other report or communication sent to the shareholders of the Company generally, and copies of all annual, regular, periodic, current and special reports and registration statements which the Company or a Subsidiary of the Company may file or be required to file under Sections 13 or 15(d) of the Securities Exchange Act of 1934;

(d) Promptly, and in any event within five (5) Banking Days after a Senior Officer of the Company obtains actual knowledge of the existence of any condition or event which constitutes a Default or Event of Default, written notice specifying the nature and period of existence thereof and specifying what action the Company or any of its Subsidiaries is taking or proposes to take with respect thereto;

(e) Promptly upon becoming aware of the occurrence of any ERISA Event defined in clauses (i) through (vii) or (xi) of the definition thereof involving Title IV of ERISA that could reasonably be expected to result in material liability to the Company or its Subsidiaries or any ERISA Event that could reasonably be expected to result in a Material Adverse Effect, a written notice specifying the nature thereof, what action the Company or any of its ERISA Affiliates has taken, is taking or proposes to take with respect thereto and, when known, any action taken or threatened by the Internal Revenue Service, the Department of Labor or the PBGC with respect thereto;

(f) With reasonable promptness, copies of (a) each Schedule SB (Actuarial Information) to the annual report, if any (Form 5500 Series), filed by the Company or any of its Current ERISA Affiliates with the Internal Revenue Service with respect to each Pension Plan following the Administrative Agent's request; (b) all notices received by the Company or any of its Current ERISA Affiliates from the sponsor of a Multiemployer Plan to which a Current ERISA Affiliate contributes concerning an ERISA Event defined in clauses (i) through (vii) or (xi) of the definition thereof following the receipt thereof; and (c) such other documents or governmental reports or filings relating to any Employee Benefit Plan as the Administrative Agent shall reasonably request;

(g) promptly following any reasonable request therefor, provide information and documentation reasonably requested by the Administrative Agent or any Bank for purposes of compliance with applicable "know your customer" and anti-money-laundering rules and

regulations, including, without limitation, the Patriot Act and the Beneficial Ownership Regulation; and

(h) Such other material information related to any Borrower's ability to meet its Obligations hereunder as from time to time may be reasonably requested by the Administrative Agent or the Majority Banks.

Documents required to be delivered pursuant to Section 7.1 (to the extent any such documents are included in materials otherwise filed with or furnished to the Securities and Exchange Commission and available to the public may be delivered electronically and if so delivered), shall be deemed to have been delivered for all purposes of this Agreement on the date
(i) on which the Company posts such documents, or provides a link thereto on the Company's website on the Internet at the website address listed on Schedule 13.7; or (ii) on which such documents are posted on the Company's behalf on IntraLinks/IntraAgency or another relevant website (including, without limitation, the EDGAR System), if any, to which each Bank and the Administrative Agent have access (whether a commercial, third-party website or whether sponsored by the Administrative Agent). The Administrative Agent shall have no obligation to request the delivery or to maintain copies of the documents referred to above, and in any event shall have no responsibility to monitor compliance by the Company with any such request for delivery, and each Bank shall be solely responsible for requesting delivery to it or maintaining its copies of such documents.

7.2 Compliance Certificates. So long as any Advance remains unpaid, or any other Obligation (other than indemnity obligations for which no claim has been made) remains unpaid or unperformed, or any portion of the Commitment remains outstanding, the Company shall, unless the Majority Banks otherwise consent, deliver to the Administrative Agent, at the Company's sole expense, concurrently with the financial statements required pursuant to Sections 7.1(a) and 7.1(b), a Compliance Certificate signed by a Senior Officer of the Company, including calculations as set forth therein.

ARTICLE 8 ~~ARTICLE 8~~
~~Conditions~~CONDITIONS

8.1 Conditions to Effectiveness. The amendment and restatement of the Existing Credit Agreement as set forth in this Agreement and the Pro Rata Shares of the Commitment of the Banks hereunder shall be effective on the first date on which each of the following conditions precedent (unless the Administrative Agent, acting at the direction of the Banks, otherwise consents in writing) shall have been satisfied:

(a) The Administrative Agent shall have received all of the following, each of which shall be originals unless otherwise specified, each in form and substance satisfactory to the Administrative Agent, the Issuing Banks and the Banks:

(1) executed counterparts of this Agreement;

(2) the Notes dated the Closing Date and executed by the Company in favor of each Bank, each in a principal amount equal to that Bank's Pro Rata Share of the Commitment if requested in accordance with Section 2.1(e);

(3) a certified copy of the Certificate of Incorporation of the Company, together with a good standing certificate from the Secretary of State of the State of incorporation of the Company and, to the extent generally available, a certificate or other evidence of good standing as to payment of any applicable franchise or similar taxes from the appropriate taxing authority of such state, each dated a recent date prior to the Closing Date;

(4) copies of the Company's Bylaws, certified as of the Closing Date by the corporate secretary or an assistant secretary of the Company;

(5) resolutions of the Board of Directors of the Company approving and authorizing the execution, delivery and performance of this Agreement and the other Loan Documents to which the Company is a party, certified as of the Closing Date by the corporate secretary or an assistant secretary of the Company as being in full force and effect without modification or amendment;

(6) signature and incumbency certificates of the officers of the Company executing this Agreement and the other Loan Documents;

(7) the favorable written opinion of Shearman & Sterling LLP, counsel to the Administrative Agent;

(8) the favorable written opinion of Latham & Watkins LLP, counsel to the Borrowers;

(9) a Certificate of a Senior Officer of the Company certifying that the conditions specified in Sections 8.1(b), 8.1(c), and 8.1(d) have been satisfied; and

(10) such other assurances, certificates, documents, consents or opinions as the Administrative Agent reasonably may require.

(b) The representations and warranties of the Borrowers contained in Article 4 shall be true and correct.

(c) No Default shall have occurred and be continuing.

(d) The Company shall have paid to the Arrangers and the Administrative Agent the fees payable on the date of this Agreement referred to in Section 3.3 and the fees, costs and expenses referred to in Section 13.3(a).

(e) The Company shall have repaid or prepaid all of the accrued obligations under the Existing Credit Agreement on the Closing Date.

(f) (f) Upon the reasonable request of any Bank made at least ten days prior to the Closing Date, (i) the Company shall have provided to such Bank the documentation and other information so requested in connection with applicable "know your customer" and
anti-money-laundering rules and regulations, including, without limitation, the Patriot Act and
(ii) to the extent the Company qualifies as a "legal entity customer" under the Beneficial Ownership Regulation, it shall have delivered, to each Bank that so requests, a Beneficial Ownership Certification.

8.2 Any Advance and Any Letter of Credit. The obligation of each Bank to make any Advance (including the initial Advance), and the obligation of each Issuing Bank to issue, amend or extend any Letter of Credit (including the initial Letter of Credit), is subject to the following conditions precedent (unless the Administrative Agent, acting at the direction of the Majority Banks, otherwise consents in writing):

(a) except as disclosed by the Company and approved in writing by the Administrative Agent, acting at the direction of the Majority Banks, the representations and warranties contained in Article 4, other than Sections 4.4, 4.6 and 4.8, shall be true and correct in all material respects (except that to the extent any representation or warranty is qualified by materiality, it shall be true and correct in all respects) on and as of the date of the Advance or the issuance, amendment or extension of the Letter of Credit, as the case may be, as though made on that date (except to the extent such representations and warranties specifically relate to an earlier date in which case they shall be true and correct in all material respects (except that to the extent any representation or warranty is qualified by materiality, it shall be true and correct in all respects) as of such earlier date) and no Default shall have occurred and be continuing; and

(b) the Administrative Agent shall have timely received a Request for Loan in compliance with Article 2 (or telephonic request for Loan referred to in the second sentence of Section 2.1(b), if applicable) or Request for Letter of Credit in compliance with Article 2, if applicable.

ARTICLE 9 ~~ARTICLE 9~~
~~Events of Default and Remedies upon Event of Default~~EVENTS OF DEFAULT AND REMEDIES UPON EVENT OF DEFAULT

9.1 Events of Default. The existence or occurrence of any one or more of the following events, whatever the reason therefor and under any circumstances whatsoever, shall constitute an **"Event of Default":**

(a) Any Borrower fails to pay any principal of any of the Loans, or any portion thereof, on the date when due; or

(b) Any Borrower (i) fails to pay any interest on any of the Loans, or any portion thereof, or (ii) fails to pay any other fee or amount payable to the Administrative Agent, the Banks or the Issuing Banks under any Loan Document, or any portion thereof, in each case within five (5) Banking Days after demand therefor; or

(c) Any failure to comply with Section 7.1(d); or

(d) Any Borrower fails to perform or observe any other covenant or agreement contained in any Loan Document on its part to be performed or observed within thirty (30) days after the giving of notice by the Administrative Agent or the Majority Banks of such Default; provided, however, that any failure to observe any of the covenants contained in Sections 5.2 (as it relates to the Borrower's existence), 6.2 and 6.6 shall constitute an immediate Event of Default hereunder; provided, further, that any failure to observe any of the covenants contained in Section 6.3 shall constitute an Event of Default upon notice from the Administrative Agent (acting on the direction of the Majority Banks) to the Company; and provided further that any failure to observe any of the covenants contained in Section 6.5 shall constitute an Event of Default five (5) Banking Days after knowledge by the Company of such Default (other than as a result of the giving of notice by the Administrative Agent or the Majority Banks as hereinafter provided) or, if earlier, the giving of notice by the Administrative Agent or the Majority Banks of such Default; or

(e) Any representation or warranty made in this Agreement, any Notes, any Request for Loan, any Agreement to Participate or any Request for Letter of Credit was incorrect in any material respect when made or reaffirmed; or

(f) The Company or any of its Subsidiaries (i) fails to pay the principal, or any principal installment, or any interest or fees or any other amount of any present or future Indebtedness (other than under the Loan Documents) in an amount in excess of $200,000,000, or any guaranty of present or future Indebtedness in an aggregate amount in excess of $200,000,000, on its part to be paid, when due (and after expiration of any stated grace or notice period), whether at the stated maturity, upon acceleration, by reason of required prepayment or otherwise or (ii) fails to perform or observe any other material term, covenant or agreement on its part to be performed or observed, or suffers any event to occur, and such failure or event continues after the applicable grace period, if any, and is not waived, in connection with any present or future Indebtedness in an amount in excess of $200,000,000, or of any guaranty of present or future Indebtedness in excess of $200,000,000, if as a result of such failure or sufferance any holder or holders thereof (or an agent or trustee on its or their behalf) has the right to declare such Indebtedness or guaranty due before the date on which it otherwise would become due; or

(g) Any Loan Document, at any time after its execution and delivery and for any reason other than the agreement of the Banks or satisfaction in full of all the Obligations, ceases to be in full force and effect or is declared by a court of competent jurisdiction to be null and void, invalid or unenforceable in any respect which, in any such event in the reasonable opinion of the Majority Banks, is materially adverse to the interests of the Banks; or any Borrower denies that it has any or further liability or obligation under any Loan Document, or purports to revoke, terminate or rescind same; or

(h) A judgment against the Company or any of its Subsidiaries is entered for the payment of money in excess of $200,000,000 (to the extent not adequately covered by insurance as to which a solvent and unaffiliated insurance company has acknowledged coverage) and, absent procurement of a stay of execution, such judgment remains unstayed, unbonded or unsatisfied for sixty (60) calendar days after the date of entry of judgment; or

(i) The Company, any Borrower or any other Subsidiary of the Company the Shareholders' Equity of which, as shown on the most recent consolidated balance sheet, equals or exceeds 10% of the Shareholders' Equity of the Company and its Consolidated Subsidiaries as shown on such consolidated balance sheet, institutes or consents to any proceeding under a Debtor Relief Law relating to it or to all or any substantial part of its Property, or is unable or admits in writing its inability to pay its debts as they mature, or makes an assignment for the benefit of creditors; or applies for or consents to the appointment of any receiver, trustee, custodian, conservator, liquidator, rehabilitator or similar officer for it or for all or any substantial part of its Property; or any receiver, trustee, custodian, conservator, liquidator, rehabilitator or similar officer is appointed without the application or consent of that Person and the appointment continues undischarged or unstayed for sixty (60) calendar days; or any proceeding under a Debtor Relief Law relating to any such Person or to all or any part of its Property is instituted without the consent of that Person and continues undismissed or unstayed for sixty (60) calendar days; or any judgment, writ, warrant of attachment or execution or similar process is issued or levied against all or any material part of the Property of any such Person and is not released, vacated or fully bonded within sixty (60) calendar days after its issue or levy; or any order for relief shall be entered in respect of the Company or any Borrower or any such Subsidiary; or

(j) (i) Any Person or two or more Persons acting in concert shall acquire beneficial ownership (within the meaning of Rule 13d-3 of the Securities and Exchange Commission under the Securities Exchange Act of 1934) directly or indirectly, of securities of the Company (or other securities convertible into such securities) representing 30% or more of the combined voting power of all securities of the Company entitled to vote in the election of directors, other than securities having such power only by reason of the happening of a contingency; or (ii) during any period of up to 12 consecutive months, commencing before or after the date of this Agreement, individuals who at the beginning of such 12-month period were directors of the Company, or whose nomination for election to the Board of Directors of the Company was recommended or approved by a vote of at least a majority of the directors then still in office who were directors of the Company on the first day of such period, shall cease for any reason to constitute a majority of the Board of Directors of the Company; provided, however, that there shall not be an Event of Default pursuant to subsection (i) of this Section 9.1(j) with respect to any Persons who on the date hereof meet the requirements set forth in said subsection (i) of this Section 9.1(j); or

(k) there shall occur one or more ERISA Events which individually or in the aggregate results in or might reasonably be expected to result in liability of the Company, a Subsidiary or any of their ERISA Affiliates in excess of $200,000,000 during the term of this Agreement; or there shall exist an "amount of unfunded benefit liabilities" (as defined in Section 4001(a)(18) of ERISA), individually or in the aggregate for all Pension Plans with respect to which the Company or a Subsidiary has any financial liability, including potential joint and several liability in the event any such Pension Plan were to terminate (excluding for purposes of such computation any Pension Plans with respect to which assets exceed benefit liabilities), which exceeds $200,000,000 and Majority Banks determine that such event could reasonably be expected to have a Material Adverse Effect; or

(l) so long as any Subsidiary of the Company is a Borrowing Subsidiary, the Guaranty ceases to be in full force and effect or is declared to be null and void, or the Company denies that it has any further liability thereunder, or gives notice to such effect.

9.2 Remedies Upon Event of Default. Without limiting any other rights or remedies of the Administrative Agent, the Issuing Banks or the Banks provided for elsewhere in this Agreement, or the Loan Documents, or by applicable Law, or in equity, or otherwise:

(a) Upon the occurrence, and during the continuance, of any Event of Default other than an Event of Default described in Section 9.1(i) with respect to any Borrower:

(1) the commitment to make Advances, Issue Letters of Credit and all other obligations of the Administrative Agent, the Banks or the Issuing Banks and all rights of the Borrowers and any other parties under the Loan Documents shall be suspended without notice to or demand upon any Borrower, which are expressly waived by the Borrowers, except, subject to Section 9.2(a)(3), that the Majority Banks (or all of the Banks to the extent required by Section 13.2) may waive the Event of Default or, without waiving, determine, upon terms and conditions satisfactory to the Majority Banks (or all of the Banks, as the case may be), to reinstate the Commitment and make further Advances and issue additional Letters of Credit, which waiver or determination shall apply equally to, and shall be binding upon, all the Banks and the Issuing Banks; and

(2) the Majority Banks may request any Issuing Bank to, and such Issuing Bank thereupon shall, demand immediate deposit by the Borrowers into an account designated by the applicable Issuing Bank of Cash in an amount equal to the aggregate effective face amount of all outstanding Letters of Credit issued by it; and

(3) the Majority Banks may request the Administrative Agent to, and the Administrative Agent thereupon shall, terminate the Commitment and declare, by notice to the Borrowers, all or any part of the unpaid principal of all Loans, all interest accrued and unpaid thereon and all other amounts payable under the Loan Documents to be forthwith due and payable, whereupon the same shall become and be forthwith due and payable, without protest, presentment, notice of dishonor, demand or further notice of any kind, all of which are expressly waived by the Borrowers.

(b) Upon the occurrence of any Event of Default described in Section 9.1(i) with respect to any Borrower:

(1) the commitment to make Advances, issue Letters of Credit and all other obligations of the Administrative Agent or the Banks and all rights of the Borrowers and any other parties under the Loan Documents shall terminate without notice to or demand upon any Borrower, which are expressly waived by the Borrowers; and

(2) an amount equal to the aggregate effective face amount of all outstanding Letters of Credit issued by an Issuing Bank shall be forthwith due and payable to such Issuing Bank, without protest, presentment, notice of dishonor, demand or further notice of any kind, all of which are waived by the Borrowers; and

(3) the unpaid principal of all Loans, all interest accrued and unpaid thereon and all other amounts payable under the Loan Documents shall be forthwith due and payable, without protest, presentment, notice of dishonor, demand or further notice of any kind, all of which are expressly waived by the Borrowers.

(c) Upon the occurrence of any Event of Default, subject to clause (d) of this Section 9.2, the Banks and the Administrative Agent, or any of them, without notice to or demand upon any Borrower, which are expressly waived by the Borrowers, may proceed to protect, exercise and enforce their rights and remedies under the Loan Documents against the Borrowers and any other party and such other rights and remedies as are provided by Law or equity.

(d) The order and manner in which the Banks' rights and remedies are to be exercised shall be determined by the Majority Banks in their sole discretion, and all payments received by the Administrative Agent and the Banks, or any of them, shall be applied first to the costs and expenses (including attorneys' fees and disbursements covered by Section 13.3) of the Administrative Agent, acting as Administrative Agent, and of the Banks (to the extent covered by Section 13.3), and thereafter paid pro rata to the Banks in the same proportions that the aggregate Obligations owed to each Bank under the Loan Documents bear to the aggregate Obligations owed under the Loan Documents to all the Banks, without priority or preference among the Banks. Regardless of how each Bank may treat payments for the purpose of its own accounting, for the purpose of computing the Borrowers' Obligations hereunder and under the Notes, payments shall be applied first, to the costs and expenses of the Administrative Agent, acting as Administrative Agent, and the Banks, as set forth above, second, to the payment of accrued and unpaid interest due under any Loan Documents to and including the date of such application (ratably, and without duplication, according to the accrued and unpaid interest due under each of the Loan Documents), and third, to the payment of all other amounts (including principal and fees) then owing to the Administrative Agent or the Banks under the Loan Documents. No application of payments will cure any Event of Default, or prevent acceleration, or continued acceleration, of amounts payable under the Loan Documents, or prevent the exercise, or continued exercise, of rights or remedies of the Banks hereunder or thereunder or at law or in equity.

(e) Upon the occurrence of an Event of Default resulting from or resulting in the default by the Company in the repayment of its ~~EURO~~Term Rate Advances when required by the terms of this Agreement, the Company shall compensate each Bank in accordance with Section 3.8(c).

Any amounts described in Section 9.2(a)(2) and Section 9.2(b)(2) above, when received by the applicable Issuing Bank, shall be held by such Issuing Bank in a collateral

account, which shall be established and maintained by such Issuing Bank and shall be under its sole dominion and control, as collateral security for the payment of all Obligations and applied as set forth below. If such collateral is provided pursuant hereto, the applicable Issuing Bank, for the benefit of the Banks, shall have a security interest in such collateral account and all amounts at any time held in or acquired in connection with such collateral account, together with all proceeds thereof. Upon any drawing under any outstanding Letter of Credit, the applicable Issuing Bank shall apply any amount in the collateral account to reimburse such Issuing Bank for the amount of such drawing. In the event of cancellation or expiration of any Letter of Credit, or in the event of any reduction in the maximum amount available under such Letter of Credit, the applicable Issuing Bank shall apply the excess of any amount then on deposit in the collateral account over the maximum available amount that may at any time be drawn under all Letters of Credit immediately after such cancellation, expiration or reduction as provided in Section 9.2(d).

ARTICLE 10 ~~ARTICLE 10~~
~~The Administrative Agent~~THE ADMINISTRATIVE AGENT

10.1 Appointment and Authority. Each of the Banks and the Issuing Banks hereby irrevocably appoints Citibank to act on its behalf as the Administrative Agent hereunder and under the other Loan Documents and authorizes the Administrative Agent to take such actions on its behalf and to exercise such powers as are delegated to the Administrative Agent by the terms hereof or thereof, together with such actions and powers as are reasonably incidental thereto. The provisions of this Article 10 are solely for the benefit of the Administrative Agent, the Issuing Banks and the Banks, and the Borrowers shall have no rights as a third party beneficiary of any of such provisions (except for the consents specifically required in Section 10.6). It is understood and agreed that the use of the term "agent" herein or in any other Loan Document (or any other similar term) with reference to the Administrative Agent is not intended to connote any fiduciary or other implied (or express) obligations arising under agency doctrine of any applicable Law. Instead such term is used as a matter of market custom, and is intended to create or reflect only an administrative relationship between contracting parties.

10.2 Rights as a Bank. The Person serving as the Administrative Agent hereunder shall have the same rights and powers in its capacity as a Bank as any other Bank and may exercise the same as though it were not the Administrative Agent and the term "Bank" or "Banks" shall, unless otherwise expressly indicated or unless the context otherwise requires, include the Person serving as the Administrative Agent hereunder in its individual capacity. Such Person and its Affiliates may accept deposits from, lend money to, own securities of, act as the financial advisor or in any other advisory capacity for and generally engage in any kind of business with the Borrowers or any Subsidiary or other Affiliate thereof as if such Person were not the Administrative Agent hereunder and without any duty to account therefor to the Banks.

10.3 Exculpatory Provisions.

~~(a)~~ (a) The Administrative Agent shall not have any duties or obligations except those expressly set forth herein and in the other Loan Documents, and its duties hereunder shall be administrative in nature. Without limiting the generality of the foregoing, the Administrative Agent:

~~(i)~~ (i) shall not be subject to any fiduciary or other implied duties, regardless of whether a Default has occurred and is continuing;

~~(ii)~~ (ii) shall not have any duty to take any discretionary action or exercise any discretionary powers, except discretionary rights and powers expressly contemplated hereby or by the other Loan Documents that the Administrative Agent is required to exercise as directed in writing by the Majority Banks (or such other number or percentage of the Banks as shall be expressly provided for herein or in the other Loan Documents); provided that the Administrative Agent shall not be required to take any action that, in its opinion or the opinion of its counsel, may expose the Administrative Agent to liability or that is contrary to any Loan Document or applicable Law, including for the avoidance of doubt any action that may be in violation of the automatic stay under any Debtor Relief Law or that may effect a forfeiture, modification or termination of property of a Defaulting Bank in violation of any Debtor Relief Law; and

~~(iii)~~ (iii) shall not, except as expressly set forth herein and in the other Loan Documents, have any duty to disclose, and shall not be liable for the failure to disclose, any information relating to the Borrowers or any of their Affiliates that is communicated to or obtained by the Person serving as the Administrative Agent or any of its Affiliates in any capacity.

~~(b)~~ (b) The Administrative Agent shall not be liable for any action taken or not taken by it (i) with the consent or at the request of the Majority Banks (or such other number or percentage of the Banks as shall be necessary, or as the Administrative Agent shall believe in good faith shall be necessary, under the circumstances as provided in Section 13.2 and Article 9), or (ii) in the absence of its own gross negligence or willful misconduct as determined by a court of competent jurisdiction by final and nonappealable judgment. The Administrative Agent shall be deemed not to have knowledge of any Default unless and until notice describing such Default is given to the Administrative Agent in writing by any Borrower or a Bank.

~~(c)~~ (c) The Administrative Agent shall not be responsible for or have any duty to ascertain or inquire into (i) any statement, warranty or representation made in or in connection with this Agreement or any other Loan Document, (ii) the contents of any certificate, report or other document delivered hereunder or thereunder or in connection herewith or therewith, (iii) the performance or observance of any of the covenants, agreements or other terms or conditions set forth herein or therein or the occurrence of any Default, (iv) the validity, enforceability, effectiveness or genuineness of this Agreement, any other Loan Document or any other agreement, instrument or document, or (v) the satisfaction of any condition set forth in Article 8 or elsewhere herein, other than to confirm receipt of items expressly required to be delivered to the Administrative Agent.

10.4 Reliance by Administrative Agent. The Administrative Agent shall be entitled to rely upon, and shall not incur any liability for relying upon, any notice, request, certificate, consent, statement, instrument, document or other writing (including any electronic message, Internet or intranet website posting or other distribution) believed by it to be genuine and to have been signed, sent or otherwise authenticated by the proper Person. The Administrative Agent also may rely upon any statement made to it orally or by telephone and believed by it to have been made by the proper Person, and shall not incur any liability for relying thereon. In determining compliance with any condition hereunder to the making of a Loan, or the issuance, extension, renewal or increase of a Letter of Credit, that by its terms must

be fulfilled to the satisfaction of a Bank or Issuing Bank, the Administrative Agent may presume that such condition is satisfactory to such Bank or Issuing Bank unless the Administrative Agent shall have received notice to the contrary from such Bank or Issuing Bank prior to the making of such Loan or the issuance of such Letter of Credit. The Administrative Agent may consult with legal counsel (who may be counsel for the Borrowers), independent accountants and other experts selected by it, and shall not be liable for any action taken or not taken by it in accordance with the advice of any such counsel, accountants or experts.

10.5 Delegation of Duties. The Administrative Agent may perform any and all of its duties and exercise its rights and powers hereunder or under any other Loan Document by or through any one or more sub-agents appointed by the Administrative Agent. The Administrative Agent and any such sub-agent may perform any and all of its duties and exercise its rights and powers by or through their respective Related Parties. The exculpatory provisions of this Article shall apply to any such sub-agent and to the Related Parties of the Administrative Agent and each such sub-agent, and shall apply to their respective activities in connection with the syndication of the Loans as well as activities as Administrative Agent. The Administrative Agent shall not be responsible for the negligence or misconduct of any sub-agents except to the extent that a court of competent jurisdiction determines in a final and nonappealable judgment that the Administrative Agent acted with gross negligence or willful misconduct in the selection of such ~~sub-agents~~sub-agents.

10.6 Resignation of the Administrative Agent.

~~(a)~~ (a) The Administrative Agent may at any time give notice of its resignation to the Banks, the Issuing Banks and the Company. Upon receipt of any such notice of resignation, the Majority Banks shall have the right, with the written consent of the Company (such consent not to be unreasonably withheld and not to be required if an Event of Default has occurred and is continuing), to appoint a successor, which shall be a bank with an office in the United States, or an Affiliate of any such bank with an office in the United States. If no such successor shall have been so appointed by the Majority Banks and shall have accepted such appointment within 30 days after the retiring Administrative Agent gives notice of its resignation (or such earlier day as shall be agreed by the Majority Banks) (the "Resignation Effective Date"), then the retiring Administrative Agent may (but shall not be obligated to), on behalf of the Banks and the Issuing Banks, appoint a successor Administrative Agent meeting the qualifications set forth above.
Whether or not a successor has been appointed, such resignation shall become effective in accordance with such notice on the Resignation Effective Date.

~~(b)~~ (b) If the Person serving as Administrative Agent is a Defaulting Bank pursuant to clause (v) of the definition thereof, the Majority Banks may, to the extent permitted by applicable Law, by notice in writing to the Company and such Person remove such Person as Administrative Agent and, with the written consent of the Company (such consent not to be unreasonably withheld and not to be required if an Event of Default has occurred and is continuing), appoint a successor. If no such successor shall have been so appointed by the Majority Banks and shall have accepted such appointment within 30 days (or such earlier day as shall be agreed by the Majority Banks) (the "Removal Effective Date"), then such removal shall nonetheless become effective in accordance with such notice on the Removal Effective Date.

~~(c)~~ (c) With effect from the Resignation Effective Date or the Removal Effective Date (as applicable) (1) the retiring or removed Administrative Agent shall be discharged from its duties and obligations hereunder and under the other Loan Documents and (2) except for any indemnity payments owed to the retiring or removed Administrative Agent, all payments, communications and determinations provided to be made by, to or through the Administrative Agent shall instead be made by or to each Bank and Issuing Bank directly, until such time, if any, as the Majority Banks appoint a successor Administrative Agent as provided for above. Upon the acceptance of a successor's appointment as Administrative Agent hereunder, such successor shall succeed to and become vested with all of the rights, powers, privileges and duties of the retiring or removed Administrative Agent (other than any rights to indemnity payments owed to the retiring or removed Administrative Agent, as of the Resignation Effective Date or the Removal Effective Date, as applicable) and the retiring or removed Administrative Agent shall be discharged from all of its duties and obligations hereunder or under the other Loan Documents (if not already discharged therefrom as provided above in this Section 10.6). The fees payable by the Company to a successor Administrative Agent shall be the same as those payable to its predecessor unless otherwise agreed between the Company and such successor.
After the retiring or removed Administrative Agent's resignation or removal hereunder and under the other Loan Documents, the provisions of this Article 10 and Sections 13.3 and 13.12 shall continue in effect for the benefit of such retiring or removed Administrative Agent, its sub-agents and their respective Related Parties in respect of any actions taken or omitted to be taken by any of them while the retiring or removed Administrative Agent was acting as Administrative Agent.

~~(d)~~ (d) Any resignation by Citibank as Administrative Agent pursuant to this Section shall also constitute its resignation as Issuing Bank. If Citibank resigns as an Issuing Bank, it shall retain all the rights, powers, privileges and duties of an Issuing Bank hereunder with respect to all Letters of Credit outstanding as of the effective date of its resignation as an Issuing Bank and all LC Obligations with respect thereto, including the right to require the Banks to fund risk participations in unreimbursed amounts pursuant to Section 2.6(f). Upon the appointment by the Company of a successor Issuing Bank hereunder (which successor shall in all cases be a Bank other than a Defaulting Bank that agrees to serve as an Issuing Bank), (i) such successor shall succeed to and become vested with all of the rights, powers, privileges and duties of the retiring Issuing Bank, (ii) the retiring Issuing Bank shall be discharged from all of its duties and obligations hereunder or under the other Loan Documents, and (iii) the successor Issuing Bank shall issue letters of credit in substitution for the Letters of Credit, if any, outstanding at the time of such succession or make other arrangements satisfactory to Citibank to effectively assume the obligations of Citibank with respect to such Letters of Credit.

10.7 Non-Reliance on Administrative Agent and Other Banks.

Each Bank and Issuing Bank acknowledges that it has, independently and without reliance upon the Administrative Agent or any other Banks or any of their Related Parties and based on such documents and information as it has deemed appropriate, made its own credit analysis and decision to enter into this Agreement. Each Bank and Issuing Bank also acknowledges that it will, independently and without reliance upon the Administrative Agent or any other Bank or any of their Related Parties and based on such documents and information as it shall from time to time deem appropriate, continue to make its own decisions in taking or not

taking action under or based upon this Agreement, any other Loan Document or any related agreement or any document furnished hereunder or thereunder.

10.8 Right to Indemnity. To the extent that the Company for any reason fails to indefeasibly pay any amount required under Section 13.12 to be paid by it to the Administrative Agent, its directors, officers, agents, employees, attorneys and Affiliates, each Bank shall, ratably in accordance with its Pro Rata Share of the Commitment, indemnify and hold the Administrative Agent, its directors, officers, agents, employees, attorneys and Affiliates harmless against any and all liabilities, obligations, losses, damages, penalties, actions, judgments, suits, costs, expenses or disbursements of any kind or nature whatsoever (including, without limitation, reasonable attorneys' fees and disbursements) that may be imposed on, incurred by or asserted against them in any way relating to or arising out of the Loan Documents (other than losses incurred by reason of the failure of the Borrowers to pay the Obligations represented by the Loan Documents) or any action taken or not taken by it as Administrative Agent thereunder, except such as result from its own gross negligence or willful misconduct. Without limitation on the foregoing, each Bank shall reimburse the Administrative Agent upon demand for that Bank's ratable share of any cost or expense incurred by the Administrative Agent in connection with the negotiation, preparation, execution, delivery, amendment, waiver, restructuring, reorganization (including a bankruptcy reorganization), enforcement or attempted enforcement of the Loan Documents, to the extent that the Company or any other party is required by Section 13.3 to pay that cost or expense but fails to do so upon demand. Nothing in this Section shall entitle the Administrative Agent to recover any amount from the Banks if and to the extent that such amount has theretofore been recovered from the Company or any of its Subsidiaries. The undertaking in this Section shall survive termination of the Commitment, the payment of all other Obligations and the resignation of the Administrative Agent.

10.9 No Other Duties, etc. Anything herein to the contrary notwithstanding, none of the Persons acting as Arrangers, Joint Book Runners, Syndication Agent or
Co-Documentation Agents listed on the cover page hereof shall have any powers, duties or responsibilities under this Agreement or any of the other Loan Documents, except in its capacity, as applicable, as the Administrative Agent, Issuing Bank or as a Bank hereunder.

10.10 Bank ERISA Matters. (a) Each Bank (x) represents and warrants, as of the date such Person became a Bank party hereto, to, and (y) covenants, from the date such Person became a Bank party hereto to the date such Person ceases being a Bank party hereto, for the benefit of, the Administrative Agent and not, for the avoidance of doubt, to or for the benefit of the Company or any other Borrower, that at least one of the following is and will be true:

(i) such Bank is not using "plan assets" (within the meaning of Section 3(42) of ERISA or otherwise) of one or more Benefit Plans with respect to such Bank's entrance into, participation in, administration of and performance of the Loans, the Letters of Credit, the Commitments or this Agreement,

(ii) the transaction exemption set forth in one or more PTEs, such as PTE 84-14 (a class exemption for certain transactions determined by independent qualified professional asset managers), PTE 95-60 (a class exemption for certain transactions involving insurance company general accounts), PTE 90-1 (a class exemption for certain transactions involving insurance company pooled separate

accounts), PTE 91-38 (a class exemption for certain transactions involving bank collective investment funds) or PTE 96-23 (a class exemption for certain transactions determined by in-house asset managers), is applicable with respect to such Bank's entrance into, participation in, administration of and performance of the Advances, the Letters of Credit, the Commitments and this Agreement,

(iii) (A) such Bank is an investment fund managed by a "Qualified Professional Asset Manager" (within the meaning of Part VI of PTE 84-14), (B) such Qualified Professional Asset Manager made the investment decision on behalf of such Bank to enter into, participate in, administer and perform the Advances, the Letters of Credit, the Commitments and this Agreement, (C) the entrance into, participation in, administration of and performance of the Advances, the Letters of Credit, the Commitments and this Agreement satisfies the requirements of sub-sections (b) through
(g) of Part I of PTE 84-14 and (D) to the best knowledge of such Bank, the requirements of subsection (a) of Part I of PTE 84-14 are satisfied with respect to such Bank's entrance into, participation in, administration of and performance of the Advances, the Letters of Credit, the Commitments and this Agreement, or

(iv) such other representation, warranty and covenant as may be agreed in writing between the Administrative Agent, in its sole discretion, and such Bank.

(b) In addition, unless either (1) sub-clause (i) in the immediately preceding clause (a) is true with respect to a Bank or (2) a Bank has provided another representation, warranty and covenant in accordance with sub-clause (iv) in the immediately preceding clause (a), such Bank further (x) represents and warrants, as of the date such Person became a Bank party hereto, to, and (y) covenants, from the date such Person became a Bank party hereto to the date such Person ceases being a Bank party hereto, for the benefit of, the Administrative Agent and not, for the avoidance of doubt, to or for the benefit of the Company or any other Borrower, that the Administrative Agent is not a fiduciary with respect to the assets of such Bank involved in such Bank's entrance into, participation in, administration of and performance of the Advances, the Letters of Credit, the Commitments and this Agreement (including in connection with the reservation or exercise of any rights by the Administrative Agent under this Agreement, any Loan Document or any documents related hereto or thereto).

ARTICLE 11 ~~ARTICLE 11~~
~~Company Guaranty~~COMPANY GUARANTY

11.1 The Guaranty. The Company hereby unconditionally guaranties the due and punctual payment of all obligations (including, without limitation, the obligation to pay the principal amount of and interest on each Advance) of each Borrowing Subsidiary arising under this Agreement when due, whether by required prepayment, declaration, demand or otherwise (including amounts which would become due but for the operation of the automatic stay under Section 362(a) of the Bankruptcy Code, 11 U.S.C. § 362(a)) (the "Borrowing Subsidiary Obligations"), and agrees to pay any and all costs and expenses (including reasonable fees and disbursements of counsel) incurred by the Administrative Agent and the Banks in enforcing any rights under this Article 11 (to the extent covered by Section 13.3). The obligations of the

Company under this Article 11, as they may be amended, modified or supplemented from time to time, are sometimes referred to in this Article 11 as this "Guaranty".

The Company agrees that this Guaranty constitutes a guaranty of payment when due and not of collection and waives any right to require that any resort be had by the Administrative Agent or any Bank to any security held for payment of the Borrowing Subsidiary Obligations or to any balance of any deposit account or credit on the books of the Administrative Agent or any Bank in favor of the Company or any Borrowing Subsidiary or any other Person.

The Company agrees, in furtherance of the foregoing and not in limitation of any other right which the Administrative Agent or any Bank may have at law or in equity against the Company by virtue hereof, upon the failure of any Borrowing Subsidiary to pay any of its Borrowing Subsidiary Obligations when and as the same shall become due, whether by required prepayment, declaration, demand or otherwise (including amounts which would become due but for the operation of the automatic stay under Section 362(a) of the Bankruptcy Code, 11 U.S.C. § 362(a)), the Company will forthwith pay, or cause to be paid, in cash, to the Administrative Agent for the ratable benefit of the Banks an amount equal to the sum of the unpaid principal amount of such Borrowing Subsidiary Obligations then due as aforesaid, accrued and unpaid interest on such Borrowing Subsidiary Obligations (including, without limitation, interest which, but for the filing of a petition in bankruptcy with respect to such Borrowing Subsidiary (including without limitation, the Company), would accrue on such Borrowing Subsidiary Obligations).

11.2 Guaranty Unconditional. The obligations of the Company under this Guaranty shall be unconditional and absolute and, without limiting the generality of the foregoing, shall not be released, discharged or otherwise affected by:

(a) any extension, renewal, settlement, compromise, waiver or release in respect of any obligation of any Borrowing Subsidiary under this Agreement, by operation of law or otherwise;

(b) any modification or amendment of or supplement to this Agreement;

(c) any release, non-perfection or invalidity of any direct or indirect security for any obligation of any Borrowing Subsidiary under this Agreement;

(d) the failure of the Administrative Agent or any Bank to assert any claim or demand or to enforce any right or remedy against any Borrowing Subsidiary, the Company or any other Person under the provisions of this Agreement or any other agreement or otherwise;

(e) any change in the corporate existence, structure or ownership of any Borrowing Subsidiary or any insolvency, bankruptcy, reorganization or other similar proceeding affecting any Borrowing Subsidiary or its assets or any resulting release or discharge of any obligation of any Borrowing Subsidiary contained in this Agreement;

(f) the existence of any claim, set-off or other rights which the Company may have at any time against any other Borrower, the Administrative Agent, any Bank or any other Person, whether in connection herewith or any unrelated transactions;

(g) the invalidity or unenforceability relating to or against any Borrowing Subsidiary for any reason of this Agreement, or any provision of applicable law or regulation purporting to prohibit the payment by any Borrowing Subsidiary of the principal of or interest on any Advance or any other amount payable by any Borrowing Subsidiary under this Agreement, or the termination of any Borrowing Subsidiary's status as a Borrowing Subsidiary hereunder;

(h) the termination of a Borrowing Subsidiary's status hereunder as a "Borrower" pursuant to Section 12.2; or

(i) any other act or omission to act or delay of any kind by any Borrowing Subsidiary, the Administrative Agent, any Bank or any other Person or any other circumstance whatsoever which might, but for the provisions of this paragraph, constitute a legal or equitable discharge of the obligations of the Company hereunder.

The obligations of the Company under this Guaranty shall not be subject to any reduction, limitation, impairment or termination for any reason, including, without limitation, any claim of waiver, release, surrender, alteration or compromise of any of the Borrowing Subsidiary Obligations, and shall not be subject to any defense or set-off, counterclaim, recoupment or termination whatsoever by reason of the invalidity, illegality or unenforceability of any of the Borrowing Subsidiary Obligations, discharge of any Borrowing Subsidiary from any of the Borrowing Subsidiary Obligations in a bankruptcy or similar proceeding, or otherwise. Without limiting the generality of the foregoing, the obligations of the Company under this Guaranty shall not be discharged or impaired or otherwise affected by the failure of the Administrative Agent or any Bank to assert any claim or demand or to enforce any remedy under this Agreement or any document or instrument executed by any Borrowing Subsidiary in connection herewith, by any waiver or modification of any thereof, by any default, failure or delay, willful or otherwise, in the performance of the Borrowing Subsidiary Obligations, or by any other act or thing or omission or delay to do any other act or thing which may or might in any manner or to any extent vary the risk of the Company or which would otherwise operate as a discharge of the Company as a matter of law or equity.

11.3 Discharge Only Upon Payment in Full; Reinstatement in Certain Circumstances. The obligations of the Company under this Article 11 shall remain in full force and effect until the Commitment shall have terminated, all Letters of Credit have expired and the principal of and interest on the Advances and all other amounts payable by the Borrowers under this Agreement shall have been paid in full other than indemnity obligations for which no claim has been made. If at any time any payment of the principal of or interest on any Advance or any other amount payable by the Borrowers under this Agreement is rescinded or must be otherwise restored or returned upon the insolvency, bankruptcy or reorganization of any Borrower or otherwise, the obligations of the Company under this Article 11 shall be reinstated as though such payment had been due but not made at such time.

11.4 Waivers by the Company. With respect to this Article 11, the Company hereby waives for the benefit of the Administrative Agent and the Banks:

(a) any right to require the Administrative Agent or any Bank, as a condition of payment or performance by the Company under this Guaranty to (i) proceed against any Borrowing Subsidiary, any other guarantor of the obligations of any Borrowing Subsidiary under any other agreement or guaranty or any other Person, (ii) proceed against or exhaust any security held from any Borrowing Subsidiary, any other guarantor or any other Person, or (iii) pursue any other remedy in the power of the Administrative Agent or any Bank whatsoever;

(b) any defense arising by reason of the incapacity, lack of authority or any disability or other defense of any Borrowing Subsidiary including, without limitation, any defense based on or arising out of the lack of validity or unenforceability of the Borrowing Subsidiary Obligations or any agreement or instrument relating thereto or by reason of the cessation from any cause of the liability of any Borrowing Subsidiary other than indefeasible payment in full of the Borrowing Subsidiary Obligations;

(c) any defense based upon any statute or rule of law which provides that the obligation of a surety must be neither larger in amount nor in other respects more burdensome than that of the principal, or based upon the Administrative Agent's or any Bank's errors or omissions in the administration of the Borrowing Subsidiary Obligations, except behavior which amounts to bad faith;

(d) any (i) principles or provisions of law, statutory or otherwise, which are or might be in conflict with the terms of this Guaranty, any legal or equitable discharge of its obligations hereunder and the benefit of any statute of limitations affecting its liability hereunder or the enforcement thereof, (ii) rights to set-offs, recoupments and counterclaims, (iii) rights to deferral or modification of the Company's obligations hereunder by reason of any bankruptcy, reorganization, arrangement, moratorium or other debtor relief proceeding, (iv) promptness, diligence and any requirement that the Administrative Agent or any Bank protect, secure, perfect or insure any security interest or lien or any property subject thereto or exhaust any right or take any action against any Borrowing Subsidiary or any other Person or any collateral;

(e) notice, demand, presentment, protests, notices of protest, notices of dishonor and notices of any action or inaction, including acceptance of this Guaranty, notices of default under this Agreement or any agreement or instrument related thereto, notice of any renewal, extension or modification of the Borrowing Subsidiary Obligations or any agreement related thereto, notice of any other extension of credit to any Borrowing Subsidiary; and

(f) any defenses or benefits that may be derived from or afforded by law which limit the liability of or exonerates guarantors or sureties, or which may conflict with the terms of this Guaranty including, without limitation, the provisions of California Civil Code Sections 2809, 2810, 2819, 2839, 2845, 2846, 2847, 2848, 2849, 2850, 2899 and 3433. In accordance with Section 13.22 below, this Agreement shall be governed by, and shall be construed and enforced in accordance with, the internal laws of the State of New York, without regard to conflicts of laws principles. This clause (f) is included solely out of an abundance of caution,

and shall not be construed to mean that any of the above-referenced provisions of California law are in any way applicable to this Agreement or to any of the Borrowing Subsidiary Obligations.

11.5 Subrogation, Etc. Upon payment by the Company of any sum to the Administrative Agent for the ratable benefit of any Bank as provided above, so long as any of the Borrowing Subsidiary Obligations of a Borrowing Subsidiary shall remain outstanding hereunder, all rights of the Company against such Borrowing Subsidiary arising as a result thereof, by way of right of subrogation or otherwise, shall in all respects be subordinate and junior in right of payment to the prior indefeasible payment in full of all the Borrowing Subsidiary Obligations of that Borrowing Subsidiary to the Administrative Agent and the Banks. In furtherance of the foregoing, and not in limitation thereof, the Company agrees that until the Borrowing Subsidiary Obligations of a Borrowing Subsidiary shall have been paid in full, the Commitment has terminated and all Letters of Credit issued for the account of such Borrowing Subsidiary have expired, the Company shall withhold exercise of any right of subrogation, or any right to enforce any remedy which the Administrative Agent or any Bank may have against that Borrowing Subsidiary. If any amount shall be paid to the Company on account of such subrogation rights at any time prior to the date when the Borrowing Subsidiary Obligations of such Borrowing Subsidiary have been paid in full, the Commitment has terminated and all Letters of Credit issued for the account of such Borrowing Subsidiary have expired, such amount shall be held in trust for the benefit of the Banks and shall be paid to the Administrative Agent for the benefit of the Banks to be credited and applied upon the Borrowing Subsidiary Obligations of such Borrowing Subsidiary, whether matured or unmatured, in accordance with the terms of the Credit Agreement or to be held by the Administrative Agent for the benefit of the Banks as collateral security for any Obligations thereafter existing.

ARTICLE 12 ~~ARTICLE 12~~ ~~Additional Borrowers; Termination of Borrowers~~ADDITIONAL BORROWERS; TERMINATION OF BORROWERS

12.1 Agreement to Participate. Any Eligible Subsidiary may become a party to this Agreement and become a "Borrower" for all purposes hereof on any date after the date hereof upon not less than 10 Banking Days notice to the Administrative Agent (which shall give prompt written notice thereof to each Bank) and upon the satisfaction of the following conditions:

(a) receipt by the Administrative Agent on or before such date of an Agreement to Participate executed by such Eligible Subsidiary and acknowledged and consented to by the Administrative Agent (which consent shall not be unreasonably withheld);

(b) receipt by the Administrative Agent of a certificate dated such date from a Senior Officer of such Eligible Subsidiary to the effect that (i) no Default has occurred and is continuing on such date, (ii) the representations and warranties of such Eligible Subsidiary and its Subsidiaries contained in the Agreement to Participate executed by such Eligible Subsidiary are true, correct and complete in all material respects on and as of such date, and (iii) such Eligible Subsidiary is a wholly-owned Subsidiary;

(c) receipt by the Administrative Agent on or before such date of such additional documents it may reasonably request relating to the existence of such Eligible Subsidiary, the organizational power and authority of such Eligible Subsidiary, the validity of such Eligible Subsidiary's obligations under the Agreement to Participate executed by such Eligible Subsidiary and under this Agreement, and other matters relevant thereto and hereto, all in form and substance satisfactory to the Administrative Agent;

(d) if requested in accordance with Section 2.1(e), receipt by the Administrative Agent on or before such date of the Notes dated such date and executed by such Eligible Subsidiary, one Note in favor of each Bank in a principal amount equal to that Bank's Pro Rata Share of the Commitment; and

(e) in the case of an Eligible Subsidiary that qualifies as a "legal entity customer" under the Beneficial Ownership Regulation, a duly executed and completed Beneficial Ownership Certification.

(f) Following the giving of any notice pursuant to this Section 12.1, if the designation of such Subsidiary as a Borrowing Subsidiary obligates the Administrative Agent or any Bank to comply with "know your customer" or similar identification procedures in circumstances where the necessary information is not already available to it, the Company shall, promptly upon the request of the Administrative Agent or any Bank, supply such documentation and other evidence as is reasonably requested by the Administrative Agent or any Bank in order for the Administrative Agent or such Bank to carry out and be satisfied it has complied with the results of all necessary "know your customer" or other similar checks under all applicable laws and regulations.

If the Company shall designate as a Borrowing Subsidiary hereunder any Subsidiary not organized under the laws of the United States or any State thereof, any Bank may, with notice to the Administrative Agent and the Company, fulfill its Pro Rata Share of the Commitment by causing an Affiliate or branch of such Bank to act as the Bank in respect of such Borrowing Subsidiary.

As soon as practicable after receiving notice from the Company or the Administrative Agent of the Company's intent to designate a Subsidiary as a Borrowing Subsidiary, and in any event no later than five Banking Days after the delivery of such notice, for a Borrowing Subsidiary that is organized under the laws of a jurisdiction other than of the United States or a political subdivision thereof, any Bank that may not legally lend to, establish credit for the account of and/or do any business whatsoever with such Borrowing Subsidiary directly or through an Affiliate of such Bank as provided in the immediately preceding paragraph (a"**Protesting Lender"**) shall so notify the Company and the Administrative Agent in writing. With respect to each Protesting Lender, the Company shall, effective on or before the date that such Borrowing Subsidiary shall have the right to borrow hereunder, either (A) notify the Administrative Agent and such Protesting Lender that the Pro Rata Share of the Commitment of such Protesting Lender shall be terminated; provided that such Protesting Lender shall have received payment of an amount equal to the outstanding principal of its Advances and/or Letter of Credit reimbursement obligations, accrued interest thereon, accrued fees and all other amounts payable to it hereunder, from the assignee (to the extent of such outstanding principal and

accrued interest and fees) or the Company or the relevant Borrowing Subsidiary (in the case of all other amounts), or (B) cancel its request to designate such Subsidiary as a "Borrowing Subsidiary" hereunder.

Each Bank hereby authorizes the Administrative Agent to sign on such Bank's behalf an Agreement to Participate delivered pursuant to clause (a) above, and the Company and each Bank hereby agree that, upon satisfaction by any Eligible Subsidiary of the conditions set forth in this Section 12.1, such Eligible Subsidiary shall become a "Borrower" hereunder for all purposes hereof. The Administrative Agent shall promptly notify the Banks of whenever an Eligible Subsidiary becomes a Borrower.

12.2 Notice of Termination. Any Borrower, other than the Company, that has no Advances outstanding to any Bank and is not the account party on any Letter of Credit, may cease to be a "Borrower" for the purposes of this Agreement (and all commitments as to such Borrower shall thereupon terminate) upon notice, in form and substance satisfactory to the Administrative Agent, by such Borrower to the Administrative Agent; provided that such notice shall not affect any obligation of such Borrower theretofore incurred. The Administrative Agent shall send prompt written notice to each Bank of any Borrower ceasing, pursuant to this subsection, to be a Borrower.

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ARTICLE 13 ~~ARTICLE 13~~
~~Miscellaneous~~MISCELLANEOUS

13.1 Cumulative Remedies; No Waiver . The rights, powers, privileges and remedies of the Administrative Agent, the Issuing Banks and the Banks provided herein or in any Note or other Loan Document are cumulative and not exclusive of any right, power, privilege or remedy provided by Law or equity. No failure or delay on the part of the Administrative Agent, any Issuing Bank or any Bank in exercising any right, power, privilege or remedy may be, or may be deemed to be, a waiver thereof; nor may any single or partial exercise of any right, power, privilege or remedy preclude any other or further exercise of the same or any other right, power, privilege or remedy. The terms and conditions of Article 8 hereof are inserted for the sole benefit of the Administrative Agent, the Issuing Banks and the Banks; the same may be waived in whole or in part, with or without terms or conditions, in respect of any Loan or Letter of Credit without prejudicing the Administrative Agent's, either Issuing Bank's or the Banks' rights to assert them in whole or in part in respect of any other Loan or Letter of Credit.

13.2 Amendments; Consents. No amendment, modification, supplement, extension, termination or waiver of any provision of this Agreement or any other Loan Document, no approval or consent thereunder, and no consent to any departure by any Borrower or any other party therefrom, may in any event be effective unless the same shall be in writing and signed by the Majority Banks (or signed by the Administrative Agent at the direction of the Majority Banks) (and, in the case of amendments, modifications or supplements of or to any Loan Document to which a Borrower is a party, the approval in writing of such Borrower), and then only in the specific instance and for the specific purpose given; and, without the approval in writing of all the Banks directly and adversely affected by such amendment, modification,

supplement, termination, waiver or consent, no amendment, modification, supplement, termination, waiver or consent may be effective:

(a) To increase any Bank's Pro Rata Share of the Commitment (other than expressly set forth in the definition of "Pro Rata Share") extend scheduled payment dates of any Loan or Note beyond the Maturity Date, or reduce the rate of interest (other than any waiver of any increase in the interest rate applicable to any of the Loans pursuant to Section 3.9) or fees in respect of the Commitment, the Loans or the Letters of Credit, or extend the time of payment of principal, reimbursement obligations under Letters of Credit, interest or fees, or reduce the principal amount of the Obligations;

(b) To amend or modify the provisions of the definitions of "Maturity Date" (except to the extent permitted by Section 2.9), or "Majority Banks" or of this Section;

(c) To release the Company as guarantor; or

(d) To amend or modify any provision of this Agreement that expressly requires the consent or approval of all the Banks.

In addition, no amendment, modification, supplement, termination, waiver or consent shall, unless in writing and signed by the Administrative Agent in addition to the Banks required above to take such action, affect the rights or duties of the Administrative Agent acting in such capacity under this Agreement or any Note. No amendment, modification, supplement, termination, waiver or consent shall, unless in writing and signed by each Issuing Bank, affect any provisions hereof relating to the Letters of Credit. Any amendment, modification, supplement, termination, waiver or consent pursuant to this Section shall apply equally to, and shall be binding upon, all the Banks, the Issuing Banks, the Administrative Agent and each Borrower. Copies of all amendments, modifications, supplements, terminations, waivers and consents shall be distributed to the Administrative Agent, each Bank, each Issuing Bank and each Borrower.

13.3 Costs, Expenses and Taxes. The Company shall pay on demand the reasonable costs and expenses ~~(a)~~ (a) of each Arranger, the Administrative Agent and the Syndication Agent in connection with the negotiation, preparation, execution and delivery of the Loan Documents (including, without limitation, the reasonable legal fees and out-of-pocket expenses of Shearman & Sterling LLP), and, (b) if a Borrower requests the amendment, waiver, supplement or modification the Loan Documents, of the Administrative Agent and any Issuing Bank in connection with any such amendment, waiver, supplement or modification (including, without limitation, the reasonable legal fees and out-of-pocket expenses of counsel to the Administrative Agent and such Issuing Bank), and (c) if any Event of Default has occurred and is continuing, of the Administrative Agent, the Issuing Banks and the Banks in connection with any workout, restructuring, reorganization (including a bankruptcy reorganization) and in any event enforcement or attempted enforcement of the Loan Documents, and any matter related thereto, including, without limitation, out-of-pocket expenses and the reasonable fees and out-of-pocket expenses of any legal counsel, independent public accountants and other outside experts retained by the Administrative Agent, any Issuing Bank or any Bank, and including, without limitation, any costs, expenses or fees incurred or suffered by the Administrative Agent, any Issuing Bank or any Bank in connection with or during the course of any bankruptcy or insolvency

proceedings of the Company or any Subsidiary thereof. The Company shall pay any and all costs, expenses, fees and charges payable or determined to be payable in connection with the filing or recording of this Agreement, any other Loan Document or any other instrument or writing to be delivered hereunder or thereunder, or in connection with any transaction pursuant hereto or thereto, and shall reimburse, hold harmless and indemnify the Arrangers, the Administrative Agent, the Syndication Agent, the Issuing Banks and the Banks from and against any and all loss, liability or legal or other expense with respect to or resulting from any delay in paying or failure to pay any such tax, cost, expense, fee or charge or that any of them may suffer or incur by reason of the failure of any party (other than any Arranger, the Administrative Agent, the Syndication Agent, any Issuing Bank or any Bank) to perform any of its Obligations. This Section 13.3 shall not apply to the extent that any loss, liability or expense relates to any Taxes (including withholding Taxes and Other Taxes) for which there may be an indemnification, reimbursement or other payment obligation imposed on the Company pursuant to any other provision of this Agreement (including, without limitation, Section 3.12).

13.4 Obligation to Make Payments in Dollars or Alternative Currency. The obligation of the Borrowers to make payments in Dollars or the Alternative Currency of the principal and interest becoming due and payable on each Loan, and to pay all other Obligations hereunder in Dollars, (i) shall not be discharged or satisfied by any tender, or any recovery pursuant to any judgment, which is expressed in or converted into any currency other than Dollars or the Alternative Currency, as applicable, except to the extent that such tender or recovery shall result in the actual receipt by the Administrative Agent, the Banks and the Issuing Banks of the full amount of Dollars or the Alternative Currency, as applicable, expressed to be payable in respect of the principal and interest of each Loan and in respect of each other Obligation, (ii) shall be enforceable as an alternative or additional cause of action for the purpose of recovering in Dollars or the Alternative Currency, as applicable, the amount, if any, by which such actual receipt shall fall short of the full amount of Dollars or the Alternative Currency, as applicable, so expressed to be payable and (iii) shall not be affected by judgment being obtained for any other sum due under this Agreement.

13.5 Nature of Banks' Obligations. The obligations of the Banks hereunder are several and not joint or joint and several. Nothing contained in this Agreement or any other Loan Document and no action taken by the Administrative Agent, the Issuing Banks or the Banks or any of them pursuant hereto or thereto may, or may be deemed to, make the Banks a partnership, an association, a joint venture or other entity, either among themselves or with the Company or any Affiliate of the Company. Each Bank's obligation to make any Advance pursuant hereto is several and not joint or joint and several, and is not conditioned upon the performance by all other Banks of their obligations to make Advances.

13.6 Survival. All representations and warranties contained herein or in any other Loan Document, or in any certificate or other writing delivered by or on behalf of any one or more of the parties to any Loan Document, will survive the making of the Advances hereunder and the execution and delivery of the Notes, and have been or will be relied upon by the Administrative Agent, each Issuing Bank and each Bank, notwithstanding any investigation made by the Administrative Agent, any Issuing Bank or any Bank or on their behalf. The obligations of the Company under Sections 3.7 and 3.8 shall survive for thirty (30) days following the termination of this Agreement and the repayment of the Notes. The obligations of

the Company under Sections 13.3 and 13.12 shall survive the termination of this Agreement and the repayment of the Notes, provided, however, that such obligations shall not, from and after the termination of this Agreement, be deemed to be Obligations for any purpose under the Loan Documents.

13.7 Notices and Other Communications; Facsimile Copies.

(a) Notices General. Except in the case of notices and other communications expressly permitted to be given by telephone (and except as provided in paragraph (b) below), all notices and other communications provided for herein shall be in writing and shall be delivered by hand or overnight courier service, mailed by certified or registered mail or sent by facsimile or other electronic communication as follows:

(i) if to any Borrower or the Company, the Administrative Agent or any Issuing Bank, to the address, facsimile number, electronic mail address or telephone number specified for such Person on Schedule 13.7 or to such other address, facsimile number, electronic mail address or telephone number as shall be designated by such party in a notice to the other parties; and

(ii) if to any other Bank, to the address, facsimile number, electronic mail address or telephone number specified in its Administrative Questionnaire.

Notices sent by hand or overnight courier service, or mailed by certified or registered mail, shall be deemed to have been given when received; notices sent by facsimile shall be deemed to have been given when sent (except that, if not given during normal business hours for the recipient, shall be deemed to have been given at the opening of business on the next business day for the recipient). Notices delivered through electronic communications, to the extent provided in paragraph (b) below, shall be effective as provided in said paragraph (b).

(b) (b) Electronic Communications. Notices and other communications to the Banks and the Issuing Banks hereunder may be delivered or furnished by electronic communication (including e mail and Internet or intranet websites) pursuant to procedures approved by the Administrative Agent, provided that the foregoing shall not apply to notices to any Bank or Issuing Bank pursuant to Article 2 if such Bank or Issuing Bank, as applicable, has notified the Administrative Agent that it is incapable of receiving notices under such Article 2 by electronic communication. The Administrative Agent or the Company may, in its discretion, agree to accept notices and other communications to it hereunder by electronic communications pursuant to procedures approved by it; provided that approval of such procedures may be limited to particular notices or communications.

Unless the Agent otherwise prescribes, (i) notices and other communications sent to an e-mail address shall be deemed received upon the sender's receipt of an acknowledgement from the intended recipient (such as by the "return receipt requested" function, as available, return e-mail or other written acknowledgement), and (ii) notices or communications posted to an Internet or intranet website shall be deemed received upon the deemed receipt by the intended recipient, at its e-mail address as described in the foregoing clause (i) of this Section 13.7(b), of notification that such notice or communication is available and identifying the website address

therefor; provided that, for both clauses (i) and (ii) of this Section 13.7(b), if such notice, email or other communication is not sent during the normal business hours of the recipient, such notice or communication shall be deemed to have been sent at the opening of business on the next business day for the recipient.

(c) (c) Change of Address, etc. Any party hereto may change its address or facsimile number for notices and other communications hereunder by notice to the other parties hereto.

(d) (d) Platform.

~~(i)~~ (i) Each of the Borrowers agrees that the Administrative Agent may, but shall not be obligated to, make the Communications available to the Issuing Banks and the Banks by posting the Communications on Debt Domain, Intralinks, Syndtrak or a substantially similar electronic transmission systems (the "Platform").

~~(ii)~~ (ii) THE PLATFORM IS PROVIDED "AS IS" AND "AS AVAILABLE". THE AGENT PARTIES (AS DEFINED BELOW) DO NOT WARRANT THE ACCURACY OF THE PLATFORM AND EXPRESSLY DISCLAIM LIABILITY FOR ERRORS OR OMISSIONS IN THE COMMUNICATIONS. NO WARRANTY OF ANY KIND, EXPRESS, IMPLIED OR STATUTORY, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, ~~NON-INFRINGEMENT~~NON-INFRINGEMENT OF THIRD PARTY RIGHTS OR FREEDOM FROM VIRUSES OR OTHER CODE DEFECTS, IS MADE BY THE AGENT PARTIES IN CONNECTION WITH THE COMMUNICATIONS OR THE PLATFORM. IN NO EVENT SHALL THE ADMINISTRATIVE AGENT OR ANY OF ITS AFFILIATES OR ANY OF THEIR RESPECTIVE OFFICERS, DIRECTORS, EMPLOYEES, AGENTS, ADVISORS OR REPRESENTATIVES (COLLECTIVELY, "**AGENT PARTIES**") HAVE ANY LIABILITY TO THE COMPANY, ANY OTHER BORROWER, ANY BANK OR ANY OTHER PERSON OR ENTITY FOR DAMAGES OF ANY KIND, INCLUDING, WITHOUT LIMITATION, DIRECT OR INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOSSES OR EXPENSES (WHETHER IN TORT, CONTRACT OR OTHERWISE) ARISING OUT OF ANY BORROWER'S OR THE ADMINISTRATIVE AGENT'S TRANSMISSION OF COMMUNICATIONS THROUGH THE PLATFORM. "Communications" means, collectively, any notice, demand, communication, information, document or other material that any Borrower provides to the Administrative Agent pursuant to any Loan Document or the transactions contemplated therein which is distributed to the Administrative Agent, any Bank or any Issuing Bank by means of electronic communications pursuant to this Section, including through the Platform.

13.8 Execution of Loan Documents. Unless the Administrative Agent otherwise specifies with respect to any Loan Document, this Agreement and any other Loan Document may be executed in any number of counterparts and any party hereto or thereto may execute any counterpart, each of which when executed and delivered will be deemed to be an original and all of which counterparts of this Agreement or any other Loan Document, as the case may be, when taken together will be deemed to be but one and the same instrument. The execution of this Agreement or any other Loan Document by any party hereto or thereto will not

become effective until counterparts hereof or thereof, as the case may be, have been executed by all the parties hereto or thereto.

13.9 Binding Effect; Assignment; Entire Agreement.

~~(a)~~ (a) This Agreement and the other Loan Documents shall be binding upon and shall inure to the benefit of the parties hereto and thereto and their respective successors and assigns, except that a Borrower, the Company and/or their respective Affiliates may not assign their rights hereunder or thereunder or any interest herein or therein without the prior written consent of all the Banks.

~~(b)~~ (b) **Assignments by Banks**. Any Bank may at any time assign to one or more assignees all or a portion of its rights and obligations under this Agreement (including all or a portion of its Pro Rata Share of the Commitment and the Loans at the time owing to it or, in the case of an Issuing Bank, its unused LC Commitment); provided that any such assignment shall be subject to the following conditions:

~~(i)~~ (i) Minimum Amounts.

~~(A)~~ (A) in the case of an assignment of the entire remaining amount of the assigning Bank's Pro Rata Share of the Commitment and/or the Loans at the time owing to it or contemporaneous assignments to related Approved Funds that equal at least the amount specified in Section 13.9(b)(i)(B) in the aggregate or in the case of an assignment to a Bank, an Affiliate of a Bank or an Approved Fund, no minimum amount need be assigned; and

~~(B)~~ (B) in any case not described in Section 13.9(b)(i)(A), the aggregate amount of the Pro Rata Share of the Commitment (which for this purpose includes Loans outstanding thereunder) or, if the Commitment is not then in effect, the principal outstanding balance of the Advances of the assigning Bank subject to each such assignment (determined as of the date the Assignment Agreement with respect to such assignment is delivered to the Administrative Agent or, if "Trade Date" is specified in the Assignment Agreement, as of the Trade Date) or the amount of the unused LC Commitment assigned shall not be less than $5,000,000 and assigned amounts must be in increments of $1,000,000 unless each of the Administrative Agent and, so long as no Event of Default has occurred and is continuing, the Company otherwise consents in writing (each such consent not to be unreasonably withheld or delayed).

~~(ii)~~ (ii) Proportionate Amounts. Each partial assignment shall be made as an assignment of a proportionate part of all the assigning Bank's rights and obligations under this Agreement with respect to the Loan or the Commitment assigned.

~~(iii)~~ (iii) Required Consents. No consent shall be required for any assignment except to the extent required by Section 13.9(b)(i)(B) and, in addition:

~~(A)~~ (A) the written consent of the Company (such consent not to be unreasonably withheld or delayed) shall be required unless (x) an Event of

Default under Section 9.1(a), (b) or (i) has occurred and is continuing at the time of such assignment, or (y) such assignment is to a Bank, an Affiliate of a Bank or an Approved Fund;

~~(B)~~ (B) the written consent of the Administrative Agent (such consent not to be unreasonably withheld or delayed) shall be required if such assignment is to a Person that is not a Bank, an Affiliate of such Bank or an Approved Fund; and

~~(C)~~ (C) the written consent of each Issuing Bank (such consent not to be unreasonably withheld or delayed) shall be required for any assignment (other than an assignment of unused LC Commitment).

~~(iv)~~ (iv) Assignment and Assumption. The parties to each assignment shall execute and deliver to the Administrative Agent an Assignment Agreement, together with a processing and recordation fee of $3,500; provided that the Administrative Agent may, in its sole discretion, elect to waive such processing and recordation fee in the case of any assignment. The assignee, if it is not a Bank, shall deliver to the Administrative Agent an Administrative Questionnaire.

~~(v)~~ (v) No Assignment to Certain Persons. No such assignment shall be made to (A) the Borrowers or any Borrower's Affiliates or Subsidiaries or (B) to any Defaulting Bank or Potential Defaulting Bank or any of their respective Subsidiaries, or any Person who, upon becoming a Bank hereunder, would constitute any of the foregoing Persons described in this clause (B).

~~(vi)~~ (vi) No Assignment to Natural Persons. No such assignment shall be made to a natural Person.

~~(vii)~~ (vii) Provision of Tax Forms. The documentation required by Section 13.27 with respect to such assignee shall have been provided to the Company and the Administrative Agent.

~~(viii)~~ (viii) Certain Additional Payments. In connection with any assignment of rights and obligations of any Defaulting Bank hereunder, no such assignment shall be effective unless and until, in addition to the other conditions thereto set forth herein, the parties to the assignment shall make such additional payments to the Administrative Agent in an aggregate amount sufficient, upon distribution thereof as appropriate (which may be outright payment, purchases by the assignee of participations or subparticipations, or other compensating actions, including funding, with the consent of the Company and the Administrative Agent, the applicable pro rata share of Loans previously requested but not funded by the Defaulting Bank, to each of which the applicable assignee and assignor hereby irrevocably consent), to (x) pay and satisfy in full all payment liabilities then owed by such Defaulting Bank to the Administrative Agent, each Issuing Bank and each other Bank hereunder (and interest accrued thereon), and (y) acquire (and fund as appropriate) its full pro rata share of all Loans and participations in Letters of Credit in accordance with its Pro Rata Share. Notwithstanding the foregoing, in the event that any assignment of rights and obligations of any Defaulting Bank hereunder shall become effective under applicable Law without compliance with the provisions of this paragraph, then

the assignee of such interest shall be deemed to be a Defaulting Bank for all purposes of this Agreement until such compliance occurs.

Subject to acceptance and recording thereof by the Administrative Agent pursuant to Section 13.9(g), from and after the effective date specified in each Assignment Agreement, the assignee thereunder shall be a party to this Agreement and, to the extent of the interest assigned by such Assignment Agreement, have the rights and obligations of a Bank under this Agreement, and the assigning Bank thereunder shall, to the extent of the interest assigned by such Assignment Agreement, be released from its obligations under this Agreement (and, in the case of an Assignment Agreement covering all of the assigning Bank's rights and obligations under this Agreement, such Bank shall cease to be a party hereto) but shall continue to be entitled to the benefits of Sections 3.7, 3.8, 3.12(d), 13.3, and 13.12 with respect to facts and circumstances occurring prior to the effective date of such assignment; provided, that except to the extent otherwise expressly agreed by the affected parties, no assignment by a Defaulting Bank will constitute a waiver or release of any claim of any party hereunder arising from that Bank's having been a Defaulting Bank. Any assignment or transfer by a Bank of rights or obligations under this Agreement that does not comply with this paragraph shall be treated for purposes of this Agreement as a sale by such Bank of a participation in such rights and obligations in accordance with Section 13.9(c).

~~(c)~~ (c) **Participations.** Any Bank may at any time, without the consent of, or notice to, the Borrowers or the Administrative Agent, sell participations to any Person (other than a natural Person or the Borrowers or any Borrower's Affiliates or Subsidiaries) (each, a "Participant") in all or a portion of such Bank's rights and/or obligations under this Agreement (including all or a portion of its Pro Rata Share of the Commitment and/or the Loans owing to it); provided that (i) such Bank's obligations under this Agreement shall remain unchanged, (ii) such Bank shall remain solely responsible to the other parties hereto for the performance of such obligations, and (iii) the Borrowers, the Administrative Agent, the Issuing Banks and Banks shall continue to deal solely and directly with such Bank in connection with such Bank's rights and obligations under this Agreement. For the avoidance of doubt, each Bank shall be responsible for the indemnity under Section 10.7 with respect to any payments made by such Bank to its Participant(s).

Any agreement or instrument pursuant to which a Bank sells such a participation shall provide that such Bank shall retain the sole right to enforce this Agreement and to approve any amendment, modification or waiver of any provision of this Agreement; provided that such agreement or instrument may provide that such Bank will not, without the consent of the Participant, agree to any amendment, modification or waiver described in clauses (a) and (b) (in the case of such clause (b), solely with respect to amendments or modifications of the provisions of the definition of "Maturity Date") of Section 13.2 that directly and adversely affects such Participant. The Borrowers agree that each Participant shall be entitled to the benefits of Sections 3.7, 3.8 and 3.12(d) to the same extent as if it were a Bank and had acquired its interest by assignment pursuant to Section 13.9(b); provided that such Participant agrees to be subject to the provisions of Section 13.27 as if it were an assignee under Section 13.9(b). To the extent permitted by Law, each Participant also shall be entitled to the benefits of Section 13.10 as

though it were a Bank; provided that such Participant agrees to be subject to Section 13.11 as though it were a Bank.

~~(d)~~ (d) **Limitations upon Participant Rights.** Unless the Company otherwise agrees in writing, a Participant shall not be entitled to receive any greater payment under Sections 3.7, 3.8 and 3.12(d) than the applicable Bank would have been entitled to receive with respect to the participation sold to such Participant. A Participant shall not be entitled to the benefits of Section 3.12(d) with respect to United States withholding tax unless the Company is notified of the participation sold to such Participant and such Participant agrees, for the benefit of the Borrowers, to comply with Section 13.27 as though it were a Bank.

~~(e)~~ (e) **Participant Register**. Each Bank that sells a participation, acting solely for this purpose as a non-fiduciary agent of the Borrowers (and such agency being solely for tax purposes), shall maintain a register for the recordation of the name and address of each Participant and the principal amounts (and stated interest) of each Participant's interest in its rights and other obligations under this Agreement (the "Participant Register"); provided that no Bank shall have any obligation to disclose all or any portion of the Participation Register to any Person (including the identity of any participant or any information relating to a participant's interest in any commitments, loans, letters of credit or its other obligations under this Agreement) except to the extent that such disclosure is necessary to establish that such commitment, loan, letter of credit or other obligation is in registered form under Section 5f.103(c) of the United States Treasury Regulations. The entries in the Participant Register shall be conclusive absent manifest error, and such Bank shall treat each Person whose name is recorded in the Participant Register as the owner of such participation for all purposes of this Agreement notwithstanding any notice to the contrary.

~~(f)~~ (f) **Certain Pledges.** Any Bank may at any time pledge or assign a security interest in all or any portion of its rights under this Agreement to secure obligations of such Bank, including any pledge or assignment to secure obligations to a Federal Reserve Bank or any central bank having jurisdiction over such Bank; provided that no such pledge or assignment shall release such Bank from any of its obligations hereunder or substitute any such pledgee or assignee for such Bank as a party hereto.

~~(g)~~ (g) **The Register**. The Administrative Agent, acting solely for this purpose as a non-fiduciary agent of the Borrowers, shall maintain at one of its offices in the address referred to in Section 13.7 a copy of each Assignment Agreement delivered to it and a register for the recordation of the names and addresses of the Banks, and the Pro Rata Shares of the Commitment of, and principal amounts (and stated interest) of the Loans owing to, each Bank pursuant to the terms hereof from time to time (the "Register"). The entries in the Register shall be conclusive absent manifest error, and the Borrowers, the Administrative Agent and the Banks shall treat each Person whose name is recorded in the Register pursuant to the terms hereof as a Bank hereunder for all purposes of this Agreement. The Register shall be available for inspection by the Company and any Bank, at any reasonable time and from time to time upon reasonable prior notice.

13.10 Setoff Rights. If an Event of Default has occurred and is continuing, the Administrative Agent, each Issuing Bank and each Bank and each of its Affiliates (but only with

the consent of the Majority Banks) is hereby authorized to the fullest extent permitted by law to setoff and apply any funds in any deposit account maintained with it by any Borrower and/or any Property of any Borrower in its possession against the Obligations; provided that no funds in any deposit account maintained by any Borrowing Subsidiary and/or any Property of any Borrowing Subsidiary shall be setoff or applied against the Obligations of the Company or any other Borrower; provided, further that in the event that any Defaulting Bank shall exercise any such right of setoff, (a) all amounts so set off shall be paid over immediately to the Administrative Agent for further application in accordance with the provisions of Section 2.10 and, pending such payment, shall be segregated by such Defaulting Bank from its other funds and deemed held in trust for the benefit of the Administrative Agent, the Issuing Banks, and the Banks, and (b) the Defaulting Bank shall provide promptly to the Administrative Agent a statement describing in reasonable detail the Obligations owing to such Defaulting Bank as to which it exercised such right of setoff.

13.11 Sharing of Setoffs. Each Bank severally agrees that if it, through the exercise of any right of setoff, banker's lien or counterclaim against any Borrower, or otherwise, receives payment, through any means, of the Obligations held by it that is in excess of that Bank's proportionate share of the Total Outstandings as applied to such payment, then: (a) the Bank exercising the right of setoff, banker's lien or counterclaim or otherwise receiving such payment shall purchase, and shall be deemed to have simultaneously purchased, from the other Bank a participation in the Obligations held by the other Bank and shall pay to the other Bank a purchase price in an amount so that the share of the Obligations held by each Bank after the exercise of the right of setoff, banker's lien or counterclaim or receipt of payment shall be in the same proportion that existed prior to the exercise of the right of setoff, banker's lien or counterclaim or receipt of payment; and (b) such other adjustments and purchases of participations shall be made from time to time as shall be equitable to ensure that all of the Banks share any payment obtained in respect of the Obligations ratably in accordance with each Bank's share of the Obligations immediately prior to, and without taking into account, the payment; provided that, if all or any portion of a disproportionate payment obtained as a result of the exercise of the right of setoff, banker's lien, counterclaim or otherwise is thereafter recovered from the purchasing Bank by any Borrower or any Person claiming through or succeeding to the rights of any Borrower, the purchase of a participation shall be rescinded and the purchase price thereof shall be restored to the extent of the recovery, but without interest. Each Bank that purchases a participation in the Obligations pursuant to this Section shall from and after the purchase have the right to give all notices, requests, demands, directions and other communications under this Agreement with respect to the portion of the Obligations purchased to the same extent as though the purchasing Bank were the original owner of the Obligations purchased. Each Borrower expressly consents to the foregoing arrangements and agrees that any Bank holding a participation in an Obligation so purchased may exercise any and all rights of setoff, banker's lien or counterclaim with respect to the participation as fully as if the Bank were the original owner of the Obligation purchased; provided, however, that each Bank agrees that it shall not exercise any right of setoff, banker's lien or counterclaim without first obtaining the consent of the Majority Banks.

13.12 Indemnity by the Company. The Company agrees to indemnify, save and hold harmless each Arranger, each Issuing Bank, the Administrative Agent, the Syndication Agent and each Bank and their respective Related Parties (collectively the "Indemnitees") from

and against: (a) any and all claims, demands, actions or causes of action asserted by any third party or by the Company or any Borrower if the claim, demand, action or cause of action arises out of or relates to the Commitment, the use or contemplated use of proceeds of any Advance, any drawing under any Letter of Credit, any transaction contemplated by this Agreement, or any relationship or relationship alleged to exist by any Borrower, its Affiliates or any other third party of any Indemnitee to any Borrower related to this Agreement; (b) any administrative or investigative proceeding by any Governmental Agency arising out of or related to a claim, demand, action or cause of action described in clause (a) of this Section 13.12; and (c) any and all liabilities, losses, costs or expenses (including reasonable attorneys' fees and disbursements and other professional services) that any Indemnitee suffers or incurs as a result of the assertion of any foregoing claim, demand, action or cause of action; provided that no Indemnitee shall be entitled to indemnification for any loss caused by its own gross negligence or willful misconduct as determined by final, nonappealable judgment of a court of competent jurisdiction. If any claim, demand, action or cause of action is asserted against any Indemnitee, such Indemnitee shall promptly notify the Company, but the failure to so promptly notify the Company shall not affect the Company's obligations under this Section 13.12 unless such failure materially prejudices the Company's right to participate in the contest of such claim, demand, action or cause of action, as hereinafter provided. If requested by the Company in writing, such Indemnitee shall in good faith contest the validity, applicability and amount of such claim, demand, action or cause of action and shall permit the Company to participate in such contest. Any Indemnitee that proposes to settle or compromise any claim or proceeding for which the Company may be liable for payment of indemnity hereunder shall give the Company written notice of the terms of such proposed settlement or compromise reasonably in advance of settling or compromising such claim or proceeding and shall obtain the Company's prior written consent. In connection with any claim, demand, action or cause of action covered by this Section 13.12 against more than one Indemnitee, all such Indemnitees shall be represented by the same legal counsel selected by the Indemnitees and reasonably acceptable to the Company; provided that, if such legal counsel determines in good faith that representing all such Indemnitees would or could result in a conflict of interest under Laws or ethical principles applicable to such legal counsel or that a defense or counterclaim is available to an Indemnitee that is not available to all such Indemnitees, then to the extent reasonably necessary to avoid such a conflict of interest or to permit unqualified assertion of such a defense or counterclaim, each Indemnitee shall be entitled to separate representation by legal counsel selected by that Indemnitee and reasonably acceptable to the Company, with all such legal counsel using reasonable efforts to avoid unnecessary duplication of effort by counsel for all Indemnitees; provided further that the amount of the legal fees to be reimbursed by the Company shall be limited to an amount reasonably determined following consultation among the Company, the Administrative Agent, the Banks and their respective legal counsel, to be equal to the amount that would have been expended if the Indemnitees have been represented by one counsel. Any obligation or liability of the Company to any Indemnitee under this Section 13.12 shall survive the expiration or termination of this Agreement and the repayment of all Advances and the payment and performance of all other Obligations owed to the Banks. In the case of an investigation, litigation or other proceeding to which the indemnity in this Section 13.12 applies, such indemnity shall be effective whether or not such investigation, litigation or proceeding is brought by the Company, its directors, equityholders or creditors or an Indemnitee or any other Person, whether or not any Indemnitee is otherwise a party thereto and whether or not the transactions

contemplated hereby are consummated. This Section 13.12 shall not apply to the extent that the losses, claims, demands, actions, causes of action, damages, liabilities or expenses relate to any Taxes (including withholding Taxes and Other Taxes) for which there may be an indemnification, reimbursement or other payment obligation imposed on the Company or any other Borrower pursuant to any other provision of this Agreement (including, without limitation, Sections 3.8 and 3.12). No party hereto or any Indemnitee shall be liable for any damages arising from the use by unintended recipients of any information or other materials distributed by it through telecommunications, electronic or other information transmission systems in connection with this Agreement or the other Loan Documents or the transactions contemplated hereby or thereby.

13.13 No Third Parties Benefited. This Agreement is made for the purpose of defining and setting forth certain obligations, rights and duties of the Borrowers, the Administrative Agent, the Issuing Banks and the Banks in connection with the Loans, Advances and Letters of Credit, and is made for the sole benefit of the Borrowers, the Administrative Agent, the Issuing Banks and the Banks, and the Administrative Agent's, the Issuing Banks' and the Banks' successors and assigns. Except as provided in Sections 13.9, 13.11 and 13.12, no other Person shall have any rights of any nature hereunder or by reason hereof.

13.14 Confidentiality. Each of the Administrative Agent, each Issuing Bank and each Bank agrees to hold any confidential information that it may receive from any Borrower pursuant to this Agreement in confidence: except for disclosure: ~~(a)~~(a) to other Banks; ~~(b)~~(b) to legal counsel, accountants and other professional advisors to any Borrower or the Administrative Agent, any Issuing Bank or any Bank or agents involved in administration of this Agreement; ~~(c)~~(c) to regulatory officials having jurisdiction over the Administrative Agent, an Issuing Bank or a Bank or its Affiliates; ~~(d)~~(d) as required by Law or legal process or in connection with any legal proceeding to which the Administrative Agent, an Issuing Bank or a Bank and that Borrower are adverse parties; ~~(e)~~(e) to Affiliates of the Administrative Agent by the Administrative Agent, ~~(f)~~(f) to Affiliates of a Bank or to another financial institution, in each case, in connection with a disposition or proposed disposition to that financial institution of all or part of that Bank's interests hereunder or a participation interest in its Advances or Letters of Credit; ~~(g)~~ (g)(i) any assignee of or Participant in, or any prospective assignee of or Participant in, any of its rights and obligations under this Agreement, (ii) to any direct, indirect, actual or prospective counterparty (and its advisor) to any swap, derivative or securitization transaction related to the obligations under this Agreement or (iii) or to any credit insurance provider relating to a Borrower and its Obligations, provided that such disclosure in this Section 13.14(g) is made subject to an appropriate confidentiality agreement on terms substantially similar to this Section; (h) in connection with the exercise of any remedies hereunder or any other Loan Document or the enforcement of rights hereunder or thereunder; or (i) with the consent of the Company. For purposes of the foregoing, "confidential information" shall mean any information respecting the Company or its Subsidiaries reasonably considered by the Company to be confidential, other than (i) information previously filed with or furnished to any Governmental Agency and available to the public, (ii) information previously published in any public medium from a source other than, directly or indirectly, that Bank, and (iii) information previously disclosed by a Borrower to any Person not associated with that Borrower without a written confidentiality agreement substantially similar to this Section 13.14. Nothing in this Section 13.14 shall be

construed to create or give rise to any fiduciary duty on the part of the Administrative Agent, the Issuing Banks or the Banks to the Borrowers.

13.15 Further Assurances. The Company and its Subsidiaries shall, at their expense and without expense to the Banks, the Issuing Banks or the Administrative Agent, do, execute and deliver such further acts and documents as any Bank, any Issuing Bank or the Administrative Agent from time to time reasonably requires for the assuring and confirming unto the Banks, the Issuing Banks or the Administrative Agent of the rights hereby created or intended now or hereafter so to be, or for carrying out the intention or facilitating the performance of the terms of any Loan Document.

13.16 No Fiduciary Duties. Each Borrower agrees that in connection with all aspects of the transactions contemplated hereby and any communications in connection therewith, such Borrower and its Subsidiaries, on the one hand, and the Administrative Agent, Joint Lead Arrangers, Joint Book Runners, Co-Documentation Agents, Syndication Agents, Banks and Issuing Banks and their respective Affiliates, on the other hand, will have a business relationship that does not create, by implication or otherwise, any fiduciary duty on the part of the Administrative Agent, the Joint Lead Arrangers, the Joint Book Runners, the
Co-Documentation Agents, the Syndication Agent, the Banks and the Issuing Banks or their respective Affiliates and no such duty will be deemed to have arisen in connection with any such transactions or communications. Accordingly, there may be situations where the Administrative Agent, a Joint Lead Arranger, a Joint Book Runner, a Co-Documentation Agent, the Syndication Agent, a Bank, an Issuing Bank or their Affiliates and/or their clients either now have or may in the future have interests, or take actions, that may conflict with the Borrowers' and their Subsidiaries' interests.

13.17 Integration. This Agreement, together with the other Loan Documents, comprises the complete and integrated agreement of the parties on the subject matter hereof and supersedes all prior agreements, written or oral, on the subject matter hereof. In the event of any conflict between the provisions of this Agreement and those of any other Loan Document, the provisions of this Agreement shall control and govern; provided that the inclusion of supplemental rights or remedies in favor of the Administrative Agent, the Issuing Banks or the Banks in any other Loan Document shall not be deemed a conflict with this Agreement. Each Loan Document was drafted with the joint participation of the respective parties thereto and shall be construed neither against nor in favor of any party, but rather in accordance with the fair meaning thereof.

13.18 Severability of Provisions. Any provision in any Loan Document that is held to be inoperative, unenforceable or invalid as to any party or in any jurisdiction shall, as to that party or jurisdiction, be inoperative, unenforceable or invalid without affecting the remaining provisions or the operation, enforceability or validity of that provision as to any other party or in any other jurisdiction, and to this end the provisions of all Loan Documents are declared to be severable.

13.19 Independent Covenants. Each covenant in Articles 5, 6 and 7 is independent of the other covenants in those Articles; the breach of any such covenant shall not

be excused by the fact that the circumstances underlying such breach would be permitted by another such covenant.

13.20 Headings. Article and Section headings in this Agreement and the other Loan Documents are included for convenience of reference only and are not part of this Agreement or the other Loan Documents for any other purpose.

13.21 Time of the Essence. Time is of the essence of the Loan Documents.

13.22 Applicable Law. THIS AGREEMENT AND THE RIGHTS AND OBLIGATIONS OF THE PARTIES HEREUNDER SHALL BE GOVERNED BY, AND SHALL BE CONSTRUED AND ENFORCED IN ACCORDANCE WITH, THE INTERNAL LAWS OF THE STATE OF NEW YORK (INCLUDING SECTION 5-1401 OF THE GENERAL OBLIGATIONS LAW OF THE STATE OF NEW YORK) WITHOUT REGARD TO CONFLICTS OF LAWS PRINCIPLES.

13.23 Consent to Jurisdiction and Service of Process. (a) Each of the parties hereto hereby irrevocably and unconditionally agrees that it will not commence any action, litigation or proceeding of any kind or description, whether in law or equity, whether in contract or in tort or otherwise, against any Borrower, the Administrative Agent, any Bank or any Related Party of the foregoing in any way relating to this Agreement or any other Loan Document or the transactions relating hereto, in any forum other than the courts of the State of New York sitting in New York County and of the United States District Court of the Southern District of New York, and any appellate court from any thereof, and each of the parties hereto irrevocably and unconditionally submits to the exclusive jurisdiction of such courts and agrees that all claims in respect of any such action, litigation or proceeding may be heard and determined in such New York State or, to the fullest extent permitted by applicable Law, in such federal court. Notwithstanding the foregoing sentence, each of the parties hereto agrees that a final judgment in any such action or proceeding shall be conclusive and may be enforced in other jurisdictions by suit on the judgment or in any other manner provided by Law.

~~(a)~~ (b) By executing and delivering this agreement, each party hereto, for itself and in connection with its properties, irrevocably

~~(i)~~ (i) accepts generally and unconditionally the exclusive jurisdiction and venue of the courts of the State of New York sitting in New York County and of the United States District Court of the Southern District of New York, and any appellate court from any thereof;

~~(ii)~~ (ii) waives any defense of *forum non conveniens*;

~~(iii)~~ (iii) agrees that service of all process in any such proceeding in any such court may be made by registered or certified mail, return receipt requested, to such party at its address as provided in accordance with Section 13.7 (provided that, with respect to each Borrower, service of process may be made to the Company at its address provided in accordance with Section 13.7) or on the signature pages hereto;

~~(iv)~~ (iv) agrees that service as provided in clause (iii) above is sufficient to confer personal jurisdiction over such party in any such proceeding in any such court, and otherwise constitutes effective and binding service in every respect;

~~(v)~~ (v) agrees that each party hereto retains the right to serve process in any other manner permitted by law; and

~~(vi)~~ (vi) agrees that the provisions of this Section 13.23 relating to jurisdiction and venue shall be binding and enforceable to the fullest extent permissible under New York General Obligations Law section 5-1402 or otherwise.

~~(b)~~ (c) Each Borrowing Subsidiary hereby agrees that service of process may be made upon the Company and each Borrowing Subsidiary hereby irrevocably appoints the Company its authorized agent to accept such service of process, and agrees that the failure of the Company to give any notice of any such service shall not impair or affect the validity of such service or of any judgment rendered in any action or proceeding based thereon. To the extent that any Borrowing Subsidiary has or hereafter may acquire any immunity from jurisdiction of any court or from any legal process (whether through service or notice, attachment prior to judgment, attachment in aid of execution, execution or otherwise) with respect to itself or its property, such Borrowing Subsidiary hereby irrevocably waives such immunity in respect of its obligations under this Agreement.

13.24 Waiver of Jury Trial. EACH OF THE PARTIES TO THIS AGREEMENT HEREBY AGREES TO WAIVE ITS RESPECTIVE RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS AGREEMENT OR ANY OF THE OTHER LOAN DOCUMENTS OR ANY DEALINGS BETWEEN THEM RELATING TO THE SUBJECT MATTER OF THIS LOAN TRANSACTION OR THE LENDER/BORROWER RELATIONSHIP THAT IS BEING ESTABLISHED. The scope of this waiver is intended to be all-encompassing of any and all disputes that may be filed in any court and that relate to the subject matter of this transaction, including contract claims, tort claims, breach of duty claims and all other common law and statutory claims. Each party hereto acknowledges that this waiver is a material inducement to enter into a business relationship, that each has already relied on this waiver in entering into this Agreement, and that each will continue to rely on this waiver in their related future dealings. Each party hereto further warrants and represents that it has reviewed this waiver with its legal counsel and that it knowingly and voluntarily waives its jury trial rights following consultation with legal counsel. THIS WAIVER IS IRREVOCABLE, MEANING THAT IT MAY NOT BE MODIFIED EITHER ORALLY OR IN WRITING (OTHER THAN BY A MUTUAL WRITTEN WAIVER SPECIFICALLY REFERRING TO THIS SECTION 13.24 AND EXECUTED BY EACH OF THE PARTIES HERETO), AND THIS WAIVER SHALL APPLY TO ANY SUBSEQUENT AMENDMENTS, RENEWALS, SUPPLEMENTS OR MODIFICATIONS TO THIS AGREEMENT OR ANY OF THE OTHER LOAN DOCUMENTS OR TO ANY OTHER DOCUMENTS OR AGREEMENTS RELATING TO THE LOANS MADE HEREUNDER. In the event of litigation, this Agreement may be filed as a written consent to a trial by the court.

13.25 Acknowledgement and Consent to Bail-In of Certain Financial Institutions . Notwithstanding anything to the contrary in any Loan Document or in any other agreement, arrangement or understanding among any such parties, each party hereto acknowledges and accepts that, to the extent any Bank party to any Loan Document is subject to the Write-Down and Conversion Powers of a Resolution Authority, any liability of such Bank

under or in connection with any Loan Document may be subject to Bail-In Action by the relevant Resolution Authority and acknowledges and accepts to be bound by the effect of:

~~(a)~~ (a) the application of any Write-Down and Conversion Powers by a Resolution Authority to any such liabilities arising hereunder which may be payable to it by any Bank party hereto that is subject to the Write-Down and Conversion Powers of any Resolution Authority; and

~~(b)~~(b) the effects of any Bail-In Action on any such liability, including, if applicable:

~~(i)~~(i) a reduction in full or in part or cancellation of any such liability; ~~(ii)~~ (ii) a conversion of all, or a portion of, such liability into shares or other instruments of ownership that may be issued to it or otherwise conferred on it, and that such shares or other instruments of ownership will be accepted by it in lieu of any rights with respect to any such liability under this Agreement or any other Loan Document; or

~~(iii)~~ (iii) the variation of the terms of such liability in connection with the exercise of the Write-Down and Conversion Powers of any Resolution Authority.

As used in this Section, the following terms shall have the meanings set forth below:

"Article 55 BRRD" means Article 55 of Directive 2014/59/EU establishing a framework for the recovery and resolution of credit institutions and investment firms.

"Bail-In Action" means the exercise of any Write-Down and Conversion Powers by the applicable Resolution Authority with respect to any liability of any Bank party hereto that is subject to the Write-Down and Conversion Powers of such Resolution Authority.

"Bail-In Legislation" means:

~~(a)~~ (a) with respect to an EEA Member Country which has implemented, or which at any time implements, Article 55 BRRD, the relevant implementing law or regulation as described in the EU Bail-In Legislation Schedule from time to time; and

~~(b)~~ (b) with respect to any state other than such an EEA Member Country or (to the extent that the United Kingdom is not such an EEA Member Country) the United Kingdom, any analogous law or regulation from time to time which requires contractual recognition of any Write-Down and Conversion Powers contained in that law or regulation.

"EEA Financial Institution" means (a) any credit institution or investment firm established in any EEA Member Country which is subject to the supervision of an EEA Resolution Authority, (b) any entity established in an EEA Member Country which is a parent of an institution described in clause (a) of this definition, or (c) any financial institution established in an EEA Member Country which is a subsidiary of an institution described in clauses (a) or (b) of this definition and is subject to consolidated supervision with its parent.

"EEA Member Country" means any of the member states of the European Union, Iceland, Liechtenstein, and Norway.

"EEA Resolution Authority" means any public administrative authority or any Person entrusted with public administrative authority of any EEA Member Country (including any delegee) having responsibility for the resolution of any EEA Financial Institution.

"EU Bail-In Legislation Schedule" means the EU Bail-In Legislation Schedule published by the Loan Market Association (or any successor Person), as in effect from time to time.

"Resolution Authority" means an EEA Resolution Authority or any other body which has authority to exercise any Write-down and Conversion Powers.

"UK Bail-In Legislation" means (to the extent that the United Kingdom is not an EEA Member Country which has implemented, or implements, Article 55 BRRD) Part I of the United Kingdom Banking Act 2009 and any other law or regulation applicable in the United Kingdom relating to the resolution of unsound or failing banks, investment firms or other financial institutions or their affiliates (otherwise than through liquidation, administration or other insolvency proceedings).

"Write-Down and Conversion Powers" means:

~~(a)~~ (a) with respect to any Bail-In Legislation described in the EU Bail-In Legislation Schedule from time to time, the powers described as such in relation to that Bail-In Legislation in the EU Bail-In Legislation Schedule; and

~~(b)~~ (b) in relation to any UK Bail-In Legislation or any other applicable Bail-In Legislation:

~~(i)~~ (i) any powers under such Bail-In Legislation to cancel, transfer or dilute shares issued by a Person that is a bank or investment firm or other financial institution or affiliate of a bank, investment firm or other financial institution, to cancel, reduce, modify or change the form of a liability of such a Person or any contract or instrument under which that liability arises, to convert all or part of that liability into shares, securities or obligations of that Person or any other Person, to provide that any such contract or instrument is to have effect as if a right had been exercised under it or to suspend any obligation in respect of that liability or any of the powers under such Bail-In Legislation that are related to or ancillary to any of those powers; and

~~(ii)~~ (ii) any similar or analogous powers under such Bail-In Legislation.

13.26 Judgment Currency.

(a) If, for the purposes of obtaining judgment in any court, it is necessary to convert a sum due hereunder in any currency (the **"Original Currency**") into another currency (the "**Other Currency**"), the parties hereto agree, to the fullest extent permitted by law, that the rate of exchange used shall be that at which in accordance with normal banking procedures the

Administrative Agent or a Bank could purchase the Original Currency with such Other Currency in New York, New York on the Banking Day immediately preceding the day on which any such judgment, or any relevant part thereof, is given.

(b) The obligations of each Borrower and the Company in respect of any sum due from it to any agent or Bank hereunder shall, notwithstanding any judgment in such Other Currency, be discharged only to the extent that on the Banking Day following receipt by such agent or Bank of any sum adjudged to be so due in such Other Currency such agent or Bank may in accordance with normal banking procedures purchase the Original Currency with such Other Currency; if the Original Currency so purchased is less than the sum originally due such agent or Bank in the Original Currency, each of the Borrowers and the Company agrees, as a separate obligation and notwithstanding any such judgment, to indemnify such agent or Bank against such loss, and if the Original Currency so purchased exceeds the sum originally due to such agent or Bank in the Original Currency, such agent or Bank shall remit such excess to such Borrower or the Company.

13.27 Tax Forms.

(a) ~~(i)~~ (i) Each Bank that is not a "United States person" within the meaning of Section 7701(a)(30) of the Code (a "**Foreign Bank**") shall deliver to the Administrative Agent and the Company, prior to receipt of any payment (or upon accepting an assignment of an interest herein), two duly signed completed copies of either IRS Form W-8BEN or W-8BEN-E or any successor thereto (relating to such Foreign Bank and entitling it to an exemption from, or reduction of, withholding tax on all payments to be made to such Foreign Bank by any Borrower, the Company acting in its capacity as guarantor under Article 11 or the Administrative Agent, as applicable, pursuant to this Agreement) or IRS Form W-8ECI or any successor thereto (relating to all payments to be made to such Foreign Bank by such Borrower or the Company pursuant to this Agreement) or such other evidence satisfactory to such Borrower or the Company and the Administrative Agent that such Foreign Bank is entitled to an exemption from, or reduction of, United States withholding tax, including any exemption pursuant to Section 881(c) of the Code. Thereafter and from time to time, each such Foreign Bank shall (A) promptly submit to the Administrative Agent and the Company such additional duly completed and signed copies of one of such forms (or such successor forms as shall be adopted from time to time by the relevant United States taxing authorities) as may then be available under then current United States laws and regulations to avoid, or such evidence as is satisfactory to each Borrower, the Company and the Administrative Agent of any available exemption from or reduction of, United States withholding Taxes in respect of all payments to be made to such Foreign Bank by such Borrower or the Company pursuant to this Agreement, (B) promptly notify the Administrative Agent and the Company of any change in circumstances which would modify or render invalid any claimed exemption or reduction, and (C) take such steps as shall not be materially disadvantageous to it, in the reasonable judgment of such Bank, and as may be reasonably necessary (including the re-designation of its lending office) to avoid any requirement of applicable Laws that such Borrower or the Company make any deduction or withholding for Taxes from amounts payable to such Foreign Bank under any Loan Document.

~~(a)~~ (ii) Each Foreign Bank, to the extent it does not act or ceases to act for its own account with respect to any portion of any sums paid or payable to such Bank under any

of the Loan Documents (for example, in the case of a typical participation by such Bank), shall deliver to the Administrative Agent and the Company on the date when such Foreign Bank ceases to act for its own account with respect to any portion of any such sums paid or payable, and at such other times as may be necessary in the determination of the Administrative Agent or the Company (in the reasonable exercise of their discretion), (A) two duly signed completed copies of the forms or statements required to be provided by such Bank as set forth above, to establish the portion of any such sums paid or payable with respect to which such Bank acts for its own account that is not subject to U.S. withholding Tax, and (B) two duly signed completed copies of IRS Form W-8IMY (or any successor thereto) accompanied by IRS Forms W-8BEN, W-8BEN-E, W-8ECI and/or any other certificate or statement of exemption from each beneficial owner required under the Code, to establish that such Bank is not acting for its own account with respect to a portion of any such sums payable to such Bank.

~~(b)~~ (b) Upon the request of the Administrative Agent or the Company, each Bank that is a "United States person" within the meaning of Section 7701(a)(30) of the Code shall deliver to the Administrative Agent and the Company two duly signed completed copies of IRS Form W-9. If such Bank fails to deliver such forms, then the Administrative Agent or the Company, as applicable, may withhold from any interest payment to such Bank an amount equivalent to the applicable back-up withholding imposed by the Code. Upon the request of the Company, the Administrative Agent shall provide the Company two duly signed completed copies of IRS Form W-9.

~~(c)~~ (c) If a payment made to a Bank under any Loan Document would be subject to withholding Tax imposed by FATCA if such Bank were to fail to comply with the applicable reporting requirements of FATCA (including those contained in Section 1471(b) or 1472(b) of the Code, as applicable), such Bank shall deliver to the Administrative Agent and the Company, at the time or times prescribed by Law and at such time or times reasonably requested in writing by the Borrowers or the Administrative Agent, such documentation prescribed by applicable Law (including as prescribed by Section 1471(b)(3)(C)(i) of the Code) and such additional documentation reasonably requested in writing by the Borrowers or the Administrative Agent as may be necessary for each Borrower and the Administrative Agent to comply with their obligations under FATCA, to determine that such Bank has complied with such Bank's obligations under FATCA or to determine the amount to deduct and withhold from such payment. For purposes of this clause (c), FATCA shall include any amendments made to FATCA after the date of this Agreement.

~~(d)~~ (d) Each Bank agrees that if any form or certification it previously delivered becomes inaccurate in any respect, it shall update such form or certification or promptly notify the Company and the Administrative Agent in writing of its legal inability to do so. In addition, each Bank agrees that if any form or certification it previously delivered expires or becomes obsolete, upon written request by the Company or the Administrative Agent, the Bank shall update such form or certification or promptly notify the Company and the Administrative Agent in writing of its legal inability to do so.

~~(e)~~ (e) For purposes of this Section 13.27, the term "Bank" includes any Issuing Bank.

13.28 Limitation on Borrowing Subsidiary Obligations. Notwithstanding anything herein to the contrary, no provision of this Agreement shall render any Borrowing Subsidiary liable for the Obligations of the Company or any other Borrower.

13.29 Waiver of Damages. To the extent permitted by applicable law, no party to this Agreement shall assert, and each party to this Agreement hereby waives, any claim against any Indemnitee, on any theory of liability, for special, indirect, consequential or punitive damages (as opposed to direct or actual damages) arising out of, in connection with, or as a result of, this Agreement or any agreement or instrument contemplated hereby, the transactions contemplated hereby, any Loan or Letter of Credit or the use of the proceeds thereof.

13.30 Patriot Act Notice. Each Bank and the Administrative Agent (for itself and not on behalf of any Bank) hereby notifies each Borrower that pursuant to the requirements of the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001, Pub. L. 107-56, signed into law October 26, 2001 (the **"Patriot Act**") and the Beneficial Ownership Regulation, it is required to obtain, verify and record information that identifies each Borrower, which information includes the name and address of each Borrower and other information that will allow such Bank or the Administrative Agent, as applicable, to identify each Borrower in accordance with the Patriot Act and the Beneficial Ownership Regulation. Each Borrower shall provide such information and take such actions as are reasonably requested by the Administrative Agent or any Banks in order to assist the Administrative Agent and the Banks in maintaining compliance with the Patriot Act and the Beneficial Ownership Regulation.

[Signature Pages ~~Begin On Following Page~~Intentionally Omitted]

SCHEDULE 2.1

Bank	Commitment	Pro Rata Share	Letter of Credit Commitment
Citibank, N.A.	$188,000,002	7.5200%	$50,000,000
JPMorgan Chase Bank, N.A.	$188,000,002	7.5200%	$50,000,000
Bank of America, N.A.	$188,000,000	7.5200%	$50,000,000
Barclays Bank PLC	$188,000,000	7.5200%	$50,000,000
Goldman Sachs Bank USA	$188,000,000	7.5200%	$50,000,000
Morgan Stanley Bank, N.A.	$188,000,000	7.5200%	$50,000,000
BNP Paribas	$152,444,444	6.0978%	
Credit Suisse AG, Cayman Islands Branch	$152,444,444	6.0978%	
Deutsche Bank AG, New York Branch	$152,444,444	6.0978%	
HSBC Bank USA, National Association	$152,444,444	6.0978%	
Mizuho Bank, Ltd.	$152,444,444	6.0978%	
MUFG Bank, Ltd.	$152,444,444	6.0978%	
Royal Bank of Canada	$152,444,444	6.0978%	
Sumitomo Mitsui Banking Corporation	$152,444,444	6.0978%	
Wells Fargo Bank, National Association	$152,444,444	6.0978%	
Total	$2,500,000,000	100.0000%	$300,000,00

SCHEDULE 4.4

DISCLOSURE OF SUBSIDIARIES

Name	Type of Entity	Percentage of Ownership
Alantos Pharmaceuticals Holdings	corporation	100%
Amgen Canada Inc.	corporation	100%
Amgen (Europe) GmbH	limited liability company	100%
Amgen Fremont Inc.	corporation	100%
Amgen Global Finance B.V.	corporation	100%
Amgen GmbH Germany	corporation	100%
Amgen Holding No. 1 Limited	limited liability company	100%
Amgen Ilac Ticaret Limited Sirketi	corporation	100%
Amgen K-A, Inc.	corporation	100%
Amgen Manufacturing, Limited	corporation	100%
Amgen Research (Munich) GmbH	limited liability company	100%
Amgen Rockville, Inc.	corporation	100%
Amgen S.A.S.	corporation	100%
Amgen Singapore Manufacturing Pte. Ltd.	limited company	100%
Amgen SF, LLC	limited liability company	100%
Amgen Technology (Ireland) Unlimited Company	unlimited liability company	100%
Amgen Technology, Limited	corporation	100%
Amgen USA Inc.	corporation	100%
Amgen Worldwide Holdings B.V.	corporation	100%
ATL Holdings Limited	corporation	100%
ATL Holdings II Limited	corporation	100%
BioVex, Inc.	corporation	100%
Immunex Corporation	corporation	100%
Mustafa Nevzat Ilac Sanayii Anonim Sirketi	corporation	100%
Onyx Pharmaceuticals, Inc.	corporation	100%
Onyx Therapeutics, Inc.	corporation	100%

SCHEDULE 4.8

LITIGATION

None.

SCHEDULE 4.11(c)

ERISA

Amgen Inc. Retiree Medical Savings Account Plan.

SCHEDULE 4.15

ENVIRONMENTAL

None.

SCHEDULE 6.3

LIENS

None.

SCHEDULE 13.7

NOTICES

THE COMPANY

Amgen Inc.
One Amgen Center Drive
Thousand Oaks, California 91320-1799

Telecopier: (805) 499-6751
Telephone: (805) 447-1000 Email: to.treasury@amgen.com

Website: www.amgen.com

THE ADMINISTRATIVE AGENT

Citibank, N.A.
1615 Brett Road, Building #3 New Castle, Delaware 19720 Attention of
Treasurer Facsimile No. (646) 274-5080
Telephone No. (302) 894-6160
E-mail: GLAgentOfficeOps@CITIGROUP.COM

ISSUING BANK

Citibank, N.A.
1615 Brett Road, Building #3 New Castle, Delaware 19720
Attention of Bank Loan Syndications Facsimile No. (646) 274-5080
Telephone No. (302) 894-6160
E-mail: GLAgentOfficeOps@CITIGROUP.COM

ANNEX B

Amended Exhibit E

ANNEX B TO AMENDMENT NO. 1 DATED AS OF DECEMBER , 2022 EXHIBIT E

[FORM OF REQUEST FOR LOAN]

REQUEST FOR LOAN

1. This Request for Loan is by__(the "Borrower") to Citibank, N.A. (the "Administrative Agent") pursuant to that certain Second Amended and Restated Credit Agreement dated as of December 12, 2019 (as it may be amended, supplemented or otherwise modified from time to time, the "Credit Agreement") among Amgen Inc., the Banks from time to time party thereto, the Administrative Agent, and JPMorgan Chase Bank, N.A., as Syndication Agent. Capitalized terms used herein and not defined herein shall have the meanings defined in the Credit Agreement.

2. Borrower hereby requests a Loan for the account of Borrower pursuant to the Credit Agreement as follows:

   (a) DATE OF LOAN: __

   (b) TYPE OF LOAN (Check one box only):

   - BASE RATE ADVANCE
   - ~~EURODOLLAR RATE~~ADJUSTED TERM SOFR ADVANCE WITH A__-MONTH INTEREST PERIOD
   - EURIBOR RATE ADVANCE WITH A__-MONTH INTEREST PERIOD

   (c) AMOUNT OF REQUESTED LOAN: [$] [€] __

   (d) INTEREST PERIOD OF LOAN ENDS: __

3. In connection with the request pursuant to Section 2 above, Borrower certifies that:

   (a) Prior to giving effect to the Loans requested hereby, the aggregate outstanding balance of Advances is $__.

   (b) As of the date of the requested Loan, (i) each representation and warranty made by Borrower in Article 4 of the Credit Agreement, other than Sections 4.4, 4.6 and 4.8, will be true and correct in all material respects (except that to the extent any representation or warranty is qualified by materiality, it shall be true and correct in all respects), both immediately before and after giving effect to such Loan, as though such representations

and warranties were made on and as of that date (except to the extent such representations and warranties specifically relate to an earlier date in which case they shall be true and correct in all material respects as of such earlier date), (ii) no Default has occurred and is continuing, and (iii) after giving effect to the requested Loan, the Total Outstandings will not exceed the Commitment.

4. This Request for Loan is executed on__, by a Senior Officer of Borrower on behalf of Borrower. The undersigned, in such capacity, hereby certifies each and every matter contained herein to be true and correct except as previously disclosed by Borrower in writing to the Banks and waived by the Majority Banks or all Banks, as applicable.

[BORROWER]

By__

Its

AMGEN INC.

The following is a list of subsidiaries of the Company as of December 31, 2022, omitting some subsidiaries which, considered in the aggregate, would not constitute a significant subsidiary.

SUBSIDIARY (Name under which subsidiary does business)	**STATE OR OTHER JURISDICTION OF INCORPORATION OR ORGANIZATION**
Amgen (Europe) GmbH	Switzerland
Amgen Canada Inc.	Canada
Amgen Fremont Inc.	Delaware
Amgen Global Finance B.V.	Netherlands
Amgen GmbH Germany	Germany
Amgen Ilaç Ticaret Limited Şirketi	Turkey
Amgen K-A, Inc.	Delaware
Amgen Manufacturing, Limited	Bermuda
Amgen Research (Munich) GmbH	Germany
Amgen S.A.S.	France
Amgen S.p.A.	Italy
Amgen SF, LLC	Delaware
Amgen Singapore Manufacturing Pte. Ltd.	Singapore
Amgen Technology (Ireland) Unlimited Company	Ireland
Amgen Technology, Limited	Bermuda
Amgen USA Inc.	Delaware
Amgen Worldwide Holdings B.V.	Netherlands
Amgen, S.A.	Spain
BioVex Limited	United Kingdom
BioVex, Inc.	Delaware
ChemoCentryx, Inc.	Delaware
Five Prime Therapeutics Inc.	Delaware
Immunex Corporation	Washington
Immunex Rhode Island Corporation	Delaware
Onyx Pharmaceuticals, Inc.	Delaware
Onyx Therapeutics, Inc.	Delaware
Saga Investments Coöperatief U.A.	Netherlands
TeneoBio, Inc.	Delaware

CERTIFICATIONS

I, Robert A. Bradway, Chairman of the Board, Chief Executive Officer and President of Amgen Inc., certify that:

1. I have reviewed this Annual Report on Form 10-K of Amgen Inc.;

2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;

3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this annual report based on such evaluation; and

   (d) Disclosed in this annual report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

February 9, 2023

/s/ ROBERT A. BRADWAY
Robert A. Bradway
Chairman of the Board,
Chief Executive Officer and President

CERTIFICATIONS

I, Peter H. Griffith, Executive Vice President and Chief Financial Officer of Amgen Inc., certify that:

1. I have reviewed this Annual Report on Form 10-K of Amgen Inc.;

2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;

3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this annual report based on such evaluation; and

   (d) Disclosed in this annual report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

February 9, 2023

/s/ PETER H. GRIFFITH

Peter H. Griffith
Executive Vice President and Chief Financial Officer

Exhibit 32

Certification of Chief Executive Officer

Pursuant to 18 U.S.C. § 1350, as created by Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned officer of Amgen Inc. (the "Company") hereby certifies that:

(i) the accompanying Annual Report on Form 10-K of the Company for the period ended December 31, 2022 (the "Report") fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and

(ii) information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

February 9, 2023

/s/ ROBERT A. BRADWAY

Robert A. Bradway
Chairman of the Board,
Chief Executive Officer and President

A signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002 ("Section 906"), or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to Amgen Inc. and will be retained by Amgen Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

Certification of Chief Financial Officer

Pursuant to 18 U.S.C. § 1350, as created by Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned officer of Amgen Inc. (the "Company") hereby certifies that:

(i) the accompanying Annual Report on Form 10-K of the Company for the period ended December 31, 2022 (the "Report") fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and

(ii) information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

February 9, 2023

/s/ PETER H. GRIFFITH

Peter H. Griffith
Executive Vice President and Chief Financial Officer

A signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002 ("Section 906"), or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to Amgen Inc. and will be retained by Amgen Inc. and furnished to the Securities and Exchange Commission or its staff upon request.