Vanguard[®]

Annual Report | December 31, 2022

Vanguard Variable Insurance Funds

Capital Growth Portfolio

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Your Portfolio's Performance at a Glance

- Despite some relief in midsummer and late fall, the 12 months ended December 31, 2022, were a volatile, challenging period for financial markets. The Capital Growth Portfolio returned –15.48%, better than the –18.11% return of its benchmark, the Standard & Poor's 500 Index.
- Overall, the economic backdrop deteriorated as inflation soared to multidecade highs, driven by government spending during the pandemic as well as higher energy and food prices in the wake of Russia's invasion of Ukraine. That prompted aggressive tightening by many central banks to bring inflation back in check, which increased fears of recession.
- The portfolio outperformed its benchmark in five of 11 industry sectors. Underweights to energy and consumer staples and an overweight to industrials detracted the most from relative performance. An overweight position and strong selection in health care helped the most; an underweight to communication services also contributed.
- For the decade ended December 31, 2022, the fund produced an average annual return of 13.75%, outperforming its benchmark by more than a percentage point.
- Please note that the portfolio's returns are different from those in Vanguard Variable Annuity (and other plans that invest in the portfolio), which take into account insurance-related expenses.

Market Barometer

	Average Annual Total Returns Periods Ended December 31, 2022			
	One Year	Three Years	Five Years	
Stocks				
Russell 1000 Index (Large-caps)	-19.13%	7.35%	9.13%	
Russell 2000 Index (Small-caps)	-20.44	3.10	4.13	
Russell 3000 Index (Broad U.S. market)	-19.21	7.07	8.79	
FTSE All-World ex US Index (International)	-15.49	0.61	1.28	
Bonds				
Bloomberg U.S. Aggregate Float Adjusted Index (Broad taxable market)	-13.07%	-2.67%	0.06%	
Bloomberg Municipal Bond Index (Broad tax-exempt market)	-8.53	-0.77	1.25	
FTSE Three-Month U.S. Treasury Bill Index	1.50	0.70	1.24	
CPI				
Consumer Price Index	6.45%	4.92%	3.78%	

Advisor's Report

For the 12 months ended December 31, 2022, the Vanguard Capital Growth Portfolio returned –15.48%, exceeding the –18.11% return of its benchmark, the unmanaged S&P 500 Index. Relative to the S&P 500, both sector allocation and stock selection were favorable.

Investment environment

Market conditions deteriorated abruptly in 2022. The year began with yet another bout of COVID, as the Omicron variant peaked in mid-January. But in this case the prognosis was mostly good: Omicron proved more disruptive than destructive, and ultimately COVID's grip on society was loosened.

Geopolitical hostility and widespread inflation, however, soon supplanted COVID as primary concerns. Russia's invasion-turned-quagmire in Ukraine devastated the region and continues to pose risks to Europe and the world. At home, savings-rich consumers increasingly returned to pre-COVID activities, forcing businesses into a hiring spree. By summertime, record-high job openings outnumbered job seekers two-to-one, reflecting an unprecedented imbalance between labor demand and supply. Inflation thus broadened and worsened during the period. Price spikes in goods and commodities hemorrhaged into stickier categories, like wages and services.

The Federal Reserve, chagrined by its earlier complacency, executed a dramatic hawkish pivot, punctuated by a series of aggressive interest rate hikes. The real economy stalled somewhat; despite solid nominal economic growth and a tight labor market, real (inflation-adjusted) gross domestic product declined during the first half of 2022 before bouncing back modestly in the second half. Yet the Fed resolved to further reduce economic activity, raising the prospects of a hard landing—that is, a recession.

Equities unsurprisingly faltered amid this tumult, plummeting nearly –20%. Elevated

inflation and rising interest rates weighed especially on high-valuation growth stocks; the communication services (–40%), consumer discretionary (–37%), and information technology (–28%) sectors lagged the broad market. Energy (+66%) fared best, boosted by higher oil prices. Defensive sectors also outperformed, including utilities (+2%), consumer staples (–1%), and health care (–2%).

Outlook for U.S. equities

Following a partial recovery in the fourth quarter, the S&P 500 Index's valuation returned to modestly elevated levels (16.7x price/expected earnings versus a 20-year average of 15.5x). But interest rates soared during the period, undermining a key rationale for above-average equity multiples; the current 3.9% yield of the 10-year U.S. Treasury note is comparable to its longer-term historical norm. Meanwhile, expectations for corporate earnings in 2023 have declined meaningfully from their mid-2022 peak but may still be too high. We remain wary of above-average macroeconomic risks, most obviously a Fed intent on reducing aggregate demand for goods and services. These concerns leave us somewhat cautious overall, even after the market's recalibration.

Portfolio update

The portfolio maintained large overweight positions in health care and industrials stocks; these sectors comprised 41% of average assets compared to their 22% combined average weighting in the S&P 500. Relative to the benchmark, the portfolio was roughly equally weighted in consumer discretionary, while information technology shifted to a slight underweight position. The portfolio maintained meaningful underweights in all other sectors, including consumer staples, communication services, energy, financials, materials, real estate, and utilities.

Sector allocation and stock selection both boosted results relative to the S&P 500.

The portfolio's significant health care overweight position proved beneficial, as did a large underweight position in communication services. Underweight positions in energy and consumer staples partially offset those advantages.

Selection strength was concentrated in the health care sector, as key biopharmaceutical holdings Eli Lilly (+34%), Amgen (+20%), AstraZeneca (+19%), and Biogen (+15%) all outperformed. Eli Lilly, the portfolio's largest position, was particularly important, logging another stellar year on the back of its new blockbuster obesity drug, tirzepatide. The portfolio also benefited from limited exposure to several mega-capitalization laggards, most notably Meta (-64%) in communication services and Amazon (-50%) in consumer discretionary. But several portfolio positions weighed on results: Tesla (-65%) and Sony (-39%) in consumer discretionary, FedEx (-32%) in industrials, and Intel (-47%), Micron (-46%), and Adobe (-41%) in information technology partially offset favorable selection elsewhere.

Advisor perspectives

We assess this year's developments as a potential paradigm shift in the market. Notwithstanding an occasional glitch, the period since the 2008 global financial crisis had been remarkably benign, marked by accommodative financial conditions, steady if modest global economic growth, and a relentless equity bull market. A pliant Federal Reserve, offering investors quasi-insurance in the form of a "Fed put," underwrote a "buy the dip" mentality that became ubiquitous.

But the COVID era—both the virus and especially the policy response to it—ultimately sowed enough dislocation to tip the proverbial apple cart. Ironically, it was COVID's abrupt fade, or at least its welcome shift to endemic status, that applied the final push. The mass normalization of society, coupled with two

years of excessive money supply growth, unleashed the worst inflation in 40 years.

The hallmarks of the prior paradigm—inflation, growth, and low interest rates—bred a certain type of winner. Growth stocks, for instance, dominated value stocks, and large-company stocks trumped small-company stocks; in the 13 calendar years from 2009 through 2021, growth and large outperformed their counterparts 10 times each. Growth outperformed value by 6.5 percentage points annually (the respective Russell 3000 indexes returned 19.1% and 12.6%), while large-caps outpaced small-caps by 2.3 percentage points annually (the Russell 1000 and Russell 2000 returned 16.1% and 13.8%, respectively). The ultimate winners were Big Tech stocks; the ascendance of Apple, Amazon, Alphabet, Meta, and Netflix (the so-called FAANG stocks) explains much of this large growth stock phenomenon.

A new paradigm would upend this dynamic, as investors migrate from yesterday's darlings to fresh leadership. During the year, FAANG stocks indeed struggled; Meta (–64%), Netflix (–51%), Amazon (–50%), Alphabet (–39%), and Apple (–26%) all underperformed the broad market. That said, picking the next winners is never straightforward. Despite largely avoiding the FAANG collapses, the portfolio faced its own idiosyncratic miscues. Other than several biopharmaceutical companies, our differentiated holdings often failed to deliver.

Tomorrow's longer-term winners are, as always, uncertain. The contours of this potential new paradigm have yet to take shape. Rapidly rising rates tend to break things, and we expect wreckage if the Fed perseveres. But eventually we believe a less Fed-centric market will arise, one where fundamentals and valuations feature more prominently than last decade's artificial backstop. We are optimistic our holdings' promising long-term fundamentals and attractive valuations will benefit from this evolution.

Conclusion

Our investment approach is vulnerable to extended periods of underperformance; mistakes and misfortune sometimes conspire, and the COVID era included plenty of both. But we see in the ongoing market reckoning a paradigm shift underway, and we are hopeful the portfolio's relative strength of late portends even better days ahead. We believe the portfolio is well positioned, and we are also searching for new opportunities amid the market carnage.

PRIMECAP Management Company

January 10, 2023

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, 2022

Capital Growth Portfolio	Beginning Account Value 6/30/2022	Ending Account Value 12/31/2022	Expenses Paid During Period
Based on Actual Portfolio Return	\$1,000.00	\$1,026.40	\$ 1.74
Based on Hypothetical 5% Yearly Return	1,000.00	1,023.49	1.73

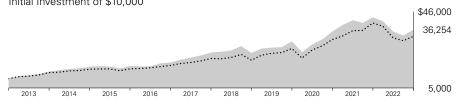
The calculations are based on expenses incurred in the most recent six-month period. The portfolio's annualized six-month expense ratio for that period is 0.34%. The dollar amounts shown as "Expenses Paid" are equal to the annualized expense ratio multiplied by the average account value over the period, 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).

Capital Growth 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.) 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, 2012, Through December 31, 2022 Initial Investment of \$10,000



Average Annual Total Returns Periods Ended December 31, 2022

	One Year	Five Years	Ten Years	Final Value of a \$10,000 Investment
Capital Growth Portfolio	-15.48%	8.57%	13.75%	\$36,254
S&P 500 Index	-18.11	9.42	12.56	32.654

Portfolio Allocation

As of December 31, 2022

Communication Services	5.4%
Consumer Discretionary	10.4
Consumer Staples	0.1
Energy	2.5
Financials	6.9
Health Care	33.5
Industrials	13.7
Information Technology	26.0
Materials	1.5

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

Global Industry Classification Standard ("GICS") was developed by and is the exclusive property and a service mark of MSCI Inc. ("MSCI") and Standard and Poor's, a division of McGraw-Hill Companies, Inc. ("S&P"), and is licensed for use by Vanguard. Neither MSCI, S&P nor any third party involved in making or compiling the GICS or any GICS classification makes any express or implied warranties or representations with respect to such standard or classification (or the results to be obtained by the use thereof), and all such parties hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any such standard or classification. Without limiting any of the foregoing, in no event shall MSCI, S&P, any of its affiliates or any third party involved in making or compiling the GICS or any GICS classification have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages.

Financial Statements

Schedule of Investments

As of December 31, 2022

The portfolio files its complete schedule of portfolio holdings with the Securities and Exchange Commission (SEC) for the first and third quarters of each fiscal year as an exhibit to its reports on Form N-PORT. The portfolio's Form N-PORT reports are available on the SEC's website at www.sec.gov.

	Shares	Market Value* (\$000)		Shares	Market Value* (\$000)
Common Stocks (95.5%)	Silaies	(\$000)	CME Group Inc.	8,500	1,429
Communication Services (5.2	%\		CIVIL Group IIIc.	0,000	92,912
* Alphabet Inc. Class A	287,000	25,322	Health Care (32.0%)		32,312
* Alphabet Inc. Class C	167,400	14,853	Eli Lilly & Co.	350,571	128,253
* Baidu Inc. ADR	125,600	14,366	* Biogen Inc.	208,300	57,682
* Walt Disney Co.	92,300	8,019	Amgen Inc.	215,371	56,565
Activision Blizzard Inc.	91,300	6,989	AstraZeneca plc ADR	601,900	40,809
* Charter	- 1,	5,555	Thermo Fisher		,
Communications Inc.			Scientific Inc.	54,500	30,013
Class A	5,400	1,831	* Boston Scientific Corp.	640,902	29,654
* Meta Platforms Inc.			Novartis AG ADR	247,350	22,440
Class A	12,500	1,504	Bristol-Myers Squibb Co.	279,900	20,139
* Live Nation			* BioMarin	.,	.,
Entertainment Inc.	12,800	893	Pharmaceutical Inc.	146,500	15,161
		73,777	Roche Holding AG	40,007	12,572
Consumer Discretionary (10.0	%)	-,	* BeiGene Ltd. ADR	34,000	7,478
Sony Group Corp. ADR	322,400	24,593	Abbott Laboratories	63,900	7,015
Ross Stores Inc.	182,800	21,217	CVS Health Corp.	62,400	5,815
* Alibaba Group Holding Ltd.	.02,000	2.,2.,	Zimmer Biomet	,	-,-
ADR	233,100	20,534	Holdings Inc.	45,500	5,801
* Tesla Inc.	147,400	18,157	* Elanco Animal Health Inc.		
TJX Cos. Inc.	192,500	15,323	(XNYS)	340,416	4,160
* Mattel Inc.	615,200	10,975	Agilent Technologies Inc.	20,000	2,993
Whirlpool Corp.	70,900	10,029	Medtronic plc	31,300	2,433
* Amazon.com Inc.	82,800	6,955	* IQVIA Holdings Inc.	10,200	2,090
Bath & Body Works Inc.	91,100	3,839	Stryker Corp.	8,400	2,054
* Royal Caribbean Cruises	01,100	0,000		_	453,127
Ltd.	42,600	2,106	Industrials (12.09/)		400,127
* Dollar Tree Inc.	14,800	2,093	Industrials (13.0%)	211 200	26 507
* Flutter Entertainment plc	,	_,	FedEx Corp.	211,300	36,597
(XDUB)	11,100	1,503	Siemens AG (Registered)	190,334	26,238
eBay Inc.	35,400	1,468	* Southwest Airlines Co.	646,650	21,773
* Carnival Corp.	158,300	1,276	Airbus SE	111,954	13,311
Marriott International Inc.			Caterpillar Inc.	53,400	12,792
Class A	8,400	1,251	Union Pacific Corp.	57,700	11,948
	-	141,319	* United Airlines	200.000	11 600
Consumer Staples (0.1%)		141,313	Holdings Inc.	309,900	11,683
Sysco Corp.	22,900	1 751	* Delta Air Lines Inc. * American Airlines	254,800	8,373
Sysco Corp.	22,900	1,751	Group Inc.	535,000	6,805
Energy (2.49/)			United Parcel Service Inc.	333,000	0,000
Energy (2.4%) Hess Corp.	124,400	17649	Class B	35,850	6,232
Pioneer Natural Resources	124,400	17,643	Textron Inc.	77,100	5,459
Co.	53,800	12,287	TransDigm Group Inc.	7,450	4,691
EOG Resources Inc.	32,700	4,235	* Alaska Air Group Inc.	108,100	4,642
LOG Nesources Inc.	32,700		Carrier Global Corp.	73,800	3,044
		34,165	General Dynamics Corp.	10,700	2,655
Financials (6.6%)			Deere & Co.	5,800	2,487
Wells Fargo & Co.	684,100	28,247	CSX Corp.	77,700	2,407
JPMorgan Chase & Co.	143,200	19,203	JB Hunt Transport	77,700	2,407
Marsh & McLennan Cos.	70	40.5	Services Inc.	12,100	2,110
Inc.	73,900	12,229	Otis Worldwide Corp.	21,250	1,664
Bank of America Corp.	331,400	10,976		,	
Raymond James	00.050	40.005		20(1)	184,911
Financial Inc.	96,350	10,295	Information Technology (24.8		47505
Charles Schwab Corp.	44,200	3,680	Microsoft Corp.	198,400	47,580
Progressive Corp.	21,100	2,737	Texas Instruments Inc.	271,800	44,907
US Bancorp	61,500	2,682	KLA Corp.	98,500	37,137
Citigroup Inc.	31,700	1,434	* Adobe Inc.	107,000	36,009
			Micron Technology Inc.	572,700	28,624

	Shares	Market Value* (\$000)
Intel Corp.	698,500	18,461
Oracle Corp.	185,600	15,171
Intuit Inc.	32,300	12,572
NetApp Inc.	207,800	12,480
Visa Inc. Class A	51,800	10,762
Analog Devices Inc.	65,600	10,760
HP Inc.	362,350	9,736
QUALCOMM Inc. Hewlett Packard	88,000	9,675
Enterprise Co.	575,050	9,178
* Splunk Inc.	88,300	7,602
NVIDIA Corp.	48,400	7,073
Telefonaktiebolaget LM		
Ericsson ADR	1,085,700	6,341
Cisco Systems Inc.	117,600	5,602
Apple Inc.	37,800	4,911
Entegris Inc.	51,300	3,365
Fidelity National Information		
Services Inc.	49,000	3,325
Applied Materials Inc.	31,800	3,097
Corning Inc.	96,250	3,074
* PayPal Holdings Inc.	24,000	1,709
Mastercard Inc. Class A	4,700	1,634
* Autodesk Inc.	5,900	1,103
* BlackBerry Ltd.	148,000	483
Materials (1.4%) Albemarle Corp.	26,100	352,371 5,660
Glencore plc	702,066	4,682
DuPont de Nemours Inc.	38,566	2,647
Freeport-McMoRan Inc.	65,500	2,489
Linde plc	6,300	2,055
Corteva Inc.	30,700	1,804
Dow Inc.	18,066	910
2011 1110.	.0,000	20,247
Total Common Stocks (Cost \$921,280)		1,354,580
Temporary Cash Investments	(4.4%)	
Money Market Fund (4.4%) 1 Vanguard Market Liquidity Fund, 4.334%		
(Cost \$63,111)	631,154	63,109
Total Investments (99.9%) (Cost \$984,391)		1,417,689
Other Assets and Liabilities – Net (0.1%)	•	922
Net Assets (100%)		1,418,611
Cost is in \$000.		
See Note A in Notes to Financial SNon-income-producing security.		naugral funda
Affiliated money market fund avail and certain trusts and accounts ma shown is the 7-day yield. ADD. American Depository Resolu-		

ADR—American Depositary Receipt.

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Statement of Assets and Liabilities As of December 31, 2022

(\$000s, except shares, footnotes, and per-share amounts)	Amount
Assets	
Investments in Securities, at Value	
Unaffiliated Issuers (Cost \$921,280)	1,354,580
Affiliated Issuers (Cost \$63,111)	63,109
Total Investments in Securities	1,417,689
Investment in Vanguard	55
Receivables for Accrued Income	1,730
Receivables for Capital Shares Issued	254
Total Assets	1,419,728
Liabilities	
Due to Custodian	1
Payables for Investment Securities Purchased	236
Payables to Investment Advisor	532
Payables for Capital Shares Redeemed	230
Payables to Vanguard	118
Total Liabilities	1,117
Net Assets	1,418,611
At December 31, 2022, net assets consisted of:	
Paid-in Capital	889,322
Total Distributable Earnings (Loss)	529,289
Net Assets	1,418,611
Net Assets	
Applicable to 36,549,564 outstanding \$.001 par value shares of beneficial interest (unlimited authorization)	1,418,611
Net Asset Value Per Share	\$38.81

Statement of Operations

Dec	Year Ended cember 31, 2022
_	(\$000)
Investment Income	
Income	
Dividends ¹	21,176
Interest ²	987
Securities Lending—Net	6
Total Income	22,169
Expenses	
Investment Advisory Fees—Note B	2,263
The Vanguard Group—Note C	
Management and Administrative	2,673
Marketing and Distribution	85
Custodian Fees	17
Auditing Fees	27
Shareholders' Reports	50
Trustees' Fees and Expenses	1
Other Expenses	8
Total Expenses	5,124
Net Investment Income	17,045
Realized Net Gain (Loss)	
Investment Securities Sold ²	80,141
Foreign Currencies	3
Realized Net Gain (Loss)	80,144
Change in Unrealized Appreciation (Depreciation)	
Investment Securities ²	(365,792)
Foreign Currencies	(25)
Change in Unrealized Appreciation (Depreciation)	(365,817)
Net Increase (Decrease) in Net Asse Resulting from Operations	ets (268,628)

Statement of Changes in Net Assets

	Year Ended December 3°	
	2022 (\$000)	2021 (\$000)
Increase (Decrease) in Net Assets		
Operations		
Net Investment Income	17,045	13,998
Realized Net Gain (Loss)	80,144	503,946
Change in Unrealized Appreciation (Depreciation)	(365,817)	(120,020)
Net Increase (Decrease) in Net Assets Resulting from Operations	(268,628)	397,924
Distributions		
Total Distributions	(157,677)	(175,523)
Capital Share Transactions		
Issued	130,652	196,815
Issued in Lieu of Cash Distributions	157,677	175,523
Redeemed	(218,431)	(912,117)
Net Increase (Decrease) from Capital Share Transactions	69,898	(539,779)
Total Increase (Decrease)	(356,407)	(317,378)
Net Assets		
Beginning of Period	1,775,018	2,092,396
End of Period	1,418,611	1,775,018

Dividends are net of foreign withholding taxes of \$414,000.

Interest income, realized net gain (loss), capital gain distributions received, and change in unrealized appreciation (depreciation) from an affiliated company of the portfolio were \$987,000, less than \$1,000, less than \$1,000, and \$3,000, respectively. Purchases and sales are for temporary cash investment purposes.

Financial Highlights

		Year Ended December 3		
2022	2021	2020	2019	2018
\$50.69	\$45.21	\$40.76	\$33.49	\$35.12
.468	.356	.478	.503	.429
(7.744)	8.959	5.768	8.182	(.754)
(7.276)	9.315	6.246	8.685	(.325)
(.390)	(.480)	(.574)	(.411)	(.315)
(4.214)	(3.355)	(1.222)	(1.004)	(.990)
(4.604)	(3.835)	(1.796)	(1.415)	(1.305)
\$38.81	\$50.69	\$45.21	\$40.76	\$33.49
-15.48%	21.54%	17.47%	26.50%	-1.18%
\$1,419	\$1,775	\$2,092	\$1,976	\$1,596
0.34%	0.34%	0.34%	0.34%	0.34%
1.13%	0.73%	1.25%	1.37%	1.18%
3%	5%²	6%	5%	6%
	\$50.69 .468 (7.744) (7.276) (.390) (4.214) (4.604) \$38.81 -15.48% \$1,419 0.34% 1.13%	\$50.69 \$45.21 .468 .356 (7.744) 8.959 (7.276) 9.315 (.390) (.480) (4.214) (3.355) (4.604) (3.835) \$38.81 \$50.69 -15.48% 21.54% \$1,419 \$1,775 0.34% 0.34% 1.13% 0.73%	2022 2021 2020 \$50.69 \$45.21 \$40.76 .468 .356 .478 (7.744) 8.959 5.768 (7.276) 9.315 6.246 (.390) (.480) (.574) (4.214) (3.355) (1.222) (4.604) (3.835) (1.796) \$38.81 \$50.69 \$45.21 -15.48% 21.54% 17.47% \$1,419 \$1,775 \$2,092 0.34% 0.34% 0.34% 1.13% 0.73% 1.25%	2022 2021 2020 2019 \$50.69 \$45.21 \$40.76 \$33.49 .468 .356 .478 .503 (7.744) 8.959 5.768 8.182 (7.276) 9.315 6.246 8.685 (.390) (.480) (.574) (.411) (4.214) (3.355) (1.222) (1.004) (4.604) (3.835) (1.796) (1.415) \$38.81 \$50.69 \$45.21 \$40.76 -15.48% 21.54% 17.47% 26.50% \$1,419 \$1,775 \$2,092 \$1,976 0.34% 0.34% 0.34% 0.34% 1.13% 0.73% 1.25% 1.37%

Calculated based on average shares outstanding.
 Excludes the value of portfolio securities received or delivered as a result of in-kind purchases or redemptions of the portfolio's capital shares.

Notes to Financial Statements

The Capital Growth 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. 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.

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. These procedures include obtaining quotations from an independent pricing service, monitoring news to identify significant market- or security-specific events, and evaluating changes in the values of foreign market proxies (for example, ADRs, futures contracts, or exchange-traded funds), between the time the foreign markets close and the portfolio's pricing time. When fair-value pricing is employed, the prices of securities used by a portfolio to calculate its net asset value may differ from quoted or published prices for the same securities. Investments in Vanguard Market Liquidity Fund are valued at that fund's net asset value.
- 2. Foreign Currency: Securities and other assets and liabilities denominated in foreign currencies are translated into U.S. dollars using exchange rates obtained from an independent third party as of the portfolio's pricing time on the valuation date. Realized gains (losses) and unrealized appreciation (depreciation) on investment securities include the effects of changes in exchange rates since the securities were purchased, combined with the effects of changes in security prices. Fluctuations in the value of other assets and liabilities resulting from changes in exchange rates are recorded as unrealized foreign currency gains (losses) until the assets or liabilities are settled in cash, at which time they are recorded as realized foreign currency gains (losses).
- 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 \$4.4 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, 2022, 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.** PRIMECAP Management Company provides investment advisory services to the portfolio for a fee calculated at an annual percentage rate of average net assets. For the year ended December 31, 2022, the investment advisory fee represented an effective annual basic rate of 0.15% of the portfolio's average net assets.
- **C.** In accordance with the terms of a Funds' Service Agreement (the "FSA") between Vanguard and the portfolio, Vanguard furnishes to the portfolio 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, 2022, the portfolio had contributed to Vanguard capital in the amount of \$55,000, representing less than 0.01% of the portfolio's net assets and 0.02% of Vanguard's capital received pursuant to the FSA. The portfolio's trustees and officers are also directors and employees, respectively, of Vanguard.

- **D.** 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 Schedule of Investments.

The following table summarizes the market value of the portfolio's investments as of December 31, 2022, based on the inputs used to value them:

	Level 1 (\$000)	Level 2 (\$000)	Level 3 (\$000)	Total (\$000)
Investments				
Assets				
Common Stocks	1,296,274	58,306	_	1,354,580
Temporary Cash Investments	63,109	_	_	63,109
Total	1,359,383	58,306	_	1,417,689

E. 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 foreign currency transactions 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 if any, will reverse at some time in the future. 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	15,841
Undistributed Long-Term Gains	80,139
Capital Loss Carryforwards	_
Qualified Late-Year Losses	_
Net Unrealized Gains (Losses)	433,309

The tax character of distributions paid was as follows:

	Year Ended December 31,	
	2022 Amount (\$000)	2021 Amount (\$000)
Ordinary Income*	13,352	21,857
Long-Term Capital Gains	144,325	153,666
Total	157,677	175,523
* Includes about town conital pains if any		

^{*} Includes short-term capital gains, if any.

As of December 31, 2022, gross unrealized appreciation and depreciation for investments based on cost for U.S. federal income tax purposes were as follows:

	Amount (\$000)
Tax Cost	984,391
Gross Unrealized Appreciation	559,635
Gross Unrealized Depreciation	(126,337)
Net Unrealized Appreciation (Depreciation)	433,298

- F. During the year ended December 31, 2022, the portfolio purchased \$41,255,000 of investment securities and sold \$127,311,000 of investment securities, other than temporary cash investments.
- G. Capital shares issued and redeemed were:

	Year Ended D	Year Ended December 31,	
	2022 Shares (000)	2021 Shares (000)	
Issued	3,146	4,068	
Issued in Lieu of Cash Distributions	3,557	3,846	
Redeemed	(5,169)	(19,180)	
Net Increase (Decrease) in Shares Outstanding	1,534	(11,266)	

At December 31, 2022, 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 55% 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, 2022, 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 Capital Growth Portfolio

Opinion on the Financial Statements

We have audited the accompanying statement of assets and liabilities, including the schedule of investments, of Capital Growth Portfolio (one of the portfolios constituting Vanguard Variable Insurance Funds, referred to hereafter as the "Portfolio") as of December 31, 2022, the related statement of operations for the year ended December 31, 2022, the statement of changes in net assets for each of the two years in the period ended December 31, 2022, including the related notes, and the financial highlights for each of the five years in the period ended December 31, 2022 (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, 2022, 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, 2022 and the financial highlights for each of the five years in the period ended December 31, 2022 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, 2022 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, 2023

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

Tax information (unaudited)

For corporate shareholders, 100%, 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 \$221,000, 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 \$144,325,000 as capital gain dividends (20% rate gain distributions) to shareholders during the fiscal year.

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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.

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 206 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.

Interested Trustee¹

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. Trustee and vice chair of The Shipley School.

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 (2002–2006), the advisory board of the University of California, Berkeley School of Engineering (2020–present), and the advisory board of Santa Clara University's Leavey School of Business (2018–present).

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. 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). Chairman of the board of Hillenbrand, Inc. (specialized consumer services). 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: adjunct professor of finance at the University of Notre Dame (2020–present). Chief investment officer (retired 2020) and vice president (retired 2020) of the University of Notre Dame. Assistant professor (retired June 2020) of finance at the Mendoza College of Business, University of Notre Dame, and member of the Notre Dame 403(b) Investment Committee. Member of the board of Catholic Investment Services, Inc. (investment advisors), the board of superintedence of the Institute for the Works of Religion, 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. 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 co-managing partner of HighVista Strategies (private investment firm). Member of the board (2018–present) of RIT Capital Partners (investment firm). Member of the investment committee of Partners Health Care System.

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 (2021–present), professor (2020–present), Distinguished Fellow of the Global Financial Markets Center (2020–present), and Rubenstein Fellow (2017–2020) at Duke University. Trustee (2017–present) of Amherst College and member of Amherst College Investment Committee (2019–present). Member of the Regenerative Crisis Response Committee (2020–present).

David A. 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 (2013–present). Trustee of Common Fund (2019–present).

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). 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 Corporation.

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).

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

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This material may be used in conjunction with the offering of shares of any Vanguard fund only if preceded or accompanied by the fund's current prospectus.

All comparative mutual fund data are from Morningstar, Inc., unless otherwise noted.

You can obtain a free copy of Vanguard's proxy voting guidelines by visiting vanguard.com/proxyreporting or by calling Vanguard at 800-662-2739. The guidelines are also available from the SEC's website, www.sec.gov. In addition, you may obtain a free report on how your fund voted the proxies for securities it owned during the 12 months ended June 30. To get the report, visit either vanguard.com/proxyreporting or www.sec.gov.

You can review information about your fund on the SEC's website, and you can receive copies of this information, for a fee, by sending a request via email addressed to publicinfo@sec.gov.

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