
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington D.C. 20549

FORM 11-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2019

OR

TRANSITION REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Commission file number 001-37702

**THE RETIREMENT AND SAVINGS PLAN FOR
AMGEN MANUFACTURING, LIMITED**

State Road 31, Kilometer 24.6, Juncos, Puerto Rico 00777
(Full title and address of the plan)

AMGEN INC.

(Name of issuer of the securities held)

**One Amgen Center Drive,
Thousand Oaks, California**
(Address of principal executive offices)

91320-1799
(Zip Code)

**The Retirement and Savings Plan for
Amgen Manufacturing, Limited**

**Audited Financial Statements
and Supplemental Schedule**

Year Ended December 31, 2019

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Report of Independent Registered Public Accounting Firm

To the Plan Participants and the Plan Administrator of The Retirement and Savings Plan for Amgen Manufacturing, Limited

Opinion on the Financial Statements

We have audited the accompanying statements of net assets available for benefits of The Retirement and Savings Plan for Amgen Manufacturing, Limited (the Plan) as of December 31, 2019 and 2018, and the related statement of changes in net assets available for benefits for the year ended December 31, 2019, and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the net assets available for benefits of the Plan at December 31, 2019 and 2018, and the changes in its net assets available for benefits for the year ended December 31, 2019, in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These financial statements are the responsibility of the Plan’s management. Our responsibility is to express an opinion on the Plan’s financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Plan 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. The Plan is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Plan’s internal control over financial reporting. Accordingly, we express no such opinion.

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.

Supplemental Schedule

The accompanying supplemental schedule of assets (held at end of year) as of December 31, 2019, has been subjected to audit procedures performed in conjunction with the audit of the Plan’s financial statements. The information in the supplemental schedule is the responsibility of the Plan’s management. Our audit procedures included determining whether the information reconciles to the financial statements or the underlying accounting and other records, as applicable, and performing procedures to test the completeness and accuracy of the information presented in the supplemental schedule. In forming our opinion on the information, we evaluated whether such information, including its form and content, is presented in conformity with the Department of Labor’s Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. In our opinion, the information is fairly stated, in all material respects, in relation to the financial statements as a whole.

/s/ ERNST & YOUNG LLP

We have served as the Plan’s auditor since 1992.

Los Angeles, California

June 16, 2020

The Retirement and Savings Plan for Amgen Manufacturing, Limited
Statements of Net Assets Available for Benefits

	December 31,	
	2019	2018
Assets		
Investments at fair value	\$ 527,261,698	\$ 407,898,859
Notes receivable from participants	15,872,871	14,040,310
Other – principally due from broker	494,029	470,827
Total assets	543,628,598	422,409,996
Liabilities		
Other – principally due to broker	581,092	618,395
Total liabilities	581,092	618,395
Net assets available for benefits	\$ 543,047,506	\$ 421,791,601

See accompanying notes.

The Retirement and Savings Plan for Amgen Manufacturing, Limited
Statement of Changes in Net Assets Available for Benefits

	Year Ended December 31, 2019
Additions to (deductions from) net assets:	
Employer contributions	\$ 15,576,832
Participant contributions	15,230,624
Rollover contributions	532,295
Interest and dividend income	4,992,030
Net realized/unrealized gains	95,270,354
Interest income on notes receivable from participants	747,783
Benefits paid	(10,418,189)
Investment and administrative fees	(675,824)
Net increase	121,255,905
Net assets available for benefits at beginning of year	421,791,601
Net assets available for benefits at end of year	\$ 543,047,506

See accompanying notes.

The Retirement and Savings Plan for Amgen Manufacturing, Limited
Notes to Financial Statements
December 31, 2019

1. Description of the Plan

The following description of The Retirement and Savings Plan for Amgen Manufacturing, Limited (the Plan) provides only general information. Participants should refer to the Plan document for a more complete description of the Plan's provisions.

General

The Plan was established effective May 1, 1992, and was amended and restated effective January 1, 2017, and subsequently amended, with the most recent amendment adopted on December 12, 2019. The Plan is a defined contribution plan covering substantially all Puerto Rico resident employees of Amgen Manufacturing, Limited (the Company), a wholly owned subsidiary of Amgen Inc. (Amgen). The Plan is intended to qualify under Section 1081.01 of the Puerto Rico Internal Revenue Code of 2011, as amended (the PR Code) (see Note 4, *Income Tax Status*) and section 407(d)(3)(A) of the Employee Retirement Income Security Act of 1974 (ERISA).

Contributions

Subject to certain limitations (as defined in the Plan), participants may elect to contribute up to 30% of their eligible compensation in pre-tax contributions and after-tax contributions or a combination of these types of contributions. A participant's pre-tax contributions are subject to PR Code and Plan limitations and could not exceed \$15,000 in 2019. Participants may elect to contribute after-tax contributions beginning January 1 of the year following the year the participant was hired. Participant after-tax contributions are subject to PR Code and Plan limitations and could not exceed \$1,500 in 2019. Unless an employee has voluntarily enrolled in the Plan or has declined to participate in the Plan within the first 30 days of employment, all newly eligible participants are automatically enrolled in the Plan, and contributions equal to 5% of their eligible compensation are withheld and contributed to the Plan as pre-tax contributions; such contributions are automatically increased by 1% per year until their contributions reach 10% of their eligible compensation. Participants may elect to adjust, cease or resume their contributions at any time.

Participants who are at least age 50 by the close of the Plan year may also elect to make certain additional pre-tax contributions, referred to as catch-up contributions, that are subject to PR Code and Plan limitations and could not exceed \$1,500 in 2019. Participants may also contribute pre-tax and after-tax amounts representing distributions from certain other retirement plans qualified in Puerto Rico, referred to as rollover contributions (as defined in the Plan).

Each pay period, the Company makes a non-elective contribution for all eligible participants, whether or not they have elected to make contributions to the Plan, equal to 4% of each participant's eligible compensation up to a maximum of \$11,200 in 2019 (Core Contributions). In addition, the Company makes a contribution equal to amounts contributed by the participant as pre-tax contributions, including catch-up contributions, of up to 5% of eligible compensation (Matching Contributions). Matching Contributions could not exceed \$14,000 in 2019.

Participants select the investments in which their contributions, including their Core Contributions and Matching Contributions (collectively, Company Contributions), are to be invested, electing among various alternatives, including Amgen common stock (Amgen stock). Participants may direct a maximum of 20% of contributions to be invested in Amgen stock. In addition, participants may transfer amounts among the investment options at any time, subject to certain limitations. Notwithstanding the foregoing, if 20% or more of the value of a participant's Plan account is invested in Amgen stock, the Plan document provides that no transfers from other investment options can be made to invest in Amgen stock.

The accounts of participants who had never made an investment election are allocated to investments under a qualified default investment alternative, which is intended to be compliant with ERISA regulations. At any time, participants may elect to alter the investments in their accounts made under a qualified default investment alternative.

The Retirement and Savings Plan for Amgen Manufacturing, Limited

Notes to Financial Statements (continued)

Vesting

Participants are immediately vested with respect to their contributions and Matching Contributions and earnings and losses (hereafter referred to as earnings) thereon. Participants hired prior to January 1, 2020, are also immediately vested with respect to their Core Contributions and earnings thereon. Participants hired on or after January 1, 2020, vest in full with respect to their Core Contributions and earnings thereon after three years of service, as defined by the terms of the Plan, or upon reaching age 65 while employed by the Company, if earlier. If a participant ceases to be an employee before fully vesting in their account, the non-vested portion of the participant's account will be treated as a forfeiture, as defined by the terms of the Plan, on the earlier of (i) the date the participant incurs a five-year break in service, as defined by the terms of the Plan or, (ii) the date the participant receives a distribution of the entire vested portion of their account.

Participant Accounts

Each participant's account is credited with: (a) the participant's contributions; (b) an allocation of Company Contributions; and (c) earnings. The benefit to which a participant is entitled is the benefit that can be provided from the participant's account.

Plan Investments

Participants can invest in any of 16 different asset classes as well as Amgen stock or may actively manage their account under a self-directed brokerage arrangement in which a wider array of investment options are available. The value of an investment in an asset class is determined by its underlying investment vehicles, which may include one or more of the following: mutual funds, collective trust funds and portfolios, which are separately managed exclusively for the benefit of Plan participants and their beneficiaries (separately managed portfolios). The separately managed portfolios are composed primarily of investments in publicly traded common and preferred stocks. The asset classes are designed to provide participants with choices among a variety of investment objectives.

Payments of Benefits

Subject to Plan limitations, upon termination of employment, including termination due to disability (as defined in the Plan) or retirement, a participant may elect to receive a full or partial distribution of his or her account balance in: (a) a single payment in cash; (b) a single distribution in full shares of Amgen stock (with any fractional shares paid in cash); (c) a single distribution paid in a combination of cash and full shares of Amgen stock; or (d) a rollover distribution to an eligible retirement plan.

Participants may also elect to maintain their account balance in the Plan subsequent to termination of employment, provided that their account balance is greater than \$1,000.

If a participant dies before receiving the value of his or her account balance, the participant's beneficiary may elect to receive the distribution of remaining funds from among the alternatives described above, subject to certain Plan limitations.

Certain restrictions apply to withdrawals from the Plan while a participant continues to be employed by the Company.

Notes Receivable from Participants

Subject to certain restrictions, a participant can have up to two loans outstanding at any one time from his or her Plan account with a combined maximum loan amount that may not exceed the lesser of: (a) 50% of the participant's account balance or (b) \$50,000 less certain adjustments, as applicable (as defined in the Plan). A participant's loan is secured by his or her Plan account balance. Loans made prior to January 1, 2006, bear interest at fixed rates based on the average borrowing rates of certain major banks. Loans made on or after January 1, 2006, bear interest at fixed rates which, until changed by the Company, are based on the prime rate plus one percentage point as published in The Wall Street Journal, determined as of the last day of the calendar quarter preceding origination or such other rate as may be required by law. Loans are generally payable in installments over periods ranging from one to five years, unless the loan is used to acquire a principal residence for which the term of the loan may be up to 20 years. Principal and interest payments are allocated to the participant's account.

Plan Termination

Although it has not expressed any intent to do so, the Company has the right under the Plan to terminate the Plan subject to the provisions of ERISA. Upon termination, participants would receive distributions of their account balances.

The Retirement and Savings Plan for Amgen Manufacturing, Limited

Notes to Financial Statements (continued)

Trustee and Custodians

Banco Popular de Puerto Rico is the Plan's trustee. Bank of America, N.A. is the Plan's trustee with respect to self-directed brokerage arrangement and the Amgen common stock fund. Merrill Lynch, Pierce, Fenner and Smith, Inc. is the Plan's custodian with respect to the self-directed brokerage arrangement and the Amgen Common Stock fund. Northern Trust Company, NA (Northern) is the Plan's custodian with respect to the asset classes.

2. Summary of Significant Accounting Policies

Basis of Accounting

The accompanying financial statements are prepared on the accrual basis of accounting.

Fair Value Measurement

The investments of the Plan are reported at fair value. Fair value is generally defined as the price that would be received to sell an asset or paid to transfer a liability (the exit price) in an orderly transaction between market participants at the measurement date (see Note 3, *Fair Value Measurements*).

Investment Income and Losses

Dividend income is recognized on the ex-dividend date, and interest income is recorded on an accrual basis. Unrealized gains and losses on investments are measured by the change in the difference between the fair value and cost of the securities held at the beginning of the year (or date purchased if acquired during the Plan year) and the end of the year. Realized gains and losses from security transactions are recorded based on the weighted-average cost of securities sold.

Notes Receivable from Participants

Notes receivable from participants are carried at their unpaid balance plus accrued but unpaid interest, as applicable.

Due from/to Brokers

Purchases and sales of investments are recorded on a trade-date basis. Amounts due from and due to brokers arise from unsettled sale and purchase transactions, respectively.

Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles (GAAP) requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

Recently issued accounting pronouncement

In July 2018, the Financial Accounting Standards Board issued a new accounting standard that amended the fair value hierarchy disclosure to indicate that certain types of investments, including collective trust funds, should not always be considered to be eligible to use the net asset value per unit as a practical expedient. Furthermore, this standard clarifies that an evaluation should be made of whether a readily determinable fair value exists for such investments or whether the investments qualify for measurement at the practical expedient. The Plan prospectively adopted this standard on January 1, 2019, which resulted in discontinuing the use of the practical expedient for determining the fair values of the Plan's investments in collective trust funds. Accordingly, the aggregate fair value of such investments was moved from its location as a reconciling item of the fair value hierarchy table to a line item within this table with an assigned fair value measurement level. See Note 3, *Fair Value Measurements*.

The Retirement and Savings Plan for Amgen Manufacturing, Limited
Notes to Financial Statements (continued)

3. Fair Value Measurements

The Plan uses various valuation approaches in determining the fair value of investments 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 the investment based on market data obtained from independent sources. Unobservable inputs are inputs that reflect assumptions about the inputs that market participants would use in pricing the investment 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 investments that the Plan 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 investments. 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 following fair value hierarchy tables present information about each major class/category of the Plan's investments measured at fair value:

Fair value measurements at December 31, 2019, using				
	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
Amgen stock	\$ 103,512,169	\$ —	\$ —	\$ 103,512,169
Cash and cash equivalents	1,116,538	—	—	1,116,538
Collective trust funds	—	305,516,006	—	305,516,006
Common and preferred stock	91,588,716	329,692	—	91,918,408
Mutual funds	22,607,250	—	—	22,607,250
Self-directed brokerage accounts	2,591,327	—	—	2,591,327
	\$ 221,416,000	\$ 305,845,698	\$ —	\$ 527,261,698

The Retirement and Savings Plan for Amgen Manufacturing, Limited
Notes to Financial Statements (continued)

Fair value measurements at December 31, 2018, using

	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
Amgen stock	\$ 83,047,933	\$ —	\$ —	\$ 83,047,933
Common and preferred stocks	68,895,253	—	—	68,895,253
Mutual funds	36,118,321	—	—	36,118,321
Self-directed brokerage accounts	2,145,935	—	—	2,145,935
Other	722	—	—	722
	<u>\$ 190,208,164</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 190,208,164</u>
Collective trust funds measured at net asset value				217,690,695
Total investments measured at fair value				<u>\$ 407,898,859</u>

The fair values of substantially all common stocks (including Amgen stock), preferred stocks, mutual funds and underlying investments of self-directed brokerage accounts are valued using quoted market prices in active markets with no valuation adjustment.

Collective trust funds represent interests in pooled investment vehicles designed typically for collective investment of employee benefit trusts. The fair values of these investments are determined by reference to the net asset value per unit provided by the fund managers as the basis for current transactions. The only redemption restriction with respect to these investments is on the Wells Fargo Stable Value Fund W (fair value of \$36,097,165 and \$29,528,317 as of December 31, 2019 and 2018, respectively), which requires a one-year notice to be given in the event of complete liquidation.

4. Income Tax Status

The Plan received an opinion letter from the Puerto Rico Treasury Department (PRTD) dated February 26, 2018, with an effective date of January 1, 2017, stating that the Plan meets the requirements of Section 1081.01 of the PR Code and the regulations thereunder, and, therefore the related trust forming part of the Plan is exempt from taxation. Subsequently, three amendments were made to the Plan, and the Plan received a letter from the PRTD dated October 30, 2018 and August 8, 2019, stating the PRTD has no objection to these amendments. Subsequent to these letters, the Plan was amended again. Once qualified, the Plan is required to operate in conformity with the PR Code to maintain its qualification.

For taxable year 2019, the Company believes the Plan satisfied, and operated in compliance with, the applicable requirements of the PR Code and therefore believes that the Plan, as amended, is qualified and the related trust is tax exempt.

5. Party-in-Interest Transactions

Parties-in-Interest are certain entities defined under Department of Labor regulations, including Amgen, and other parties that provide services to the Plan, such as the trustees, custodians and investment managers. The Plan pays the custodians certain administrative and investment management fees, and the Company pays certain administrative fees on behalf of the Plan. The Plan makes investments in collective trust funds managed by Northern, certain of the Plan's investment managers and other third parties and may invest in securities of entities that are parties-in-interest. The Plan also invests in shares of common stock of Amgen and receives dividends on those shares. Notes receivable from participants are also considered party-in-interest transactions.

The Retirement and Savings Plan for Amgen Manufacturing, Limited
Notes to Financial Statements (continued)

6. Reconciliation of Financial Statements to Form 5500

The reconciliation of net assets available for benefits per the financial statements to the Form 5500 consisted of the following:

	December 31,	
	2019	2018
Net assets available for benefits per the financial statements	\$ 543,047,506	\$ 421,791,601
Amounts allocated to withdrawing participants	(24,938)	—
Deemed loans	(485,301)	(481,033)
Net assets per the Form 5500	<u>\$ 542,537,267</u>	<u>\$ 421,310,568</u>

The following is a reconciliation of distributions per the financial statements to the Form 5500:

	Year Ended December 31, 2019
Benefits paid	\$ (10,418,189)
Investment and administrative fees	(675,824)
Total distributions per the financial statements	(11,094,013)
Amounts allocated to withdrawing participants at December 31, 2019	(24,938)
Deemed loans at December 31, 2018	481,033
Deemed loans at December 31, 2019	(485,301)
Total distributions per the Form 5500	<u>\$ (11,123,219)</u>

Schedule H, line 4i – Schedule of Assets (Held at End of Year) (continued)

Supplemental Schedule
The Retirement and Savings Plan for Amgen Manufacturing, Limited
EIN: 98-0210484 Plan: #001
As of December 31, 2019
Schedule H, line 4i – Schedule of Assets (Held at End of Year)

Identity of Issue	Description of Investment	Current Value
Amgen Stock*	Employer Securities 429,387 shares	\$ 103,512,169
		\$ 103,512,169
Capital Preservation Asset Class:		
Wells Fargo Stable Value Fund W*	Collective Trust Fund 630,818 units	36,097,165
NT Collective Short Term Investment Fund*	Collective Trust Fund 2,824,684 units	2,824,684
Total Capital Preservation Asset Class		38,921,849
Emerging Markets Equity Asset Class:		
J.P. Morgan Emerging Markets Equity Focus Fund*	Collective Trust Fund 164,907 units	4,340,358
Blackrock FTSE RAFI Emerging Index Non Lendable Fund F*	Collective Trust Fund 291,747 units	4,148,291
NT Collective Emerging Markets Fund / Non Lending*	Collective Trust Fund 2,887 units	563,583
Total Emerging Markets Equity Asset Class		9,052,232
Fixed Income Asset Class:		
Metlife Core Plus Collective Fund*	Collective Trust Fund 1,066,560 units	10,697,593
Wellington Core Bond Plus Portfolio Collective Investment Trust II*	Collective Trust Fund 838,989 units	10,697,109
Northern Trust Global Investments Collective Daily Aggregate Bond Index Fund Non Lending*	Collective Trust Fund 27,252 units	4,161,927
Putnam Absolute Return Fixed Income Fund*	Collective Trust Fund 40,209 units	3,065,549
Schroder Global Strategic Bond Trust Class W*	Collective Trust Fund 300,821 units	3,065,362
Interest Bearing Cash	Cash and Cash Equivalents 44 units	44
Total Fixed Income Asset Class		31,687,584
Fixed Income Index Asset Class:		
NT Collective Aggregate Bond Index Fund / Non Lending*	Collective Trust Fund 71,005 units	10,843,819
Total Fixed Income Index Asset Class		10,843,819
High Yield Asset Class:		
Mackay Shields High Yield Bond CIT (Fund Code-2196)*	Collective Trust Fund 486,865 units	5,754,749
Blackrock Funds V High Yield Bond Portfolio Class K	Mutual Fund 738,118 units	5,742,560
Total High Yield Asset Class		11,497,309
Inflation Protection Asset Class:		
NT Collective Treasury Inflation/Protected Securities Index Fund / Non Lending*	Collective Trust Fund 58,147 units	8,809,917
Total Inflation Protection Asset Class		8,809,917

Schedule H, line 4i – Schedule of Assets (Held at End of Year) (continued)

Identity of Issue	Description of Investment	Current Value
International Growth Asset Class:		
Artisan International Fund*	Collective Trust Fund 260,307 units	7,168,846
Reliance Trust Institutional Retirement Trust GQG Partners International Equity Fund Series 11 Class C*	Collective Trust Fund 662,794 units	7,045,499
NT Collective EAFE Index Fund / Non Lending*	Collective Trust Fund 2,163 units	1,778,350
Interest Bearing Cash	Cash and Cash Equivalents 31 units	31
Total International Growth Asset Class		15,992,726
International Index Asset Class:		
NT Collective All Country World Index (ACWI) Ex/US Fund / Non Lending*	Collective Trust Fund 134,757 units	22,472,134
Total International Index Asset Class		22,472,134
International Value Asset Class:		
Altrinsic International Equity Fund Class C*	Collective Trust Fund 390,069 units	5,141,183
Dodge & Cox International Fund	Mutual Fund 116,612 units	5,084,285
NT Collective EAFE Index Fund / Non Lending*	Collective Trust Fund 2,163 units	746,455
Northern Trust Global Investments Collective Daily Short Term Investment Fund - Non Lending*	Collective Trust Fund 1,033 units	1,033
Total International Value Asset Class		10,972,956
Large Cap Growth Asset Class:		
Northern Trust Global Investments Collective Daily Russell 1000 Growth Index Fund - Non Lending*	Collective Trust Fund 4,460 units	2,467,109
Visa Inc. Class A	Common and Preferred Stock 13,071 shares	2,456,041
Amazon Inc.	Common and Preferred Stock 1,272 shares	2,350,452
Salesforce.com Inc.	Common and Preferred Stock 7,042 shares	1,843,524
Microsoft Corporation	Common and Preferred Stock 11,603 shares	1,829,793
Intuit Inc.	Common and Preferred Stock 3,235 shares	1,591,225
Facebook Inc.	Common and Preferred Stock 6,843 shares	1,404,526
Northern Trust Global Investments Collective Daily Short Term Investment Fund - Non Lending*	Collective Trust Fund 1,299,539 units	1,299,539
ServiceNow Inc.	Common and Preferred Stock 4,237 shares	1,196,190
UnitedHealth Group Inc.	Common and Preferred Stock 4,055 shares	1,192,089
Yum! Brands Inc.	Common and Preferred Stock 11,204 shares	1,128,579
Illumina, Inc.	Common and Preferred Stock 1,658 shares	1,065,881
Paypal Holdings Inc.	Common and Preferred Stock 9,347 shares	1,011,065
Autodesk Inc.	Common and Preferred Stock 5,451 shares	1,000,040
Abbott Laboratories	Common and Preferred Stock 11,303 shares	981,779
Alphabet Inc. Class C	Common and Preferred Stock 731 shares	977,362
Nike Inc. Class B	Common and Preferred Stock 9,537 shares	966,193
Mondelez International Inc.	Common and Preferred Stock 17,287 shares	952,168
Adobe Systems Inc.	Common and Preferred Stock 2,827 shares	932,373

Schedule H, line 4i – Schedule of Assets (Held at End of Year) (continued)

Identity of Issue	Description of Investment	Current Value
Workday Inc. Class A	Common and Preferred Stock 3,758 shares	867,967
Match Group Inc.	Common and Preferred Stock 10,437 shares	856,982
Equinix Inc.	Common and Preferred Stock 1,460 shares	852,202
Alphabet Inc. Class A	Common and Preferred Stock 625 shares	837,119
TJX Companies Inc.	Common and Preferred Stock 12,930 shares	789,506
Ecolab, Inc.	Common and Preferred Stock 4,000 shares	771,960
Becton, Dickinson and Company	Common and Preferred Stock 2,799 shares	761,244
Netflix, Inc.	Common and Preferred Stock 2,297 shares	743,240
Danaher Corporation	Common and Preferred Stock 4,835 shares	742,076
Booking Holdings Inc.	Common and Preferred Stock 349 shares	716,752
FleetCor Technologies Inc.	Common and Preferred Stock 2,449 shares	704,627
Alibaba Group Holding Limited	Common and Preferred Stock 3,279 shares	695,476
Costar Group Inc.	Common and Preferred Stock 1,147 shares	686,250
Automatic Data Processing, Inc.	Common and Preferred Stock 3,604 shares	614,482
Regeneron Pharmaceuticals, Inc.	Common and Preferred Stock 1,599 shares	600,393
Edwards Lifesciences Corporation	Common and Preferred Stock 2,511 shares	585,791
Zoetis Inc. Class A	Common and Preferred Stock 4,256 shares	563,282
IHS Markit Limited	Common and Preferred Stock 7,015 shares	528,580
Linde PLC	Common and Preferred Stock 2,436 shares	518,624
Ulta Salon Cosmetics & Fragrance Inc.	Common and Preferred Stock 2,035 shares	515,140
Novo Nordisk A/S	Common and Preferred Stock 8,682 shares	502,514
Estee Lauder Companies Inc. Class A	Common and Preferred Stock 2,148 shares	443,648
Texas Instruments Inc.	Common and Preferred Stock 3,059 shares	392,439
Monster Beverage Corp	Common and Preferred Stock 6,011 shares	381,999
Align Technology Inc.	Common and Preferred Stock 1,291 shares	360,241
Floor & Decor Holdings Inc.	Common and Preferred Stock 6,675 shares	339,157
Activision Blizzard Inc.	Common and Preferred Stock 4,372 shares	259,784
Sarepta Therapeutics Inc.	Common and Preferred Stock 1,926 shares	248,531
Mirati Therapeutics Inc.	Common and Preferred Stock 1,567 shares	201,924
Atlassian Corporation PLC Class A	Common and Preferred Stock 1,565 shares	188,332
Twilio Inc. Class A	Common and Preferred Stock 1,645 shares	161,671
Abiomed Inc.	Common and Preferred Stock 843 shares	143,807
Sea Limited	Common and Preferred Stock 2,185 shares	87,881
Total Large Cap Growth Asset Class:		44,309,549
Large Cap Index Asset Class:		
NT Collective S&P 500 Index Fund – Non Lending*	Collective Trust Fund 9,934 units	114,337,374
Total Large Cap Index Asset Class		114,337,374
Large Cap Value Asset Class:		
Northern Trust Collective Russell 1000 Value Index Fund - Non Lending*	Collective Trust Fund 1,978 units	829,341
Alphabet Inc.	Common and Preferred Stock 471 shares	629,736
Microsoft Corporation	Common and Preferred Stock 3,432 shares	541,226
National Oilwell Varco, Inc.	Common and Preferred Stock 19,500 shares	490,730
Skyworks Solutions Inc	Common and Preferred Stock 3,927 shares	474,696

Schedule H, line 4i – Schedule of Assets (Held at End of Year) (continued)

Identity of Issue	Description of Investment	Current Value
Qorvo, Inc.	Common and Preferred Stock 4,075 shares	473,637
Airbus SE	Common and Preferred Stock 3,007 shares	440,417
CVS Health Corporation	Common and Preferred Stock 5,619 shares	417,436
KKR & Company Inc. Class A	Common and Preferred Stock 13,444 shares	392,161
Anthem Inc.	Common and Preferred Stock 1,289 shares	389,317
Amazon Inc.	Common and Preferred Stock 179 shares	330,763
Facebook Inc. Class A	Common and Preferred Stock 1,588 shares	325,937
Booking Holdings Inc.	Common and Preferred Stock 157 shares	322,436
Mastercard Inc. Class A	Common and Preferred Stock 1,062 shares	317,103
Swiss Re AG	Common and Preferred Stock 2,820 shares	316,553
Hilton Worldwide Holdings Inc.	Common and Preferred Stock 2,840 shares	314,984
Marriott International Inc. Class A	Common and Preferred Stock 1,990 shares	301,346
Interest Bearing Cash	Cash and Cash Equivalents 297,189 units	297,189
Wells Fargo & Company*	Common and Preferred Stock 5,400 shares	290,520
The Charles Schwab Corporation	Common and Preferred Stock 6,050 shares	287,738
Nvidia Corporation	Common and Preferred Stock 1,220 shares	287,066
Visa Inc. Class A	Common and Preferred Stock 1,514 shares	284,481
Capital One Financial Corporation	Common and Preferred Stock 2,550 shares	262,421
Bank of America Corporation*	Common and Preferred Stock 7,000 shares	246,540
McKesson Corporation	Common and Preferred Stock 1,764 shares	243,996
Charter Communications, Inc. Class A	Common and Preferred Stock 500 shares	242,540
FedEx Corporation	Common and Preferred Stock 1,600 shares	241,936
Comcast Corporation Class A	Common and Preferred Stock 5,100 shares	229,347
Cigna Corporation	Common and Preferred Stock 1,101 shares	225,143
Northern Trust Global Investments Collective Daily Short Term Investment Fund - Non Lending*	Collective Trust Fund 212,180 units	212,180
Occidental Petroleum Corporation	Common and Preferred Stock 5,100 shares	210,171
AmerisourceBergen Corp.	Common and Preferred Stock 2,447 shares	208,044
Bristol-Myers Squibb Company	Common and Preferred Stock 3,200 shares	205,408
Sanofi-Aventis	Common and Preferred Stock 4,050 shares	203,310
Everest Re Group Ltd	Common and Preferred Stock 732 shares	202,647
Oracle Corporation	Common and Preferred Stock 3,747 shares	198,516
United Parcel Service Inc. Class B	Common and Preferred Stock 1,528 shares	178,868
UnitedHealth Group Inc.	Common and Preferred Stock 575 shares	169,039
Brookfield Asset Management Inc. Voting Shares Class A	Common and Preferred Stock 2,914 shares	168,429
Roche Holdings Limited	Common and Preferred Stock 4,100 shares	166,706
The Goldman Sachs Group Inc.	Common and Preferred Stock 725 shares	166,699
United Technologies Corporation	Common and Preferred Stock 1,100 shares	164,736
Microchip Technology Inc.	Common and Preferred Stock 1,550 shares	162,316
Novartis AG	Common and Preferred Stock 1,700 shares	160,973
S&P Global Inc.	Common and Preferred Stock 583 shares	159,188
MetLife Inc.*	Common and Preferred Stock 3,100 shares	158,007
HP Inc.	Common and Preferred Stock 7,600 shares	156,180
Johnson Controls International PLC	Common and Preferred Stock 3,793 shares	154,413
Bank of New York Mellon Corporation	Common and Preferred Stock 3,000 shares	150,990
Glaxosmithkline PLC	Common and Preferred Stock 3,150 shares	148,019

Schedule H, line 4i – Schedule of Assets (Held at End of Year) (continued)

Identity of Issue	Description of Investment	Current Value
JP Morgan Chase & Company*	Common and Preferred Stock 950 shares	132,430
AstraZeneca PLC	Common and Preferred Stock 2,600 shares	129,636
Hewlett Packard Enterprise Company	Common and Preferred Stock 7,600 shares	120,536
TE Connectivity Limited	Common and Preferred Stock 1,250 shares	119,800
Baker Hughes	Common and Preferred Stock 4,600 shares	117,898
American Express Company	Common and Preferred Stock 900 shares	112,041
Truist Financial Corporation	Common and Preferred Stock 1,850 shares	104,192
Schlumberger Limited	Common and Preferred Stock 2,450 shares	98,490
Credit Acceptance Corporation	Common and Preferred Stock 191 shares	84,485
Celanese Corporation	Common and Preferred Stock 650 shares	80,028
Halliburton Company	Common and Preferred Stock 3,100 shares	75,857
Molson Coors Brewing Company Class B	Common and Preferred Stock 1,400 shares	75,460
Gilead Sciences Inc.	Common and Preferred Stock 1,150 shares	74,727
Dell Technologies Inc. Class C	Common and Preferred Stock 1,450 shares	74,516
Eli Lilly & Company	Common and Preferred Stock 550 shares	72,287
Juniper Networks, Inc.	Common and Preferred Stock 2,900 shares	71,427
Apache Corporation	Common and Preferred Stock 2,700 shares	69,093
Cognizant Technology Solutions Corporation Class A	Common and Preferred Stock 1,100 shares	68,222
Dish Network Corporation Class A	Common and Preferred Stock 1,900 shares	67,393
Hess Corporation LLC	Common and Preferred Stock 1,000 shares	66,810
Concho Resources Inc.	Common and Preferred Stock 750 shares	65,678
Cisco Systems Inc.	Common and Preferred Stock 1,300 shares	62,348
Fox Corporation Class A	Common and Preferred Stock 1,550 shares	57,459
Medtronic PLC	Common and Preferred Stock 400 shares	45,380
Alnylam Pharmaceuticals, Inc.	Common and Preferred Stock 350 shares	40,310
State Street Corporation	Common and Preferred Stock 500 shares	39,550
Mattel Inc.	Common and Preferred Stock 2,500 shares	33,875
Maxim Integrated Products Inc.	Common and Preferred Stock 550 shares	33,831
Biomarin Pharmaceutical Inc.	Common and Preferred Stock 400 shares	33,820
The Gap Inc.	Common and Preferred Stock 1,700 shares	30,056
Fox Corporation Class B	Common and Preferred Stock 766 shares	27,882
Micro Focus International PLC	Common and Preferred Stock 1,981 shares	27,793
Brighthouse Financial Inc.	Common and Preferred Stock 700 shares	27,461
Sprint Corporation	Common and Preferred Stock 5,024 shares	26,175
Qurate Retail Inc.	Common and Preferred Stock 3,100 shares	26,133
Aegon N.V.	Common and Preferred Stock 5,700 shares	25,821
Harley/Davidson Motor Company	Common and Preferred Stock 550 shares	20,455
Incyte Corporation	Common and Preferred Stock 200 shares	17,464
News Corporation Class A	Common and Preferred Stock 700 shares	9,898
Total Large Cap Value Asset Class		16,618,292
Participant Self-Directed Accounts	Various Investments	2,591,327
		2,591,327
Real Estate Index Asset Class:		
Vanguard Real Estate Index Fund Institutional Shares	Mutual Fund 578,321 units	11,780,405

Schedule H, line 4i – Schedule of Assets (Held at End of Year) (continued)

Identity of Issue	Description of Investment	Current Value
NT Collective Global Real Estate Index Fund - Non Lending*	Collective Trust Fund 4,931 units	1,165,380
Total Real Estate Index Asset Class		12,945,785
Small-Mid Cap Growth Asset Class:		
Northern Trust Global Investment Russell 2000 Growth Index Fund - Non Lending*	Collective Trust Fund 935 units	373,754
Interest Bearing Cash	Cash and Cash Equivalents 352,866 units	352,866
Clean Harbors Inc.	Common and Preferred Stock 2,523 shares	216,347
Dexcom Inc.	Common and Preferred Stock 796 shares	174,117
Logmein Inc.	Common and Preferred Stock 1,847 shares	158,362
RingCentral, Inc. Class A	Common and Preferred Stock 905 shares	152,646
On Semiconductor Corporation	Common and Preferred Stock 5,689 shares	138,698
Hanesbrands Inc.	Common and Preferred Stock 8,078 shares	119,958
Sally Beauty Holdings Inc.	Common and Preferred Stock 6,454 shares	117,786
Inspire Medical Systems Inc.	Common and Preferred Stock 1,564 shares	116,064
Skechers USA Inc. Class A	Common and Preferred Stock 2,685 shares	115,965
SBV Financial Group	Common and Preferred Stock 450 shares	112,968
Crown Holdings Inc.	Common and Preferred Stock 1,543 shares	111,929
Burlington Stores Inc.	Common and Preferred Stock 458 shares	104,438
Sensata Technologies BV Holding	Common and Preferred Stock 1,936 shares	104,292
J2 Global Inc.	Common and Preferred Stock 1,096 shares	102,706
Keysight Technologies Inc.	Common and Preferred Stock 990 shares	101,604
Exact Sciences Corporation	Common and Preferred Stock 1,057 shares	97,751
CONMED Corporation	Common and Preferred Stock 851 shares	95,167
Masco Corporation	Common and Preferred Stock 1,966 shares	94,348
Q2 Holdings Inc.	Common and Preferred Stock 1,150 shares	93,242
Kansas City Southern	Common and Preferred Stock 607 shares	92,968
Trinet Group Inc.	Common and Preferred Stock 1,610 shares	91,142
Tandem Diabetes Care Inc.	Common and Preferred Stock 1,497 shares	89,236
Five9 Inc.	Common and Preferred Stock 1,289 shares	84,533
Pinnacle Financial Partners	Common and Preferred Stock 1,304 shares	83,456
Rapid7 Inc.	Common and Preferred Stock 1,488 shares	83,358
TransUnion	Common and Preferred Stock 965 shares	82,614
Horizon Therapeutics PLC	Common and Preferred Stock 2,276 shares	82,391
STERIS plc	Common and Preferred Stock 535 shares	81,545
CarMax Inc.	Common and Preferred Stock 930 shares	81,533
AAR Corporation	Common and Preferred Stock 1,736 shares	78,294
Cinemark Holdings Inc.	Common and Preferred Stock 2,295 shares	77,686
ABM Industrials Inc.	Common and Preferred Stock 2,056 shares	77,532
SS&C Technologies Holdings Inc.	Common and Preferred Stock 1,245 shares	76,443
Nuance Communications Inc.	Common and Preferred Stock 4,243 shares	75,653
Solarwinds Corporation	Common and Preferred Stock 4,077 shares	75,628
Mednax Inc.	Common and Preferred Stock 2,718 shares	75,533
Everbridge Inc.	Common and Preferred Stock 925 shares	72,224
Tyler Technologies Inc.	Common and Preferred Stock 240 shares	72,005
Ritchie Bros Auctioneers Inc.	Common and Preferred Stock 1,664 shares	71,469

Schedule H, line 4i – Schedule of Assets (Held at End of Year) (continued)

Identity of Issue	Description of Investment	Current Value
Biotelemetry Inc.	Common and Preferred Stock 1,534 shares	71,024
Belden Inc.	Common and Preferred Stock 1,279 shares	70,345
Insulet Corporation	Common and Preferred Stock 409 shares	70,021
Polaris Inc.	Common and Preferred Stock 685 shares	69,665
John Bean Technologies Corporation	Common and Preferred Stock 608 shares	68,497
Anaplan Inc.	Common and Preferred Stock 1,261 shares	66,076
Tennant Company	Common and Preferred Stock 826 shares	64,362
Chewy Inc. Class A	Common and Preferred Stock 2,169 shares	62,901
Middleby Corporation	Common and Preferred Stock 573 shares	62,755
Cimpress plc	Common and Preferred Stock 497 shares	62,508
Viavi Solutions Inc. NPV	Common and Preferred Stock 4,144 shares	62,160
Natera Inc.	Common and Preferred Stock 1,814 shares	61,114
Carter Inc.	Common and Preferred Stock 546 shares	59,700
Merit Medical Systems Inc.	Common and Preferred Stock 1,877 shares	58,600
Owens Corning	Common and Preferred Stock 889 shares	57,892
Northern Trust Global Investments Collective Daily Short Term Investment Fund - Non Lending*	Collective Trust Fund 57,848 units	57,848
Zebra Technologies Corporation	Common and Preferred Stock 220 shares	56,197
Amedisys Inc.	Common and Preferred Stock 335 shares	55,918
Kirby Corporation	Common and Preferred Stock 622 shares	55,688
Cornerstone OnDemand Inc.	Common and Preferred Stock 951 shares	55,681
Lattice Semiconductor Company	Common and Preferred Stock 2,879 shares	55,104
Frontdoor Inc.	Common and Preferred Stock 1,162 shares	55,102
Syneos Health Inc.	Common and Preferred Stock 926 shares	55,074
2U Inc.	Common and Preferred Stock 2,237 shares	53,666
Inphi Corporation	Common and Preferred Stock 715 shares	52,924
Papa Johns International Inc.	Common and Preferred Stock 828 shares	52,288
Shutterstock Inc.	Common and Preferred Stock 1,174 shares	50,341
Heartland Express Inc.	Common and Preferred Stock 2,309 shares	48,604
LHC Group Inc.	Common and Preferred Stock 352 shares	48,492
Penumbra Inc.	Common and Preferred Stock 291 shares	47,803
Ambarella Inc. Shares	Common and Preferred Stock 775 shares	46,934
Axogen Inc.	Common and Preferred Stock 2,585 shares	46,246
Crocs Inc.	Common and Preferred Stock 1,097 shares	45,953
Lululemon Athletica Inc.	Common and Preferred Stock 198 shares	45,871
Chegg Inc.	Common and Preferred Stock 1,205 shares	45,682
Haemonetics Corporation	Common and Preferred Stock 397 shares	45,615
Grand Canyon Education Inc.	Common and Preferred Stock 464 shares	44,447
Woodward Inc.	Common and Preferred Stock 369 shares	43,704
C.H. Robinson Worldwide Inc.	Common and Preferred Stock 555 shares	43,401
Tetra Tech Inc.	Common and Preferred Stock 500 shares	43,080
Trimble Inc.	Common and Preferred Stock 1,027 shares	42,816
Sea Limited	Common and Preferred Stock 1,060 shares	42,633
Nordson Corporation	Common and Preferred Stock 255 shares	41,524
Fireeye Inc.	Common and Preferred Stock 2,465 shares	40,746
Gartner Inc.	Common and Preferred Stock 254 shares	39,141

Schedule H, line 4i – Schedule of Assets (Held at End of Year) (continued)

Identity of Issue	Description of Investment	Current Value
Integra Lifesciences Holding Corporation	Common and Preferred Stock 669 shares	38,989
Teradyne Inc.	Common and Preferred Stock 549 shares	37,436
Quidel Corporation	Common and Preferred Stock 496 shares	37,215
Switch Inc. Class A	Common and Preferred Stock 2,472 shares	36,635
Roku Inc. Class A	Common and Preferred Stock 269 shares	36,019
Deciphera Pharmaceuticals Inc.	Common and Preferred Stock 575 shares	35,788
Matson Inc.	Common and Preferred Stock 871 shares	35,537
Hamilton Lane Inc. Class A	Common and Preferred Stock 584 shares	34,806
Forward Air Corporation	Common and Preferred Stock 496 shares	34,695
Wolverine World Wide Inc.	Common and Preferred Stock 1,022 shares	34,482
Under Armour Inc. Class C	Common and Preferred Stock 1,783 shares	34,198
Immunomedics Inc.	Common and Preferred Stock 1,614 shares	34,152
Revance Therapeutics Inc.	Common and Preferred Stock 2,066 shares	33,531
Wisdomtree Investments Inc.	Common and Preferred Stock 6,854 shares	33,173
Graphic Packaging Holding Company	Common and Preferred Stock 1,984 shares	33,034
NIC Inc.	Common and Preferred Stock 1,475 shares	32,966
Pinterest Inc. Class A	Common and Preferred Stock 1,766 shares	32,918
Reata Pharmaceuticals Inc. Class A	Common and Preferred Stock 161 shares	32,913
LPL Financial Holdings Inc.	Common and Preferred Stock 356 shares	32,841
Boot Barn Holdings Inc.	Common and Preferred Stock 725 shares	32,284
National Cinemedia Inc.	Common and Preferred Stock 4,345 shares	31,675
Heron Therapeutics Inc.	Common and Preferred Stock 1,318 shares	30,973
Prestige Consumer Healthcare Inc.	Common and Preferred Stock 752 shares	30,456
Freshpet Inc.	Common and Preferred Stock 507 shares	29,959
Napco Security Technologies Inc.	Common and Preferred Stock 1,000 shares	29,390
New Relic Inc.	Common and Preferred Stock 438 shares	28,781
Kodiak Sciences Inc.	Common and Preferred Stock 397 shares	28,564
Floor & Decor Holdings Inc.	Common and Preferred Stock 557 shares	28,301
Agios Pharmaceuticals Inc.	Common and Preferred Stock 592 shares	28,268
Nevro Corporation	Common and Preferred Stock 236 shares	27,739
MSC Industrial Direct Inc. Class A	Common and Preferred Stock 353 shares	27,700
Abiomed Inc.	Common and Preferred Stock 155 shares	26,441
Proofpoint Inc.	Common and Preferred Stock 230 shares	26,399
Wabtec Corporation	Common and Preferred Stock 338 shares	26,296
Viking Therapeutics Inc.	Common and Preferred Stock 3,263 shares	26,169
Cooper Companies Inc.	Common and Preferred Stock 81 shares	26,024
Pluralsight Inc. Class A	Common and Preferred Stock 1,487 shares	25,591
Manhattan Associates, Inc.	Common and Preferred Stock 312 shares	24,882
Neurocrine Biosciences Inc.	Common and Preferred Stock 225 shares	24,185
Proto Labs Inc.	Common and Preferred Stock 238 shares	24,169
Performance Food Group Company	Common and Preferred Stock 463 shares	23,835
CarGurus Inc. Class A	Common and Preferred Stock 663 shares	23,324
Mirati Therapeutics Inc.	Common and Preferred Stock 179 shares	23,066
Paysoftware Inc.	Common and Preferred Stock 87 shares	23,034
Bank Ozk	Common and Preferred Stock 754 shares	23,001
Sage Therapeutics Inc.	Common and Preferred Stock 306 shares	22,090
Kennametal Inc.	Common and Preferred Stock 594 shares	21,913

Schedule H, line 4i – Schedule of Assets (Held at End of Year) (continued)

Identity of Issue	Description of Investment	Current Value
Euronet Worldwide Inc.	Common and Preferred Stock 137 shares	21,586
Costar Group Inc.	Common and Preferred Stock 36 shares	21,539
FTI Consulting Inc.	Common and Preferred Stock 194 shares	21,468
Five Below, Inc.	Common and Preferred Stock 167 shares	21,353
DocuSign Inc.	Common and Preferred Stock 284 shares	21,047
Masimo Corporation	Common and Preferred Stock 132 shares	20,864
Universal Display Corporation	Common and Preferred Stock 100 shares	20,607
Summit Materials Inc. Class A	Common and Preferred Stock 849 shares	20,291
Crispr Therapeutics AG	Common and Preferred Stock 318 shares	19,368
Constellium SE Class A	Common and Preferred Stock 1,428 shares	19,135
Zynga Inc.	Common and Preferred Stock 3,099 shares	18,966
Cryoport Inc.	Common and Preferred Stock 1,152 shares	18,962
MKS Instruments	Common and Preferred Stock 171 shares	18,812
Okta Inc. Class A	Common and Preferred Stock 162 shares	18,690
DBV Technologies	Common and Preferred Stock 1,596 shares	17,077
RealPage Inc.	Common and Preferred Stock 316 shares	16,985
Fox Factory Holding Corporation	Common and Preferred Stock 235 shares	16,349
Arrowhead Pharmaceuticals Inc.	Common and Preferred Stock 180 shares	11,417
SmileDirectClub Inc. Class A	Common and Preferred Stock 1,044 shares	9,125
Acadia Pharmaceuticals Inc.	Common and Preferred Stock 205 shares	8,770
Rignet Inc.	Common and Preferred Stock 1,180 shares	7,788
Cerence Inc.	Common and Preferred Stock 289 shares	6,540
Endologix Inc.	Common and Preferred Stock 2,370 shares	3,745
Spectrum Pharmaceuticals Inc.	Common and Preferred Stock 904 shares	3,291
Total Small-Mid Cap Growth Asset Class		8,876,006
Small-Mid Cap Index Asset Class:		
NT Collective Extended Equity Market Index Fund / Non Lending*	Collective Trust Fund 148,326 units	32,772,597
Total Small-Mid Cap Index Asset Class		32,772,597
Small-Mid Cap Value Asset Class:		
Northern Trust Global Investment Russell 2000 Value Index Fund - Non Lending*	Collective Trust Fund 5,422 units	1,793,404
Northern Trust Global Investments Collective Daily Short Term Investment Fund - Non Lending*	Collective Trust Fund 775,385 units	775,385
Western Alliance Bancorporation	Common and Preferred Stock 10,541 shares	600,837
Entegris Inc.	Common and Preferred Stock 11,552 shares	578,640
Waste Connections Inc.	Common and Preferred Stock 4,895 shares	444,417
Interest Bearing Cash	Cash and Cash Equivalents 441,470 units	441,470
Citigroup Inc.	Common and Preferred Stock 5,985 shares	433,896
FMC Corporation	Common and Preferred Stock 4,088 shares	408,064
Citizens Financial Group, Inc.	Common and Preferred Stock 9,900 shares	402,039
Clean Harbors Inc.	Common and Preferred Stock 4,624 shares	396,508
KAR Auction Services Inc.	Common and Preferred Stock 17,716 shares	386,032
Kosmos Energy Limited	Common and Preferred Stock 67,020 shares	382,014
Woodward Inc.	Common and Preferred Stock 3,148 shares	372,849

Schedule H, line 4i – Schedule of Assets (Held at End of Year) (continued)

Identity of Issue	Description of Investment	Current Value
First Horizon National Corporation	Common and Preferred Stock 4,300 shares	358,822
Popular, Inc.*	Common and Preferred Stock 6,100 shares	358,375
RPT Realty	Common and Preferred Stock 23,740 shares	357,050
Ameris Bancorp	Common and Preferred Stock 8,284 shares	352,401
IAA Spinco Inc.	Common and Preferred Stock 7,403 shares	348,385
Ametek Inc.	Common and Preferred Stock 3,476 shares	346,696
Amphenol Corporation Class A	Common and Preferred Stock 3,076 shares	332,915
Synopsys Inc.	Common and Preferred Stock 2,383 shares	331,714
Cairn Energy PLC	Common and Preferred Stock 60,700 shares	329,692
Bio-Rad Laboratories, Inc. Class A	Common and Preferred Stock 874 shares	323,406
Axis Capital Holdings Limited	Common and Preferred Stock 5,435 shares	323,056
Goodyear Tire & Rubber Company	Common and Preferred Stock 20,500 shares	318,878
Mellanox Technologies Limited	Common and Preferred Stock 2,683 shares	314,394
CNO Financial Group, Inc.	Common and Preferred Stock 17,000 shares	308,210
The Bank of N.T. Butterfield & Son Limited	Common and Preferred Stock 8,159 shares	302,046
UGI Corporation	Common and Preferred Stock 6,599 shares	298,011
RenaissanceRe Holdings Limited	Common and Preferred Stock 1,497 shares	293,442
BWX Technologies Inc.	Common and Preferred Stock 4,593 shares	285,133
BorgWarner Inc.	Common and Preferred Stock 6,488 shares	281,449
Embraer SA	Common and Preferred Stock 14,400 shares	280,656
Helen Trustoy Limited	Common and Preferred Stock 1,479 shares	265,909
Knight-Swift Transportation Holdings Inc.	Common and Preferred Stock 7,364 shares	263,926
Office Depot, Inc.	Common and Preferred Stock 95,600 shares	261,944
EnerSys Inc	Common and Preferred Stock 3,483 shares	260,633
Royal Mail PLC	Common and Preferred Stock 43,100 shares	256,661
LKQ Corporation	Common and Preferred Stock 7,149 shares	255,219
Reliance Steel & Aluminum Company	Common and Preferred Stock 2,073 shares	248,262
Hewlett Packard Enterprise Company	Common and Preferred Stock 15,500 shares	245,830
TCF Financial Corporation	Common and Preferred Stock 5,252 shares	245,794
Amerco	Common and Preferred Stock 640 shares	240,525
Taylor Morrison Home Corporation	Common and Preferred Stock 10,836 shares	236,875
Ingredion Inc.	Common and Preferred Stock 2,530 shares	235,164
Discovery Communications, Inc. Series C	Common and Preferred Stock 7,700 shares	234,773
Dollar Tree Inc.	Common and Preferred Stock 2,464 shares	231,739
Halozyme Therapeutics Inc.	Common and Preferred Stock 13,006 shares	230,596
Apache Corporation	Common and Preferred Stock 9,000 shares	230,310
Quanta Services Inc.	Common and Preferred Stock 5,650 shares	230,012
BMC Holdings Inc.	Common and Preferred Stock 7,786 shares	223,380
Nvent Electric PLC	Common and Preferred Stock 8,726 shares	223,211
Brandywine Realty Trust	Common and Preferred Stock 14,108 shares	222,201
Henry Schein Inc.	Common and Preferred Stock 3,215 shares	214,505
Equitrans Midstream Corporation NPV	Common and Preferred Stock 3,500 shares	212,224
Charles River Laboratories International Inc.	Common and Preferred Stock 1,387 shares	211,878
Catalent Inc.	Common and Preferred Stock 3,748 shares	211,012
Heico Corporation Class A	Common and Preferred Stock 2,313 shares	207,083
Vistra Energy Corporation	Common and Preferred Stock 9,000 shares	206,910
Corning Inc.	Common and Preferred Stock 7,000 shares	203,770

Schedule H, line 4i – Schedule of Assets (Held at End of Year) (continued)

Identity of Issue	Description of Investment	Current Value
Magna International Inc.	Common and Preferred Stock 3,700 shares	202,908
Jacobs Engineering Group Inc.	Common and Preferred Stock 2,200 shares	197,626
Copart Inc.	Common and Preferred Stock 2,161 shares	196,521
STERIS plc	Common and Preferred Stock 1,289 shares	196,469
Hexcel Corporation	Common and Preferred Stock 2,672 shares	195,884
Coherent Inc.	Common and Preferred Stock 1,173 shares	195,129
Arrow Electric Inc.	Common and Preferred Stock 2,300 shares	194,902
Pacwest Bancorp Company	Common and Preferred Stock 5,003 shares	191,465
NRG Energy Inc.	Common and Preferred Stock 4,800 shares	190,800
Fluor Corporation	Common and Preferred Stock 10,100 shares	190,688
Nextier Oilfield Solutions Inc.	Common and Preferred Stock 28,291 shares	189,550
Keysight Technologies Inc.	Common and Preferred Stock 1,841 shares	188,942
Bed Bath & Beyond Inc.	Common and Preferred Stock 10,800 shares	186,840
AXA Equitable Holdings, Inc.	Common and Preferred Stock 7,500 shares	185,850
Centene Corporation	Common and Preferred Stock 2,900 shares	182,323
Cboe Global Markets Inc.	Common and Preferred Stock 1,517 shares	182,040
Bunge Limited	Common and Preferred Stock 3,100 shares	178,405
Teradata Corporation	Common and Preferred Stock 6,463 shares	173,015
Cabot Corporation	Common and Preferred Stock 3,490 shares	165,845
Mid-American Apartment Communities Inc.	Common and Preferred Stock 1,256 shares	165,616
CNH Industrial NV	Common and Preferred Stock 15,000 shares	165,000
Graco Inc.	Common and Preferred Stock 3,130 shares	162,760
Navistar International Corporation	Common and Preferred Stock 5,600 shares	162,064
Adient PLC	Common and Preferred Stock 7,500 shares	159,375
Qorvo, Inc.	Common and Preferred Stock 1,352 shares	157,143
STAG Industrial Inc.	Common and Preferred Stock 4,886 shares	154,251
Huntsman Corporation	Common and Preferred Stock 6,358 shares	153,609
Reinsurance Group of America Inc.	Common and Preferred Stock 931 shares	151,809
IDEX Corporation	Common and Preferred Stock 878 shares	151,016
Tri Pointe Homes, Inc.	Common and Preferred Stock 9,600 shares	149,568
Advance Auto Parts Inc.	Common and Preferred Stock 930 shares	148,949
Healthcare Realty Trust	Common and Preferred Stock 4,442 shares	148,230
ViaSat, Inc.	Common and Preferred Stock 2,020 shares	147,854
News Corporation Class A	Common and Preferred Stock 10,400 shares	147,056
PPL Corporation	Common and Preferred Stock 4,000 shares	143,520
LivaNova PLC	Common and Preferred Stock 1,902 shares	143,468
Parsley Energy Inc. Class A	Common and Preferred Stock 7,523 shares	142,260
Enstar Group Ltd.	Common and Preferred Stock 670 shares	138,596
Astronics Corporation	Common and Preferred Stock 4,934 shares	137,905
Servicemaster Global Holdings Inc.	Common and Preferred Stock 3,558 shares	137,552
Prosperity Bancshares Inc.	Common and Preferred Stock 1,879 shares	135,081
Whiting Petroleum Corporation	Common and Preferred Stock 17,825 shares	130,836
Old Republic International Corporation	Common and Preferred Stock 5,842 shares	130,686
Mscope Holding Company Inc.	Common and Preferred Stock 8,800 shares	124,872
Federal Signal Corporation	Common and Preferred Stock 3,690 shares	119,003
Materion Corporation	Common and Preferred Stock 1,967 shares	116,938
EQT Corporation	Common and Preferred Stock 10,466 shares	114,079

Schedule H, line 4i – Schedule of Assets (Held at End of Year) (continued)

Identity of Issue	Description of Investment	Current Value
Potlatchdeltic Corporation	Common and Preferred Stock 2,568 shares	111,117
Fabrinet	Common and Preferred Stock 1,702 shares	110,358
Discover Financial Services	Common and Preferred Stock 1,300 shares	110,266
Kennametal Inc.	Common and Preferred Stock 2,970 shares	109,563
Deckers Outdoor Corporation	Common and Preferred Stock 637 shares	107,564
Teradyne Inc.	Common and Preferred Stock 1,547 shares	105,490
Markel Corporation Holding Company	Common and Preferred Stock 92 shares	105,172
American Eagle Outfitters Inc.	Common and Preferred Stock 6,795 shares	99,887
Innospec Inc.	Common and Preferred Stock 950 shares	98,268
Avnet Inc.	Common and Preferred Stock 2,300 shares	97,612
Albany International Corporation Class A	Common and Preferred Stock 1,267 shares	96,191
TD Ameritrade Holding Corporation	Common and Preferred Stock 1,912 shares	95,026
Texas Capital Bancshares Inc.	Common and Preferred Stock 1,666 shares	94,579
Sallie Mae Corporation	Common and Preferred Stock 10,600 shares	94,446
Cypress Semiconductor Corporation	Common and Preferred Stock 3,961 shares	92,410
Bio-Techne Corporation	Common and Preferred Stock 419 shares	91,975
PPDC Energy Inc.	Common and Preferred Stock 3,475 shares	90,941
Apogee Enterprises, Inc.	Common and Preferred Stock 2,758 shares	89,635
Fifth Third Bancorp	Common and Preferred Stock 2,400 shares	73,776
Interpublic Group Companies Inc.	Common and Preferred Stock 3,100 shares	71,610
State Street Corporation	Common and Preferred Stock 900 shares	71,190
Colony Capital Inc. Class A	Common and Preferred Stock 14,800 units	70,300
Ericsson, Inc.	Common and Preferred Stock 8,000 shares	70,240
Euronet Worldwide Inc.	Common and Preferred Stock 444 shares	69,957
Avis Budget Group Inc.	Common and Preferred Stock 2,100 shares	67,704
Evercore Inc.	Common and Preferred Stock 900 shares	67,284
Viacom CBS Inc. NPV	Common and Preferred Stock 1,600 shares	67,152
Zimmer Biomet Holdings Inc	Common and Preferred Stock 400 shares	59,872
JetBlue Airways Corporation	Common and Preferred Stock 3,000 shares	56,160
Franks International NV	Common and Preferred Stock 10,500 shares	54,285
The Geo Group, Inc.	Common and Preferred Stock 3,250 shares	53,983
Halliburton Company	Common and Preferred Stock 2,200 shares	53,834
National Oilwell Varco, Inc.	Common and Preferred Stock 2,100 shares	52,605
Harley/Davidson Motor Company	Common and Preferred Stock 1,400 shares	52,066
Lazard Limited Class A	Common and Preferred Stock 1,300 shares	51,948
Cenovus Energy Inc.	Common and Preferred Stock 5,100 shares	51,765
Murphy Oil Corporation	Common and Preferred Stock 1,900 shares	50,920
Livent Corporation	Common and Preferred Stock 5,742 shares	49,094
Alleghany Corporation	Common and Preferred Stock 60 shares	47,974
Stealthgas Inc.	Common and Preferred Stock 13,470 shares	46,202
Boise Cascade Company	Common and Preferred Stock 1,049 shares	38,320
Keycorp	Common and Preferred Stock 1,600 shares	32,384
Hess Corporation LLC	Common and Preferred Stock 400 shares	26,724
Superior Energy Services Inc.	Common and Preferred Stock 2,370 shares	11,874
Total Small-Mid Cap Value Asset Class		31,014,653
Notes Receivable from Participants*	Interest Rate 4.25% - 9.25%	15,387,570

Schedule H, line 4i – Schedule of Assets (Held at End of Year) (continued)

Identity of Issue	Description of Investment	Current Value
		15,387,570
Other		
ML Sweep Account	Cash and Cash Equivalents 24,938 units	24,938
Northern Trust Global Investments Collective Daily Short Term Investment Fund - Non Lending*	Collective Trust Fund 8,482 units	8,482
		33,420
Grand Total		\$ 542,649,268

* Indicates party-in-interest

**THE RETIREMENT AND SAVINGS PLAN FOR
AMGEN MANUFACTURING, LIMITED**

INDEX TO EXHIBIT

[Consent of Independent Registered Public Accounting Firm](#)

Exhibit 23.1

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the trustees (or other persons who administer the employee benefit plan) have duly caused this annual report to be signed on its behalf by the undersigned hereunto duly authorized.

The Retirement and Savings Plan for
Amgen Manufacturing, Limited
(Name of Plan)

Date: June 16, 2020

By: /s/ PETER H. GRIFFITH
Peter H. Griffith
Deputy Chairman and Chief Financial Officer
Amgen Manufacturing, Limited

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statements (Form S-8 Nos. 33-47605, 333-144580 and 333-216715) pertaining to The Retirement and Savings Plan for Amgen Manufacturing, Limited of Amgen Inc. of our report dated June 16, 2020, with respect to the financial statements and schedule of The Retirement and Savings Plan for Amgen Manufacturing, Limited included in this Annual Report (Form 11-K) for the year ended December 31, 2019.

/s/ ERNST & YOUNG LLP

Los Angeles, California

June 16, 2020