

# Vanguard Global Value Factor ETF (VVL)

## Product Brief

As of March 31, 2022

Seeks to provide long-term capital appreciation by investing in developed market stocks with lower market valuations relative to fundamentals, such as book value of equity and earnings.

### Key facts

Ticker	VVL
Management fee <sup>1</sup>	0.35%
MER <sup>2</sup>	0.38%
Inception date	June 14, 2016
Exchange	Toronto Stock Exchange
Management style	Actively managed
Currency	CAD
Net assets	\$309.1M
Distribution schedule	Annually
Distribution per unit	\$0.61
Eligibility	RRSP, RRIF, RESP, TFSA, DPSP, RDSP, Non-reg

### Key features

- Actively managed by the sub-advisor—Vanguard Global Advisers, LLC's Quantitative Equity Group (QEG)—which implements transparent, rules-based portfolio construction.
- A design intended to deliver the strongest and most consistent value factor exposure possible.
- Broad diversification by investing globally across all developed markets.

### Explaining the value factor

A portfolio of stocks with low share prices relative to each company's fundamental value is likely to have exposure to the value factor. Historically, these stocks have outperformed relative to the broad equity market.<sup>4</sup> This return premium can be explained in part by some behavioural biases, such as investors' tendency to shun companies that may be struggling in the short term, while overpaying for companies that exhibit recent growth.

### Portfolio applications

- Employ a static tilt to attempt to outperform the market over the long run.
- Replace a higher-cost active manager.
- Add a single factor to offset other factor exposures in the portfolio.
- Achieve capital efficiency (strength of factor exposure may allow for less allocation with similar impact).

### Risks

- As a group, stocks with value characteristics tend to go through cycles of doing better—or worse—than the broad equity market.

<sup>1</sup> The management fee is equal to the fee paid by the Vanguard ETF to Vanguard Investments Canada Inc. and does not include applicable taxes or other fees and expenses of the Vanguard ETF.

<sup>2</sup> Management expense ratio (MER) is the MER as of March 31, 2021, including waivers and absorptions and is expressed as an annualized percentage of the daily average net asset value. The MER would have been 0.38% without any absorptions or waivers. Vanguard Investments Canada Inc. expects to continue absorbing or waiving certain fees indefinitely, but may, in its discretion, discontinue this practice at any time.

<sup>3</sup> Total may not sum to 100% due to rounding.

<sup>4</sup> Douglas M. Grim, Scott N. Pappas, Ravi G. Tolani and Savas Kesidis, 2017. *Equity factor-based investing: A practitioner's guide*. Valley Forge, Pa.: The Vanguard Group.

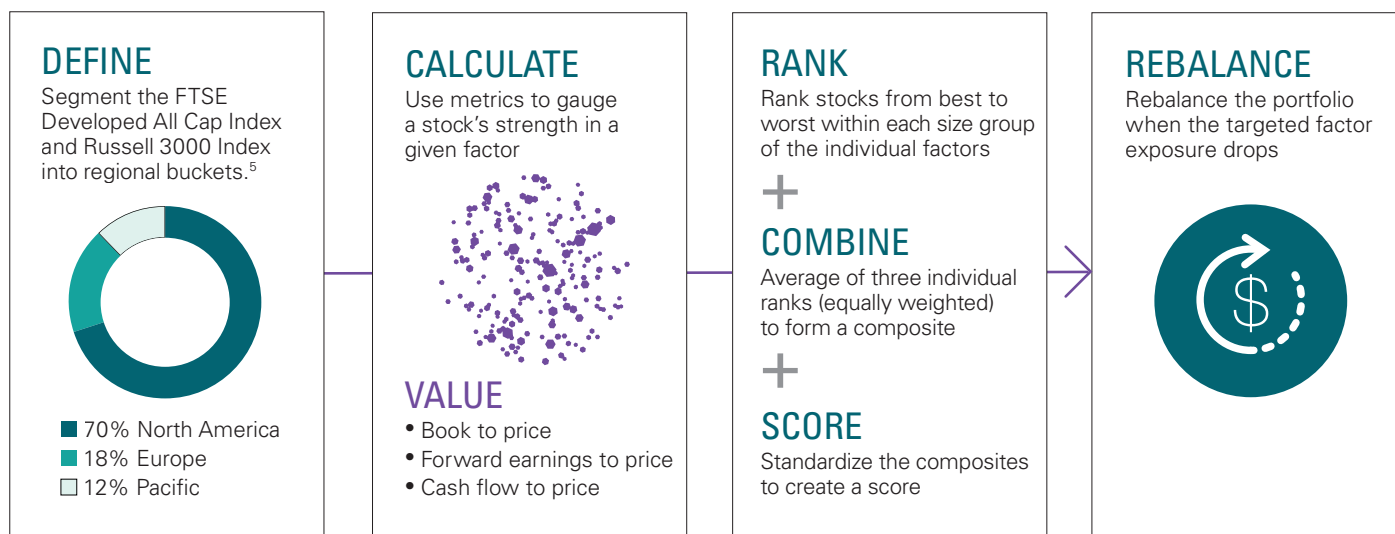
## Building our value factor ETF

The methodology we employ to build our factor portfolios helps us to achieve a broader and stronger factor exposure that is more diversified across individual stocks, giving us greater flexibility to maintain consistent exposure over time.

We believe that factor-based strategies should prioritize broader diversification and stronger factor exposure above all else.

- **Assess the opportunities:** Our quantitative process analyzes thousands of stocks each day.
- **Calculate the factor score:** Each stock is evaluated on commonly recognized metrics per single factor fund.
- **Create the portfolio:** High-scoring stocks are included in the portfolio and weighted according to their score.

## Four-step portfolio construction process



## Actively managed by Vanguard's QEG

Vanguard Global Value Factor ETF (VVL) is managed by the sub-advisor—Vanguard Global Advisers, LLC's Quantitative Equity Group (QEG)—which managed about \$45.1 billion USD across a wide range of active equity investments as of March 31, 2021. QEG's investment approach is defined by rigorous research, vigilant risk management, discipline and low costs.

## Active implementation

Since Vanguard factor ETFs are actively managed, QEG continually monitors the portfolios to help ensure the targeted exposure does not drift over time. Factor exposures are assessed daily and rebalanced as needed to concentrate on the targeted factor(s).

## Scoring value factor strength

Our quantitative models use various metrics for each Vanguard factor ETF to gauge a stock's strength in a given factor. For value, we rank stocks from best to worst in each market-cap group based on the following characteristics:

- Book to price: Book value/price.
- Forward earnings to price: Forward earnings/price.
- Cash flow to price: Operating cash flows/price.

By continually measuring the factor strength, we can adjust exposure, buying or selling shares as needed to maintain dynamic exposure to the desired factor. This portfolio management flexibility helps us reduce costs by lowering trading costs.

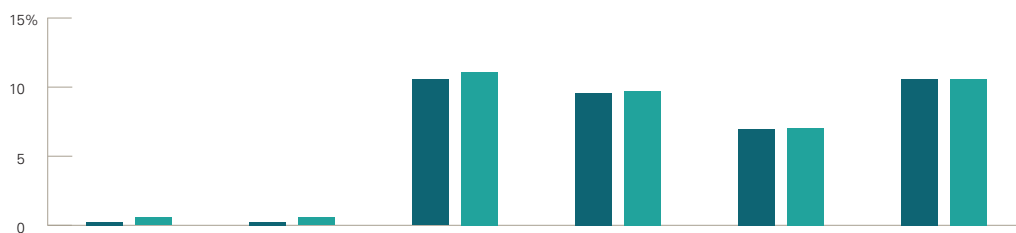
## Risk management is an integrated part of our process

Vanguard Risk Management Group (RMG) supports the investment process by providing high-quality analysis, insight and reporting, leading to informed risk taking and objective global risk management. RMG reports directly to Vanguard's chief investment officer, which provides an additional, independent layer of risk control to the investment process.

<sup>5</sup> Percentages for regions, as of March 31, 2022, may not add up to 100% due to rounding.

Performance summary\*

Total returns for period ending March 31, 2022



	3 months	Year to date	1 year	3 years	5 years	Since inception**
Market price	0.22%	0.22%	10.55%	9.56%	6.99%	10.59%
NAV	0.56%	0.56%	11.11%	9.72%	7.02%	10.60%

\*Please see "Important information" for significant disclosures regarding the performance of the ETF.

\*\*Returns from June 14, 2016, the fund's inception date.

Fund statistics	VVL
Number of stocks	1,126
Median market cap	\$13.0B
Price/earnings ratio	8.8x
Price/book ratio	1.1x
Return on equity	9.9%
Earnings growth rate	9.3%
Cash investments	0.1%
Equity yield (dividend)	2.4%
Turnover rate (annualized)	43.3%

Top 10 holdings <sup>7</sup>	VVL
ConocoPhillips	0.6%
AT&T Inc.	0.5
Cigna Corp.	0.5
Dow Inc.	0.5
Exxon Mobil Corp.	0.5
FedEx Corp.	0.5
Micron Technology Inc.	0.5
Regeneron Pharmaceuticals Inc.	0.5
Shell plc	0.5
Verizon Communications Inc.	0.5
Top Ten Total	5.1%

Volatility	VVL
Beta	1.32
R <sup>2</sup>	68.5%

Sector weighting <sup>6</sup>	VVL
Financials	22.1%
Consumer Discretionary	20.1
Industrials	15.8
Energy	9.9
Basic Materials	8.3
Health Care	8.0
Technology	5.9
Telecommunications	4.7
Consumer Staples	4.7
Real Estate	0.5
Utilities	0.0
Total	100.0%

Total may not sum to 100% due to rounding.

Market allocation	VVL
United States	65.7%
Japan	6.9
United Kingdom	4.9
Germany	3.5
Korea	3.5
France	3.0
Canada	2.8
Italy	1.9
Hong Kong	1.0
Netherlands	0.9

Top countries equal 94.0% of net assets.

6 Please see "Important information" for sector weightings.

7 Please see "Important information" for the number of holdings.

## Quarterly ETF commentary

- Global equities, as measured by the FTSE Global All Cap Index, returned –6.36% for the first quarter of 2022. Some of the concerns that had been weighing on market sentiment carried into the fourth quarter of 2021. Volatility surged and stock markets slumped during the first quarter of 2022. When the period began, rising prices and the prospect of less accommodative monetary policy were already weighing on market sentiment. Then Russia’s invasion of Ukraine injected substantial uncertainty into the markets. Energy prices soared, helping to push consumer prices to multidecade highs across much of the world. Some central banks, including those in the United States and the United Kingdom, raised short-term interest rates. The European Central Bank continued to reduce its bond purchases, and the markets are expecting the ECB to raise rates later this year. Stocks regained some ground in March but finished the quarter in negative territory, with European and emerging-market stocks among the laggards. For the quarter, Vanguard Global Value Factor ETF (+0.56%) outperformed its reference benchmark index, the FTSE Developed All Cap Index CAD (–6.43%).
- The fund, launched in June 2016, invests primarily in U.S. and foreign developed-market stocks that have stronger value characteristics than its benchmark counterparts. The advisor’s quantitative model uses a rules-based active approach that aims to favour equities with lower prices relative to their fundamental measures of value (including book value, estimated

future earnings and operating cash flow). These measures have been shown to be a component of long-term stock market returns.

- For the quarter, the fund’s focus on these characteristics contributed to relative returns, as holdings of relative-value stocks outperformed the broad equity market. The overweight to energy and underweight to technology contributed the most to portfolio performance. This was also helped by strong security selection in industrials, energy, and basic materials. By region, exposure to U.S. securities contributed most to portfolio performance.
- For the 12 months ended March 31, the Global Value Factor ETF (+11.11%) outperformed its benchmark (+7.42%). Strong security selection and an overweight to energy contributed the most to portfolio performance. Portfolio performance was also helped by strong security selection in industrials. Meanwhile, the weak security selection and an underweight to technology detracted from portfolio performance. By region, exposure to U.S. securities contributed most to portfolio performance.

All returns are based in CAD.

### Top contributors—3 months

Holding	3-month return	Average weight	Total contribution
ConocoPhillips	38.08%	0.56%	0.17%
Occidental Petroleum Corporation	93.98%	0.23%	0.16%
Chevron Corporation	38.66%	0.42%	0.14%

### Top detractors—3 months

Holding	3-month return	Average weight	Total contribution
General Motors Company	–26.23%	0.47%	–0.14%
Royal Mail plc	–37.50%	0.25%	–0.12%
Moderna, Inc.	–32.93%	0.36%	–0.11%

### Top contributors—12 months

Holding	12-month return	Average weight	Total contribution
ConocoPhillips	93.80%	0.39%	0.32%
Teck Resources Limited Class B	113.40%	0.29%	0.23%
Ford Motor Company	38.59%	0.48%	0.22%

### Top detractors—12 months

Holding	12-month return	Average weight	Total contribution
Atos SE	–64.39%	0.14%	–0.16%
Altice USA, Inc. Class A	–61.82%	0.11%	–0.13%
General Motors Company	–24.35%	0.47%	–0.11%

## Performance attribution by sector

### Three months

	Vanguard Global Value Factor ETF			Globally diversified broad-market index <sup>8</sup>			Attribution <sup>9</sup>
	Average weight	3-month return	Contribution to return	Average weight	3-month return	Contribution to return	
Basic Materials	9.24%	10.53%	0.73%	3.95%	4.82%	0.17%	1.10%
Consumer Discretionary	17.36	-10.51	-1.49	14.79	-11.27	-1.81	-0.09
Consumer Staples	5.04	2.10	0.08	6.00	-4.22	-0.28	0.32
Energy	10.19	34.34	2.37	4.09	27.74	0.94	2.48
Financials	22.38	-2.07	-0.28	13.96	-2.39	-0.39	0.60
Health Care	8.26	-2.71	-0.16	11.76	-5.61	-0.59	0.20
Industrials	15.87	-1.15	-0.11	14.11	-8.75	-1.29	1.21
Real Estate	0.61	-0.84	-0.01	3.66	-6.66	-0.24	0.04
Technology	5.91	-6.72	-0.31	21.85	-12.12	-2.79	1.33
Telecommunications	5.12	-5.96	-0.25	2.89	-5.64	-0.17	0.00
Utilities	0.01	-5.72	0.00	2.95	0.14	0.03	-0.20
Total	100.00%	0.56%	0.56%	100.00%	-6.43%	-6.43%	6.99%

Source: Vanguard calculations using data from FactSet. The average sector allocations exclude temporary cash investments. Columns may not total 100% because of rounding.

### Twelve months

	Vanguard Global Value Factor ETF			Globally diversified broad-market index <sup>8</sup>			Attribution <sup>9</sup>
	Average weight	12-month return	Contribution to return	Average weight	12-month return	Contribution to return	
Basic Materials	8.68%	18.35%	1.53%	3.90%	13.75%	0.44%	1.02%
Consumer Discretionary	15.90	-6.37	-0.97	15.27	-1.36	-0.13	-1.17
Consumer Staples	5.86	13.02	0.70	5.89	6.87	0.33	0.31
Energy	8.42	71.74	5.21	3.48	46.62	1.26	4.79
Financials	26.23	9.90	3.11	13.52	10.62	1.20	0.21
Health Care	7.62	12.51	0.97	11.84	10.01	1.12	0.19
Industrials	15.62	5.10	0.86	14.68	-0.77	0.00	1.15
Real Estate	0.77	3.65	0.05	3.63	12.91	0.42	-0.24
Technology	5.65	-0.52	0.02	21.82	13.83	2.63	-1.99
Telecommunications	5.06	-7.07	-0.38	3.05	-5.62	-0.15	-0.43
Utilities	0.19	-10.49	0.01	2.93	11.23	0.29	-0.15
Total	100.00%	11.11%	11.11%	100.00%	7.42%	7.42%	3.68%

Source: Vanguard calculations using data from FactSet. The average sector allocations exclude temporary cash investments. Columns may not total 100% because of rounding.

<sup>8</sup> The FTSE Developed All Cap Index was used for reference.

<sup>9</sup> Represents the total effect of the portfolio manager's sector allocation and stock selection decisions. Comparisons are shown for reference only. The ETF is actively managed and does not seek to track the performance of a benchmark.

## Important information

**Commissions, management fees, and expenses all may be associated with investment funds. Investment objectives, risks, fees, expenses, and other important information are contained in the prospectus; please read it before investing. Investment funds are not guaranteed, their values change frequently, and past performance may not be repeated. Vanguard funds are managed by Vanguard Investments Canada Inc. and are available across Canada through registered dealers.**

Date of publication: April 2022

**Performance of the Vanguard ETF:** Performance information of the Vanguard ETF reflects waivers of certain expenses and/or fees. If the Vanguard ETF had incurred all expenses, investment returns would have been reduced. The indicated rates of return are the historical annual compounded total returns including changes in unit value and reinvestment of all dividends or distributions and do not take into account sales, redemption, distribution or optional charges or income taxes payable by any unitholder that would have reduced returns. The performance of the Vanguard ETF is for illustrative purposes only.

**Use of the benchmark:** The FTSE Developed All Cap Index was chosen as the ETF's benchmark because it is a broad-based global developed equity market index. Although the ETF uses this index for long-term performance comparisons, it is not managed relative to the composition of the index. There are differences between the ETF and the index in, among other things, security holdings and geographical and sector allocations. As a result, the ETF may experience periods when its performance differs materially from that of the index.

**Number of holdings:** The number of holdings shown is unaudited and should not be relied upon as investment advice. For any Vanguard Canada ETF that invests in one or more underlying ETFs, the number of holdings displayed represents those of the underlying ETF(s).

**Sector allocations:** The sector allocations provided exclude any temporary cash investments. Sector categories are based on the Industry Classification Benchmark system (ICB), except for the Other category (if applicable), which includes securities that have not been provided an ICB classification as of the effective reporting period.

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