

**Semiannual Report** | June 30, 2023

# Vanguard Variable Insurance Funds

Real Estate Index 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

Real Estate Index Portfolio	Beginning Account Value 12/31/2022	Ending Account Value 6/30/2023	Expenses Paid During Period
Based on Actual Portfolio Return	\$1,000.00	\$1,034.50	\$1.31
Based on Hypothetical 5% Yearly Return	1,000.00	1,023.51	1.30

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 0.26%. 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).

# Real Estate Index Portfolio

## Portfolio Allocation

As of June 30, 2023

Data Center REITs	8.2%
Diversified Real Estate Activities	0.2
Diversified REITs	2.1
Health Care REITs	8.0
Hotel & Resort REITs	2.6
Industrial REITs	12.6
Multi-Family Residential REITs	9.4
Office REITs	4.3
Other Specialized REITs	6.1
Real Estate Development	0.3
Real Estate Operating Companies	0.3
Real Estate Services	6.9
Retail REITs	12.3
Self-Storage REITs	6.9
Single-Family Residential REITs	4.7
Telecom Tower REITs	12.6
Timber REITs	2.5

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.

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

The 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 (unaudited)

## Schedule of Investments

As of June 30, 2023

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](http://www.sec.gov).

	Shares	Market Value* (\$000)		Shares	Market Value* (\$000)
<b>Equity Real Estate Investment Trusts (REITs) (92.2%)</b>					
<b>Data Center REITs (8.1%)</b>					
Equinix Inc.	77,852	61,031	Innovative Industrial Properties Inc.	23,316	1,702
Digital Realty Trust Inc.	242,512	27,615	Plymouth Industrial REIT Inc.	32,262	743
			Industrial Logistics Properties Trust	53,348	176
		<b>88,646</b>			<b>136,953</b>
<b>Diversified REITs (2.1%)</b>			<b>Multi-Family Residential REITs (9.4%)</b>		
WP Carey Inc.	178,058	12,030	AvalonBay Communities Inc.	116,558	22,061
Essential Properties Realty Trust Inc.	123,912	2,917	Equity Residential	299,662	19,769
Broadstone Net Lease Inc.	155,858	2,406	Mid-America Apartment Communities Inc.	97,069	14,741
Alexander & Baldwin Inc.	60,441	1,123	Essex Property Trust Inc.	53,668	12,574
Global Net Lease Inc.	86,456	889	UDR Inc.	260,336	11,184
Empire State Realty Trust Inc. Class A	113,592	851	Camden Property Trust	88,829	9,671
American Assets Trust Inc.	42,992	825	Apartment Income REIT Corp. Class A	124,124	4,479
Armada Hoffer Properties Inc.	56,390	659	Independence Realty Trust Inc.	186,881	3,405
Gladstone Commercial Corp.	33,664	416	Elme Communities	73,039	1,201
<sup>1</sup> NexPoint Diversified Real Estate Trust	26,348	330	Veris Residential Inc.	60,735	975
One Liberty Properties Inc.	14,176	288	Apartment Investment & Management Co. Class A	112,331	957
		<b>22,734</b>	NexPoint Residential Trust Inc.	19,216	874
			Centerspace	12,517	768
					<b>102,659</b>
<b>Health Care REITs (8.0%)</b>			<b>Office REITs (4.3%)</b>		
Welltower Inc.	413,173	33,422	Alexandria Real Estate Equities Inc.	136,838	15,530
Ventas Inc.	333,047	15,743	Boston Properties Inc.	124,043	7,143
Healthpeak Properties Inc.	455,381	9,153	Cousins Properties Inc.	126,316	2,880
Omega Healthcare Investors Inc.	195,030	5,985	Kilroy Realty Corp.	92,645	2,788
<sup>1</sup> Healthcare Realty Trust Inc. Class A	317,019	5,979	Vornado Realty Trust	135,829	2,464
<sup>1</sup> Medical Properties Trust Inc.	498,127	4,613	Corporate Office Properties Trust	93,678	2,225
Physicians Realty Trust	198,599	2,778	Highwoods Properties Inc.	87,798	2,099
Sabra Health Care REIT Inc.	192,483	2,266	Equity Commonwealth	92,586	1,876
<sup>1</sup> National Health Investors Inc.	36,124	1,894	Douglas Emmett Inc.	146,412	1,840
<sup>1</sup> CareTrust REIT Inc.	82,848	1,645	<sup>1</sup> SL Green Realty Corp.	53,604	1,611
LTC Properties Inc.	34,440	1,137	JBG SMITH Properties	90,206	1,357
Community Healthcare Trust Inc.	20,636	681	Easterly Government Properties Inc. Class A	76,612	1,111
Universal Health Realty Income Trust	10,923	520	Piedmont Office Realty Trust Inc. Class A	103,009	749
Global Medical REIT Inc.	51,879	474	Brandywine Realty Trust	144,079	670
Diversified Healthcare Trust	197,348	444	Paramount Group Inc.	135,759	601
		<b>86,734</b>	Hudson Pacific Properties Inc.	105,718	446
			Office Properties Income Trust	40,122	309
<b>Hotel &amp; Resort REITs (2.6%)</b>			Orion Office REIT Inc.	44,884	297
Host Hotels & Resorts Inc.	593,975	9,997	City Office REIT Inc.	32,893	183
Ryman Hospitality Properties Inc.	43,698	4,060	Franklin Street Properties Corp.	73,740	107
Apple Hospitality REIT Inc.	181,389	2,741			<b>46,286</b>
Park Hotels & Resorts Inc.	184,756	2,368	<b>Other Specialized REITs (6.1%)</b>		
Sunstone Hotel Investors Inc.	164,715	1,667	VICI Properties Inc. Class A	835,989	26,275
Pebblebrook Hotel Trust	104,067	1,451	Iron Mountain Inc.	242,732	13,792
DiamondRock Hospitality Co.	175,665	1,407	Gaming & Leisure Properties Inc.	218,392	10,583
RLJ Lodging Trust	134,606	1,382	Lamar Advertising Co. Class A	72,808	7,226
Service Properties Trust	137,754	1,197	EPR Properties	62,668	2,933
Xenia Hotels & Resorts Inc.	92,588	1,140	Outfront Media Inc.	123,634	1,944
Summit Hotel Properties Inc.	89,072	580	Four Corners Property Trust Inc.	71,658	1,820
Chatham Lodging Trust	40,704	381	Uniti Group Inc.	198,704	918
		<b>28,371</b>	Safehold Inc.	31,955	758
			<sup>1</sup> Gladstone Land Corp.	28,267	460
					<b>66,709</b>
<b>Industrial REITs (12.6%)</b>			<b>Retail REITs (12.3%)</b>		
Prologis Inc.	768,789	94,277	Realty Income Corp.	549,891	32,878
Rexford Industrial Realty Inc.	167,165	8,729	Simon Property Group Inc.	272,004	31,411
Americold Realty Trust Inc.	224,862	7,263	Kimco Realty Corp.	516,090	10,177
EastGroup Properties Inc.	36,834	6,394	Regency Centers Corp.	128,352	7,928
First Industrial Realty Trust Inc.	110,060	5,794			
STAG Industrial Inc.	149,329	5,358			
Terreno Realty Corp.	68,915	4,142			
LXP Industrial Trust	243,573	2,375			

Real Estate Index Portfolio

	Shares	Market Value* (\$000)
NNN REIT Inc.	151,560	6,485
Federal Realty Investment Trust	61,073	5,910
Brixmor Property Group Inc.	250,178	5,504
Agree Realty Corp.	75,131	4,913
Spirit Realty Capital Inc.	117,629	4,632
Kite Realty Group Trust	182,615	4,080
Phillips Edison & Co. Inc.	97,642	3,328
SITE Centers Corp.	156,820	2,073
Macerich Co.	179,065	2,018
Tanger Factory Outlet Centers Inc.	87,679	1,935
Urban Edge Properties	97,900	1,511
Retail Opportunity Investments Corp.	104,120	1,407
InvenTrust Properties Corp.	56,183	1,300
Getty Realty Corp.	36,988	1,251
Acadia Realty Trust	79,292	1,141
NETSTREIT Corp.	48,523	867
RPT Realty	72,139	754
Necessity Retail REIT Inc. Class A	111,453	753
Urstadt Biddle Properties Inc. Class A	24,120	513
Saul Centers Inc.	10,954	403
Alexander's Inc.	1,914	352
CBL & Associates Properties Inc.	9,212	203
*.2 Spirit MTA REIT	42,040	—
		<b>133,727</b>
<b>Self-Storage REITs (6.9%)</b>		
Public Storage	131,716	38,445
Extra Space Storage Inc.	112,398	16,730
Life Storage Inc.	70,838	9,419
CubeSmart	187,753	8,385
National Storage Affiliates Trust	69,846	2,433
		<b>75,412</b>
<b>Single-Family Residential REITs (4.7%)</b>		
Invitation Homes Inc.	509,384	17,523
Sun Communities Inc.	103,587	13,514
Equity LifeStyle Properties Inc.	147,244	9,849
American Homes 4 Rent Class A	270,586	9,592
UMH Properties Inc.	47,497	759
		<b>51,237</b>
<b>Telecom Tower REITs (12.6%)</b>		
American Tower Corp.	387,983	75,245
Crown Castle Inc.	361,039	41,137
SBA Communications Corp. Class A	90,182	20,901
		<b>137,283</b>
<b>Timber REITs (2.5%)</b>		
Weyerhaeuser Co.	610,144	20,446
Rayonier Inc.	116,634	3,663
PotlatchDeltic Corp.	66,531	3,516
		<b>27,625</b>
<b>Total Equity Real Estate Investment Trusts (REITs) (Cost \$1,124,322)</b>		<b>1,004,376</b>
<b>Real Estate Management &amp; Development (7.6%)</b>		
<b>Diversified Real Estate Activities (0.2%)</b>		
St. Joe Co.	29,160	1,410

	Shares	Market Value* (\$000)
RMR Group Inc. Class A	12,783	296
		<b>1,706</b>
<b>Real Estate Development (0.3%)</b>		
* Howard Hughes Corp.	29,142	2,300
* Forestar Group Inc.	16,578	374
		<b>2,674</b>
<b>Real Estate Operating Companies (0.3%)</b>		
DigitalBridge Group Inc.	134,609	1,980
Kennedy-Wilson Holdings Inc.	80,436	1,313
* Seritage Growth Properties Class A	30,385	271
*.1 WeWork Inc. Class A	101,280	26
		<b>3,590</b>
<b>Real Estate Services (6.8%)</b>		
* CoStar Group Inc.	338,646	30,139
* CBRE Group Inc. Class A	258,740	20,883
* Zillow Group Inc. Class C	127,112	6,389
* Jones Lang LaSalle Inc.	39,638	6,175
* Zillow Group Inc. Class A	48,635	2,393
* Opendoor Technologies Inc.	428,022	1,721
<sup>1</sup> eXp World Holdings Inc.	62,080	1,259
* Redfin Corp.	91,379	1,135
* Cushman & Wakefield plc	132,372	1,083
* Compass Inc. Class A	238,406	834
Newmark Group Inc. Class A	120,614	750
Marcus & Millichap Inc.	21,203	668
* Anywhere Real Estate Inc.	82,783	553
RE/MAX Holdings Inc. Class A	15,115	291
Douglas Elliman Inc.	61,142	136
*.1 Offerpad Solutions Inc.	4,691	61
*.1 Doma Holdings Inc.	4,358	21
		<b>74,491</b>
<b>Total Real Estate Management &amp; Development (Cost \$107,426)</b>		<b>82,461</b>
<b>Temporary Cash Investments (0.8%)</b>		
<b>Money Market Fund (0.8%)</b>		
<sup>3,4</sup> Vanguard Market Liquidity Fund, 5.150% (Cost \$8,280)	82,806	8,279
<b>Total Investments (100.6%) (Cost \$1,240,028)</b>		<b>1,095,116</b>
<b>Other Assets and Liabilities—Net (-0.6%)</b>		<b>(6,309)</b>
<b>Net Assets (100%)</b>		<b>1,088,807</b>

Cost is in \$000.

\* See Note A in Notes to Financial Statements.

\* Non-income-producing security.

<sup>1</sup> Includes partial security positions on loan to broker-dealers. The total value of securities on loan is \$7,750,000.

<sup>2</sup> Security value determined using significant unobservable inputs.

<sup>3</sup> Affiliated money market fund available only to Vanguard funds and certain trusts and accounts managed by Vanguard. Rate shown is the 7-day yield.

<sup>4</sup> Collateral of \$8,265,000 was received for securities on loan.

REIT—Real Estate Investment Trust.

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Derivative Financial Instruments Outstanding as of Period End

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Futures Contracts

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				(\$000)
	Expiration	Number of Long (Short) Contracts	Notional Amount	Value and Unrealized Appreciation (Depreciation)
Long Futures Contracts				
Dow Jones U.S. Real Estate Index	September 2023	30	1,011	25
E-mini S&P 500 Index	September 2023	6	1,346	2
				<hr/> 27

# Statement of Assets and Liabilities

As of June 30, 2023

(\$000s, except shares, footnotes, and per-share amounts)	Amount
<b>Assets</b>	
Investments in Securities, at Value <sup>1</sup>	
Unaffiliated Issuers (Cost \$1,231,748)	1,086,837
Affiliated Issuers (Cost \$8,280)	8,279
Total Investments in Securities	1,095,116
Investment in Vanguard	37
Cash Collateral Pledged—Futures Contracts	72
Receivables for Investment Securities Sold	31,890
Receivables for Accrued Income	4,295
Receivables for Capital Shares Issued	58
Variation Margin Receivable—Futures Contracts	8
<b>Total Assets</b>	<b>1,131,476</b>
<b>Liabilities</b>	
Due to Custodian	2,054
Payables for Investment Securities Purchased	31,697
Collateral for Securities on Loan	8,265
Payables for Capital Shares Redeemed	538
Payables to Vanguard	115
<b>Total Liabilities</b>	<b>42,669</b>
<b>Net Assets</b>	<b>1,088,807</b>

<sup>1</sup> Includes \$7,750,000 of securities on loan.

At June 30, 2023, net assets consisted of:

Paid-in Capital	1,197,518
Total Distributable Earnings (Loss)	(108,711)
<b>Net Assets</b>	<b>1,088,807</b>
<b>Net Assets</b>	
Applicable to 98,632,617 outstanding \$.001 par value shares of beneficial interest (unlimited authorization)	1,088,807
<b>Net Asset Value Per Share</b>	<b>\$11.04</b>



## Statement of Operations

	Six Months Ended June 30, 2023
	(\$000)
<b>Investment Income</b>	
<b>Income</b>	
Dividends	16,500
Interest <sup>1</sup>	4
Securities Lending—Net	17
Total Income	16,521
<b>Expenses</b>	
The Vanguard Group—Note B	
Investment Advisory Services	12
Management and Administrative	1,314
Marketing and Distribution	34
Custodian Fees	45
Shareholders' Reports	13
Trustees' Fees and Expenses	—
Other Expenses	5
Total Expenses	1,423
<b>Net Investment Income</b>	<b>15,098</b>
<b>Realized Net Gain (Loss)</b>	
Capital Gain Distributions Received	3,760
Investment Securities Sold <sup>1</sup>	16,672
Futures Contracts	(17)
<b>Realized Net Gain (Loss)</b>	<b>20,415</b>
<b>Change in Unrealized Appreciation (Depreciation)</b>	
Investment Securities <sup>1</sup>	1,095
Futures Contracts	44
<b>Change in Unrealized Appreciation (Depreciation)</b>	<b>1,139</b>
<b>Net Increase (Decrease) in Net Assets Resulting from Operations</b>	<b>36,652</b>

<sup>1</sup> Interest income, realized net gain (loss), and change in unrealized appreciation (depreciation) from an affiliated company of the portfolio were \$3,000, less than \$1,000, and (\$1,000), 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)
<b>Increase (Decrease) in Net Assets</b>		
<b>Operations</b>		
Net Investment Income	15,098	28,122
Realized Net Gain (Loss)	20,415	49,985
Change in Unrealized Appreciation (Depreciation)	1,139	(476,185)
Net Increase (Decrease) in Net Assets Resulting from Operations	36,652	(398,078)
<b>Distributions</b>		
Total Distributions	(77,195)	(77,984)
<b>Capital Share Transactions</b>		
Issued	54,221	147,195
Issued in Lieu of Cash Distributions	77,195	77,984
Redeemed	(95,950)	(193,133)
Net Increase (Decrease) from Capital Share Transactions	35,466	32,046
Total Increase (Decrease)	(5,077)	(444,016)
<b>Net Assets</b>		
Beginning of Period	1,093,884	1,537,900
End of Period	1,088,807	1,093,884

## Financial Highlights

For a Share Outstanding Throughout Each Period	Six Months Ended June 30,	Year Ended December 31,				
	2023	2022	2021	2020	2019	2018
<b>Net Asset Value, Beginning of Period</b>	<b>\$11.53</b>	<b>\$16.56</b>	<b>\$12.43</b>	<b>\$13.74</b>	<b>\$11.57</b>	<b>\$13.14</b>
<b>Investment Operations</b>						
Net Investment Income <sup>1</sup>	.155	.297	.257	.259	.329	.367
Net Realized and Unrealized Gain (Loss) on Investments	.180	(4.474)	4.553	(1.054)	2.874	(1.084)
Total from Investment Operations	.335	(4.177)	4.810	(.795)	3.203	(.717)
<b>Distributions</b>						
Dividends from Net Investment Income	(.286)	(.262)	(.293)	(.316)	(.368)	(.383)
Distributions from Realized Capital Gains	(.539)	(.591)	(.387)	(.199)	(.665)	(.470)
Total Distributions	(.825)	(.853)	(.680)	(.515)	(1.033)	(.853)
<b>Net Asset Value, End of Period</b>	<b>\$11.04</b>	<b>\$11.53</b>	<b>\$16.56</b>	<b>\$12.43</b>	<b>\$13.74</b>	<b>\$11.57</b>
<b>Total Return</b>	<b>3.45%</b>	<b>-26.30%</b>	<b>40.21%</b>	<b>-4.85%</b>	<b>28.81%</b>	<b>-5.35%</b>
<b>Ratios/Supplemental Data</b>						
Net Assets, End of Period (Millions)	\$1,089	\$1,094	\$1,538	\$1,077	\$1,242	\$965
Ratio of Total Expenses to Average Net Assets	0.26%	0.26% <sup>2</sup>	0.26%	0.26%	0.26%	0.26%
Ratio of Net Investment Income to Average Net Assets	2.66%	2.25%	1.79%	2.19%	2.52%	3.04%
Portfolio Turnover Rate	7%	11%	12%	10%	7%	35%

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

1 Calculated based on average shares outstanding.

2 The ratio of expenses to average net assets for the period net of reduction from custody fee offset arrangements was 0.26%.

## Notes to Financial Statements

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

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

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

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

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

During the six months ended June 30, 2023, the portfolio's average investments in long and short futures contracts represented less than 1% and 0% of net assets, respectively, based on the average of the notional amounts at each quarter-end during the period.

3. **Federal Income Taxes:** The portfolio intends to continue to qualify as a regulated investment company and distribute virtually all of its taxable income. The portfolio's tax returns are open to examination by the relevant tax authorities until expiration of the applicable statute of limitations, which is generally three years after the filing of the tax return. Management has analyzed the portfolio's tax positions taken for all open federal and state income tax years, and has concluded that no provision for income tax is required in the portfolio's financial statements.

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

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

collateral mitigates counterparty risk, in the event of a default, the portfolio may experience delays and costs in recovering the securities loaned. The portfolio invests cash collateral received in Vanguard Market Liquidity Fund, and records a liability in the Statement of Assets and Liabilities for the return of the collateral, during the period the securities are on loan. Collateral investments in Vanguard Market Liquidity Fund are subject to market appreciation or depreciation. Securities lending income represents fees charged to borrowers plus income earned on invested cash collateral, less expenses associated with the loan. During the term of the loan, the portfolio is entitled to all distributions made on or in respect of the loaned securities.

6. Credit Facilities and Interfund Lending Program: The portfolio and certain other funds managed by The Vanguard Group ("Vanguard") participate in a \$4.3 billion committed credit facility provided by a syndicate of lenders pursuant to a credit agreement and an uncommitted credit facility provided by Vanguard. Both facilities may be renewed annually. Each fund is individually liable for its borrowings, if any, under the credit facilities. Borrowings may be utilized for temporary or emergency purposes and are subject to the portfolio's regulatory and contractual borrowing restrictions. With respect to the committed credit facility, the participating funds are charged administrative fees and an annual commitment fee of 0.10% of the undrawn committed amount of the facility, which are allocated to the funds based on a method approved by the portfolio's board of trustees and included in Management and Administrative expenses on the portfolio's Statement of Operations. Any borrowings under either facility bear interest at an agreed-upon spread plus the higher of the federal funds effective rate, the overnight bank funding rate, or the Daily Simple Secured Overnight Financing Rate inclusive of an additional agreed-upon spread. However, borrowings under the uncommitted credit facility may bear interest based upon an alternate rate agreed to by the portfolio and Vanguard.

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

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

7. Other: Distributions received from investment securities are recorded on the ex-dividend date. Non-cash dividends included in income, if any, are recorded at the fair value of the securities received. Each investment security reports annually the tax character of its distributions. Dividend income, capital gain distributions received, and unrealized appreciation (depreciation) reflect the amounts of taxable income, capital gain, and return of capital reported by the REITs, and management's estimates of such amounts for REIT distributions for which actual information has not been reported. Interest income includes income distributions received from Vanguard Market Liquidity Fund and is accrued daily. Security transactions are accounted for on the date securities are bought or sold. Costs used to determine realized gains (losses) on the sale of investment securities are those of the specific securities sold.

B. In accordance with the terms of a Funds' Service Agreement (the "FSA") between Vanguard and the portfolio, Vanguard furnishes to the portfolio investment advisory, corporate management, administrative, marketing, and distribution services at Vanguard's cost of operations (as defined by the FSA). These costs of operations are allocated to the portfolio based on methods and guidelines approved by the board of trustees and are generally settled twice a month.

Upon the request of Vanguard, the portfolio may invest up to 0.40% of its net assets as capital in Vanguard. At June 30, 2023, the portfolio had contributed to Vanguard capital in the amount of \$37,000, representing less than 0.01% of the portfolio's net assets and 0.01% of Vanguard's capital received pursuant to the FSA. The portfolio's trustees and officers are also directors and employees, respectively, of Vanguard.

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

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

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

**Level 3**—Significant unobservable inputs (including the portfolio's own assumptions used to determine the fair value of investments). Any investments and derivatives valued with significant unobservable inputs are noted on the Schedule of Investments.

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)
<b>Investments</b>				
Assets				
Common Stocks	1,086,837	—	—	1,086,837
Temporary Cash Investments	8,279	—	—	8,279
Total	1,095,116	—	—	1,095,116
<b>Derivative Financial Instruments</b>				
Assets				
Futures Contracts <sup>1</sup>	27	—	—	27

<sup>1</sup> 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.

D. 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	1,241,423
Gross Unrealized Appreciation	123,061
Gross Unrealized Depreciation	(269,341)
Net Unrealized Appreciation (Depreciation)	(146,280)

E. During the six months ended June 30, 2023, the portfolio purchased \$81,715,000 of investment securities and sold \$103,877,000 of investment securities, other than temporary cash investments.

The portfolio purchased securities from and sold securities to other Vanguard funds or accounts managed by Vanguard or its affiliates, in accordance with procedures adopted by the board of trustees in compliance with Rule 17a-7 of the Investment Company Act of 1940. For the six months ended June 30, 2023, such purchases were \$0 and sales were \$35,000, resulting in net realized gain of \$4,000; these amounts, other than temporary cash investments, are included in the purchases and sales of investment securities noted above.

F. Capital shares issued and redeemed were:

	Six Months Ended June 30, 2023	Year Ended December 31, 2022
	Shares (000)	Shares (000)
Issued	4,731	11,004
Issued in Lieu of Cash Distributions	7,524	5,356
Redeemed	(8,462)	(14,362)
Net Increase (Decrease) in Shares Outstanding	3,793	1,998

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

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

The use of derivatives may expose the portfolio to various risks. Derivatives can be highly volatile, and any initial investment is generally small relative to the notional amount so that transactions may

be leveraged in terms of market exposure. A relatively small market movement may have a potentially larger impact on derivatives than on standard securities. Leveraged derivatives positions can, therefore, increase volatility. Additional information regarding the portfolio's use of derivative(s) and the specific risks associated is described under significant accounting policies.

At 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 38% 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 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 Real Estate Index Portfolio has renewed the portfolio's investment advisory arrangement with The Vanguard Group, Inc. (Vanguard), through its Equity Index Group. The board determined that continuing the portfolio's internalized management structure was in the best interests of the portfolio and its shareholders.

The board based its decision upon an evaluation of the advisor's investment staff, portfolio management process, and performance. This evaluation included information provided to the board by Vanguard's Portfolio Review Department, which is responsible for fund and advisor oversight and product management. The Portfolio Review Department met regularly with the advisor and made 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 arrangement. Rather, it was the totality of the circumstances that drove the board's decision.

### **Nature, extent, and quality of services**

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

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

### **Investment performance**

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

### **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 expenses were also below the peer-group average.

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

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



## 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 the Real Estate Index 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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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.

You can obtain a free copy of Vanguard's proxy voting guidelines by visiting [vanguard.com/proxyreporting](https://vanguard.com/proxyreporting) or by calling Vanguard at 800-662-2739. The guidelines are also available from the SEC's website, [www.sec.gov](https://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](https://vanguard.com/proxyreporting) or [www.sec.gov](https://www.sec.gov).