

Semiannual Report | June 30, 2023

Vanguard Variable Insurance Funds

Equity Income Portfolio

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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 June 30, 2023

	Beginning Account Value 12/31/2022	Ending Account Value 6/30/2023	Expenses Paid During Period
Equity Income Portfolio			
Based on Actual Portfolio Return	\$1,000.00	\$ 1,013.20	\$1.50
Based on Hypothetical 5% Yearly Return	1,000.00	1,023.31	1.51

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 0.30%. The dollar amounts shown as “Expenses Paid” are equal to the annualized expense ratio multiplied by the average account value over the period, multiplied by the number of days in the most recent six-month period, then divided by the number of days in the most recent 12-month period (181/365).

Equity Income Portfolio

Portfolio Allocation

As of June 30, 2023

Communication Services	2.4%
Consumer Discretionary	5.5
Consumer Staples	14.2
Energy	10.1
Financials	19.5
Health Care	15.9
Industrials	10.5
Information Technology	9.1
Materials	3.5
Real Estate	1.8
Utilities	7.5

The table reflects the portfolio's investments, except for short-term investments and derivatives. 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.

Equity Income Portfolio

	Shares	Market Value* (\$000)		Shares	Market Value* (\$000)
QUALCOMM Inc.	248,925	29,632	DTE Energy Co.	10,540	1,160
NXP Semiconductors NV	75,226	15,397	Ameren Corp.	13,809	1,128
TE Connectivity Ltd.	92,266	12,932	Otter Tail Corp.	11,871	937
Corning Inc.	362,335	12,696	Black Hills Corp.	12,565	757
Analog Devices Inc.	59,524	11,596	Duke Energy Corp.	4,138	371
HP Inc.	160,689	4,935	Southern Co.	4,418	310
Texas Instruments Inc.	26,878	4,839			142,646
Dell Technologies Inc.					
Class C	75,203	4,069	Total Common Stocks		
Intel Corp.	81,920	2,740	(Cost \$1,814,930)		1,893,063
International Business Machines Corp.	17,534	2,346	Temporary Cash Investments (2.9%)		
		171,743	Money Market Fund (2.4%)		
Materials (3.4%)			^{2,3} Vanguard Market Liquidity Fund, 5.150%	468,856	46,876
Rio Tinto plc ADR	202,167	12,906			
LyondellBasell Industries NV Class A	139,436	12,804		Face Amount (\$000)	
PPG Industries Inc.	84,040	12,463			
Celanese Corp. Class A	69,333	8,029	Repurchase Agreement (0.5%)		
Barrick Gold Corp. (XTSE)	430,828	7,294	BNP Paribas Securities Corp. 5.050%, 7/3/23 (Dated 6/30/23, Repurchase Value \$9,704,000, collateralized by Fannie Mae 3.000%–6.000%, 9/1/33–2/1/53, Freddie Mac 6.500%, 11/1/28, Ginnie Mae 2.940%–7.000%, 3/20/31–7/15/64, and U.S. Treasury Note/Bond 0.500%, 5/31/27, with a value of \$9,894,000)	9,700	9,700
Reliance Steel & Aluminum Co.	17,978	4,883			
CF Industries Holdings Inc.	59,047	4,099			
Steel Dynamics Inc.	32,768	3,570			
Eastman Chemical Co.	3,786	317			
		66,365			
Real Estate (1.8%)					
Crown Castle Inc.	139,739	15,922			
Welltower Inc.	154,374	12,487			
Host Hotels & Resorts Inc.	402,488	6,774			
		35,183			
Utilities (7.3%)					
NextEra Energy Inc.	329,034	24,414	Total Temporary Cash Investments (Cost \$56,582)		56,576
American Electric Power Co. Inc.	260,496	21,934	Total Investments (100.1%) (Cost \$1,871,512)		1,949,639
Exelon Corp.	513,951	20,938			
Sempra Energy (XNYS)	117,045	17,041	Other Assets and Liabilities—Net (-0.1%)		(1,959)
Atmos Energy Corp.	133,760	15,562			
Public Service Enterprise Group Inc.	74,853	4,687	Net Assets (100%)		1,947,680
Xcel Energy Inc.	74,915	4,657			
WEC Energy Group Inc.	52,019	4,590			
Eversource Energy	62,077	4,403			
PPL Corp.	157,112	4,157			
Vistra Corp.	147,395	3,869			
National Fuel Gas Co.	65,712	3,375			
Hawaiian Electric Industries Inc.	90,754	3,285			
AES Corp.	123,753	2,565			
UGI Corp.	92,901	2,506			

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 \$13,718,000.

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 \$14,420,000 was received for securities on loan. ADR—American Depositary Receipt.

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 S&P 500 Index	September 2023	150	33,662	973

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

Statement of Assets and Liabilities

As of June 30, 2023

(\$000s, except shares, footnotes, and per-share amounts)	Amount
Assets	
Investments in Securities, at Value ¹	
Unaffiliated Issuers (Cost \$1,824,630)	1,902,763
Affiliated Issuers (Cost \$46,882)	46,876
Total Investments in Securities	1,949,639
Investment in Vanguard	65
Cash	105
Cash Collateral Pledged—Futures Contracts	1,746
Receivables for Investment Securities Sold	13,743
Receivables for Accrued Income	3,187
Receivables for Capital Shares Issued	714
Variation Margin Receivable—Futures Contracts	406
Total Assets	1,969,605
Liabilities	
Payables for Investment Securities Purchased	4,997
Collateral for Securities on Loan	14,420
Payables to Investment Advisor	335
Payables for Capital Shares Redeemed	1,992
Payables to Vanguard	181
Total Liabilities	21,925
Net Assets	1,947,680

¹ Includes \$13,718,000 of securities on loan.

At June 30, 2023, net assets consisted of:

Paid-in Capital	1,768,348
Total Distributable Earnings (Loss)	179,332
Net Assets	1,947,680
Net Assets	
Applicable to 86,895,560 outstanding \$.001 par value shares of beneficial interest (unlimited authorization)	1,947,680
Net Asset Value Per Share	\$22.41

Statement of Operations

	Six Months Ended June 30, 2023
	(\$000)
Investment Income	
Income	
Dividends ¹	29,072
Interest ²	1,623
Securities Lending—Net	52
Total Income	30,747
Expenses	
Investment Advisory Fees—Note B	
Basic Fee	688
Performance Adjustment	24
The Vanguard Group—Note C	
Management and Administrative	2,044
Marketing and Distribution	59
Custodian Fees	13
Shareholders' Reports	12
Trustees' Fees and Expenses	—
Other Expenses	4
Total Expenses	2,844
Expenses Paid Indirectly	(2)
Net Expenses	2,842
Net Investment Income	27,905
Realized Net Gain (Loss)	
Investment Securities Sold ²	68,977
Futures Contracts	4,454
Foreign Currencies	24
Realized Net Gain (Loss)	73,455
Change in Unrealized Appreciation (Depreciation)	
Investment Securities ²	(79,050)
Futures Contracts	3,143
Foreign Currencies	2
Change in Unrealized Appreciation (Depreciation)	(75,905)
Net Increase (Decrease) in Net Assets Resulting from Operations	25,455

¹ Dividends are net of foreign withholding taxes of \$289,000.

² Interest income, realized net gain (loss), and change in unrealized appreciation (depreciation) from an affiliated company of the portfolio were \$1,242,000, \$1,000, and (\$4,000), respectively. Purchases and sales are for temporary cash investment purposes.

Statement of Changes in Net Assets

	Six Months Ended June 30, 2023	Year Ended December 31, 2022
	(\$000)	(\$000)
Increase (Decrease) in Net Assets		
Operations		
Net Investment Income	27,905	51,823
Realized Net Gain (Loss)	73,455	104,909
Change in Unrealized Appreciation (Depreciation)	(75,905)	(170,680)
Net Increase (Decrease) in Net Assets Resulting from Operations	25,455	(13,948)
Distributions		
Total Distributions	(153,906)	(250,263)
Capital Share Transactions		
Issued	103,388	331,885
Issued in Lieu of Cash Distributions	153,906	250,263
Redeemed	(159,145)	(237,500)
Net Increase (Decrease) from Capital Share Transactions	98,149	344,648
Total Increase (Decrease)	(30,302)	80,437
Net Assets		
Beginning of Period	1,977,982	1,897,545
End of Period	1,947,680	1,977,982

Financial Highlights

For a Share Outstanding Throughout Each Period	Six Months Ended June 30, 2023	Year Ended December 31,				
	2023	2022	2021	2020	2019	2018
Net Asset Value, Beginning of Period	\$24.11	\$27.81	\$23.07	\$24.17	\$21.24	\$24.64
Investment Operations						
Net Investment Income ¹	.330	.665	.625	.595	.619	.620
Net Realized and Unrealized Gain (Loss) on Investments	(.126)	(.756)	5.089	(.305)	4.319	(1.977)
Total from Investment Operations	.204	(.091)	5.714	.290	4.938	(1.357)
Distributions						
Dividends from Net Investment Income	(.644)	(.687)	(.506)	(.618)	(.586)	(.562)
Distributions from Realized Capital Gains	(1.260)	(2.922)	(.468)	(.772)	(1.422)	(1.481)
Total Distributions	(1.904)	(3.609)	(.974)	(1.390)	(2.008)	(2.043)
Net Asset Value, End of Period	\$22.41	\$24.11	\$27.81	\$23.07	\$24.17	\$21.24
Total Return	1.32%	-0.66%	25.33%	3.25%	24.43%	-5.96%
Ratios/Supplemental Data						
Net Assets, End of Period (Millions)	\$1,948	\$1,978	\$1,898	\$2,021	\$1,834	\$1,374
Ratio of Total Expenses to Average Net Assets ²	0.30% ³	0.30% ³	0.30%	0.30%	0.30%	0.29%
Ratio of Net Investment Income to Average Net Assets	2.84%	2.73%	2.45%	2.86%	2.76%	2.69%
Portfolio Turnover Rate	24%	46%	41% ⁴	40%	33%	36%

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

1 Calculated based on average shares outstanding.

2 Includes performance-based investment advisory fee increases (decreases) of 0.00%, 0.01%, 0.01%, 0.01%, 0.01%, and (0.00%).

3 The ratio of expenses to average net assets for the period net of reduction from broker commission abatement arrangements was 0.30%.

4 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 Equity Income 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. 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. Temporary cash investments are valued using the latest bid prices or using valuations based on a matrix system (which considers such factors as security prices, yields, maturities, and ratings), both as furnished by independent pricing services.

2. **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. **Repurchase Agreements:** The portfolio enters into repurchase agreements with institutional counterparties. Securities pledged as collateral to the portfolio under repurchase agreements are held by a custodian bank until the agreements mature, and in the absence of a default, such collateral cannot be repledged, resold, or rehypothecated. Each agreement requires that the market value of the collateral be sufficient to cover payments of interest and principal. The portfolio further mitigates its counterparty risk by entering into repurchase agreements only with a diverse group of prequalified counterparties, monitoring their financial strength, and entering into master repurchase agreements with its counterparties. The master repurchase agreements provide that, in the event of a counterparty's default (including bankruptcy), the portfolio may terminate any repurchase agreements with that counterparty, determine the net amount owed, and sell or retain the collateral up to the net amount owed to the portfolio. Such action may be subject to legal proceedings, which may delay or limit the disposition of collateral.

4. **Futures Contracts:** The portfolio uses index futures contracts to a limited extent, with the objective of maintaining full exposure to the stock market while maintaining liquidity. The portfolio may purchase or sell futures contracts to achieve a desired level of investment, whether to accommodate portfolio turnover or cash flows from capital share transactions. 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 six months ended June 30, 2023, the portfolio's average investments in long and short futures contracts represented 3% and 0% of net assets, respectively, based on the average of the notional amounts at each quarter-end during the period.

5. 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.

6. 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.

7. 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.

8. 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 six months ended June 30, 2023, the portfolio did not utilize the credit facilities or the Interfund Lending Program.

9. 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. Premiums and discounts on debt securities are amortized and accreted, respectively, to interest income over the lives of the respective securities, except for premiums on certain callable debt securities that are amortized to the earliest call date. 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. Wellington Management Company LLP provides investment advisory services to a portion of the portfolio for a fee calculated at an annual percentage rate of average net assets managed by the advisor. The basic fee is subject to quarterly adjustments based on the portfolio's performance relative to the FTSE High Dividend Yield Index for the preceding three years.

Vanguard provides investment advisory services to a portion of the portfolio as described below; the portfolio paid Vanguard advisory fees of \$76,000 for the six months ended June 30, 2023.

For the six months ended June 30, 2023, the aggregate investment advisory fee paid to all advisors represented an effective annual basic rate of 0.07% of the portfolio's average net assets, before a net increase \$24,000 (less than 0.01%) based on performance.

C. 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 June 30, 2023, the portfolio had contributed to Vanguard capital in the amount of \$65,000, 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.

D. The portfolio has asked its investment advisors to direct certain security trades, subject to obtaining the best price and execution, to brokers who have agreed to rebate to the portfolio part of the commissions generated. Such rebates are used solely to reduce the portfolio's management and administrative expenses. For the six months ended June 30, 2023, these arrangements reduced the portfolio's expenses by \$2,000 (an annual rate of less than 0.01% of average net assets).

E. 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.

The following table summarizes the market value of the portfolio's investments and derivatives as of June 30, 2023, based on the inputs used to value them:

	Level 1 (\$000)	Level 2 (\$000)	Level 3 (\$000)	Total (\$000)
Investments				
Assets				
Common Stocks	1,846,694	46,369	—	1,893,063
Temporary Cash Investments	46,876	9,700	—	56,576
Total	1,893,570	56,069	—	1,949,639
Derivative Financial Instruments				
Assets				
Futures Contracts ¹	973	—	—	973

¹ Includes cumulative appreciation (depreciation) on futures contracts and centrally cleared swaps, if any, as reported in the Schedule of Investments. Only current day's variation margin is reported within the Statement of Assets and Liabilities.

F. As of June 30, 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	1,872,853
Gross Unrealized Appreciation	166,910
Gross Unrealized Depreciation	(89,151)
Net Unrealized Appreciation (Depreciation)	77,759

G. During the six months ended June 30, 2023, the portfolio purchased \$477,014,000 of investment securities and sold \$455,763,000 of investment securities, other than temporary cash investments.

The portfolio purchased securities from and sold securities to other funds or accounts managed by its investment advisors or their affiliates, in accordance with procedures adopted by the board of trustees in compliance with Rule 17a-7 of the Investment Company Act of 1940. For the six months ended June 30, 2023, such purchases were \$1,150,000 and sales were \$1,004,000, resulting in net realized gain of \$288,000; these amounts, other than temporary cash investments, are included in the purchases and sales of investment securities noted above.

H. Capital shares issued and redeemed were:

	Six Months Ended June 30, 2023	Year Ended December 31, 2022
	Shares (000)	Shares (000)
Issued	4,517	13,527
Issued in Lieu of Cash Distributions	7,277	10,112
Redeemed	(6,938)	(9,839)
Net Increase (Decrease) in Shares Outstanding	4,856	13,800

I. 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 June 30, 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 47% 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.

J. Management has determined that no events or transactions occurred subsequent to June 30, 2023, that would require recognition or disclosure in these financial statements.

Trustees Approve Advisory Arrangement

The board of trustees of Vanguard Variable Insurance Funds Equity Income Portfolio has renewed the portfolio's investment advisory arrangements with Wellington Management Company LLP (Wellington Management) and The Vanguard Group, Inc. (Vanguard), through its Quantitative Equity Group. The board determined that renewing the portfolio's advisory arrangements was in the best interests of the portfolio and its shareholders.

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

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

In addition, the board received periodic reports throughout the year, which included information about the portfolio's performance relative to its peers and benchmark, as applicable, and updates, as needed, on the Portfolio Review Department's ongoing assessment of the advisor.

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

Nature, extent, and quality of services

The board reviewed the quality of the portfolio's investment management services over both the short and long term, and took into account the organizational depth and stability of each advisor.

The board considered the following:

Wellington Management. Founded in 1928, Wellington Management is among the nation's oldest and most respected institutional investment managers. Utilizing fundamental research, Wellington Management seeks to build a portfolio with an above-market yield, superior growth rate, and very attractive valuation. While every company purchased for the portfolio will pay a dividend, the goal is to build a portfolio with an above-market yield in aggregate, allowing for individual companies with below-market yields. Normalized earnings, normalized price-to-earnings ratios, and improving returns on capital are key to the research process. The firm has advised a portion of the portfolio since 2003.

Vanguard. Vanguard has been managing investments for more than four decades. The Quantitative Equity Group adheres to a sound, disciplined investment management process; the team has considerable experience, stability, and depth. Vanguard has managed a portion of the portfolio since 2003.

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

Investment performance

The board considered the short- and long-term performance of each advisor, including any periods of outperformance or underperformance compared with a relevant benchmark index and peer group. The board concluded that the performance was such that each advisory arrangement should continue.

Cost

The board concluded that the portfolio's expense ratio was below the average expense ratio charged by funds in its peer group and that the portfolio's advisory expense rate was also below the peer-group average.

The board did not consider the profitability of Wellington Management in determining whether to approve the advisory fee, because Wellington Management is independent of Vanguard and the advisory fee is the result of arm's-length negotiations. The board does not conduct a profitability

analysis of Vanguard because of Vanguard's unique structure. Unlike most other mutual fund management companies, Vanguard is owned by the funds it oversees.

The benefit of economies of scale

The board concluded that the portfolio realizes economies of scale that are built into the advisory fee rate negotiated with Wellington Management without any need for asset-level breakpoints. Wellington Management's advisory fee rate is very low relative to the average rate paid by funds in the portfolio's peer group. The board also concluded that the portfolio's arrangement with Vanguard ensures that the portfolio will realize economies of scale as it grows, with the cost to shareholders declining as the portfolio's assets managed by Vanguard increase.

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

Liquidity Risk Management

Vanguard funds (except for the money market funds) have adopted and implemented a written liquidity risk management program (the “Program”) as required by Rule 22e-4 under the Investment Company Act of 1940. Rule 22e-4 requires that each fund adopt a program that is reasonably designed to assess and manage the fund’s liquidity risk, which is the risk that the fund could not meet redemption requests without significant dilution of remaining investors’ interests in the fund.

Assessment and management of a fund’s liquidity risk under the Program take into consideration certain factors, such as the fund’s investment strategy and the liquidity of its portfolio investments during normal and reasonably foreseeable stressed conditions, its short- and long-term cash-flow projections during both normal and reasonably foreseeable stressed conditions, and its cash and cash-equivalent holdings and access to other funding sources. As required by the rule, the Program includes policies and procedures for classification of fund portfolio holdings in four liquidity categories, maintaining certain levels of highly liquid investments, and limiting holdings of illiquid investments.

The board of trustees of Vanguard Variable Insurance Funds approved the appointment of liquidity risk management program administrators responsible for administering Equity Income Portfolio’s Program and for carrying out the specific responsibilities set forth in the Program, including reporting to the board on at least an annual basis regarding the Program’s operation, its adequacy, and the effectiveness of its implementation for the past year (the “Program Administrator Report”). The board has reviewed the Program Administrator Report covering the period from January 1, 2022, through December 31, 2022 (the “Review Period”). The Program Administrator Report stated that during the Review Period the Program operated and was implemented effectively to manage the portfolio’s liquidity risk.

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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.