

**Annual Report** | December 31, 2023

# Vanguard Variable Insurance Funds

Mid-Cap Index Portfolio

See the inside front cover for important information about your fund's annual and semiannual shareholder reports.

Important information about shareholder reports

Beginning in July 2024, amendments adopted by the Securities and Exchange Commission will substantially impact the design, content, and transmission of shareholder reports. Shareholder reports will provide key fund information in a clear and concise format and must be mailed to each shareholder that has not elected to receive the reports electronically. Financial statements will no longer be included in the shareholder report but will be available at [vanguard.com](http://vanguard.com), can be mailed upon request, or can be accessed on the SEC’s website at [www.sec.gov](http://www.sec.gov).

You may elect to receive shareholder reports and other communications from the fund electronically by contacting your financial intermediary (such as a broker-dealer or bank) or, if you invest directly with the fund, by calling Vanguard at one of the phone numbers on the back cover of this report or by logging on to [vanguard.com](http://vanguard.com).

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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 portfolio are spelled out in the prospectus.

## Your Portfolio's Performance at a Glance

- The financial markets delivered robust returns for the 12 months ended December 31, 2023. The Mid-Cap Index Portfolio returned 15.83%, in line with the 15.98% return of its benchmark, the CRSP US Mid Cap Index.
- With inflation continuing to ease, a number of major central banks slowed and eventually stopped hiking interest rates. Global growth, employment, and consumer spending showed resilience, but the prospect of rates remaining high for an extended period spurred volatility at times. Toward year-end, however, stocks and bonds rallied worldwide as falling inflation and softening economic growth raised market expectations for rate cuts in 2024.
- The U.S. stock market's advance was broad-based: Eight of the 11 industry sectors in the portfolio's target index recorded gains, six by double digits. Technology, industrial, and consumer discretionary stocks accounted for four-fifths of the index's return. Consumer staples, energy, and utilities recorded slight losses.
- For the 10 years ended December 31, 2023, the portfolio returned 9.27%, annualized—on par with the 9.44% return of the index, which incurs no investment or other operational expenses.
- Please note the portfolio's returns may be different from those in variable annuity products that invest in the portfolio, which take insurance-related expenses into account.

### Market Barometer

	Average Annual Total Returns Periods Ended December 31, 2023		
	One Year	Three Years	Five Years
<b>Stocks</b>			
Russell 1000 Index (Large-caps)	26.53%	8.97%	15.52%
Russell 2000 Index (Small-caps)	16.93	2.22	9.97
Russell 3000 Index (Broad U.S. market)	25.96	8.54	15.16
FTSE All-World ex US Index (International)	15.82	1.98	7.52
<b>Bonds</b>			
Bloomberg U.S. Aggregate Float Adjusted Index (Broad taxable market)	5.60%	-3.33%	1.17%
Bloomberg Municipal Bond Index (Broad tax-exempt market)	6.40	-0.40	2.25
FTSE Three-Month U.S. Treasury Bill Index	5.26	2.24	1.91
<b>CPI</b>			
Consumer Price Index	3.35%	5.60%	4.07%

## 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, including annual expense ratios, in the Financial Statements section of this report. For additional information on operating expenses and other shareholder costs, please refer to your portfolio's current prospectus.

### Six Months Ended December 31, 2023

	Beginning Account Value 6/30/2023	Ending Account Value 12/31/2023	Expenses Paid During Period
Mid-Cap Index Portfolio			
Based on Actual Portfolio Return	\$1,000.00	\$1,065.00	\$0.88
Based on Hypothetical 5% Yearly Return	1,000.00	1,024.35	0.87

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 0.17%. 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 (184/365).

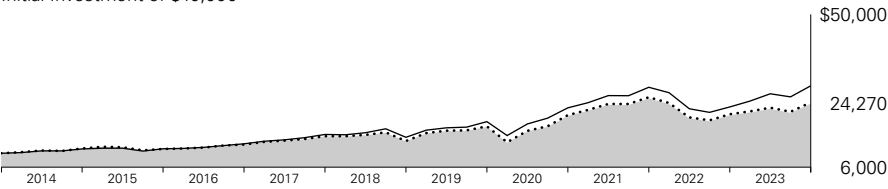
# Mid-Cap Index Portfolio

## 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](http://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.

### Cumulative Performance: December 31, 2013, Through December 31, 2023

Initial Investment of \$10,000



	Average Annual Total Returns			Final Value of a \$10,000 Investment
	One Year	Five Years	Ten Years	
Mid-Cap Index Portfolio	15.83%	12.56%	9.27%	\$24,270
CRSP US Mid Cap Index	15.98	12.73	9.44	24,643
Dow Jones U.S. Total Stock Market Float Adjusted Index	26.06	15.05	11.40	29,422

## Portfolio Allocation

As of December 31, 2023

Basic Materials	3.7%
Consumer Discretionary	13.1
Consumer Staples	4.5
Energy	4.9
Financials	12.5
Health Care	9.5
Industrials	19.8
Real Estate	8.3
Technology	14.5
Telecommunications	1.8
Utilities	7.4

The table reflects the portfolio's investments, except for short-term investments and derivatives. Sector categories are based on the Industry Classification Benchmark ("ICB"), except for the "Other" category (if applicable), which includes securities that have not been provided an ICB classification as of the effective reporting period.

The portfolio may invest in derivatives (such as futures and swap contracts) for various reasons, including, but not limited to, attempting to remain fully invested and tracking its target index as closely as possible.



Mid-Cap Index Portfolio

	Shares	Market Value* (\$000)		Shares	Market Value* (\$000)
* Coinbase Global Inc. Class A	56,532	9,832	* Henry Schein Inc.	23,981	1,816
* Arch Capital Group Ltd.	130,440	9,688	* Bio-Rad Laboratories Inc. Class A	3,769	1,217
Willis Towers Watson plc	37,995	9,164			<b>241,609</b>
Broadridge Financial Solutions Inc.	43,290	8,907	<b>Industrials (19.7%)</b>		
Hartford Financial Services Group Inc.	110,665	8,895	TransDigm Group Inc.	19,335	19,559
T. Rowe Price Group Inc.	82,223	8,855	Cintas Corp.	31,856	19,198
American International Group Inc.	129,151	8,750	PACCAR Inc.	192,467	18,794
Fifth Third Bancorp	250,577	8,642	Carrier Global Corp.	308,717	17,736
Nasdaq Inc.	148,608	8,640	Old Dominion Freight Line Inc.	36,135	14,647
M&T Bank Corp.	61,064	8,371	Ferguson plc	74,903	14,462
State Street Corp.	107,862	8,355	United Rentals Inc.	24,940	14,301
Raymond James Financial Inc.	69,080	7,702	AMETEK Inc.	84,923	14,003
Ares Management Corp. Class A	61,457	7,309	WW Grainger Inc.	16,437	13,621
Cboe Global Markets Inc.	38,842	6,936	Otis Worldwide Corp.	150,594	13,474
Principal Financial Group Inc.	87,717	6,901	Rockwell Automation Inc.	42,193	13,100
Huntington Bancshares Inc.	532,802	6,777	Fidelity National Information Services Inc.	217,989	13,095
FactSet Research Systems Inc.	13,979	6,669	Verisk Analytics Inc. Class A	53,350	12,743
Regions Financial Corp.	342,207	6,632	Cummins Inc.	52,155	12,495
* Market Group Inc.	4,620	6,560	Global Payments Inc.	95,799	12,166
LPL Financial Holdings Inc.	27,825	6,334	Quanta Services Inc.	53,458	11,536
Northern Trust Corp.	72,367	6,106	Ingersoll Rand Inc.	148,947	11,520
Cincinnati Financial Corp.	57,727	5,972	Martin Marietta Materials Inc.	22,741	11,346
Everest Group Ltd.	15,965	5,645	Equifax Inc.	45,338	11,212
Citizens Financial Group Inc.	162,952	5,400	Vulcan Materials Co.	48,890	11,098
W R Berkley Corp.	71,160	5,032	DuPont de Nemours Inc.	142,409	10,956
KeyCorp	344,476	4,960	* Keysight Technologies Inc.	64,244	10,221
Fidelity National Financial Inc.	95,129	4,854	Xylem Inc.	88,706	10,144
Loews Corp.	65,699	4,572	* Fair Isaac Corp.	8,639	10,056
Tradeweb Markets Inc. Class A	42,214	3,836	* Mettler-Toledo International Inc.	7,978	9,677
Interactive Brokers Group Inc. Class A	37,411	3,101	Fortive Corp.	129,313	9,521
Franklin Resources Inc.	100,068	2,981	Westinghouse Air Brake Technologies Corp.	65,922	8,365
Brown & Brown Inc.	41,908	2,980	Dover Corp.	51,474	7,917
Globe Life Inc.	16,485	2,007	* Teledyne Technologies Inc.	17,361	7,748
Corebridge Financial Inc.	81,627	1,768	L3Harris Technologies Inc.	34,870	7,344
* Rocket Cos. Inc. Class A	47,326	685	Johnson Controls International plc	125,155	7,214
		<b>318,682</b>	* Waters Corp.	21,754	7,162
<b>Health Care (9.5%)</b>			* FleetCor Technologies Inc.	25,235	7,132
* Dexcom Inc.	142,166	17,641	Veralto Corp.	86,099	7,082
* IQVIA Holdings Inc.	67,150	15,537	Expeditors International of Washington Inc.	53,504	6,806
* Centene Corp.	196,561	14,587	Ball Corp.	116,015	6,673
GE HealthCare Technologies Inc.	142,379	11,009	PPG Industries Inc.	43,380	6,487
West Pharmaceutical Services Inc.	27,224	9,586	JB Hunt Transport Services Inc.	30,364	6,065
Zimmer Biomet Holdings Inc.	76,891	9,358	Jacobs Solutions Inc.	46,372	6,019
* Veeva Systems Inc. Class A	48,400	9,318	Synchrony Financial	152,232	5,814
ResMed Inc.	54,121	9,310	Textron Inc.	72,115	5,799
Cardinal Health Inc.	90,693	9,142	Snap-on Inc.	19,420	5,609
* Alnylam Pharmaceuticals Inc.	46,175	8,838	Stanley Black & Decker Inc.	56,409	5,534
* IDEXX Laboratories Inc.	15,279	8,481	Masco Corp.	82,589	5,532
* Illumina Inc.	58,430	8,136	Packaging Corp. of America	32,980	5,373
STERIS plc	36,352	7,992	* Zebra Technologies Corp. Class A	18,897	5,165
* Molina Healthcare Inc.	21,452	7,751	TransUnion	71,271	4,897
* Align Technology Inc.	26,771	7,335	* Trimble Inc.	91,528	4,869
Baxter International Inc.	186,663	7,216	Howmet Aerospace Inc.	75,748	4,099
Laboratory Corp. of America Holdings	31,241	7,101	HEICO Corp. Class A	27,834	3,965
* Biogen Inc.	26,658	6,898	Hubbell Inc. Class B	9,865	3,245
Cooper Cos. Inc.	18,221	6,896	HEICO Corp.	14,944	2,673
* BioMarin Pharmaceutical Inc.	69,312	6,683	Jack Henry & Associates Inc.	13,413	2,192
* Hologic Inc.	88,304	6,309	Crown Holdings Inc.	22,196	2,044
* Moderna Inc.	63,132	6,278	CH Robinson Worldwide Inc.	20,356	1,759
Quest Diagnostics Inc.	41,372	5,704	* BILL Holdings Inc.	18,663	1,523
* Avantar Inc.	248,867	5,682	*.1 Symbotec Inc. Class A	8,981	461
* Insulet Corp.	25,692	5,575			<b>503,248</b>
Revvity Inc.	45,402	4,963	<b>Real Estate (8.3%)</b>		
Viatis Inc.	441,360	4,780	Welltower Inc.	204,620	18,451
* Incyte Corp.	70,093	4,401	Realty Income Corp.	266,380	15,295
Royalty Pharma plc Class A	139,138	3,908	Digital Realty Trust Inc.	111,434	14,997
Teleflex Inc.	8,669	2,161	* CoStar Group Inc.	150,263	13,131
			Extra Space Storage Inc.	77,741	12,464



Mid-Cap Index Portfolio

	Shares	Market Value* (\$000)		Shares	Market Value* (\$000)
VICI Properties Inc. Class A	380,667	12,136	Gen Digital Inc.	200,383	4,573
SBA Communications Corp. Class A	39,698	10,071	Bentley Systems Inc. Class B	83,698	4,367
* CBRE Group Inc. Class A	106,548	9,918	* Unity Software Inc.	97,877	4,002
AvalonBay Communities Inc.	52,257	9,784	Paycom Software Inc.	18,837	3,894
Weyerhaeuser Co.	268,614	9,340	Leidos Holdings Inc.	25,314	2,740
Simon Property Group Inc.	57,021	8,133	* DocuSign Inc. Class A	37,477	2,228
Equity Residential	132,740	8,118	* Qorvo Inc.	17,869	2,012
Alexandria Real Estate Equities Inc.	63,940	8,106	* Match Group Inc.	49,930	1,822
Invitation Homes Inc.	225,177	7,681			<b>368,433</b>
Iron Mountain Inc.	107,440	7,519			
Ventas Inc.	148,055	7,379	<b>Telecommunications (1.8%)</b>		
Sun Communities Inc.	45,790	6,120	* Arista Networks Inc.	91,577	21,567
Essex Property Trust Inc.	23,617	5,856	Motorola Solutions Inc.	61,070	19,120
Mid-America Apartment Communities Inc.	42,937	5,773	* Liberty Broadband Corp. Class C	44,174	3,560
WP Carey Inc.	80,461	5,215	* Roku Inc. Class A	22,982	2,107
UDR Inc.	121,032	4,634	* Liberty Broadband Corp. Class A	5,841	471
Host Hotels & Resorts Inc.	129,908	2,529			<b>46,825</b>
Regency Centers Corp.	34,001	2,278			
Healthpeak Properties Inc.	100,356	1,987	<b>Utilities (7.4%)</b>		
Camden Property Trust	19,596	1,946	PG&E Corp.	936,416	16,884
* Zillow Group Inc. Class C	28,520	1,650	Waste Connections Inc.	94,801	14,151
* Zillow Group Inc. Class A	7,002	397	Constellation Energy Corp.	117,517	13,737
		<b>210,908</b>	Xcel Energy Inc.	203,024	12,569
<b>Technology (14.5%)</b>			Consolidated Edison Inc.	126,912	11,545
Amphenol Corp. Class A	220,154	21,824	Public Service Enterprise Group Inc.	183,644	11,230
Microchip Technology Inc.	199,087	17,954	Edison International	141,118	10,089
* Atlassian Corp. Class A	57,037	13,567	WEC Energy Group Inc.	116,061	9,769
* ON Semiconductor Corp.	158,480	13,238	American Water Works Co. Inc.	71,637	9,455
* Palantir Technologies Inc. Class A	723,385	12,421	Eversource Energy	128,431	7,927
* Gartner Inc.	27,248	12,292	Entergy Corp.	77,797	7,872
* Datadog Inc. Class A	100,064	12,146	FirstEnergy Corp.	200,550	7,352
* ANSYS Inc.	31,965	11,599	PPL Corp.	271,172	7,349
* DoorDash Inc. Class A	115,954	11,467	DTE Energy Co.	64,460	7,107
CDW Corp.	49,291	11,205	Ameren Corp.	96,575	6,986
Monolithic Power Systems Inc.	16,748	10,564	CenterPoint Energy Inc.	231,594	6,617
* HubSpot Inc.	17,593	10,213	CMS Energy Corp.	107,351	6,234
* MongoDB Inc. Class A	24,939	10,196	Alliant Energy Corp.	92,960	4,769
HP Inc.	327,280	9,848	AES Corp.	246,301	4,741
Marvell Technology Inc.	158,740	9,574	Evergy Inc.	84,453	4,408
* Splunk Inc.	62,015	9,448	NiSource Inc.	164,582	4,370
* Cloudflare Inc. Class A	103,432	8,612	Vistra Corp.	65,863	2,537
Corning Inc.	282,529	8,603	Avangrid Inc.	28,858	935
Hewlett Packard Enterprise Co.	472,024	8,015			<b>188,633</b>
* Pinterest Inc. Class A	215,748	7,991	<b>Total Common Stocks</b>		
* Zscaler Inc.	32,491	7,199	<b>(Cost \$1,966,799)</b>		<b>2,546,475</b>
* Fortinet Inc.	120,086	7,029	<b>Temporary Cash Investments (0.2%)</b>		
Cognizant Technology Solutions Corp. Class A	92,250	6,968			
NetApp Inc.	76,828	6,773	<b>Money Market Fund (0.2%)</b>		
Skyworks Solutions Inc.	58,862	6,617	<sup>2,3</sup> Vanguard Market Liquidity Fund, 5.435% <b>(Cost \$6,078)</b>	60,792	<b>6,077</b>
* VeriSign Inc.	31,933	6,577			
* Akamai Technologies Inc.	55,502	6,569	<b>Total Investments (100.1%)</b>		
* Snap Inc. Class A	384,204	6,505	<b>(Cost \$1,972,877)</b>		<b>2,552,552</b>
* Tyler Technologies Inc.	15,500	6,481	<b>Other Assets and Liabilities—Net (-0.1%)</b>		<b>(2,031)</b>
* EPAM Systems Inc.	21,231	6,313	<b>Net Assets (100%)</b>		<b>2,550,521</b>
* Western Digital Corp.	119,306	6,248			
Seagate Technology Holdings plc	73,122	6,242			
* Zoom Video Communications Inc. Class A	85,367	6,139			
Teradyne Inc.	56,259	6,105			
* GoDaddy Inc. Class A	51,818	5,501			
* Okta Inc. Class A	57,677	5,221			
* Twilio Inc. Class A	63,283	4,801			
SS&C Technologies Holdings Inc.	77,405	4,730			

Cost is in \$000.

\* See Note A in Notes to Financial Statements.

\* Non-income-producing security.

1 Includes partial security positions on loan to broker-dealers. The total value of securities on loan is \$1,255,000.

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 Collateral of \$1,377,000 was received for securities on loan.

## Derivative Financial Instruments Outstanding as of Period End

## Futures Contracts

				(\$000)
	Expiration	Number of Long (Short) Contracts	Notional Amount	Value and Unrealized Appreciation (Depreciation)
Long Futures Contracts				
E-mini Russell 2000 Index	March 2024	3	307	(5)
E-mini S&P 500 Index	March 2024	8	1,928	(5)
E-mini S&P Mid-Cap 400 Index	March 2024	7	1,967	(19)
				(29)

# Statement of Assets and Liabilities

As of December 31, 2023

(\$000s, except shares, footnotes, and per-share amounts)	Amount
<b>Assets</b>	
Investments in Securities, at Value <sup>1</sup>	
Unaffiliated Issuers (Cost \$1,966,799)	2,546,475
Affiliated Issuers (Cost \$6,078)	6,077
Total Investments in Securities	2,552,552
Investment in Vanguard	79
Cash	144
Cash Collateral Pledged—Futures Contracts	470
Receivables for Accrued Income	3,946
Receivables for Capital Shares Issued	749
<b>Total Assets</b>	<b>2,557,940</b>
<b>Liabilities</b>	
Payables for Investment Securities Purchased	173
Collateral for Securities on Loan	1,377
Payables for Capital Shares Redeemed	5,611
Payables to Vanguard	189
Variation Margin Payable—Futures Contracts	69
<b>Total Liabilities</b>	<b>7,419</b>
<b>Net Assets</b>	<b>2,550,521</b>

<sup>1</sup> Includes \$1,255,000 of securities on loan.

At December 31, 2023, net assets consisted of:

Paid-in Capital	1,906,425
Total Distributable Earnings (Loss)	644,096
<b>Net Assets</b>	<b>2,550,521</b>
<b>Net Assets</b>	
Applicable to 106,575,701 outstanding \$.001 par value shares of beneficial interest (unlimited authorization)	2,550,521
<b>Net Asset Value Per Share</b>	<b>\$23.93</b>

# Statement of Operations

	Year Ended December 31, 2023
	(\$000)
<b>Investment Income</b>	
<b>Income</b>	
Dividends <sup>1</sup>	38,774
Interest <sup>2</sup>	200
Securities Lending—Net	363
Total Income	39,337
<b>Expenses</b>	
The Vanguard Group—Note B	
Investment Advisory Services	47
Management and Administrative	3,596
Marketing and Distribution	130
Custodian Fees	54
Auditing Fees	31
Shareholders' Reports	72
Trustees' Fees and Expenses	1
Other Expenses	9
Total Expenses	3,940
<b>Net Investment Income</b>	<b>35,397</b>
<b>Realized Net Gain (Loss)</b>	
Investment Securities Sold <sup>2</sup>	30,014
Futures Contracts	1,081
<b>Realized Net Gain (Loss)</b>	<b>31,095</b>
<b>Change in Unrealized Appreciation (Depreciation)</b>	
Investment Securities <sup>2</sup>	284,865
Futures Contracts	89
<b>Change in Unrealized Appreciation (Depreciation)</b>	<b>284,954</b>
<b>Net Increase (Decrease) in Net Assets Resulting from Operations</b>	<b>351,446</b>

<sup>1</sup> Dividends are net of foreign withholding taxes of \$15,000.

<sup>2</sup> Interest income, realized net gain (loss), capital gain distributions received, and change in unrealized appreciation (depreciation) from an affiliated company of the portfolio were \$185,000, (\$2,000), less than \$1,000, and (\$1,000), respectively. Purchases and sales are for temporary cash investment purposes.

## Statement of Changes in Net Assets

	Year Ended December 31,	
	2023 (\$000)	2022 (\$000)
<b>Increase (Decrease) in Net Assets</b>		
<b>Operations</b>		
Net Investment Income	35,397	32,440
Realized Net Gain (Loss)	31,095	41,605
Change in Unrealized Appreciation (Depreciation)	284,954	(592,924)
Net Increase (Decrease) in Net Assets Resulting from Operations	351,446	(518,879)
<b>Distributions</b>		
Total Distributions	(73,871)	(277,011)
<b>Capital Share Transactions</b>		
Issued	312,862	270,019
Issued in Lieu of Cash Distributions	73,871	277,011
Redeemed	(345,053)	(300,821)
Net Increase (Decrease) from Capital Share Transactions	41,680	246,209
Total Increase (Decrease)	319,255	(549,681)
<b>Net Assets</b>		
Beginning of Period	2,231,266	2,780,947
End of Period	2,550,521	2,231,266

See accompanying Notes, which are an integral part of the Financial Statements.

## Financial Highlights

For a Share Outstanding Throughout Each Period	Year Ended December 31,				
	2023	2022	2021	2020	2019
<b>Net Asset Value, Beginning of Period</b>	<b>\$21.38</b>	<b>\$29.48</b>	<b>\$25.77</b>	<b>\$24.03</b>	<b>\$20.23</b>
<b>Investment Operations</b>					
Net Investment Income <sup>1</sup>	.336	.319	.284	.325 <sup>2</sup>	.334
Net Realized and Unrealized Gain (Loss) on Investments	2.934	(5.464)	5.642	3.047	5.621
Total from Investment Operations	3.270	(5.145)	5.926	3.372	5.955
<b>Distributions</b>					
Dividends from Net Investment Income	(.319)	(.282)	(.318)	(.344)	(.350)
Distributions from Realized Capital Gains	(.401)	(2.673)	(1.898)	(1.288)	(1.805)
Total Distributions	(.720)	(2.955)	(2.216)	(1.632)	(2.155)
<b>Net Asset Value, End of Period</b>	<b>\$23.93</b>	<b>\$21.38</b>	<b>\$29.48</b>	<b>\$25.77</b>	<b>\$24.03</b>
<b>Total Return</b>	<b>15.83%</b>	<b>-18.82%</b>	<b>24.36%</b>	<b>18.07%</b>	<b>30.87%</b>
<b>Ratios/Supplemental Data</b>					
Net Assets, End of Period (Millions)	\$2,551	\$2,231	\$2,781	\$2,241	\$2,155
Ratio of Total Expenses to Average Net Assets	0.17%	0.17% <sup>3</sup>	0.17%	0.17%	0.17%
Ratio of Net Investment Income to Average Net Assets	1.53%	1.39%	1.03%	1.50% <sup>2</sup>	1.49%
Portfolio Turnover Rate	16%	16%	20%	28%	21%

1 Calculated based on average shares outstanding.

2 Net investment income per share and the ratio of net investment income to average net assets include \$0.036 and 0.17%, respectively, resulting from a special dividend from NortonLifeLock Inc. in February 2020.

3 The ratio of expenses to average net assets for the period net of reduction from custody fee offset arrangements was 0.17%.

## Notes to Financial Statements

The 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 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 valuation designee to represent fair value and subject to oversight by the board of trustees. Investments in Vanguard Market Liquidity Fund are valued at that fund's net asset value.

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. Any securities pledged as initial margin for open contracts are noted in the Schedule of Investments.

Futures contracts are valued at their quoted daily settlement prices. The notional amounts of the contracts are not recorded in the Statement of Assets and Liabilities. Fluctuations in the value of the contracts are recorded in the Statement of Assets and Liabilities 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 gains (losses) on futures contracts.

During the year ended December 31, 2023, 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 virtually all of its taxable income. The portfolio's tax returns are open to examination by the relevant tax authorities until expiration of the applicable statute of limitations, which is generally three years after the filing of the tax return. Management has analyzed the portfolio's tax positions taken for all open federal and state income tax years, and has concluded that no provision for income tax is required in the portfolio's financial statements.

4. **Distributions:** Distributions to shareholders are recorded on the ex-dividend date. Distributions are determined on a tax basis at the fiscal year-end and may differ from net investment income and realized capital gains for financial reporting purposes.

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 Assets and Liabilities for the return of the collateral, during the period the securities are on loan. Collateral investments in Vanguard Market Liquidity Fund are subject to market appreciation or depreciation. 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 Facilities and Interfund Lending Program:** The portfolio and certain other funds managed by The Vanguard Group ("Vanguard") participate in a \$4.3 billion committed credit facility provided by a syndicate of lenders pursuant to a credit agreement and an uncommitted credit facility provided by Vanguard. Both facilities may be renewed annually. Each fund is individually liable for its borrowings, if any, under the credit facilities. Borrowings may be utilized for temporary or emergency purposes and are subject to the portfolio's regulatory and contractual borrowing restrictions. With respect to the committed credit facility, the participating funds are charged administrative fees and an annual commitment fee of 0.10% of the undrawn committed amount of the facility, which 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 either facility bear interest at an agreed-upon spread plus the higher of the federal funds effective rate, the overnight bank funding rate, or the Daily Simple Secured Overnight Financing Rate inclusive of an additional agreed-upon spread. However, borrowings under the uncommitted credit facility may bear interest based upon an alternate rate agreed to by the portfolio and Vanguard.

In accordance with an exemptive order (the "Order") from the SEC, the portfolio may participate in a joint lending and borrowing program that allows registered open-end Vanguard funds to borrow money from and lend money to each other for temporary or emergency purposes (the "Interfund Lending Program"), subject to compliance with the terms and conditions of the Order, and to the extent permitted by the portfolio's investment objective and investment policies. Interfund loans and borrowings normally extend overnight but can have a maximum duration of seven days. Loans may be called on one business day's notice. The interest rate to be charged is governed by the conditions of the Order and internal procedures adopted by the board of trustees. The board of trustees is responsible for overseeing the Interfund Lending Program.

For the year ended December 31, 2023, the portfolio did not utilize the credit facilities or the Interfund Lending Program.

**7. Other:** Dividend income is recorded on the ex-dividend date. Non-cash dividends included in income, if any, are recorded at the fair value of the securities received. Interest income includes income distributions received from Vanguard Market Liquidity Fund and is accrued daily. 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 and 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 December 31, 2023, the portfolio had contributed to Vanguard capital in the amount of \$79,000, representing less than 0.01% of the portfolio's net assets and 0.03% of Vanguard's capital received pursuant to the FSA. 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 and derivatives. 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 and derivatives valued with significant unobservable inputs are noted on the Schedule of Investments.

At December 31, 2023, 100% of the market value of the portfolio's investments and derivatives was determined based on Level 1 inputs.

D. Permanent differences between book-basis and tax-basis components of net assets are reclassified among capital accounts in the financial statements to reflect their tax character. These reclassifications have no effect on net assets or net asset value per share. As of period end, permanent differences primarily attributable to the accounting for applicable passive foreign investment companies were reclassified between the individual components of total distributable earnings (loss).

Temporary differences between book-basis and tax-basis components of total distributable earnings (loss) arise when certain items of income, gain, or loss are recognized in different periods for financial statement and tax purposes; these differences will reverse at some time in the future. The differences are primarily related to the deferral of losses from wash sales; the recognition of unrealized gains or losses from certain derivative contracts; and the recognition of unrealized gains from passive foreign investment companies. As of period end, the tax-basis components of total distributable earnings (loss) are detailed in the table as follows:

	Amount (\$000)
Undistributed Ordinary Income	36,876
Undistributed Long-Term Gains	27,964
Net Unrealized Gains (Losses)	579,256
Capital Loss Carryforwards	—
Qualified Late-Year Losses	—
Other Temporary Differences	—
Total	644,096

The tax character of distributions paid was as follows:

	Year Ended December 31,	
	2023 Amount (\$000)	2022 Amount (\$000)
Ordinary Income*	32,760	55,522
Long-Term Capital Gains	41,111	221,489
Total	73,871	277,011

\* Includes short-term capital gains, if any.

As of December 31, 2023, gross unrealized appreciation and depreciation for investments and derivatives based on cost for U.S. federal income tax purposes were as follows:

	Amount (\$000)
Tax Cost	1,973,296
Gross Unrealized Appreciation	717,728
Gross Unrealized Depreciation	(138,472)
Net Unrealized Appreciation (Depreciation)	579,256

E. During the year ended December 31, 2023, the portfolio purchased \$386,157,000 of investment securities and sold \$370,562,000 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 year ended December 31, 2023, such purchases were \$23,944,000 and sales were \$144,634,000, resulting in net realized loss of \$45,685,000; these amounts, other than temporary cash investments, are included in the purchases and sales of investment securities noted above.

**F. Capital shares issued and redeemed were:**

	Year Ended December 31,	
	2023 Shares (000)	2022 Shares (000)
Issued	14,297	11,614
Issued in Lieu of Cash Distributions	3,576	11,188
Redeemed	(15,649)	(12,791)
Net Increase (Decrease) in Shares Outstanding	2,224	10,011

**G.** Significant market disruptions, such as those caused by pandemics (e.g., COVID-19 pandemic), natural or environmental disasters, war (e.g., Russia's invasion of Ukraine), acts of terrorism, or other events, can adversely affect local and global markets and normal market operations. Any such disruptions could have an adverse impact on the value of the portfolio's investments and portfolio performance.

To the extent the portfolio's investment portfolio reflects concentration in a particular market, industry, sector, country or asset class, the portfolio may be adversely affected by the performance of these concentrations and may be subject to increased price volatility and other risks.

The use of derivatives may expose the portfolio to various risks. Derivatives can be highly volatile, and any initial investment is generally small relative to the notional amount so that transactions may be leveraged in terms of market exposure. A relatively small market movement may have a potentially larger impact on derivatives than on standard securities. Leveraged derivatives positions can, therefore, increase volatility. Additional information regarding the portfolio's use of derivative(s) and the specific risks associated is described under significant accounting policies.

At December 31, 2023, 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 32% of the portfolio's net assets. If this shareholder were to redeem its investment in the portfolio, the redemption might result in an increase in the portfolio's expense ratio, cause the portfolio to incur higher transaction costs, or lead to the realization of taxable capital gains.

**H.** Management has determined that no events or transactions occurred subsequent to December 31, 2023, that would require recognition or disclosure in these financial statements.

# Report of Independent Registered Public Accounting Firm

To the Board of Trustees of Vanguard Variable Insurance Funds and Shareholders of Mid-Cap Index Portfolio

## ***Opinion on the Financial Statements***

We have audited the accompanying statement of assets and liabilities, including the schedule of investments, of Mid-Cap Index Portfolio (one of the portfolios constituting Vanguard Variable Insurance Funds, referred to hereafter as the "Portfolio") as of December 31, 2023, the related statement of operations for the year ended December 31, 2023, the statement of changes in net assets for each of the two years in the period ended December 31, 2023, including the related notes, and the financial highlights for each of the five years in the period ended December 31, 2023 (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Portfolio as of December 31, 2023, the results of its operations for the year then ended, the changes in its net assets for each of the two years in the period ended December 31, 2023 and the financial highlights for each of the five years in the period ended December 31, 2023 in conformity with accounting principles generally accepted in the United States of America.

## ***Basis for Opinion***

These financial statements are the responsibility of the Portfolio's management. Our responsibility is to express an opinion on the Portfolio'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 Portfolio 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 of these financial statements in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. Our procedures included confirmation of securities owned as of December 31, 2023 by correspondence with the custodian, transfer agent and brokers; when replies were not received from brokers, we performed other auditing procedures. We believe that our audits provide a reasonable basis for our opinion.

/s/PricewaterhouseCoopers LLP  
Philadelphia, Pennsylvania  
February 15, 2024

We have served as the auditor of one or more investment companies in The Vanguard Group of Funds since 1975.

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**Tax information (unaudited)**

For corporate shareholders, 80.2%, or if subsequently determined to be different, the maximum percentage allowable by law, of ordinary income (dividend income plus short-term gains, if any) for the fiscal year qualified for the dividends-received deduction.

The portfolio hereby designates \$68,000, or if subsequently determined to be different, the maximum amount allowable by law, of interest earned from obligations of the U.S. government which is generally exempt from state income tax.

The portfolio distributed \$41,111,000 as capital gain dividends (20% rate gain distributions) to shareholders during the fiscal year.

The CRSP US Mid Cap Index (the “Index”) is a product of the Center for Research in Security Prices, LLC (“CRSP”), an affiliate of the University of Chicago (“University”), and has been licensed for use by Vanguard. CRSP® is a trademark of CRSP; and has been licensed by CRSP for use for certain purposes by Vanguard. The Vanguard Mid-Cap Index Portfolio is not sponsored, endorsed, sold or promoted by CRSP or University. Neither CRSP nor University makes any representation or warranty, express or implied, to the owners of the Vanguard Mid-Cap Index Portfolio or any member of the public regarding the advisability of investing in securities generally or in Vanguard Mid-Cap Index Portfolio particularly or the ability of the Index to track general market performance. The Index is determined, composed and calculated without regard to Vanguard or the Vanguard Mid-Cap Index Portfolio. Neither CRSP nor the University has any obligation to take the needs of Vanguard or the owners of Vanguard Mid-Cap Index Portfolio into consideration in determining, composing or calculating the Index. Neither CRSP nor the University is responsible for and has not participated in the determination of the prices and amount of Vanguard Mid-Cap Index Portfolio or the timing of the issuance or sale of Vanguard Mid-Cap Index Portfolio or in the determination or calculation of the equation by which Vanguard Mid-Cap Index Portfolio is to be converted into cash, surrendered or redeemed, as the case may be. Neither CRSP nor the University has any obligation or liability in connection with the administration, marketing or trading of Vanguard Mid-Cap Index Portfolio. There is no assurance that investment products based on the Index will accurately track index performance or provide positive investment returns. Neither CRSP nor the University is an investment advisor. Inclusion of a security within an index is not a recommendation by CRSP or the University to buy, sell, or hold such security, nor is it considered to be investment advice.

NEITHER CRSP NOR THE UNIVERSITY GUARANTEE THE ADEQUACY, ACCURACY, TIMELINESS AND/OR THE COMPLETENESS OF THE INDEX OR ANY DATA RELATED THERETO OR ANY COMMUNICATION, INCLUDING BUT NOT LIMITED TO, ORAL OR WRITTEN COMMUNICATION (INCLUDING ELECTRONIC COMMUNICATIONS) WITH RESPECT THERETO. NEITHER CRSP NOR THE UNIVERSITY SHALL BE SUBJECT TO ANY DAMAGES OR LIABILITY FOR ANY ERRORS, OMISSIONS, OR DELAYS THEREIN. NEITHER CRSP NOR THE UNIVERSITY MAKES ANY EXPRESS OR IMPLIED WARRANTIES, AND CRSP AND THE UNIVERSITY EXPRESSLY DISCLAIM ALL WARRANTIES, OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE OR AS TO RESULTS TO BE OBTAINED BY VANGUARD, OWNERS OF THE VANGUARD MID-CAP INDEX PORTFOLIO, OR ANY OTHER PERSON OR ENTITY FROM THE USE OF THE INDEX OR WITH RESPECT TO ANY DATA RELATED THERETO. WITHOUT LIMITING ANY OF THE FOREGOING, IN NO EVENT WHATSOEVER SHALL CRSP OR THE UNIVERSITY BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES INCLUDING BUT NOT LIMITED TO, LOSS OF PROFITS, TRADING LOSSES, LOST TIME OR GOODWILL, EVEN IF IT HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, WHETHER IN CONTRACT, TORT, STRICT LIABILITY, OR OTHERWISE. THERE ARE NO THIRD-PARTY BENEFICIARIES OF ANY AGREEMENTS OR ARRANGEMENTS BETWEEN CRSP AND VANGUARD, OTHER THAN THE LICENSORS, IF ANY, OF CRSP.

# 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.

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. That information, as well as the Vanguard fund count, is as of the date on the cover of this fund report. 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](http://vanguard.com).

## Interested Trustee<sup>1</sup>

### Mortimer J. Buckley

Born in 1969. Trustee since January 2018. Principal occupation(s) during the past five years and other experience: chairman of the board (2019–present) of Vanguard and of each of the investment companies served by Vanguard; chief executive officer (2018–present) of Vanguard; chief executive officer, president, and trustee (2018–present) of each of the investment companies served by Vanguard; president and director (2017–present) of Vanguard; and president (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. Member of the board of governors of the Investment Company Institute and the board of governors of FINRA.

## Independent Trustees

### Tara Bunch

Born in 1962. Trustee since November 2021. Principal occupation(s) during the past five years and other experience: head of global operations at Airbnb (2020–present). Vice president of AppleCare (2012–2020). Member of the board of directors of Out & Equal, the advisory board of the University of California, Berkeley School of Engineering, and the advisory board of Santa Clara University's Leavey School of Business.

### 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 from 2009–2010 Distinguished Minett Professor at the Rochester Institute of Technology. Member of the board of directors of the University of Rochester Medical Center, the Monroe Community College Foundation, the United Way of Rochester, North Carolina A&T University, Roberts Wesleyan College, and the Rochester Philharmonic Orchestra. Trustee of the University of Rochester.

### 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). Director of the V Foundation. Member of the advisory council for the College of Arts and Letters at the University of Notre Dame. Chairman of the board of Saint Anselm College.

### 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: co-founder and managing partner (2022–present) of Grafton Street Partners (investment advisory firm). Chief investment officer (retired 2020) and vice president (retired 2020) of the University of Notre Dame. Chair of the board of Catholic Investment Services, Inc. (investment advisors). Member of the board of superintendence of the Institute for the Works of Religion, the Notre Dame 403(b) Investment Committee, and the board of directors of Paxos Trust Company (finance).

### Deanna Mulligan

Born in 1963. Trustee since January 2018. Principal occupation(s) during the past five years and other experience: chief executive officer of Purposeful (advisory firm for CEOs and C-level executives; 2021–present). Board chair (2020), chief executive officer (2011–2020), and president (2010–2019) 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. Director of DuPont. Member of the board of the Economic Club of New York. Trustee of the Partnership for New York City (business leadership), Chief Executives for Corporate Purpose, and the NewYork-Presbyterian Hospital.

### 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 partner of HighVista Strategies (private investment firm). Member of the board of RIT Capital Partners (investment firm).

### 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. Colin W. Brown Distinguished Professor of the Practice of Law, Duke Law School (2021–present); Rubenstein Fellow, Duke University (2017–2020); Distinguished Fellow of the Global Financial Markets Center, Duke Law School (2020–2022); and Senior Fellow, Duke Center on Risk (2020–present). Partner of Kaya Partners (climate policy advisory services). Member of the board of directors of Arcadia (energy solution technology).

### Grant Reid

Born in 1959. Trustee since July 2023. Principal occupation(s) during the past five years and other experience: chief executive officer and president (2014–2022) and member of the board of directors (2015–2022) of Mars, Incorporated (multinational manufacturer). Member of the board of directors of Marriott International, Inc. Chair of Agribusiness Task Force, Sustainable Markets Initiative.

### David Thomas

Born in 1956. Trustee since July 2021. Principal occupation(s) during the past five years and other experience: president of Morehouse College (2018–present). Professor of business administration, emeritus at Harvard University (2017–2018). Dean (2011–2016) and professor of management (2016–2017) at the Georgetown University McDonough School of Business. Director of DTE Energy Company. Trustee of Common Fund.

### 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

<sup>1</sup> Mr. Buckley is considered an "interested person," as defined in the Investment Company Act of 1940, because he is an officer of the Vanguard funds.

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). Member of the BMW Group Mobility Council.

Executive Officers

Jacqueline Angell

Born in 1974. Principal occupation(s) during the past five years and other experience: principal of Vanguard. Chief compliance officer (November 2022–present) of Vanguard and of each of the investment companies served by Vanguard. Chief compliance officer (2018–2022) and deputy chief compliance officer (2017–2019) of State Street.

Christine M. Buchanan

Born in 1970. Principal occupation(s) during the past five years and other experience: principal of Vanguard. Chief financial officer (2021–present) and treasurer (2017–2022) of each of the investment companies served by Vanguard. Partner (2005–2017) at KPMG (audit, tax, and advisory services).

John Galloway

Born in 1973. Principal occupation(s) during the past five years and other experience: principal of Vanguard. Investment stewardship officer (September

2020–present) of each of the investment companies served by Vanguard. Head of Investor Advocacy (February 2020–present) and head of Marketing Strategy and Planning (2017–2020) at Vanguard. Special assistant to the President of the United States (2015).

Ashley Grim

Born in 1984. Principal occupation(s) during the past five years and other experience: treasurer (February 2022–present) of each of the investment companies served by Vanguard. Fund transfer agent controller (2019–2022) and director of Audit Services (2017–2019) at Vanguard. Senior manager (2015–2017) at PriceWaterhouseCoopers (audit and assurance, consulting, and tax services).

Jodi Miller

Born in 1980. Principal occupation(s) during the past five years and other experience: principal of Vanguard. Finance director (2022–present) of each of the investment companies served by Vanguard. Head of Enterprise Investment Services (2020–present), head of Retail Client Services and Operations (2020–2022), and head of Retail Strategic Support (2018–2020) 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. Managing director and general counsel of Global Cards and Consumer Services (2014–2016) at Citigroup. Counsel (2003–2014) at American Express. Nonexecutive director (2022–present) of the board of National Grid (energy).

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

Matthew Benchener	Thomas M. Rampulla
Joseph Brennan	Karin A. Risi
Mortimer J. Buckley	Anne E. Robinson
Gregory Davis	Michael Rollings
John James	Nitin Tandon
Chris D. McIsaac	Lauren Valente



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