

Semiannual Report | June 30, 2018

Vanguard Variable Insurance Fund

Mid-Cap Index Portfolio

Vanguard's Principles for Investing Success

We want to give you the best chance of investment success. These principles, grounded in Vanguard's research and experience, can put you on the right path.

Goals. Create clear, appropriate investment goals.

Balance. Develop a suitable asset allocation using broadly diversified funds.

Cost. Minimize cost.

Discipline. Maintain perspective and long-term discipline.

A single theme unites these principles: Focus on the things you can control. We believe there is no wiser course for any investor.

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Please note: The opinions expressed in this report are just that—informed opinions. They should not be considered promises or advice. Also, please keep in mind that the information and opinions cover the period through the date on the front of this report. Of course, the risks of investing in your fund are spelled out in the prospectus.

See the Glossary for definitions of investment terms used in this report.

About the cover: Nautical images have been part of Vanguard's rich heritage since its start in 1975. For an incoming ship, a lighthouse offers a beacon and safe path to shore. You can similarly depend on Vanguard to put you first—and light the way—as you strive to meet your financial goals. Our client focus and low costs, stemming from our unique ownership structure, assure that your interests are paramount.

CEO's Perspective



Tim Buckley
President and Chief Executive Officer

Dear Planholder,

I feel extremely fortunate to have the chance to lead a company filled with people who come to work every day passionate about Vanguard's core purpose: to take a stand for all investors, to treat them fairly, and to give them the best chance for investment success.

When I joined Vanguard in 1991, I found a mission-driven team focused on improving lives—helping people retire more comfortably, put their children through college, and achieve financial security. I also found a company with purpose in an industry ripe for improvement.

It was clear, even early in my career, that the cards were stacked against most investors. Hidden fees, performance-chasing, and poor advice were relentlessly eroding investors' dreams.

We knew Vanguard could be different and, as a result, could make a real difference. We have lowered the costs of investing for our shareholders significantly. And we're proud of the performance of our funds.

Vanguard is built for Vanguard investors—we focus solely on you, our fund shareholders. Everything we do is designed to give our clients the best chance for investment success. In my role as CEO,

I'll keep this priority front and center. We're proud of what we've achieved, but we're even more excited about what's to come.

Steady, time-tested guidance

Our guidance for investors, as always, is to stay the course, tune out the hyperbolic headlines, and focus on your goals and what you can control, such as costs and how much you save. This time-tested advice has served our clients well over the decades.

Regardless of how the markets perform in the short term, I'm incredibly optimistic about the future for our investors. We have a dedicated team serving you, and we will never stop striving to make Vanguard the best place for you to invest through our high-quality funds and services, advice and guidance to help you meet your financial goals, and an experience that makes you feel good about entrusting us with your hard-earned savings.

Thank you for your continued loyalty.

Sincerely,

A handwritten signature in black ink, appearing to read "Mortimer J. Buckley".

Mortimer J. Buckley
President and Chief Executive Officer
July 13, 2018

Market Perspective

U.S. stocks continued to climb, even with periods of volatility

U.S. stocks advanced over the six months ended June 30, 2018, although their path forward was marked by significant bouts of volatility. Corporate earnings remained strong and the U.S. economy continued to indicate growth. Investors worried, however, about high stock valuations, the possibility of inflation, and continued tightening of monetary policy by the Federal Reserve.

The Fed's June increase in the federal funds target rate by a quarter percentage point, to 1.75%–2%, was its second in 2018. In announcing it, Fed Chair Jerome Powell offered a positive assessment of the U.S. economy. The Fed has also continued to shrink the \$4.5 trillion balance sheet it had amassed since it began providing monetary stimulus in the wake of the 2007–2009 recession.

For the six months, the broad U.S. stock market returned 3.22%. U.S. large- and mid-capitalization stocks trailed small-caps, while growth stocks exceeded value. Among sectors, information technology, consumer discretionary, and energy posted the strongest returns. Consumer staples, communication services, and industrials fared the worst.

For U.S. investors, a stronger dollar hurt international stocks, which returned –3.83%. Developed European and Pacific markets declined, as did emerging markets.

Bond returns were down as inflation concerns heightened

Bond yields rose and prices fell over the six months as inflation expectations rose, the labor market improved, and the Fed suggested that more rate hikes were in store for 2018. (Bond prices and yields move in opposite directions.)

The yield of the benchmark 10-year Treasury note closed the period at 2.86%, up from 2.41% at the end of December 2017. The broad U.S. bond market returned –1.62% for the period. U.S. Treasuries and mortgage-backed securities generally outpaced investment-grade corporate bonds.

International bonds returned –1.31%, as measured by the Barclays Global Aggregate Index ex USD. U.S. investors were hampered by the dollar's strengthening against many currencies. Without this currency impact, international bonds were up more than 1%.

Market Barometer

	Total Returns Periods Ended June 30, 2018		
	Six Months	One Year	Five Years ¹
Stocks			
Russell 1000 Index (Large-caps)	2.85%	14.54%	13.37%
Russell 2000 Index (Small-caps)	7.66	17.57	12.46
Russell 3000 Index (Broad U.S. market)	3.22	14.78	13.29
FTSE All-World ex US Index (International)	–3.83	7.28	6.35
Bonds			
Bloomberg Barclays U.S. Aggregate Bond Index (Broad taxable market)	–1.62%	–0.40%	2.27%
Bloomberg Barclays Municipal Bond Index (Broad tax-exempt market)	–0.25	1.56	3.53
FTSE Three-Month U.S. Treasury Bill Index	0.78	1.33	0.38
CPI			
Consumer Price Index	2.22%	2.87%	1.54%

¹ Annualized.

Mid-Cap Index Portfolio

U.S. stocks posted small gains in the first half of 2018 as the economy continued to grow, more people found jobs, and corporate earnings improved.

For the six months ended June 30, 2018, the Mid-Cap Index Portfolio returned 2.50%, in line with its benchmark index and more than a percentage point ahead of the average return of its peers.

Please note that the portfolio returns in Vanguard Variable Insurance Fund are different from those in Vanguard Variable Annuity (and other plans that invest in the fund), which take into account insurance-related expenses.

Sector returns varied although most were positive

The Mid-Cap Index Portfolio offers investors broad exposure to the hundreds of mid-capitalization stocks in the U.S. equity market. Stocks of every style and from every industry sector are represented. Over the period, small-cap stocks outpaced mid- and large-caps, and growth stocks outperformed their value counterparts.

Six of the ten sectors in the portfolio posted gains. Technology, telecommunications, and oil and gas posted the strongest results. Returns were more modest but still positive for health care, utilities, and consumer services stocks.

Basic materials, consumer goods, financials, and industrials were in negative territory. Financials were held back by uncertainty relating to U.S.-China trade tensions and reduced market volatility at the end of the period. A flattening yield curve also weighed on returns for financials.

Total Returns

	Six Months Ended June 30, 2018
Mid-Cap Index Portfolio	2.50%
CRSP US Mid Cap Index	2.60
Variable Insurance Mid-Cap Core Funds Average ¹	1.34

Expense Ratios²

Your Portfolio Compared With Its Peer Group

	Portfolio	Variable Insurance Mid-Cap Core Funds Average
Mid-Cap Index Portfolio	0.19%	0.81%

¹ Derived from data provided by Lipper, a Thomson Reuters Company.

² The portfolio expense ratio shown is from the prospectus dated April 26, 2018, and represents estimated costs for the current fiscal year. For the six months ended June 30, 2018, the Mid-Cap Index Portfolio's annualized expense ratio was 0.18%. The peer-group expense ratio is derived from data provided by Lipper, a Thomson Reuters Company, and captures information through year-end 2017.

Portfolio Profile

As of June 30, 2018

Portfolio Characteristics

	Portfolio	Target Index ¹	Broad Index ²
Number of Stocks	361	356	3,779
Median Market Cap	\$15.0B	\$15.0B	\$64.0B
Price/Earnings Ratio	21.3x	21.3x	20.7x
Price/Book Ratio	2.7x	2.7x	3.0x
Yield ³	1.4%	1.5%	1.8%
Return on Equity	12.2%	12.2%	15.0%
Earnings Growth Rate	9.2%	9.2%	8.3%
Foreign Holdings	0.0%	0.0%	0.0%
Turnover Rate ⁴	20%	—	—
Expense Ratio ⁵	0.19%	—	—
Short-Term Reserves	0.0%	—	—

Volatility Measures

	Portfolio Versus Target Index ¹	Portfolio Versus Broad Index ²
R-Squared	1.00	0.93
Beta	1.00	0.98

Sector Diversification (% of equity exposure)

	Portfolio	Target Index ¹	Broad Index ²
Basic Materials	3.9%	3.9%	2.5%
Consumer Goods	10.5	10.5	8.1
Consumer Services	10.0	10.0	13.3
Financials	21.6	21.6	19.9
Health Care	8.6	8.6	12.6
Industrials	17.7	17.7	12.7
Oil & Gas	6.9	6.9	6.1
Technology	15.3	15.3	20.1
Telecommunications	0.6	0.6	1.8
Utilities	4.9	4.9	2.9

Ten Largest Holdings⁶ (% of total net assets)

Edwards Lifesciences Corp.	Medical Supplies	0.7%
ServiceNow Inc.	Computer Services	0.7
Fiserv Inc.	Financial Administration	0.7
Twitter Inc.	Internet	0.7
Autodesk Inc.	Software	0.7
ONEOK Inc.	Pipelines	0.7
Roper Technologies Inc.	Electronic Equipment	0.7
Moody's Corp.	Specialty Finance	0.7
Amphenol Corp.	Electrical Components & Equipment	0.6
Align Technology Inc.	Medical Supplies	0.6
Top Ten		6.8%

Investment Focus

Style		Value	Blend	Growth
Market Cap	Large			
	Medium			
	Small			

30-Day SEC Yield. A portfolio's 30-day SEC yield is derived using a formula specified by the U.S. Securities and Exchange Commission. Under the formula, data related to the portfolio's security holdings in the previous 30 days are used to calculate the portfolio's hypothetical net income for that period, which is then annualized and divided by the portfolio's estimated average net assets over the calculation period. For the purposes of this calculation, a security's income is based on its current market yield to maturity (for bonds), its actual income (for asset-backed securities), or its projected dividend yield (for stocks). Because the SEC yield represents hypothetical annualized income, it will differ—at times significantly—from the portfolio's actual experience. As a result, the portfolio's income distributions may be higher or lower than implied by the SEC yield.

Beta. A measure of the magnitude of a portfolio's past share-price fluctuations in relation to the ups and downs of a given market index. The index is assigned a beta of 1.00. Compared with a given index, a portfolio with a beta of 1.20 typically would have seen its share price rise or fall by 12% when the index rose or fell by 10%. For this report, beta is based on returns over the past 36 months for both the portfolio and the index.

Equity Exposure. A measure that reflects a portfolio's investments in stocks and stock futures. Any holdings in short-term reserves are excluded.

R-Squared. A measure of how much of a portfolio's past returns can be explained by the returns from the market in general, as measured by a given index. If a portfolio's total returns were precisely synchronized with an index's returns, its R-squared would be 1.00. If the portfolio's returns bore no relationship to the index's returns, its R-squared would be 0. For this report, R-squared is based on returns over the past 36 months for both the portfolio and the index.

¹ CRSP US Mid Cap Index.

² Dow Jones U.S. Total Stock Market Float Adjusted Index.

³ 30-day SEC yield for the portfolio; annualized dividend yield for the indexes.

⁴ Annualized.

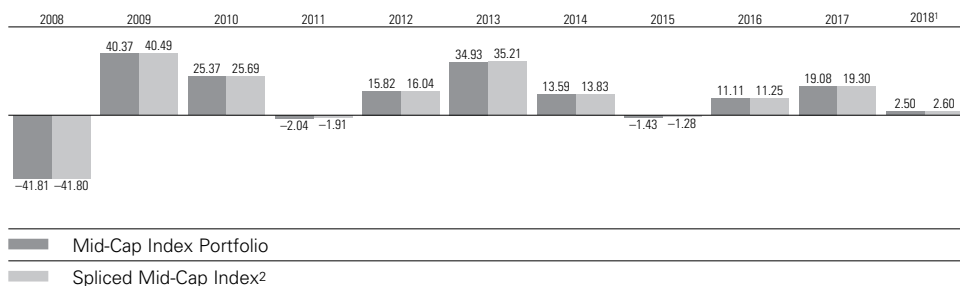
⁵ The expense ratio shown is from the prospectus dated April 26, 2018, and represents estimated costs for the current fiscal year. For the six months ended June 30, 2018, the Mid-Cap Index Portfolio's annualized expense ratio was 0.18%.

⁶ The holdings listed exclude any temporary cash investments and equity index products.

Performance Summary

All of the returns in this report represent past performance, which is not a guarantee of future results that may be achieved by the portfolio. (Current performance may be lower or higher than the performance data cited. For performance data current to the most recent month-end, visit our website at vanguard.com/performance.) Note, too, that both investment returns and principal value can fluctuate widely, so an investor's shares, when sold, could be worth more or less than their original cost. The returns shown do not reflect taxes that a shareholder would pay on portfolio distributions or on the sale of portfolio shares. Nor do the returns reflect fees and expenses associated with the annuity or life insurance program through which a shareholder invests. If these fees and expenses were included, the portfolio's returns would be lower.

Fiscal-Year Total Returns (%): December 31, 2007–June 30, 2018



Average Annual Total Returns: Periods Ended June 30, 2018

	Inception Date	One Year	Five Years	Ten Years
Mid-Cap Index Portfolio	2/9/1999	11.94%	12.16%	9.96%

¹ Six months ended June 30, 2018.

² MSCI US Mid Cap 450 Index through January 30, 2013; CRSP US Mid Cap Index thereafter.

See Financial Highlights for dividend and capital gains information.

Financial Statements (unaudited)

Statement of Net Assets

As of June 30, 2018

The portfolio reports a complete list of its holdings in regulatory filings four times in each fiscal year, at the quarter-ends. For the second and fourth fiscal quarters, the lists appear in the portfolio's semiannual and annual reports to shareholders. For the first and third fiscal quarters, the portfolio files the lists with the Securities and Exchange Commission on Form N-Q. Shareholders can look up the portfolio's Forms N-Q on the SEC's website at sec.gov. Forms N-Q may also be reviewed and copied at the SEC's Public Reference Room (see the back cover of this report for further information).

	Shares	Market Value* (\$000)		Shares	Market Value* (\$000)		Shares	Market Value* (\$000)
Common Stocks (99.4%)¹			Harley-Davidson Inc.	73,083	3,075	Wyndham Hotels & Resorts Inc.	43,859	2,580
Basic Materials (3.8%)			Jefferies Financial Group Inc.	128,660	2,926	* Copart Inc.	43,326	2,451
Freeport-McMoRan Inc.	604,793	10,439	Coty Inc. Class A	197,848	2,790	*^ Discovery Communications Inc. Class A	70,159	1,929
Newmont Mining Corp.	234,476	8,842	* WABCO Holdings Inc.	23,558	2,757	* Liberty Media Corp-Liberty SiriusXM Class A	38,461	1,733
Celanese Corp. Class A	59,698	6,630	*^ Under Armour Inc. Class A	83,592	1,879	* DISH Network Corp. Class A	47,744	1,605
Eastman Chemical Co.	56,462	5,644	Ingredient Inc.	16,010	1,772	Hyatt Hotels Corp. Class A	18,407	1,420
FMC Corp.	59,110	5,273	* Under Armour Inc.	81,632	1,721	* TripAdvisor Inc.	23,424	1,305
Albemarle Corp.	48,669	4,591	Goodyear Tire & Rubber Co.	53,592	1,248	Rollins Inc.	21,567	1,134
CF Industries Holdings Inc.	102,546	4,553	Lennar Corp. Class B	6,899	294	Wyndham Destinations Inc.	22,289	987
International Flavors & Fragrances Inc.	34,685	4,300	* Pilgrim's Pride Corp.	10,963	221	Altice USA Inc. Class A	55,398	945
Mosaic Co.	152,424	4,275	Mattel Inc.	8	—	Viacom Inc. Class A	4,664	165
Avery Dennison Corp.	38,683	3,950				News Corp. Class B	3,475	55
* Axalta Coating Systems Ltd.	96,989	2,940			191,279			182,309
Reliance Steel & Aluminum Co.	30,271	2,650	Consumer Services (10.0%)			Financials (21.5%)		
Steel Dynamics Inc.	49,345	2,267	* Dollar Tree Inc.	104,725	8,902	Moody's Corp.	71,798	12,246
* Alcoa Corp.	41,113	1,927	Best Buy Co. Inc.	105,545	7,872	Digital Realty Trust Inc.	90,660	10,116
Westlake Chemical Corp.	17,155	1,846	Royal Caribbean Cruises Ltd.	74,434	7,711	M&T Bank Corp.	57,551	9,792
		70,127	Wynn Resorts Ltd.	42,939	7,186	KeyCorp	467,641	9,138
Consumer Goods (10.4%)			Ross Stores Inc.	83,521	7,078	Willis Towers Watson plc	58,046	8,800
Dr Pepper Snapple Group Inc.	79,327	9,678	Tiffany & Co.	51,859	6,825	Regions Financial Corp.	494,767	8,797
Clorox Co.	57,031	7,713	Expedia Group Inc.	54,317	6,528	* SBA Communications Corp. Class A	50,608	8,356
Lennar Corp. Class A	126,754	6,655	MGM Resorts International	220,183	6,392	Citizens Financial Group Inc.	212,975	8,285
DR Horton Inc.	157,527	6,459	* Ultra Beauty Inc.	25,256	5,896	* IHS Markit Ltd.	158,515	8,178
McCormick & Co. Inc.	53,292	6,187	Darden Restaurants Inc.	54,399	5,824	Hartford Financial Services Group Inc.	157,718	8,064
Conagra Brands Inc.	172,927	6,179	* CarMax Inc.	78,235	5,701	Huntington Bancshares Inc.	486,062	7,174
* Mohawk Industries Inc.	27,941	5,987	Kohl's Corp.	73,949	5,391	* E*TRADE Financial Corp.	115,986	7,094
* Take-Two Interactive Software Inc.	50,262	5,949	Macy's Inc.	134,642	5,040	Essex Property Trust Inc.	29,098	6,956
Tapestry Inc.	126,457	5,907	Nielsen Holdings plc	156,494	4,840	Host Hotels & Resorts Inc.	326,631	6,882
Church & Dwight Co. Inc.	107,856	5,734	* Chipotle Mexican Grill Inc. Class A	10,991	4,741	First Republic Bank	71,036	6,876
Genuine Parts Co.	61,257	5,623	Viacom Inc. Class B	154,650	4,664	Comerica Inc.	75,558	6,870
Molson Coors Brewing Co. Class B	81,636	5,554	* Norwegian Cruise Line Holdings Ltd.	88,862	4,199	* CBRE Group Inc. Class A	141,804	6,770
* Lululemon Athletica Inc.	44,260	5,526	Advance Auto Parts Inc.	30,901	4,193	Realty Income Corp.	124,981	6,723
Lear Corp.	29,112	5,409	* Qurate Retail Group Inc. QVC Group Class A	193,499	4,106	* SVB Financial Group	23,279	6,722
Aptiv plc	58,128	5,326	Tractor Supply Co.	53,630	4,102	Principal Financial Group Inc.	126,160	6,680
JM Smucker Co.	47,419	5,097	Aramark	108,204	4,014	Equifax Inc.	52,841	6,611
PVH Corp.	33,863	5,070	Interpublic Group of Cos. Inc.	169,345	3,970	MSCI Inc. Class A	39,596	6,550
Newell Brands Inc.	192,031	4,952	* AutoZone Inc.	5,910	3,965	XL Group Ltd.	113,483	6,349
Hasbro Inc.	49,396	4,560	Gap Inc.	119,758	3,879	* Markel Corp.	5,816	6,307
Tyson Foods Inc. Class A	65,386	4,502	L Brands Inc.	104,114	3,840	Lincoln National Corp.	96,096	5,982
* NVR Inc.	1,512	4,491	* Discovery Communications Inc.	148,333	3,783	Loews Corp.	119,265	5,758
Lamb Weston Holdings Inc.	64,265	4,403	* United Continental Holdings Inc.	51,772	3,610	Alexandria Real Estate Equities Inc.	45,340	5,721
Hormel Foods Corp.	116,367	4,330	FactSet Research Systems Inc.	17,079	3,383	Vornado Realty Trust	75,453	5,577
Bunge Ltd.	61,931	4,317	News Corp. Class A	218,101	3,381	HCP Inc.	206,386	5,329
* Michael Kors Holdings Ltd.	63,535	4,231	* Liberty Media Corp-Liberty SiriusXM Class C	73,060	3,314	Annaly Capital Management Inc.	511,030	5,259
Whirlpool Corp.	28,348	4,145	Alaska Air Group Inc.	54,154	3,270	Extra Space Storage Inc.	52,650	5,255
* LKQ Corp.	129,298	4,125	AmerisourceBergen Corp. Class A	36,217	3,088	Arthur J Gallagher & Co.	80,101	5,229
Snap-on Inc.	24,870	3,997	Nordstrom Inc.	51,975	2,691	AvalonBay Communities Inc.	30,365	5,219
BorgWarner Inc.	92,231	3,981	Domino's Pizza Inc.	9,289	2,621	Raymond James Financial Inc.	57,688	5,154
Hanesbrands Inc.	158,337	3,487						
^ Campbell Soup Co.	85,854	3,480						
PulteGroup Inc.	112,904	3,246						
Polaris Industries Inc.	26,358	3,220						
Ralph Lauren Corp. Class A	24,469	3,076						

Mid-Cap Index Portfolio

	Shares	Market Value* (\$000)
* ANSYS Inc.	36,928	6,432
Seagate Technology plc	113,511	6,410
* Splunk Inc.	63,844	6,328
* Advanced Micro Devices Inc.	404,595	6,065
* Citrix Systems Inc.	56,576	5,931
* Arista Networks Inc.	22,881	5,892
Symantec Corp.	273,069	5,639
* Synopsys Inc.	65,363	5,593
* Cadence Design Systems Inc.	123,886	5,365
* IAC/InterActiveCorp	34,229	5,220
* Akamai Technologies Inc.	71,229	5,216
* Gartner Inc.	38,085	5,061
CA Inc.	137,294	4,895
* F5 Networks Inc.	26,855	4,631
* Qorvo Inc.	55,575	4,455
Juniper Networks Inc.	153,396	4,206
Marvell Technology Group Ltd.	186,661	4,002
CDK Global Inc.	57,816	3,761
Garmin Ltd.	49,693	3,031
CDW Corp.	33,341	2,694
LogMeIn Inc.	22,942	2,369
SS&C Technologies Holdings Inc.	44,468	2,308
* GoDaddy Inc. Class A	31,063	2,193
* Snap Inc.	114,140	1,494
* Dropbox Inc. Class A	24,333	789
* Match Group Inc.	11,055	428
Lam Research Corp.	4	1
		279,009
Telecommunications (0.6%)		
CenturyLink Inc.	426,575	7,951
* Zayo Group Holdings Inc.	92,816	3,386
		11,337
Utilities (4.8%)		
WEC Energy Group Inc.	138,900	8,980
DTE Energy Co.	79,719	8,261
Eversource Energy	139,254	8,162
FirstEnergy Corp.	210,105	7,545
American Water Works Co. Inc.	78,468	6,700
Ameren Corp.	106,605	6,487
Entergy Corp.	79,470	6,420
CMS Energy Corp.	124,125	5,869
CenterPoint Energy Inc.	190,243	5,272
Alliant Energy Corp.	101,780	4,307
NiSource Inc.	159,395	4,189
Pinnacle West Capital Corp.	49,208	3,964
AES Corp.	290,572	3,896
* Evergy Inc.	59,622	3,348
* Vistra Energy Corp.	91,925	2,175

	Shares	Market Value* (\$000)
Avangrid Inc.	27,100	1,434
SCANA Corp.	29,771	1,147
		88,156
Total Common Stocks (Cost \$1,405,643)		1,820,536
Temporary Cash Investments (0.6%)¹		
Money Market Fund (0.5%)		
^{2,3} Vanguard Market Liquidity Fund, 2.122%	94,021	9,403
	Face Amount (\$000)	
U.S. Government and Agency Obligations (0.1%)		
⁴ United States Treasury Bill, 1.849%, 8/16/18	600	599
⁴ United States Treasury Bill, 1.928%, 10/4/18	500	497
		1,096
Total Temporary Cash Investments (Cost \$10,499)		10,499
Total Investments (100.0%) (Cost \$1,416,142)		1,831,035
		Amount (\$000)
Other Assets and Liabilities (0.0%)		
Other Assets		
Investment in Vanguard		96
Receivables for Accrued Income		1,775
Receivables for Capital Shares Issued		1,019
Variation Margin Receivable—Futures Contracts		8
Total Other Assets		2,898
Liabilities		
Payables for Investment Securities Purchased		(11)
Collateral for Securities on Loan		(2,119)
Payables for Capital Shares Redeemed		(640)
Payables to Vanguard		(972)
Total Liabilities		(3,742)
Net Assets (100%)		
Applicable to 80,021,836 outstanding \$0.01 par value shares of beneficial interest (unlimited authorization)		1,830,191
Net Asset Value Per Share		\$22.87

At June 30, 2018, net assets consisted of:

	Amount (\$000)
Paid-in Capital	1,327,086
Undistributed Net Investment Income	10,073
Accumulated Net Realized Gains	78,349
Unrealized Appreciation (Depreciation)	
Investment Securities	414,893
Futures Contracts	(210)
Net Assets	1,830,191

• See Note A in Notes to Financial Statements.

* Non-income-producing security.

^A Includes partial security positions on loan to broker-dealers. The total value of securities on loan is \$2,018,000.

¹ The portfolio invests a portion of its cash reserves in equity markets through the use of index futures contracts. After giving effect to futures investments, the portfolio's effective common stock and temporary cash investment positions represent 99.9% and 0.1%, respectively, of net assets.

² Affiliated money market fund available only to Vanguard funds and certain trusts and accounts managed by Vanguard. Rate shown is the 7-day yield.

³ Includes \$2,119,000 of collateral received for securities on loan.

⁴ Securities with a value of \$548,000 have been segregated as initial margin for open futures contracts.

Derivative Financial Instruments Outstanding as of Period End

Futures Contracts

				(\$000)
	Expiration	Number of Long (Short) Contracts	Notional Amount	Value and Unrealized Appreciation (Depreciation)
<hr/> Long Futures Contracts <hr/>				
E-mini S&P Mid-Cap 400 Index	September 2018	30	5,868	(152)
E-mini S&P 500 Index	September 2018	17	2,313	(58)
				<hr/> (210) <hr/>

Unrealized appreciation (depreciation) on open futures contracts is required to be treated as realized gain (loss) for tax purposes.

Statement of Operations

	Six Months Ended June 30, 2018
	(\$000)
Investment Income	
Income	
Dividends	13,036
Interest ¹	44
Securities Lending—Net	28
Total Income	13,108
Expenses	
The Vanguard Group—Note B	
Investment Advisory Services	222
Management and Administrative	1,242
Marketing and Distribution	142
Custodian Fees	29
Shareholders' Reports	9
Trustees' Fees and Expenses	1
Total Expenses	1,645
Net Investment Income	11,463
Realized Net Gain (Loss)	
Investment Securities Sold ¹	78,415
Futures Contracts	38
Realized Net Gain (Loss)	78,453
Change in Unrealized Appreciation (Depreciation)	
Investment Securities ¹	(45,393)
Futures Contracts	(217)
Change in Unrealized Appreciation (Depreciation)	(45,610)
Net Increase (Decrease) in Net Assets Resulting from Operations	44,306

¹ Interest income, realized net gain (loss), and change in unrealized appreciation (depreciation) from an affiliated company of the portfolio were \$37,000, \$2,000, and less than \$1,000, respectively. Purchases and sales are for temporary cash investment purposes.

Statement of Changes in Net Assets

	Six Months Ended June 30, 2018	Year Ended December 31, 2017
	(\$000)	(\$000)
Increase (Decrease) in Net Assets		
Operations		
Net Investment Income	11,463	21,647
Realized Net Gain (Loss)	78,453	88,310
Change in Unrealized Appreciation (Depreciation)	(45,610)	175,708
Net Increase (Decrease) in Net Assets Resulting from Operations	44,306	285,665
Distributions		
Net Investment Income	(21,762)	(19,300)
Realized Capital Gain ¹	(88,481)	(70,544)
Total Distributions	(110,243)	(89,844)
Capital Share Transactions		
Issued	130,687	246,883
Issued in Lieu of Cash Distributions	110,243	89,844
Redeemed	(149,048)	(223,550)
Net Increase (Decrease) from Capital Share Transactions	91,882	113,177
Total Increase (Decrease)	25,945	308,998
Net Assets		
Beginning of Period	1,804,246	1,495,248
End of Period²	1,830,191	1,804,246

¹ Includes fiscal 2018 and 2017 short-term gain distributions totaling \$3,072,000 and \$1,194,000, respectively. Short-term gain distributions are treated as ordinary income for tax purposes.

² Net Assets—End of Period includes undistributed (overdistributed) net investment income of \$10,073,000 and \$20,372,000.

Financial Highlights

For a Share Outstanding Throughout Each Period	Six Months Ended June 30, 2018	Year Ended December 31,				
		2017	2016	2015	2014	2013
Net Asset Value, Beginning of Period	\$23.72	\$21.11	\$20.76	\$22.49	\$20.77	\$16.13
Investment Operations						
Net Investment Income	.146 ¹	.292 ¹	.280	.291	.266	.203
Net Realized and Unrealized Gain (Loss) on Investments	.451	3.575	1.814	(.552)	2.446	5.262
Total from Investment Operations	.597	3.867	2.094	(.261)	2.712	5.465
Distributions						
Dividends from Net Investment Income	(.286)	(.270)	(.292)	(.268)	(.200)	(.200)
Distributions from Realized Capital Gains	(1.161)	(.987)	(1.452)	(1.201)	(.792)	(.625)
Total Distributions	(1.447)	(1.257)	(1.744)	(1.469)	(.992)	(.825)
Net Asset Value, End of Period	\$22.87	\$23.72	\$21.11	\$20.76	\$22.49	\$20.77
Total Return	2.50%	19.08%	11.11%	-1.43%	13.59%	34.93%
Ratios/Supplemental Data						
Net Assets, End of Period (Millions)	\$1,830	\$1,804	\$1,495	\$1,363	\$1,364	\$1,172
Ratio of Total Expenses to Average Net Assets	0.18%	0.19%	0.19%	0.19%	0.24%	0.25%
Ratio of Net Investment Income to Average Net Assets	1.32%	1.32%	1.40%	1.35%	1.29%	1.15%
Portfolio Turnover Rate	20%	18%	21%	23%	16%	35%

The expense ratio, net investment income ratio, and turnover rate for the current period have been annualized.

¹ Calculated based on average shares outstanding.

Notes to Financial Statements

Mid-Cap Index Portfolio, a portfolio of Vanguard Variable Insurance Funds, is registered under the Investment Company Act of 1940 as an open-end investment company. The portfolio's shares are only available for purchase by separate accounts of insurance companies as investments for variable annuity plans, variable life insurance contracts, or other variable benefit insurance contracts.

A. The following significant accounting policies conform to generally accepted accounting principles for U.S. investment companies. The portfolio consistently follows such policies in preparing its financial statements.

1. **Security Valuation:** Securities are valued as of the close of trading on the New York Stock Exchange (generally 4 p.m., Eastern time) on the valuation date. Equity securities are valued at the latest quoted sales prices or official closing prices taken from the primary market in which each security trades; such securities not traded on the valuation date are valued at the mean of the latest quoted bid and asked prices. Securities for which market quotations are not readily available, or whose values have been materially affected by events occurring before the portfolio's pricing time but after the close of the securities' primary markets, are valued by methods deemed by the board of trustees to represent fair value. Investments in Vanguard Market Liquidity Fund are valued at that fund's net asset value. Temporary cash investments are valued using the latest bid prices or using valuations based on a matrix system (which considers such factors as security prices, yields, maturities, and ratings), both as furnished by independent pricing services.

2. **Futures Contracts:** The portfolio uses index futures contracts to a limited extent, with the objectives of maintaining full exposure to the stock market, maintaining liquidity, and minimizing transaction costs. The portfolio may purchase futures contracts to immediately invest incoming cash in the market, or sell futures in response to cash outflows, thereby simulating a fully invested position in the underlying index while maintaining a cash balance for liquidity. The primary risks associated with the use of futures contracts are imperfect correlation between changes in market values of stocks held by the portfolio and the prices of futures contracts, and the possibility of an illiquid market. Counterparty risk involving futures is mitigated because a regulated clearinghouse is the counterparty instead of the clearing broker. To further mitigate counterparty risk, the portfolio trades futures contracts on an exchange, monitors the financial strength of its clearing brokers and clearinghouse, and has entered into clearing agreements with its clearing brokers. The clearinghouse imposes initial margin requirements to secure the portfolio's performance and requires daily settlement of variation margin representing changes in the market value of each contract.

Futures contracts are valued at their quoted daily settlement prices. The notional amounts of the contracts are not recorded in the Statement of Net Assets. Fluctuations in the value of the contracts are recorded in the Statement of Net Assets as an asset (liability) and in the Statement of Operations as unrealized appreciation (depreciation) until the contracts are closed, when they are recorded as realized futures gains (losses).

During the six months ended June 30, 2018, the portfolio's average investments in long and short futures contracts represented less than 1% and 0% of net assets, respectively, based on the average of the notional amounts at each quarter-end during the period.

3. **Federal Income Taxes:** The portfolio intends to continue to qualify as a regulated investment company and distribute all of its taxable income. Management has analyzed the portfolio's tax positions taken for all open federal income tax years (December 31, 2014–2017), and for the period ended June 30, 2018, and has concluded that no provision for federal income tax is required in the portfolio's financial statements.

4. **Distributions:** Distributions to shareholders are recorded on the ex-dividend date.

5. **Securities Lending:** To earn additional income, the portfolio lends its securities to qualified institutional borrowers. Security loans are subject to termination by the portfolio at any time, and are required to be secured at all times by collateral in an amount at least equal to the market value of securities loaned. Daily market fluctuations could cause the value of loaned securities to be more or less than the value of the collateral received. When this occurs, the collateral is adjusted and settled before the opening of the market on the next business day. The portfolio further mitigates its counterparty risk by entering into securities lending transactions only with a diverse group of prequalified counterparties, monitoring their financial strength, and entering into master securities lending agreements with its counterparties. The master securities lending agreements provide that, in the event of a counterparty's default (including bankruptcy), the portfolio may terminate any loans with that borrower, determine the net amount owed, and sell or retain the collateral up to the net amount owed to the portfolio; however, such actions may be subject to legal proceedings. While collateral mitigates counterparty risk, in the event of a default, the portfolio may experience delays

and costs in recovering the securities loaned. The portfolio invests cash collateral received in Vanguard Market Liquidity Fund, and records a liability in the Statement of Net Assets for the return of the collateral, during the period the securities are on loan. Securities lending income represents fees charged to borrowers plus income earned on invested cash collateral, less expenses associated with the loan. During the term of the loan, the portfolio is entitled to all distributions made on or in respect of the loaned securities.

6. Credit Facility: The portfolio and certain other funds managed by The Vanguard Group (“Vanguard”) participate in a \$3.1 billion committed credit facility provided by a syndicate of lenders pursuant to a credit agreement that may be renewed annually; each fund is individually liable for its borrowings, if any, under the credit facility. Borrowings may be utilized for temporary and emergency purposes, and are subject to the portfolio’s regulatory and contractual borrowing restrictions. The participating funds are charged administrative fees and an annual commitment fee of 0.10% of the undrawn amount of the facility; these fees are allocated to the funds based on a method approved by the portfolio’s board of trustees and included in Management and Administrative expenses on the portfolio’s Statement of Operations. Any borrowings under this facility bear interest at a rate based upon the higher of the one-month London Interbank Offered Rate, federal funds effective rate, or overnight bank funding rate plus an agreed-upon spread.

The portfolio had no borrowings outstanding at June 30, 2018, or at any time during the period then ended.

7. Other: Dividend income is recorded on the ex-dividend date. Interest income includes income distributions received from Vanguard Market Liquidity Fund and is accrued daily. Premiums and discounts on debt securities purchased are amortized and accreted, respectively, to interest income over the lives of the respective securities. Security transactions are accounted for on the date securities are bought or sold. Costs used to determine realized gains (losses) on the sale of investment securities are those of the specific securities sold.

B. In accordance with the terms of a Funds’ Service Agreement (the “FSA”) between Vanguard and the portfolio, Vanguard furnishes to the portfolio investment advisory, corporate management, administrative, marketing, and distribution services at Vanguard’s cost of operations (as defined by the FSA). These costs of operations are allocated to the portfolio based on methods and guidelines approved by the board of trustees. Vanguard does not require reimbursement in the current period for certain costs of operations (such as deferred compensation/benefits and risk/insurance costs); the portfolio’s liability for these costs of operations is included in Payables to Vanguard on the Statement of Net Assets. All other costs of operations payable to Vanguard are generally settled twice a month.

Upon the request of Vanguard, the portfolio may invest up to 0.40% of its net assets as capital in Vanguard. At June 30, 2018, the portfolio had contributed to Vanguard capital in the amount of \$96,000, representing 0.01% of the portfolio’s net assets and 0.04% of Vanguard’s capitalization. The portfolio’s trustees and officers are also directors and employees, respectively, of Vanguard.

C. Various inputs may be used to determine the value of the portfolio’s investments. These inputs are summarized in three broad levels for financial statement purposes. The inputs or methodologies used to value securities are not necessarily an indication of the risk associated with investing in those securities.

Level 1—Quoted prices in active markets for identical securities.

Level 2—Other significant observable inputs (including quoted prices for similar securities, interest rates, prepayment speeds, credit risk, etc.).

Level 3—Significant unobservable inputs (including the portfolio’s own assumptions used to determine the fair value of investments). Any investments valued with significant unobservable inputs are noted on the Statement of Net Assets.

The following table summarizes the market value of the portfolio’s investments as of June 30, 2018, based on the inputs used to value them:

Investments	Level 1 (\$000)	Level 2 (\$000)	Level 3 (\$000)
Common Stocks	1,820,536	—	—
Temporary Cash Investments	9,403	1,096	—
Futures Contracts—Assets ¹	8	—	—
Total	1,829,947	1,096	—

¹ Represents variation margin on the last day of the reporting period.

D. Distributions are determined on a tax basis and may differ from net investment income and realized capital gains for financial reporting purposes. Differences may be permanent or temporary. Permanent differences are reclassified among capital accounts in the financial statements to reflect their tax character. Temporary differences arise when certain items of income, expense, gain, or loss are recognized in different periods for financial statement and tax purposes. These differences will reverse at some time in the future. Differences in classification may also result from the treatment of short-term gains as ordinary income for tax purposes. The portfolio's tax-basis capital gains and losses are determined only at the end of each fiscal year.

At June 30, 2018, the cost of investment securities for tax purposes was \$1,416,142,000. Net unrealized appreciation of investment securities for tax purposes was \$414,893,000, consisting of unrealized gains of \$471,829,000 on securities that had risen in value since their purchase and \$56,936,000 in unrealized losses on securities that had fallen in value since their purchase.

E. During the six months ended June 30, 2018, the portfolio purchased \$183,394,000 of investment securities and sold \$198,955,000 of investment securities, other than temporary cash investments.

The portfolio purchased securities from and sold securities to other Vanguard funds or accounts managed by Vanguard or its affiliates, in accordance with procedures adopted by the board of trustees in compliance with Rule 17a-7 of the Investment Company Act of 1940. For the six months ended June 30, 2018, such purchases and sales were \$20,649,000 and \$39,918,000, respectively; these amounts are included in the purchases and sales of investment securities noted above.

F. Capital shares issued and redeemed were:

	Six Months Ended June 30, 2018	Year Ended December 31, 2017
	Shares (000)	Shares (000)
Issued	5,575	11,082
Issued in Lieu of Cash Distributions	4,812	4,272
Redeemed	(6,432)	(10,126)
Net Increase (Decrease) in Shares Outstanding	3,955	5,228

At June 30, 2018, one shareholder, an insurance company separate account whose holdings in the portfolio represent the indirect investment of Vanguard Variable Annuity contract holders, was the record or beneficial owner of 44% of the portfolio's net assets. If the shareholder were to redeem its investment in the portfolio, the redemption might result in an increase in the portfolio's expense ratio or cause the portfolio to incur higher transaction costs.

G. Management has determined that no events or transactions occurred subsequent to June 30, 2018, that would require recognition or disclosure in these financial statements.

About Your Portfolio's Expenses

As a shareholder of the portfolio, you incur ongoing costs, which include costs for portfolio management, administrative services, and shareholder reports (like this one), among others. Operating expenses, which are deducted from a portfolio's gross income, directly reduce the investment return of the portfolio.

A portfolio's expenses are expressed as a percentage of its average net assets. This figure is known as the expense ratio. The following examples are intended to help you understand the ongoing costs (in dollars) of investing in your portfolio and to compare these costs with those of other mutual funds. The examples are based on an investment of \$1,000 made at the beginning of the period shown and held for the entire period.

The accompanying table illustrates your portfolio's costs in two ways:

- Based on actual portfolio return.** This section helps you to estimate the actual expenses that you paid over the period. The "Ending Account Value" shown is derived from the portfolio's actual return, and the third column shows the dollar amount that would have been paid by an investor who started with \$1,000 in the portfolio. You may use the information here, together with the amount you invested, to estimate the expenses that you paid over the period.

To do so, simply divide your account value by \$1,000 (for example, an \$8,600 account value divided by \$1,000 = 8.6), then multiply the result by the number given for your portfolio under the heading "Expenses Paid During Period."

- Based on hypothetical 5% yearly return.** This section is intended to help you compare your portfolio's costs with those of other mutual funds. It assumes that the portfolio had a yearly return of 5% before expenses, but that the expense ratio is unchanged. In this case—because the return used is not the portfolio's actual return—the results do not apply to your investment. The example is useful in making comparisons because the Securities and Exchange Commission requires all mutual funds to calculate expenses based on a 5% return. You can assess your portfolio's costs by comparing this hypothetical example with the hypothetical examples that appear in shareholder reports of other funds.

Note that the expenses shown in the table are meant to highlight and help you compare *ongoing* costs only and do not reflect transaction costs incurred by the portfolio for buying and selling securities. The portfolio's expense ratio does not reflect additional fees and expenses associated with the annuity or life insurance program through which you invest.

The calculations assume no shares were bought or sold during the period. Your actual costs may have been higher or lower, depending on the amount of your investment and the timing of any purchases or redemptions.

You can find more information about the portfolio's expenses in the Financial Statements section. For additional information on operating expenses and other shareholder costs, please refer to the prospectus.

Six Months Ended June 30, 2018

	Beginning Account Value 12/31/2017	Ending Account Value 6/30/2018	Expenses Paid During Period ¹
Mid-Cap Index Portfolio			
Based on Actual Portfolio Return	\$1,000.00	\$1,025.03	\$0.90
Based on Hypothetical 5% Yearly Return	1,000.00	1,023.90	0.90

¹ The calculations are based on expenses incurred in the most recent six-month period. The portfolio's annualized six-month expense ratio for that period is 0.18%. The dollar amounts shown as "Expenses Paid" are equal to the annualized expense ratio multiplied by the average account value over the period, multiplied by the number of days in the most recent six-month period, then divided by the number of days in the most recent 12-month period (181/365).

Trustees Approve Advisory Arrangement

The board of trustees of Vanguard Variable Insurance Fund Mid-Cap Index Portfolio has renewed the portfolio's investment advisory arrangement with The Vanguard Group, Inc. (Vanguard), through its Equity Index Group. The board determined that continuing the portfolio's internalized management structure was in the best interests of the portfolio and its shareholders.

The board based its decision upon an evaluation of the advisor's investment staff, portfolio management process, and performance. This evaluation included information provided to the board by Vanguard's Portfolio Review Department, which is responsible for fund and advisor oversight and product management. The Portfolio Review Department met regularly with the advisor and made monthly presentations to the board during the fiscal year that directed the board's focus to relevant information and topics.

The board, or an investment committee made up of board members, also received information throughout the year during advisor presentations. For each advisor presentation, the board was provided with letters and reports that included information about, among other things, the advisory firm and the advisor's assessment of the investment environment, portfolio performance, and portfolio characteristics.

In addition, the board received monthly reports, which included a Market and Economic Report, a Fund Dashboard Monthly Summary, and a Fund Performance Report.

Prior to their meeting, the trustees were provided with a memo and materials that summarized the information they received over the course of the year. They also considered the factors discussed below, among others. However, no single factor determined whether the board approved the arrangement. Rather, it was the totality of the circumstances that drove the board's decision.

Nature, extent, and quality of services

The board reviewed the quality of the portfolio's investment management services over both the short and long term and took into account the organizational depth and stability of the advisor. The board considered that Vanguard has been managing investments for more than four decades. The Equity Index Group adheres to a sound, disciplined investment management process; the team has considerable experience, stability, and depth.

The board concluded that Vanguard's experience, stability, depth, and performance, among other factors, warranted continuation of the advisory arrangement.

Investment performance

The board considered the short- and long-term performance of the portfolio, including any periods of outperformance or underperformance compared with its target index and peer group. The board concluded that the performance was such that the advisory arrangement should continue. Information about the portfolio's most recent performance can be found in the Performance Summary section of this report.

Cost

The board concluded that the portfolio's expense ratio was well below the average expense ratio charged by funds in its peer group and that the portfolio's advisory expenses were also well below the peer-group average. Information about the portfolio's expenses appears in the About Your Portfolio's Expenses section as well as in the Financial Statements section.

The board does not conduct a profitability analysis of Vanguard because of Vanguard's unique "at-cost" structure. Unlike most other mutual fund management companies, Vanguard is owned by the funds it oversees and produces "profits" only in the form of reduced expenses for fund shareholders.

The benefit of economies of scale

The board concluded that the portfolio's at-cost arrangement with Vanguard ensures that the portfolio will realize economies of scale as it grows, with the cost to shareholders declining as portfolio assets increase.

The board will consider whether to renew the advisory arrangement again after a one-year period.

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The People Who Govern Your Fund

The trustees of your mutual fund are there to see that the fund is operated and managed in your best interests since, as a shareholder, you are a part owner of the fund. Your fund's trustees also serve on the board of directors of The Vanguard Group, Inc., which is owned by the Vanguard funds and provides services to them on an at-cost basis.

A majority of Vanguard's board members are independent, meaning that they have no affiliation with Vanguard or the funds they oversee, apart from the sizable personal investments they have made as private individuals. The independent board members have distinguished backgrounds in business, academia, and public service. Each of the trustees and executive officers oversees 208 Vanguard funds.

Information for each trustee and executive officer of the fund appears below. The mailing address of the trustees and officers is P.O. Box 876, Valley Forge, PA 19482. More information about the trustees is in the *Statement of Additional Information*, which can be obtained, without charge, by contacting Vanguard at 800-662-7447, or online at vanguard.com.

Interested Trustees¹

F. William McNabb III

Born in 1957. Trustee since July 2009. Principal occupation(s) during the past five years and other experience: chairman of the board (January 2010–present) of Vanguard and of each of the investment companies served by Vanguard, trustee (2009–present) of each of the investment companies served by Vanguard, and director (2008–present) of Vanguard. Chief executive officer and president (2008–2017) of Vanguard and each of the investment companies served by Vanguard, managing director (1995–2008) of Vanguard, and director (1997–2018) of Vanguard Marketing Corporation. Director (2018–present) of UnitedHealth Group.

Mortimer J. Buckley

Born in 1969. Trustee since January 2018. Principal occupation(s) during the past five years and other experience: chief executive officer (January 2018–present) of Vanguard; chief executive officer, president, and trustee (January 2018–present) of each of the investment companies served by Vanguard; president and director (2017–present) of Vanguard; and president (February 2018–present) of Vanguard Marketing Corporation. Chief investment officer (2013–2017), managing director (2002–2017), head of the Retail Investor Group (2006–2012), and chief information officer (2001–2006) of Vanguard. Chairman of the board (2011–2017) of the Children's Hospital of Philadelphia.

Independent Trustees

Emerson U. Fullwood

Born in 1948. Trustee since January 2008. Principal occupation(s) during the past five years and other experience: executive chief staff and marketing officer for North America and corporate vice president (retired 2008) of Xerox Corporation (document management products and services). Former president of the Worldwide Channels Group, Latin America, and Worldwide Customer Service and executive chief staff officer of Developing Markets of Xerox. Executive in residence and 2009–2010 Distinguished Minett Professor at the Rochester Institute of Technology. Lead director of SPX FLOW, Inc. (multi-industry manufacturing). Director of the University of Rochester Medical Center, the Monroe Community College Foundation, the United Way of Rochester, North Carolina A&T University, and Roberts Wesleyan College. Trustee of the University of Rochester.

Amy Gutmann

Born in 1949. Trustee since June 2006. Principal occupation(s) during the past five years and other experience: president (2004–present) of the University of Pennsylvania. Christopher H. Browne Distinguished Professor of Political Science, School of Arts and Sciences, and professor of communication, Annenberg School for Communication, with secondary faculty appointments in the Department of Philosophy, School of Arts and Sciences, and at the Graduate School of Education, University of Pennsylvania. Trustee of the National Constitution Center.

JoAnn Heffernan Heisen

Born in 1950. Trustee since July 1998. Principal occupation(s) during the past five years and other experience: corporate vice president of Johnson & Johnson (pharmaceuticals/medical devices/consumer products) and member of its executive committee (1997–2008). Chief global diversity officer (retired 2008), vice president and chief information officer (1997–2006), controller (1995–1997), treasurer (1991–1995), and assistant treasurer (1989–1991) of Johnson & Johnson. Director of Skytop Lodge Corporation (hotels) and the Robert Wood Johnson Foundation. Member of the advisory board of the Institute for Women's Leadership at Rutgers University.

F. Joseph Loughrey

Born in 1949. Trustee since October 2009. Principal occupation(s) during the past five years and other experience: president and chief operating officer (retired 2009) and vice chairman of the board (2008–2009) of Cummins Inc. (industrial machinery). Chairman of the board of Hillenbrand, Inc. (specialized consumer services), Oxfam America, and the Lumina Foundation for Education. Director of the V Foundation for Cancer Research. Member of the advisory council for the College of Arts and Letters and chair of the advisory board to the Kellogg Institute for International Studies, both at the University of Notre Dame.

Mark Loughridge

Born in 1953. Trustee since March 2012. Principal occupation(s) during the past five years and other experience: senior vice president and chief financial officer (retired 2013) of IBM (information technology services). Fiduciary member of IBM's Retirement Plan Committee (2004–2013), senior vice president and general manager (2002–2004) of IBM Global Financing, vice president and controller (1998–2002) of IBM, and a variety of other prior management roles at IBM. Member of the Council on Chicago Booth.

Scott C. Malpass

Born in 1962. Trustee since March 2012. Principal occupation(s) during the past five years and other experience: chief investment officer (1989–present) and vice president (1996–present) of the University of Notre Dame. Assistant professor of finance at the Mendoza College of Business, University of Notre Dame, and member of the Notre Dame 403(b) Investment Committee. Chairman of the board of TIFF Advisory Services, Inc. Member of the board of Catholic Investment Services, Inc. (investment advisors), the board of advisors for Spruceview Capital Partners, and the board of superintendence of the Institute for the Works of Religion.

Deanna Mulligan

Born in 1963. Trustee since January 2018. Principal occupation(s) during the past five years and other experience: president (2010–present) and chief executive officer (2011–present) of The Guardian Life Insurance Company of America. Chief operating officer (2010–2011) and executive vice president (2008–2010) of Individual Life and Disability of The Guardian Life Insurance Company of America. Member of the board of The Guardian Life Insurance Company of America, the American Council of Life Insurers, the Partnership for New York City (business leadership), and the Committee Encouraging Corporate Philanthropy. Trustee of the Economic Club of New York and the Bruce Museum (arts and science). Member of the Advisory Council for the Stanford Graduate School of Business.

André F. Perold

Born in 1952. Trustee since December 2004. Principal occupation(s) during the past five years and other experience: George Gund Professor of Finance and Banking, Emeritus at the Harvard Business School (retired 2011). Chief investment officer and co-managing partner of HighVista Strategies LLC (private investment firm). Overseer of the Museum of Fine Arts Boston.

Sarah Bloom Raskin

Born in 1961. Trustee since January 2018. Principal occupation(s) during the past five years and other experience: deputy secretary (2014–2017) of the United States Department of the Treasury. Governor (2010–2014) of the Federal Reserve Board. Commissioner (2007–2010) of financial regulation for the State of Maryland. Member of the board of directors (2012–2014) of Neighborhood Reinvestment Corporation. Director of i(x) Investments, LLC.

¹ Mr. McNabb and Mr. Buckley are considered "interested persons," as defined in the Investment Company Act of 1940, because they are officers of the Vanguard funds.

Peter F. Volanakis

Born in 1955. Trustee since July 2009. Principal occupation(s) during the past five years and other experience: president and chief operating officer (retired 2010) of Corning Incorporated (communications equipment) and director of Corning Incorporated (2000–2010) and Dow Corning (2001–2010). Director (2012) of SPX Corporation (multi-industry manufacturing). Overseer of the Amos Tuck School of Business Administration, Dartmouth College (2001–2013). Chairman of the board of trustees of Colby-Sawyer College. Member of the Board of Hypertherm Inc. (industrial cutting systems, software, and consumables).

Executive Officers**Glenn Booraem**

Born in 1967. Principal occupation(s) during the past five years and other experience: principal of Vanguard. Investment stewardship officer (2017–present), treasurer (2015–2017), controller (2010–2015), and assistant controller (2001–2010) of each of the investment companies served by Vanguard.

Christine M. Buchanan

Born in 1970. Principal occupation(s) during the past five years and other experience: principal of Vanguard and global head of Fund Administration at Vanguard. Treasurer (2017–present) of each of the investment companies served by Vanguard. Partner (2005–2017) at KPMG LLP (audit, tax, and advisory services).

Brian Dvorak

Born in 1973. Principal occupation(s) during the past five years and other experience: principal of Vanguard. Chief compliance officer (2017–present) of Vanguard and each of the investment companies served by Vanguard. Assistant vice president (2017–present) of Vanguard Marketing Corporation. Vice president and director of Enterprise Risk Management (2011–2013) at Oppenheimer Funds, Inc.

Thomas J. Higgins

Born in 1957. Principal occupation(s) during the past five years and other experience: principal of Vanguard. Chief financial officer (2008–present) and treasurer (1998–2008) of each of the investment companies served by Vanguard.

Peter Mahoney

Born in 1974. Principal occupation(s) during the past five years and other experience: principal of Vanguard. Controller (2015–present) of each of the investment companies served by Vanguard. Head of International Fund Services (2008–2014) at Vanguard.

Anne E. Robinson

Born in 1970. Principal occupation(s) during the past five years and other experience: general counsel (2016–present) of Vanguard. Secretary (2016–present) of Vanguard and of each of the investment companies served by Vanguard. Managing director (2016–present) of Vanguard. Director and senior vice president (2016–2018) of Vanguard Marketing Corporation. Managing director and general counsel of Global Cards and Consumer Services (2014–2016) at Citigroup. Counsel (2003–2014) at American Express.

Michael Rollings

Born in 1963. Principal occupation(s) during the past five years and other experience: finance director (2017–present) and treasurer (2017) of each of the investment companies served by Vanguard. Managing director (2016–present) of Vanguard. Chief financial officer (2016–present) of Vanguard. Director (2016–present) of Vanguard Marketing Corporation. Executive vice president and chief financial officer (2006–2016) of MassMutual Financial Group.

Vanguard Senior Management Team

Mortimer J. Buckley	James M. Norris
Gregory Davis	Thomas M. Rampulla
John James	Karin A. Risi
Martha G. King	Anne E. Robinson
John T. Marcante	Michael Rollings
Chris D. McIsaac	

Chairman Emeritus and Senior Advisor**John J. Brennan**

Chairman, 1996–2009
Chief Executive Officer and President, 1996–2008

Founder**John C. Bogle**

Chairman and Chief Executive Officer, 1974–1996



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Q692MC 082018