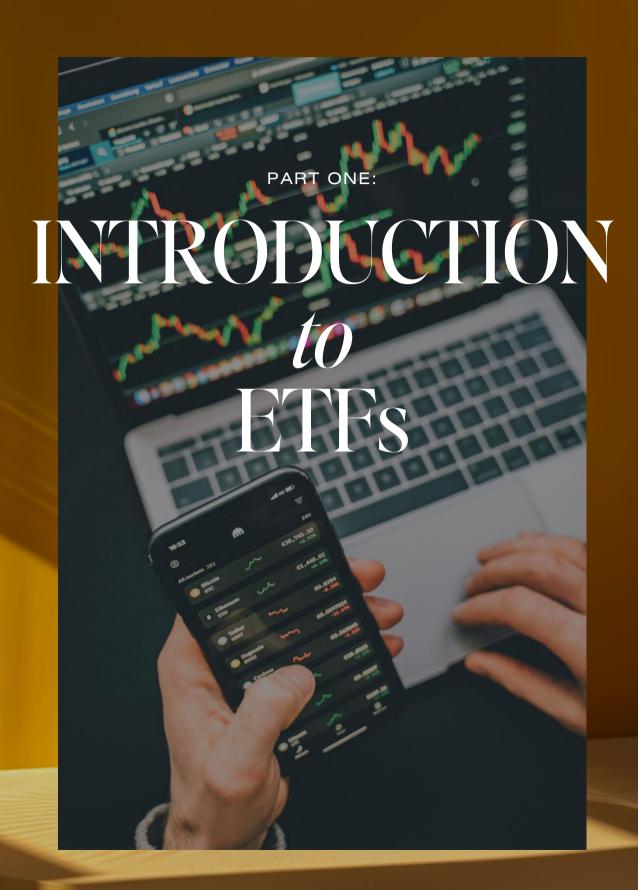


Let's demystify the world of exchange-traded funds (ETFs).





WHAT ARE ETFS?

Ol QUESTION

Exchange-Traded Funds (ETFs) are investment funds that are traded on **stock exchanges**, *similar* to individual stocks. They are designed to track the performance of a **specific index**, **sector**, **commodity**, **or theme**.

The key feature of an ETF is that it allows investors to gain exposure to a **wide variety**of assets with a **single purchase**. Think of it as a **basket** of investments: when you
buy one share of the ETF, you're effectively buying a small piece of **every asset in**that basket. This makes ETFs an easy way to diversify your portfolio.



HOW DO ETFS DIFFER FROM MUTUAL FUNDS AND INDIVIDUAL STOCKS?

02

QUESTION

Let's start with mutual funds.

Trading Flexibility

ETFs trade on **stock exchanges** throughout the day, which means their prices fluctuate based on supply and demand. Mutual funds, on the other hand, are only bought or sold at the end of the trading day. *Translation: you can log into your brokerage account and execute a trade at any time. You don't need to call a broker.*



Lower Costs

ETFs usually have **lower expense ratios** (annual fees or MER) compared to mutual funds because they are often passively managed (tracking an index) rather than actively managed by a team of professionals.

LET'S PUT THIS INTO PERSPECTIVE.

A popular ETF like the Vanguard S&P 500 ETF (VOO) charges just **0.03%**, which is **\$3** annually on a **\$10,000** investment.

Here is a standard fund BMO would assign. It's MER is **1.89%**, which is **\$189 annually** on a \$10,000 investment.

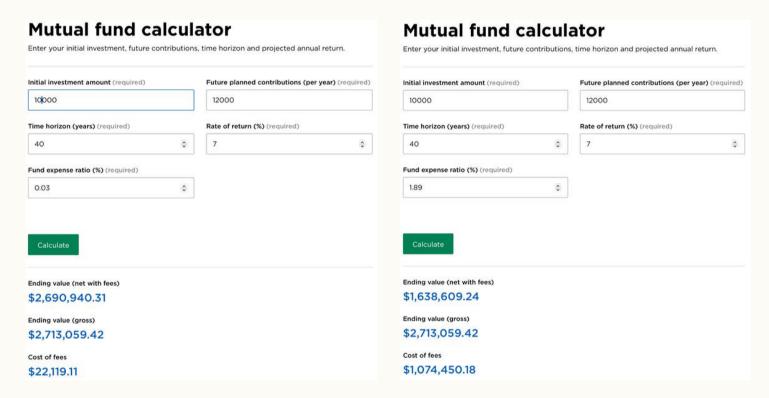




LET'S LOOK AT THIS ANOTHER WAY!

USING ANY MUTUAL FUND FEE CALCULATOR ON LINE, LET'S LOOK AT THE PREVIOUS EXAMPLE.

WE ARE COMPARING 2 "FUNDS", ONE WITH AN MER OF 0.03% AND ANOTHER WITH 1.89%



In both of these scenarios, we started off with a **\$10,000** investment, and are contributing **\$1,000** per month (realistic right?). We've used a conservative rate of return (**7%**) over a period of **40 years**.

The difference in portfolio value over that time is astounding. In the low cost ETF scenario, after 40 years, we have \$2.69MM, whereas in the traditional mutual fund we have \$1.64MM.



And now, individual stocks:

Diversification

When you buy a stock, you're investing in one company. If that company performs poorly, your investment takes a hit. With an ETF, your money is spread across multiple companies or assets, reducing the risk tied to any single one.

Risk Management

Stocks can be highly volatile, and their performance depends on the success of a single company. ETFs smooth out this risk by pooling investments across a sector, index, or theme.



WHAT ARE THE ADVANTAGES OF ETFS?

03

QUESTION

The market for ETFs (the second most popular form of passive investing) has grown significantly since they were first launched in the 1990s as a way to allow investment firms to create "baskets" of major stocks aligned to a specific index or sector.

SO LET'S TALK ABOUT SOME OF THE BIGGEST ADVANTAGES



The ADVANTAGES

01

TAX EFFICIENCY

ETFs are more tax-efficient than mutual funds due to their unique creation and redemption processes, which minimize capital gains distributions. While mutual funds have improved, ETFs still hold an edge.

02

LIQUIDITY

ETFs trade on **stock exchanges** throughout the **trading day** at real-time market prices, allowing investors to buy or sell shares **whenever the markets are open.** In contrast, mutual funds are bought or sold based on the net asset value (NAV) calculated at the end of the trading day.

03

TRANSPARENCY

ETFs disclose their holdings daily, giving investors a clear and up-to-date view of their investments. This is especially useful for funds invested in less conventional assets like currencies or real estate. Mutual funds, by comparison, typically report holdings less frequently, making it harder to track portfolio changes.

04

DIVERSIFICATION

ETFs provide broad diversification by tracking an index or asset class, allowing investors to own a wide range of assets with a single investment. However, it's important to ensure the assets in the ETF aren't overly correlated.

05

LOWER EXPENSES

ETFs are usually passively managed, which keeps **costs lower** compared to actively managed mutual funds that require more resources. As a result, ETFs typically have lower expense ratios.



TYPES OF ETFS

- Stock Market Tracking ETFs
- Sector Tracking ETFs
- 1 International ETFs
- 1 Thematic ETFs
- Complex ETFs

STOCK MARKET TRACKING ETFS

ETFs that track major indexes like the **S&P 500**, **Dow Jones**, **or NASDAQ-100** are **popular** among individual investors because they offer a simple way to own a stake in the broader market, focusing on **large**, **established companies**.

However, these indexes naturally favour **larger** corporations, potentially limiting exposure to **smaller** or **growing** businesses. For those looking to **diversify** beyond large-cap companies, ETFs that track mid-cap or small-cap indexes, such as the S&P 400 or Russell 2000, can provide broader market coverage and exposure to different growth opportunities.

LET'S ACTUALLY LOOK AT SOME EXAMPLES NEXT

Show me Examples



LARGE-CAP ETFS

Shares S&P/TSX 60 Index ETF (XIU)

- Overview: Tracks the S&P/TSX 60 Index, representing 60 large-cap Canadian companies.
- · Expense Ratio: 0.18%
- · Assets Under Management: Over \$18.9 billion as of January 14, 2025
- . Source: THE MOTLEY FOOL CANADA



MID-CAP ETFS

Shares S&P/TSX Completion Index ETF (XMD)

- Overview: Tracks the S&P/TSX Completion Index, providing exposure to mid-cap and small-cap Canadian companies not included in the S&P/TSX 60.
- Expense Ratio: 0.55%
- Source: WIKIPEDIA



SMALL-CAP ETFS

Shares S&P/TSX SmallCap Index ETF (XCS)

- Overview: Seeks to replicate the performance of the S&P/TSX SmallCap Index, focusing on smaller Canadian companies.
- Expense Ratio: 0.60%
- Assets Under Management: Approximately \$134.31 million
- Source: MONEY REVERIE



BROAD MARKET ETFS

Vanguard FTSE Canada All Cap Index ETF (VCN)

- Overview: Provides exposure to large, mid, and small-cap Canadian companies by tracking the FTSE Canada All Cap Domestic Index.
- Expense Ratio: 0.05%
- Assets Under Management: Approximately \$6.03 billion
- Source: WEALTH AWESOME

Show me Examples



LARGE-CAP ETFS

- 1. SPDR S&P 500 ETF Trust (SPY) Tracks the S&P 500.
- 2. Vanguard S&P 500 ETF (VOO) A low-cost option that also tracks the S&P 500.
- iShares Core S&P 500 ETF (IVV) Another popular S&P 500 tracking fund with low expenses.



MID-CAP ETFS

- 1. iShares Core S&P Mid-Cap ETF (IJH) Tracks the S&P MidCap 400 Index.
- SPDR S&P MidCap 400 ETF Trust (MDY) Another option for exposure to mid-cap companies.
- 3. Vanguard Mid-Cap ETF (VO) Tracks the CRSP U.S. Mid Cap Index, offering a slightly broader mid-cap focus.



SMALL-CAP ETFS

- 1. iShares Russell 2000 ETF (IWM) Tracks the Russell 2000 Index.
- 2. Vanguard Small-Cap ETF (VB) Tracks the CRSP U.S. Small Cap Index for small-cap exposure.
- SPDR S&P SmallCap 600 ETF (SLY) Tracks the S&P SmallCap 600 Index, offering another small-cap alternative.



BROAD MARKET ETFS

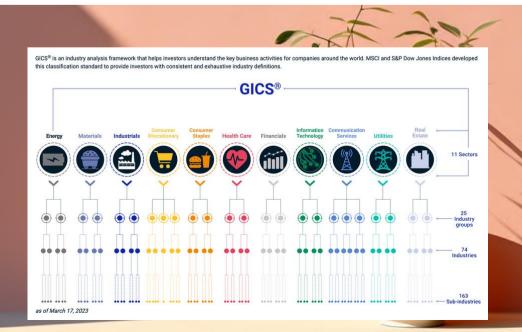
- Vanguard Total Stock Market ETF (VTI) Tracks the CRSP U.S. Total Market Index, covering all caps.
- iShares Russell 3000 ETF (IWV) Tracks the Russell 3000 Index, which includes large-, mid-, and small-cap companies.
- 3. Schwab U.S. Broad Market ETF (SCHB) Offers exposure to the entire U.S. equity market.

SECTOR TRACKING ETFS

If you want to focus on a **specific part** of the economy rather than the entire market, you can invest in **sector-specific ETFs**. Financial research leaders MSCI and S&P created the Global Industry Classification Standard (GICS), which organizes all publicly traded companies into **11 main sectors**.

Each sector has **multiple ETFs tracking it**, and there are also ETFs for subcategories within these sectors, such as Industry Group, Industry, and Sub-Industry. For example, if you're interested in investing in crude oil companies, you can find a specific ETF for that.

MSCI OFFERS AN INTERACTIVE TOOL THAT
PROVIDES AN OVERVIEW OF ALL 11 SECTORS AND
THEIR SUBCATEGORIES FOR DEEPER EXPLORATION.



Sector tracking ETF examples:

GICS Sector	Canadian ETF	American ETF
Communication Services	iShares Global Comm Services ETF (XCOM.TO)	Communication Services Select Sector SPDR Fund (XLC)
Consumer Discretionary	BMO Consumer Discretionary Index ETF (ZCD.TO)	Consumer Discretionary Select Sector SPDR Fund (XLY)
Consumer Staples	iShares S&P/TSX Capped Consumer Staples Index ETF (XST.TO)	Consumer Staples Select Sector SPDR Fund (XLP)
Energy	iShares S&P/TSX Capped Energy Index ETF (XEG.TO)	Energy Select Sector SPDR Fund (XLE)
Financials	BMO Equal Weight Banks Index ETF (ZEB.TO)	Financial Select Sector SPDR Fund (XLF)
Health Care	iShares S&P/TSX Capped Health Care Index ETF (XHC.TO)	Health Care Select Sector SPDR Fund (XLV)
Industrials	iShares S&P/TSX Capped Industrials Index ETF (XID.TO)	Industrial Select Sector SPDR Fund (XLI)
Information Technology	iShares S&P/TSX Capped Information Technology Index ETF (XIT.TO)	Technology Select Sector SPDR Fund (XLK)
Materials	iShares S&P/TSX Capped Materials Index ETF (XMA.TO)	Materials Select Sector SPDR Fund (XLB)
Real Estate	iShares S&P/TSX Capped REIT Index ETF (XRE.TO)	Real Estate Select Sector SPDR Fund (XLRE)
Utilities	BMO Equal Weight Utilities Index ETF (ZUT.TO)	Utilities Select Sector SPDR Fund (XLU)

INTERNATIONAL ETFS

Those who want exposure to international stocks may choose to invest in one of several types of international ETFs, described below.

ETFS COVERING ALL ECONOMIES OUTSIDE THE U.S.

For exposure to global markets beyond the U.S., ETFs like Vanguard Total International Stock ETF (VXUS) provide a convenient option. These funds track the performance of stocks in both developed and emerging markets outside the U.S., offering broad diversification in one purchase. Investors can also target specific countries' stock markets, such as Canada's Toronto Stock Exchange or Japan's Tokyo Stock Exchange, through country-specific ETFs.

ETFS FOCUSED ON DEVELOPED MARKETS

Developed markets represent stable, advanced economies like Australia, Japan, and Germany.

These markets tend to have reliable legal systems, advanced technology, and lower risk compared to emerging markets. ETFs such as iShares MSCI EAFE ETF (EFA) offer broad exposure to stocks in developed countries, providing a diversified way to invest in established global economies.

ETFS FOCUSED ON EMERGING MARKETS

Emerging markets include countries like
Brazil, China, Russia, and Turkey, which are
still developing economically but offer
significant growth potential. While these
markets can be riskier, ETFs like Vanguard
FTSE Emerging Markets ETF (VWO) spread
investments across multiple emerging
economies, reducing the impact of volatility in
any single country.

COUNTRY-SPECIFIC ETFS

If you're interested in investing in a specific country, there are ETFs designed for that too. For example: iShares MSCI Japan ETF (**EWJ**) allows you to access the Japanese stock market in a single trade. iShares MSCI South Korea ETF (**EWY**) provides exposure to major South Korean companies like Samsung and Hyundai.

THEMATIC ETFS

Thematic ETFs are like the **creative outliers in the ETF world**, offering unique investment opportunities. Some focus on making an impact, like **ESG** (environmental, social, and governance) funds that invest in environmentally friendly and socially responsible companies. Others target emerging trends, such as **marijuana ETFs** that capitalize on the growing cannabis industry in Canada and the U.S.

While some thematic ETFs are actively managed and come with **higher fees**, there are cost-effective options too. For example, Wealthsimple offers socially responsible and halal ETFs that provide focused exposure at some of the lowest fees in the industry.

1. Wealthsimple Thematic ETFs:

- Wealthsimple Shariah World Equity Index ETF (WSHR): Canada's first Shariah-compliant ETF, offering exposure to global equities that adhere to Islamic principles.
- Wealthsimple North America Socially Responsible Index ETF (WSRI): Focuses on North American companies with strong environmental, social, and governance (ESG) practices.

2. Other Popular Thematic ETFs:

- ARK Innovation ETF (ARKK): Managed by Cathie Wood's ARK Invest, this ETF focuses on disruptive innovation across various sectors, including technology and genomics.
- First Trust Cloud Computing ETF (SKYY): Invests in companies that generate significant revenue from cloud computing services, capturing the growth in this technology sector.
- Global X Robotics & Artificial Intelligence ETF (BOTZ): Targets companies involved in robotics and AI development, capitalizing on advancements in automation and technology.

 SAVVY NEW CANADIANS
- iShares Global Clean Energy ETF (ICLN): Provides exposure to global companies producing energy from solar, wind, and other renewable sources, aligning with the clean energy trend.
- VanEck Vectors Video Gaming and eSports ETF (ESPO): Focuses on companies involved in video game development, eSports, and related hardware, tapping into the growing gaming industry.

COMPLEX ETFS

There are numerous ETFs that aren't focused solely on profiting from a rising stock market, such as **leveraged and inverse ETFs**. However, these funds are **complex** and **risky**, making them **unsuitable** for **most** investors.

Unless you have a deep understanding of how they work—like being able to explain derivatives to a third-grader—it's best to **steer clear.**

Leveraged ETFs:

- 1. ProShares Ultra S&P 500 (SSO)
 - Objective: Provides twice (2x) the daily performance of the S&P 500 Index.
 - . Use Case: Suitable for investors looking to amplify daily gains of the S&P 500.
 - Source: Forbes Advisor
- 2. Direxion Daily S&P 500 Bull 3X Shares (SPXL)
 - Objective: Seeks to deliver three times (3x) the daily performance of the S&P 500 Index.
 - Use Case: Intended for short-term traders aiming to capitalize on daily market movements.
 - Source: ETF Database

Inverse ETFs:

- 1. ProShares Short S&P 500 (SH)
 - Objective: Aims to achieve the inverse (-1x) of the daily performance of the S&P 500 Index.
 - Use Case: Allows investors to profit from declines in the S&P 500 without shorting stocks directly.
 - · Source: Investopedia
- 2. ProShares UltraPro Short QQQ (SQQQ)
 - Objective: Seeks to provide three times the inverse (-3x) of the daily performance of the Nasdaq-100 Index.
 - Use Case: Designed for investors speculating on short-term declines in large-cap technology stocks.
 - · Source: Investopedia



THE ROLE OF ETFS IN A BALANCED PORTFOLIO

ETFs serve as the **foundation** of a portfolio, offering **diversified**exposure to various markets.

Core Holdings: Broad Market ETFs

CORE ETFS ARE DESIGNED TO PROVIDE STABLE, DIVERSIFIED EXPOSURE TO MAJOR MARKETS AND ARE TYPICALLY THE LARGEST PORTION OF A PORTFOLIO.

Vanguard Total Stock Market ETF (VTI): Covers the entire U.S. stock market, including large-, mid-, small-, and micro-cap stocks.

SPDR S&P 500 ETF Trust (SPY): Focuses on the largest 500 companies in the U.S. for a more large-cap approach.

Vanguard S&P 500 ETF (VOO): Another low-cost option for large-cap U.S. stocks, tracking the S&P 500.

iShares Core S&P/TSX Capped Composite Index ETF (XIC): Tracks Canada's entire stock market, including large-, mid-, and small-cap stocks.

BMO S&P/TSX Capped Composite Index ETF (ZCN): Provides broad exposure to the Canadian stock market with similar coverage to XIC.

Vanguard FTSE Canada Index ETF (VCE): Focuses on large- and mid-cap Canadian companies for a slightly more targeted approach.

Vanguard FTSE All-World ex-U.S. ETF (VEU): Offers broad exposure to both developed and emerging markets outside the U.S.

iShares MSCI EAFE ETF (EFA): Focuses on developed markets outside North America, including Europe, Australasia, and the Far East.

iShares Core MSCI Total International Stock ETF (IXUS): Tracks developed and emerging markets outside the U.S. for total international exposure.

Virial Virial

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After you've established your CORE holdings, you can think about:

TACTICAL ALLOCATIONS: SECTOR AND THEMATIC ETFS

Now, we're getting a little bit more complicated. This step is optional. Imagine you have a recipe for chicken soup. Your core ETFS are the broth, noodles and chicken. The ETF's below - think of them like adding hot peppers if you like your soup spicy, or vegetables if you want to be "healthy". You get what I'm saying. These ETFs are based on your personal preferences; the areas of the market YOU think will produce a superior return.

These ETFs allow you to target **specific sectors** or **themes** to **complement** your core holdings and **overweight** areas with **higher growth potential** or **personal values**.

Sectors:

- Technology: Technology Select Sector SPDR Fund (XLK) for exposure to U.S. tech leaders like Apple and Microsoft.
- Healthcare: iShares U.S. Healthcare ETF (IYH) for U.S.-based healthcare companies like Johnson & Johnson.

Thematic:

- Clean Energy: iShares Global Clean Energy ETF (ICLN) targets renewable energy companies worldwide.
- Artificial Intelligence and Robotics: Global X Robotics & Artificial Intelligence ETF (BOTZ) invests in companies leading AI and robotics innovation.



REGIONAL EXPOSURE: INTERNATIONAL AND EMERGING MARKETS

Regional ETFs provide exposure to opportunities in specific areas outside North

America.

Developed Markets:

- iShares MSCI Europe ETF (IEUR): Invests in developed European markets like Germany,
 France, and the UK.
- · iShares MSCI Japan ETF (EWJ): Focuses specifically on Japanese companies.

Emerging Markets:

- Vanguard FTSE Emerging Markets ETF (VWO): Covers a wide range of emerging economies like China, Brazil, and India.
- iShares MSCI Emerging Markets ETF (EEM): Offers another option for emerging market exposure with slightly different holdings.

INCOME AND STABILITY: BOND ETFS AND REITS

Adding bonds and real estate ETFs provides income and stability to balance the volatility of equities.

Bond ETFs:

- BMO Aggregate Bond Index ETF (ZAG): Tracks a mix of Canadian government and corporate bonds.
- iShares Core U.S. Aggregate Bond ETF (AGG): Provides broad exposure to the U.S. bond market.

Real Estate ETFs (REITs):

- Vanguard Real Estate ETF (VNQ): Tracks U.S. real estate companies and REITs.
- iShares S&P/TSX Capped REIT Index ETF (XRE): Offers exposure to Canadian real
 estate investment trusts.



How it all fits together

- Core Holdings: VTI (U.S.), VOO (U.S.), VCN (Canada), VCE (Canada), VEU (Global), IXUS (Global).
- Tactical Allocations: XLK (Tech), BOTZ (AI/Robotics), ICLN (Clean Energy)
- Regional Exposure: IEUR (Europe), EWJ (Japan), VWO (Emerging Markets).
- Income and Stability: ZAG (Canadian Bonds), AGG (U.S. Bonds), VNQ (U.S. REITs).



Rebalancing Your Portfolio Over Time

- 1. Review Your Target Allocation
- **2.** Assess Your Current Allocation (has it shifted?)
- **3** Sell Overweighted Assets
- **4.** Buy Underweighted Assets
- **5.** Set a Rebalancing Schedule



SHOPPING! Vanguard Product - Took & Received - North Annual Conference - North Annual Conferenc LET'S GO ETF



Ticker	Funds and share class	Trading currency	MER	<u>Management</u> <u>Fee</u>	Holdings	Domicile	Total Assets	Factsheet
Equit	Equity (22)						Θ	
VCN	Vanguard FTSE Canada All Cap Index ETF	CAD	0.05%	0.05%	161	CA	\$8.4 B	
VCE	Vanguard FTSE Canada Index ETF	CAD	0.06%	0.05%	49	CA	\$2.1 B	
VRE	Vanguard FTSE Canadian Capped REIT Index ETF	CAD	0.39%	0.35%	14	CA	\$275.0 M	
VDY	Vanguard FTSE Canadian High Dividend Yield Index ETF	CAD	0.22%	0.20%	53	CA	\$3.3 B	
VIU	Vanguard FTSE Developed All Cap ex North America Index ETF	CAD	0.23%	0.20%	3745	CA	\$4.8 B	
VI	Vanguard FTSE Developed All Cap ex North America Index ETF (CAD- hedged)	CAD	0.22%	0.20%	3745	CA	\$419.7 M	
VDU	Vanguard FTSE Developed All Cap ex U.S. Index ETF	CAD	0.22%	0.20%	3909	CA	\$438.5 M	
VEF	Vanguard FTSE Developed All Cap ex U.S. Index ETF (CAD-hedged)	CAD	0.22%	0.20%	3909	CA	\$650.8 M	
VA	Vanguard FTSE Developed Asia Pacific All Cap Index ETF	CAD	0.22%	0.20%	2313	CA	\$98.4 M	
VE	Vanguard FTSE Developed Europe All Cap Index ETF	CAD	0.22%	0.20%	1252	CA	\$203.2 M	
VIDY	Vanguard FTSE Developed ex North America High Dividend Yield Index ETF	CAD	0.31%	0.28%	618	CA	\$228.1 M	
VEE	Vanguard FTSE Emerging Markets All Cap Index ETF	CAD	0.25%	0.23%	5860	CA	\$2.2 B	
vxc	Vanguard FTSE Global All Cap ex Canada Index ETF	CAD	0.22%	0.20%	11411	CA	\$2.2 B	



Factsheet | December 31, 2024

Vanguard FTSE Canada All Can Index ETF | VCN

Trading information	
Ticker symbol	VCN
CUSIP	92205P104
SEDOL	BBX4834
ISIN	CA92205P1045
Index ticker	ACCANXF
Exchange	Toronto Stock Exchange
Currency	CAD
ETF facts	
Benchmark	FTSE Canada All Cap Domestic Index
Distribution schedule	Quarterly
ETF total net assets	\$8,391 million
Inception date	August 2, 2013
Eligibility	RRSP, RRIF, RESP, TFSA DPSP, RDSP, Non-Reg, FHSA
Management fee*	0.05%
MER†	0.05%

Objective

Vanguard FTSE Canada All Cap Index ETF seeks to track, to the extent reasonably possible and before fees and expenses, the performance of a broad Canadian equity index that measures the investment return of large-, mid- and small-capitalization, publicly traded securities in the Canadian market. Currently, this Vanguard ETF seeks to track the FTSE Canada All Cap Domestic Index (or any successor thereto). It invests primarily in large-, mid- and small-capitalization Canadian stocks.

About the benchmark

The FIRE Sanada All Cap Domestic Index is a market-capitalization-weighter dex representing a seformance of Canadian large-, mid- and small-capital action companies.

Performance summary

VCN year-end NAV calendar returns as of December 31, 2023.

	Net of expenses
2020	4.84%
2021	25.65%
2022	-5.76%
2023	12.20%
2024	22.2/



Total returns for period ending December 31, 2024

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Metric	Importance
P/E Ratio	Assesses valuation relative to earnings; useful for comparing ETFs and evaluating growth vs. value funds.
P/B Ratio	Evaluates asset-based valuation; important for sectors like financials and real estate.
ROE	Measures profitability and efficiency; higher ROE indicates better management and returns.
Earnings Growth	Shows the growth potential of holdings; higher growth often leads to better future returns.
Dividend Yield	Indicates income generation; ideal for income-focused investors seeking consistent payouts.

Vanguard FTSE Canada All Cap Index ETF | VCN

ETF characteristics

	VCN	Benchmark
Number of stocks	161	159
Median market cap	\$69.5B	\$69.5B
Price/earnings ratio	19.5x	19.5x
Price/book ratio	2.1x	2.1x
Return on equity	11.4%	11.4%
Earnings growth rate	10.0%	10.0%
Equity yield (dividend)	2.8%	2.8%

Top 10 holdings (% of net asset value)

VCN
7.2%
5.4
4.0
3.9
3.6
3.0
2.9
2.8
2.7
2.6
38.1%

Volatility

v oldeme)			racking
	R-Squared	Beta	error
VCN	100.00%	1.00	0.04%
10			

 $R\textsc{-}\mathrm{Squared}$, beta and tracking error are calculated from the 36-month fund returns relative to the benchmark.

Sector weighting

	VCN	Benchmark
Financials	35.2%	35.2%
Energy	16.6	16.6
Basic Materials	10.8	10.8
Technology	10.5	10.5
Industrials	9.0	9.0
Consumer Discretionary	6.3	6.3
Utilities	5.7	5.7
Consumer Staples	2.0	2.0
Telecommunications	1.9	1.9
Real Estate	1.8	1.8
Health Care	0.1	0.1
Other	0.0	0.0
Total	100.0%	100.0%

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.



01

1. P/E Ratio (Price-to-Earnings Ratio)

What It Is:

The P/E ratio compares the price of a stock (or ETF) to its earnings per share (EPS). For ETFs, it is typically calculated as a weighted average of the P/E ratios of all the companies in the fund.

· Why It's Important:

- Valuation Insight: A lower P/E ratio may indicate that the ETF is undervalued relative to its earnings, while a higher P/E may suggest it is overvalued.
- Comparison Tool: It helps compare the valuation of one ETF to others, especially within the same sector or asset class.
- Market Sentiment: A high P/E may reflect optimism about growth prospects, but it could also signal overvaluation.

· Example:

An ETF with a P/E ratio of 20 means investors are willing to pay \$20 for every \$1 of earnings generated by the underlying holdings.

Vanguard FTSE Canada All Cap Index ETF | VCN

ETF characteristics

	VCN	Benchmark
Number of stocks	161	159
Median market cap	\$69.5B	\$69.5B
Frice/earnings ratio	19.5x	19.5x
Price/book ratio	2.1x	2.1x
Return on equity	11.4%	11.4%
Earnings growth rate	10.0%	10.0%
Equity yield (dividend)	2.8%	2.8%

Top 10 holdings (% of net asset value)

	VCN
Royal Bank of Canada	7.2%
Shopify Inc.	5.4
Toronto-Dominion Bank	4.0
Enbridge Inc.	3.9
Brookfield Corp.	3.6
Bank of Montreal	3.0
Canadian Pacific Kansas City Ltd.	2.9
Bank of Nova Scotia	2.8
Canadian Natural Resources Ltd.	2.7
Constellation Software Inc.	2.6
Total	38.1%

Volatility

v oldeme)			racking
	R-Squared	Beta	error
VCN	100.00%	1.00	0.04%
10			

 $R\textsc{-}\mathrm{Squared}$, beta and tracking error are calculated from the 36-month fund returns relative to the benchmark.

Sector weighting

	VCN	Benchmark
Financials	35.2%	35.2%
Energy	16.6	16.6
Basic Materials	10.8	10.8
Technology	10.5	10.5
Industrials	9.0	9.0
Consumer Discretionary	6.3	6.3
Utilities	5.7	5.7
Consumer Staples	2.0	2.0
Telecommunications	1.9	1.9
Real Estate	1.8	1.8
Health Care	0.1	0.1
Other	0.0	0.0
Total	100.0%	100.0%

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.



02

2. P/B Ratio (Price-to-Book Ratio)

· What It Is:

The P/B ratio compares the price of the ETF to the book value (assets minus liabilities) of the underlying companies. It is also calculated as a weighted average of the P/B ratios of the holdings.

· Why It's Important:

- Asset Valuation: A lower P/B ratio may indicate that the ETF holds undervalued stocks, especially in asset-heavy sectors like financials or real estate.
- Risk Assessment: A high P/B ratio can suggest overvaluation or a premium for high-quality or growth-oriented assets.
- Sector-Specific Use: More relevant for sectors like banking and real estate, where assets are central to valuation.

Example:

A P/B ratio of 1.5 means the ETF's holdings are priced at 1.5 times their book value.

Vanguard FTSE Canada All Cap Index ETF | VCN

ETF characteristics

	VCN	Benchmark
Number of stocks	161	159
Median market cap	\$69.5B	\$69.5B
Price/earnings ratio	19.5x	19.5x
Price/book ratio	2.1x	2.1x
Return on equity	11.4%	11.4%
Sarnings growth rate	10.0%	10.0%
Equity yield (dividend)	2.8%	2.8%

Top 10 holdings (% of net asset value)

VCN
7.2%
5.4
4.0
3.9
3.6
3.0
2.9
2.8
2.7
2.6
38.1%

Volatility

v olucine)			iracking
	R-Squared	Beta	error
VCN	100.00%	1.00	0.04%
10	***************************************		

R-Squared, beta and tracking error are calculated from the 36-month fund returns relative to the benchmark.

Sector weighting

	VCN	Benchmark
Financials	35.2%	35.2%
Energy	16.6	16.6
Basic Materials	10.8	10.8
Technology	10.5	10.5
Industrials	9.0	9.0
Consumer Discretionary	6.3	6.3
Utilities	5.7	5.7
Consumer Staples	2.0	2.0
Telecommunications	1.9	1.9
Real Estate	1.8	1.8
Health Care	0.1	0.1
Other	0.0	0.0
Total	100.0%	100.0%

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.



03

3. ROE (Return on Equity)

· What It Is:

ROE measures how efficiently a company generates profits from shareholders' equity. For ETFs, it represents a weighted average of the ROEs of the underlying holdings.

· Why It's Important:

- Profitability Indicator: A higher ROE signals that the companies in the ETF are efficient at generating returns on investments.
- Comparison Across Funds: ETFs with holdings that have consistently high ROEs may offer more reliable growth potential.
- Quality Filter: ROE can help identify ETFs focused on companies with strong management and profitability.

Example:

An ETF with an average ROE of 15% means its holdings generate \$0.15 of profit for every \$1 of equity.

Vanguard FTSE Canada All Cap Index ETF | VCN

ETF characteristics

	VCN	Benchmark
Number of stocks	161	159
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Return on equity	11.4%	11.4%
Earnings growth rate	10.0%	10.0%
Equity yield (dividend)	2.8%	2.8%

Top 10 holdings (% of net asset value)

	VCN
Royal Bank of Canada	7.2%
Shopify Inc.	5.4
Toronto-Dominion Bank	4.0
Enbridge Inc.	3.9
Brookfield Corp.	3.6
Bank of Montreal	3.0
Canadian Pacific Kansas City Ltd.	2.9
Bank of Nova Scotia	2.8
Canadian Natural Resources Ltd.	2.7
Constellation Software Inc.	2.6
Total	38.1%

Volatility

v oldeme)			racking
	R-Squared	Beta	error
VCN	100.00%	1.00	0.04%
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4. Equity Earnings Growth

· What It Is

This metric measures the growth rate of earnings for the companies in the ETF over a specific period.

· Why It's Important:

- Growth Potential: Higher earnings growth suggests the ETF holds companies with increasing profitability.
- Future Returns: Sustained growth often translates to higher share prices and dividends, benefiting ETF investors.
- Sector-Specific Insights: Growth-focused sectors like technology or healthcare often have higher equity earnings growth rates.

Example:

An ETF with a 10% annual earnings growth rate implies the underlying companies are growing their profits by 10% each year.

Vanguard FTSE Canada All Cap Index ETF | VCN

ETF characteristics

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04

5. Equity (Dividend) Yield

· What It Is:

The dividend yield is the income generated from dividends, expressed as a percentage of the ETF's price. It is calculated as the weighted average yield of the ETF's holdings.

. Why It's Important:

- Income Source: High dividend yield ETFs are attractive for incomefocused investors, such as retirees.
- Stability Indicator: ETFs with consistent yields often contain established, stable companies.
- Risk Consideration: A very high yield may signal risk, as companies might not sustain those payouts in the long term.

Example

An ETF with a 4% dividend yield pays \$40 annually for every \$1,000 invested.

Vanguard FTSE Canada All Cap Index ETF | VCN

ETF characteristics

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Canadian Natural Resources Ltd.	2.7
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Total	38.1%

Volatility

Volutility			Tracking	
	R-Squared	Beta	error	
VCN	100.00%	1.00	0.04%	

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Other	0.0	0.0
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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.

HOLDINGS AND SECTOR BREAKDOWN

WHAT TO LOOK FOR:

Top Holdings: Which companies or assets make up the largest portion of the ETF?

Sector Allocation: What industries are represented, and are they diversified?

Your Evaluation: Ensure the ETF isn't overly concentrated in one company or sector unless this aligns with your strategy.

Risk and Volatility

Beta

1.00

1.00

Alpha

-0.01

Standard Deviation

13.81%

Sharpe Ratio

0.35

1. Beta (1.00)

What It Is:

Beta measures the volatility of the ETF relative to the overall market (typically the benchmark index). A beta of 1.00 means the ETF moves in line with the market.

- Beta > 1: The ETF is more volatile than the market (e.g., moves 1.5x for every 1x market move).
- Beta < 1: The ETF is less volatile than the market (e.g., moves 0.5x for every 1x market move).
- · What It Means Here:

A beta of 1.00 indicates that this ETF has the same level of volatility as the benchmark index it tracks.

3. Alpha (-0.01)

What It Is:

Alpha measures the ETF's performance relative to the benchmark.

- · Positive Alpha: The ETF outperformed the benchmark.
- Negative Alpha: The ETF underperformed the benchmark.
- · What It Means Here:

An alpha of -0.01 suggests the ETF underperformed its benchmark by 0.01%. This is a negligible difference, indicating it tracks the benchmark very closely.

2. R2 (1.00)

· What It Is:

 R^2 (R-squared) measures how closely the ETF's performance is correlated with the benchmark index. Values range from 0 to 1:

- R2 = 1.00: Perfect correlation with the benchmark.
- R2 = 0: No correlation with the benchmark.
- · What It Means Here:

An R^2 of 1.00 indicates this ETF tracks its benchmark index almost perfectly, making it highly reliable for mirroring the market.

4. Standard Deviation (13.81%)

· What It Is:

Standard deviation measures the ETF's price volatility. A higher percentage means more fluctuation in price over time.

What It Means Here:

A standard deviation of 13.81% suggests that the ETF's returns typically deviate by \pm 13.81% from its average return. This indicates a moderate level of volatility.

5. Sharpe Ratio (0.35)

· What It Is:

The Sharpe Ratio measures the ETF's risk-adjusted return. It shows how much excess return the ETF delivers per unit of risk taken (volatility).

- · Higher Sharpe Ratio: Better risk-adjusted performance.
- · Low Sharpe Ratio: May indicate higher risk without sufficient return.
- · What It Means Here:

A Sharpe Ratio of 0.35 means the ETF provides a modest return relative to the risk. Investors may want to compare this to similar ETFs to evaluate its attractiveness.

 $\label{eq:Sharpe Ratio} Sharpe\ Ratio = \frac{Return\ of\ the\ Portfolio\ -Risk-Free\ Rate}{Standard\ Deviation\ of\ Portfolio\ Returns}$

Example:

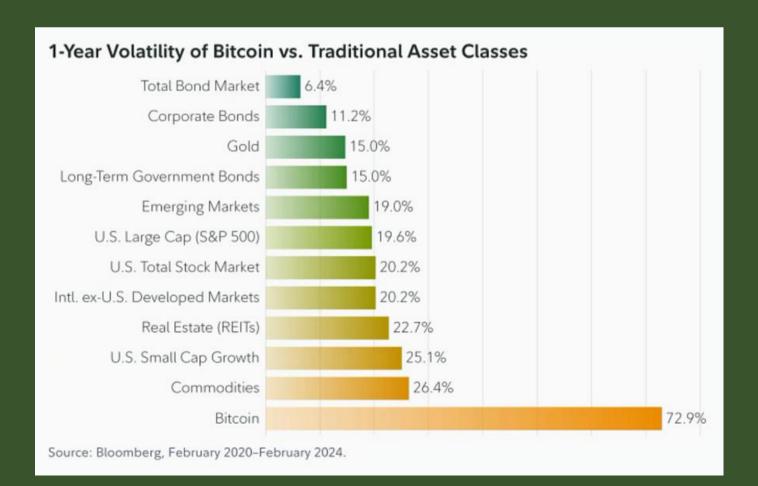
Suppose an ETF delivers an annual return of 8%, the risk-free rate is 3%, and its standard deviation is 10%.

$$\mathrm{Sharpe\ Ratio} = \frac{8\% - 3\%}{10\%} = 0.5$$

This indicates the ETF delivers **0.5 units of return per unit of risk**, suggesting modest risk-adjusted performance.

SPEAKING OF VOLATILITY...

FOR FUN, LET'S LOOK AT SOME COMMON ASSET CLASSES.



AND NOW...

Let's go online and analyze ETFs together!

