



ETF Buyer's Guide & Digital Broker Comparison 2023

THE
GLOBE
AND
MAIL

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ETF Buyer's Guide and Digital Broker Comparison 2023

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CHAPTER 1

Best Canadian equity funds

As sure as night follows day, outrageously strong stock markets eventually run out of fuel. That's your scene-setter for the first chapter of the 2023 Globe and Mail ETF Buyer's Guide, covering Canadian equity funds. One-year returns in this category in last year's guide were almost comically high at an average 26 per cent. This year, the average for the 12 months to Jan. 31 was a mere 2.3 per cent.

As disappointing as this slowdown was for investors, it provides an opportunity to compare how exchange-traded funds of all types handled a challenging market.

You'll see in the data below that low-cost index trackers had the lowest 12-month returns, while more expensive funds that try to shield investors from market excesses did better. Be mindful of longer-term numbers as well as the recent past when interpreting these returns. Funds that hold their own in a down market may lag when stocks heat up again.

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Five more chapters of the ETF guide follow – they'll cover funds holding Canadian bonds, U.S. stocks, global/international stocks, dividend stocks and asset-allocation funds, which are a fully diversified portfolio packaged into a single fund. Generally, ETFs must have at least five years of history to be considered for inclusion in the Buyer's Guide.

To invest in ETFs, you need a brokerage account. For help on that, consult the 2023 Globe and Mail digital brokerage ranking at the end of this ebook. Also consider robo-advisers, which can build and manage a portfolio of ETFs for you at a reasonable cost.

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BMO S&P/TSX Capped Comp. Index

ZCN



Feb. 13, 2018

Feb. 13, 2023

\$20.54

\$27.79

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
7,110	0.06	0	3.1
BETA	# of holdings	50-day avg vol	LAUNCH DATE
1	237	106,278	5/29/09

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Financials 34	1-yr 1.5
Energy 15	3-yr 9.5
Industrials 12	5-yr 8.7

How's your stock picking working out?
What about your Canadian equity mutual funds? ZCN, with its ultralow MER, is the perfect benchmark. If you can't beat the benchmark, buy it.

BMO Low Volatility Canadian Equity

ZLB



Feb. 13, 2018

Feb. 13, 2023

\$28.94

\$41.36

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
2,962	0.39	0	2.5
BETA	# of holdings	50-day avg vol	LAUNCH DATE
0.73	47	105,684	10/21/11

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Financials 20	1-yr 5.3
Utilities 16	3-yr 8.0
Con Staples 15	5-yr 9.4

The harsh market conditions of the past year seem an ideal test for the strategy of holding a portfolio of stocks that zig and zag in a less extreme way than the broader market. Some low-volatility ETFs struggled, but ZLB aced the test. Also check out the iShares MSCI Min Vol Canada Index ETF (XMV-T). Note the three-year returns for ZLB - they're a reminder that low-volatility funds can underperform at times when stocks are surging.

CI Morningstar Canada Momentum Index WXM



Feb. 13, 2018 \$16.10
Feb. 13, 2023 \$24.85

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
637	0.66	0.04	1.1
BETA	# of holdings	50-day avg vol	LAUNCH DATE
1.1	30	10,616	2/13/12

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Energy 19	1-yr 2.7
Con Service 19	3-yr 9.1
Financials 17	5-yr 9.9

Momentum investing means focusing on stocks with improving financials that have outperformed recently. WXM surpassed the S&P/TSX Composite Index in the up and down markets of the five years to Jan. 31, which is impressive. Kudos to the builders of the index WXM tracks, and two warnings to investors: don't expect permanent outperformance from WXM, and mind the hefty costs as reflected through the combined MER and TER.

Horizons S&P/TSX 60 Index HXT



Feb. 13, 2018 \$31.40
Feb. 13, 2023 \$51.12

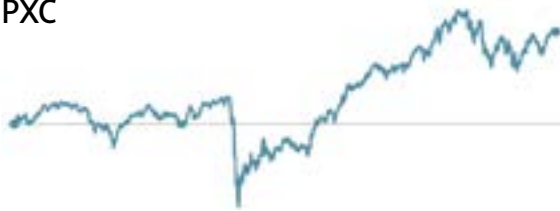
SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
4,036	0.08	0	n/a
BETA	# of holdings	50-day avg vol	LAUNCH DATE
0.96	n/a	389,134	9/14/10

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Financials 35	1-yr 0.8
Energy 18	3-yr 10.0
Industrials 11	5-yr 9.2

Horizons has built a popular franchise in total return ETFs such as HXT, in which the unit price rises and falls by an amount reflecting both share price changes and dividends. No cash dividends are paid out, which offers a tax benefit in that gains are taxed as capital gains in non-registered accounts. Derivatives are used to produce the return of the S&P/TSX 60 Index of big blue chips. While this strategy may sound exotic, it has produced reliable results for 12 years. The MER has increased from 0.04 per cent last year because Horizons has phased out a longstanding rebate.

**Invesco FTSE RAFI Canadian Index
 PXC**



Feb. 13, 2018 \$25.77
 Feb. 13, 2023 \$35.74

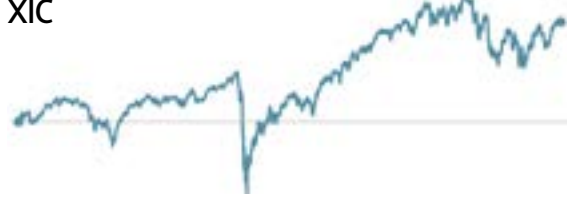
SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
216	0.48	0.01	3.3
BETA	# of holdings	50-day avg vol	LAUNCH DATE
1.05	102	5,133	1/10/12

TOP SECTOR WEIGHT (%)		ANNUALIZED RETURNS (%)	
Financials	42	1-yr	3.8
Energy	21	3-yr	12.4
Materials	9.5	5-yr	9.1

PXC's strategy of screening the market for stocks that are undervalued has been a winner over the past few years, though it has underperformed at times over the longer term. Not a lot of love from investors for this ETF, despite its recent success.

**iShares Core S&P/TSX Capped Comp Index
 XIC**



Feb. 13, 2018 \$24.19
 Feb. 13, 2023 \$32.99

SOURCE: BARCHART

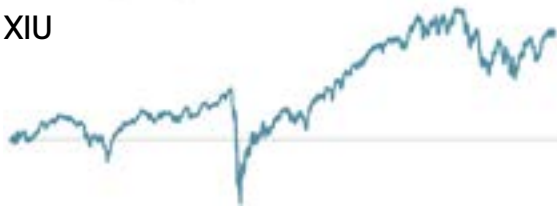
ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
9,308	0.06	0	2.9
BETA	# of holdings	50-day avg vol	LAUNCH DATE
1	236	383,770	2/16/01

TOP SECTOR WEIGHT (%)		ANNUALIZED RETURNS (%)	
Financials	31.5	1-yr	1.5
Energy	17	3-yr	9.5
Industrials	13	5-yr	8.7

XIC has been around for 22 years, which makes it a rarity in an ETF industry in which a five-year track record is a big deal. The low fee has helped produce an annualized total return since inception of 7 per cent, which seems reasonable as a target for the next 22 years.

iShares S&P/TSX 60 Index

XIU



Feb. 13, 2018
\$22.67

Feb. 13, 2023
\$31.72

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
10,887	0.18	0.01	2.8
BETA	# of holdings	50-day avg vol	LAUNCH DATE
0.95	n/a	2,552,958	9/28/99

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Financials 36	1-yr 0.7
Energy 17.5	3-yr 9.9
Industrials 11	5-yr 9.1

Favoured by institutional investors who want to trade in and out of the Canadian stock market and don't mind paying a modestly inflated MER in exchange for liquidity that blows all competitors on this list out of the water. Tracks the S&P/TSX 60 Index of big blue chips, so it's less diversified than XIC.

Manulife Multifactor Cdn Large Cap Index

MCLC



Feb. 13, 2018
\$24.77

Feb. 13, 2023
\$34.41

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
338	0.4	0.01	2.9
BETA	# of holdings	50-day avg vol	LAUNCH DATE
1	83	552	4/17/17

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Financials 32	1-yr 5.2
Materials 14	3-yr 10.7
Cons Discr 5.5	5-yr 8.6

This newcomer to the guide produced an outstanding one-year return in a tough market using a strategy that screens stocks for factors such as lower relative price and higher profitability. The loss for calendar 2022 was 0.09 per cent, compared to a decline of 5.9 per cent for the S&P/TSX composite. One to keep an eye on.

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TD Canadian Equity Index

TTP



Feb. 13, 2018

\$17.02

Feb. 13, 2023

\$23.56

SOURCE: BARCHART

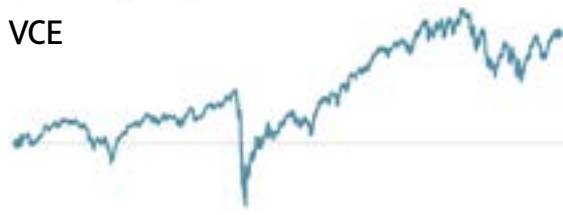
ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
1,242	0.05	0.01	3.4
BETA	# of holdings	50-day avg vol	LAUNCH DATE
1	308	29,330	3/22/16

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Financials 31	1-yr 1.6
Energy 17	3-yr 9.9
Materials 13	5-yr 8.7

A cheap, plain vanilla index-trader, which is a compliment. Tracks the Solactive Canada Broad Market Index, which produces comparable returns to the more widely-followed S&P/TSX Composite.

Vanguard FTSE Canada Index

VCE



Feb. 13, 2018

\$32.16

Feb. 13, 2023

\$45.37

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
1,358	0.06	0	3.1
BETA	# of holdings	50-day avg vol	LAUNCH DATE
0.96	51	22,667	11/30/11

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Financials 39.5	1-yr 1.5
Energy 18.5	3-yr 10.2
Materials 10	5-yr 9.4

Similar to HXT and XIU in holding a comparatively small portfolio of big blue-chip stocks. Tracks the FTSE Canada Domestic Index, which enlarges the already considerable financials weighting in other indexes. Strong returns highlight how the focus on big companies can at times deliver better performance than more diversified funds.

Vanguard FTSE Canada All Cap Index

VCN



Feb. 13, 2018

\$30.79

Feb. 13, 2023

\$41.97

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
5,319	0.05	0	2.9
BETA	# of holdings	50-day avg vol	LAUNCH DATE
1	182	103,264	8/2/13

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Financials 33	1-yr 1.5
Energy 17.5	3-yr 9.5
Materials 11.5	5-yr 8.5

Another example of how cheap the cost of investing in the Canadian stock market through ETFs has become. The all-cap approach means that smaller companies are worked into the portfolio along with all your usual suspects, such as big banks, railroads and energy giants.

GLOSSARY

ASSETS Shown to indicate how popular a fund is. A \$1-billion fund is a whale, while \$100-million is a decent size.

MANAGEMENT EXPENSE RATIO (MER) The main cost of owning an ETF on a continuing basis; returns are shown on an after-fee basis both here and on ETF company websites.

TRADING EXPENSE RATIO (TER) The cost of stock-trading commissions incurred by the managers of an ETF as they maintain the portfolio. Add the TER to the MER for a complete picture of a fund's cost. Funds with more elaborate strategies can have significant TERs, while simple index-trackers should have a TER of zero.

YIELD Based in most cases on distributions paid over the previous 12 months. Distributions are primarily dividend income, but a return of capital may also be present.

50-DAY TRADING VOLUME Average number of shares traded daily over the previous 50 days; it's easier to buy and sell at competitive prices if an ETF is heavily traded.

NUMBER OF HOLDINGS Offers some perspective on the level of diversification.

SECTOR WEIGHTINGS A key differentiator between Canadian equity ETFs. Financial stocks dominate our stock market, but some funds are deeper into the sector than others.

RETURNS The ETF guide shows total returns, which reflect price changes in the stocks that a fund holds as well as dividends paid by those stocks.

BETA A measure of volatility that compares funds with the benchmark index (in this case, the S&P/TSX Composite), which always has a beta of one. A lower beta means less volatility on both the up and down side.

Notes: Market data as of Feb. 13, 2023. Returns to Jan. 31, 2023. Source: Rob Carrick; Globeinvestor.com, TMX Money, ETF company websites and Fund Facts documents

CHAPTER 1

Best Canadian bond funds

Awful as their returns have been, bond ETFs keep attracting a healthy flow of money from investors. The reason is that diversified portfolios need bonds, and exchange-traded funds are a great way to access them. For help in choosing a bond ETF suitable for your portfolio, consult this second chapter in the 2023 Globe and Mail ETF Buyer's Guide.

You'll see in the guide how cheap it is to buy exposure to the broad bond market in Canada, including federal and provincial government bonds, and corporate bonds as well. You'll also see how weak returns have been in recent years. The ETFs in the guide produced average losses of 4.3 per cent for the 12 months to Jan. 31 and 1.3 per cent for the three-year period.

Some investors have turned to guaranteed investment certificates instead of bonds, which makes sense because they offer a virtually risk-free return of 4 to 5 per cent right now. What bond ETFs offer is the potential for strong total returns when interest rates eventually start to decline.

Just as rising rates have hurt the price of bonds and bond funds, so would declining rates help push prices higher. You'd get the interest paid by your bond ETF, plus an increase in the unit price. This total return is unavailable with GICs, which pay a set rate of interest and don't fluctuate in price.

Bond ETFs will fall further in price if rates rise from current levels. But the trend for rates over the next 12 to 24 months is very likely down, not up.

The bonds covered in the guide mainly offer broad-based exposure to the Canadian bond market, which means they could be your one and only bond fund. Also in the mix are some short-term bond funds, which are a more conservative way to invest in the bond market. Short-term bonds are less sensitive on both the down and up side to changes in interest rates.

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BMO Aggregate Bond Index

ZAG



Feb. 27, 2018
\$15.30

Feb. 27, 2023
\$13.44

SOURCE: BARCHART

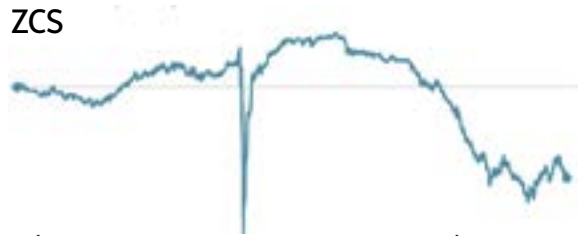
ASSETS (\$ Mil.)	MER (%)	AVG. DURATION
6,122	0.09	7.3 years
AFTER FEE % YLD TO MAT	50-day avg. vol	LAUNCH DATE
4	237	1/19/10

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Fed govt 37	1-yr -5.8
Prov govts 34	3-yr -2.3
Corp Bonds 26	5-yr 0.9

Look, the returns are an utter disappointment. But that's about the bond market, not ZAG. If you want cheap access to the entire Canadian bond market in one go, this ETF has to be considered.

BMO Short Corporate Bond Index

ZCS



Feb. 27, 2018
\$14.05

Feb. 27, 2023
\$13.06

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	AVG. DURATION
1,208	0.11	2.7 years
AFTER FEE % YLD TO MAT	50-day avg vol	LAUNCH DATE
4.9	33,825	10/20/99

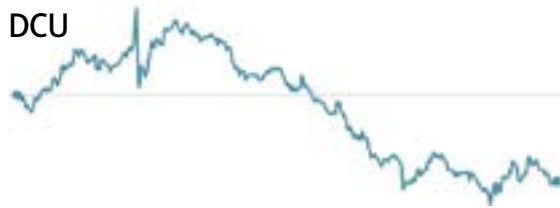
TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Financials 63	1-yr -1.8
Energy 11	3-yr 0.4
Real Estate 8	5-yr 1.7

Corporate bonds have held up better than the government bonds that account for most of the portfolio in broad market bond ETFs like ZAG. Do not expect this to continue if rates fall in a weakening economy.

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Desjardins Can. Universe Bond Index

DCU



Mar. 1, 2018 \$19.55
Feb. 27, 2023 \$17.21

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	AVG. DURATION
112	0.08	7.3 years
AFTER FEE % YLD TO MAT	50-day avg. vol	LAUNCH DATE
3.7	3,973	4/3/17

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Federal 45	1-yr -5.7
Provincial 31	3-yr -2.2
Corporate 22	5-yr 0.9

Noteworthy because of its low MER, which you can see reflected in the incrementally less bad results in the past one- and three-year periods for broad-market bond ETFs. The lower cost is a result of using an upstart index, the Solactive Canadian Bond Universe Total Return Index. Results are similar to those produced by the FTSE Canada Universe Bond Index, used by heavyweights ZAG and XBB.

Horizons Can. Select Universe Bond

HBB



Feb. 27, 2018 \$44.20
Feb. 27, 2023 \$44.70

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	AVG. DURATION
2,964	0.1	7.7 years
AFTER FEE % YLD TO MAT	50-day avg vol	LAUNCH DATE
3.7	14,774	5/7/14

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Govt 77	1-yr -6
Financials 7	3-yr -2.3
Utilities 6	5-yr 0.7

Nobody's been happy with bonds in the past year, but HBB has nevertheless taken in a lot of new money. Unique here is a total-return structure that means no distributions of bond interest. Instead, the unit price rises or falls by a total return of price changes and bond interest. There's a tax advantage here in non-registered accounts because changes in the unit price are likely to be taxed on sale as capital gains or losses. Additional fees of 0.13 per cent result from this fund's structure, so the all-in cost is comparatively high.

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iShares Core Can. Universe Bond Index
XBB



Feb. 27, 2018 \$30.46
Feb. 27, 2023 \$27.28

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	AVG. DURATION
4,665	0.1	7.3 years
AFTER FEE % YLD TO MAT	50-day avg. vol	LAUNCH DATE
4.2	203,917	11/20/00

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Federal 37	1-yr -5.8
Provincial 34	3-yr -2.3
Financials 10	5-yr 0.95

The number of ETFs listed on the TSX has exploded in recent years, so XBB's longevity really stands out. Its roots go back to the original bond ETFs launched in the Canadian market back in 2000. A solid candidate for Canadian bond market exposure.

iShares Core Can. Short Term Bond Index
XSB



Feb. 27, 2018 \$27.28
Feb. 27, 2023 \$25.64

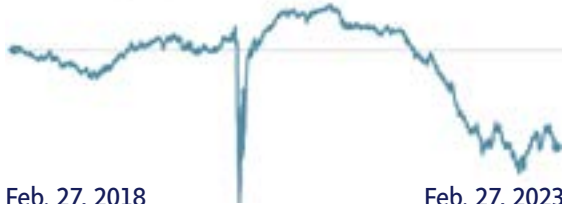
SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	AVG. DURATION
2,450	0.1	2.6 years
AFTER FEE % YLD TO MAT	50-day avg vol	LAUNCH DATE
4.4	110,858	11/20/00

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Federal 45	1-yr -1.9
Financial 22	3-yr 0
Provincial 19	5-yr 1.2

If you gathered all the corporate and government bonds in XBB that mature in five years or less, you'd more or less have XSB. The benefit of owning short-term bonds is that they're less vulnerable to rising interest rates, a point that is underscored by XSB's comparatively less sad returns. Corporate bonds also offer a bit more yield than government debt.

Invesco 1-5 Year Laddered Investment Grade Corporate Bond Index XBB



Feb. 27, 2018 \$18.04
Feb. 27, 2023 \$16.69

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	AVG. DURATION
412	0.27	3 years
AFTER FEE % YLD TO MAT	50-day avg. vol	LAUNCH DATE
4.6	6,407	6/8/11

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Energy 26	1-yr -1.3
Utility 20	3-yr 0.5
Financials 18	5-yr 1.7

Pricier than most on this list, but you get a portfolio of short-term corporate bonds with exceptional diversification. The typical corporate bond fund is loaded with financials. Use of the term '1-5 Year Laddered' refers to a tried and true strategy of dividing bond holdings equally between terms of one through five years and rolling maturing bonds into a new five-year term. Better than guessing which term will work out best and putting your money there.

Mackenzie Core Plus Cdn. Fixed Income MKB



Feb. 27, 2018 \$20.01
Feb. 27, 2023 \$18.69

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	AVG. DURATION
513	0.45	6.2 years
AFTER FEE % YLD TO MAT	50-day avg vol	LAUNCH DATE
4	15,136	4/19/16

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Corporate 48	1-yr -5.8
Federal 23	3-yr -1.3
Provincial 19	5-yr 1.5

The only actively managed bond ETF on this list. What do you get for the extra cost over passive index trackers? More corporate exposure and slightly better returns over the past three- and five-year periods. With a lower fee, MKB would have outperformed in the past year, too.

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TD Canadian Aggregate Bond Index

TDB



Feb. 27, 2018
\$14.37

Feb. 27, 2023
\$12.83

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	AVG. DURATION
951	0.08	7.2 years
AFTER FEE % YLD TO MAT	50-day avg. vol	LAUNCH DATE
3.7	27,262	3/22/16

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Energy 45	1-yr -5.5
Utility 30	3-yr -2.1
Financials 24	5-yr 0.9

Good to see a big bank-owned ETF franchise fighting for market share using low fees. It's working - TDB is a blink away from the \$1-billion mark for assets, which defines heavyweight contenders.

Vanguard Canadian Aggregate Bond Index

VAB



Feb. 27, 2018
\$24.86

Feb. 27, 2023
\$22.34

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	AVG. DURATION
3,974	0.09	7.5 years
AFTER FEE % YLD TO MAT	50-day avg vol	LAUNCH DATE
3.8	136,564	11/30/11

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Prov./Mun. 39	1-yr -5.6
Federal 26	3-yr -2.3
Financials 12	5-yr 0.9

Yet another index makes its appearance with VAB - the Bloomberg Global Aggregate Canadian Float Adjusted Bond Index. Very similar results to other broad bond market bond funds, which suggests investors don't need to worry about the index their bond ETF tracks as much as factors like fees, trading volume and breakdown between government and corporate bonds. As rates fall, government bonds will likely fare better.

Vanguard Can. Short-Term Bond Index VSB



Feb. 27, 2018 \$23.69
Feb. 27, 2023 \$22.31

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	AVG. DURATION
1,220	0.11	2.6 years
AFTER FEE % YLD TO MAT	50-day avg. vol	LAUNCH DATE
4	50,528	11/30/11

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Federal 45	1-yr -1.8
Financials 30	3-yr 0.1
Provincial 24	5-yr 1.2

VAB or VSB? If you choose investments by looking in the rear-view mirror, VSB for sure. If you prefer to look ahead to the eventual decline in interest rates, VAB would likely offer more total-return potential thanks to its government bond holdings.

GLOSSARY

RISK The key measure for evaluating how much bonds and bond ETFs can fall in price if rates rise is duration, which is expressed in years. If interest rates rise by one percentage point, the price of an ETF with a duration of five years would fall 5 per cent (and vice versa if rates fell); the higher the duration, the more risk there is if rates rise. Also, more potential benefit if rates decline.

YIELD The best measure of the yield you can expect from a bond ETF is the after-fee yield to maturity of the underlying bonds, not the backward-looking yield data you get on stock quote websites.

RETURNS Bond returns have two components – price appreciation or declines, and interest paid by the bonds in the portfolio; together, they produce the total return that ETF issuers use to document the performance of their products.

MATURITY While individual bonds may fluctuate in price, they are redeemed at their issue price on a set date; the bond ETFs covered here do not mature and pay you your money back, so expect cycles of rising and falling unit prices over the years you own them.

FEES The measure of how much it costs to own a bond ETF is the management expense ratio (MER); returns are shown on an after-fee basis both here and on ETF company websites.

Notes: Market data as of Feb. 27, 2023. Returns to Jan. 31, 2023. Sources: Rob Carrick; ETF company websites; Globeinvestor.com, TMX Money

CHAPTER 1

Best U.S. equity funds

It's almost embarrassing how little exposure the Canadian stock market has to technology and health care. The solution: Make sure you have a U.S. equity fund in your portfolio. The combined share of tech and health care share in the S&P/TSX Composite Index is about 7 per cent; for the S&P 500 Index, it's 43 per cent.

The benefits of diversification sometimes seem more theoretical than real – the so-so returns of international stocks are a good example. But tech and health care drive performance. The S&P 500 has a 10-year annualized total return of 15.5 per cent in Canadian dollars, compared to 7.9 per cent for the S&P/TSX Composite.

For help in finding a U.S. equity ETF, consider the 10 different choices presented in this third chapter of the 2023 Globe and Mail ETF Buyer's Guide. Drop any one of them into a portfolio and you've looked after your U.S. equity exposure. You could certainly complement these funds with funds covering specific sectors or different strategies, but you don't need do.

When comparing U.S. fund returns, it's important to be aware of the impact of currency hedging. With hedging, your U.S. returns won't be undermined when Canada's dollar rises, nor will they be enhanced when the dollar falls. Unhedged funds do better when our dollar is falling, and lag when it rises.

Some investment pros believe there's no point in hedging if you have a long-term time horizon. As a result, this guide focuses on unhedged U.S. equity funds, while also listing the ticker symbol for the hedged version of the same product for each.

This year's ETF Buyer's Guide has so far covered Canadian equity and bond funds. Still to come: international and global equity funds, Canadian dividend funds and asset allocation funds.

BMO Low Volatility U.S. Equity

ZLU



Mar. 13, 2018 \$31.39
Mar. 13, 2023 \$46.99

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
1,482	0.33	0	2
# of holdings	50-day avg. vol	LAUNCH DATE	
101	11,277	3/19/13	

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Con staples 22	1-yr 8.4
Utilities 20	3-yr 10.3
Health care 16	5-yr 11.2

As you scan down this list, you'll see that ZLU offers nearly all the upside of more diversified U.S. equity ETFs, with much less downside. Why not jump right on ZLU? The answer is that low-vol funds have been having a moment lately. In the next bull market, ZLU will bow to the big index tracking funds. The currency-hedged version of this fund is ZLH.

BMO S&P 500 Index

ZSP



Mar. 13, 2018 \$39.56
Mar. 13, 2023 \$58.52

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
9,185	0.09	0	1.4
# of holdings	50-day avg. vol	LAUNCH DATE	
505	362,399	11/14/12	

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Tech 27	1-yr -1.0
Health care 14	3-yr 12.4
Financials 12	5-yr 10.8

S&P 500 ETFs like the mega-popular ZSP are a smart, cheap and easy way to cover off U.S. equity exposure to big U.S. stocks in a portfolio. ZUE is the far less popular hedged version. If you expect a strong Canadian dollar, ZUE could make sense. Otherwise, unhedged is a fine choice for long-term investing.

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Horizons S&P 500 Index

HXS



Mar. 13, 2018
\$33.67

Mar. 13, 2023
\$53.24

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
2,334	0.1	0.29	n/a
# of holdings	50-day avg. vol	LAUNCH DATE	
n/a	19,173	11/30/10	

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Tech 27	1-yr -1.0
Health care 14	3-yr 12.3
Financials 12	5-yr 10.7

The S&P 500 fund for your tax-free savings account. No cash dividends are paid as a result of a total return structure where share prices reflect the changing price of underlying stocks and dividends together. No dividends means no U.S. withholding taxes to undermine returns in a TFSA. The cost of this strategy is a comparatively expensive combined MER and TER.

Invesco FTSE RAFI U.S. Index II

PXS



Mar. 13, 2018
\$25.88

Mar. 13, 2023
\$35.97

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
41	0.45	0	1.8
# of holdings	50-day avg. vol	LAUNCH DATE	
1,001	864	3/21/15	

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Financials 18	1-yr 3.6
Health care 13	3-yr 14.7
Tech 13	5-yr 10.3

Uses a fundamental indexing approach, which screens large companies by cash flow, sales, book value and dividends. The point is to deliver better returns than conventional indexes, where stocks are weighted according their size as measured by market capitalization. Fundamental indexing has had a good run lately, but it is not a permanent outperformer. The larger hedged version is PXU.F

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iShares Core S&P 500 Index
XUS



Mar. 13, 2018 \$44.88 Mar. 13, 2023 \$65.71

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
4,454	0.1	0	1.3
# of holdings	50-day avg. vol	LAUNCH DATE	
503	156,257	4/10/13	

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)		
Tech 28	1-yr	-1.2	
Health care 14	3-yr	12.3	
Financials 11	5-yr	10.8	

Huge in size and trading volume, which suggests investors aren't overly troubled by the slightly higher MER compared to the competition. XSP, older and larger, is the hedged version.

iShares Core S&P U.S. Total Market Index
XUU



Mar. 13, 2018 \$27.68 Mar. 13, 2023 \$39.54

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
2,189	0.08	0	1.4
# of holdings	50-day avg. vol	LAUNCH DATE	
3,350	27,565	2/10/15	

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)		
Tech 27	1-yr	-1.5	
Health care 14	3-yr	12.2	
Financials 11	5-yr	10.4	

A lower fee than XUS, and much broader diversification through the inclusion of medium-sized and small stocks. And yet the larger stocks in the S&P 500 and similar indexes have outperformed on a pretty consistent basis. XUH is the hedged version.

Mackenzie US Large Cap Equity Index

QUU



Mar. 13, 2018
\$102.83

Mar. 13, 2023
\$150.69

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
2,276	0.07	0.01	1.7
# of holdings	50-day avg. vol	LAUNCH DATE	
498	4,227	1/24/18	

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Tech 27	1-yr -2.1
Health care 14	3-yr 12.1
Financials 12	5-yr 10.7

What's unique here is the use of the upstart Solactive US Large Cap Index instead of the S&P 500. Returns are quite comparable to S&P 500 trackers, and the fee stands out in a good way for being right at the bottom in this group. The hedged version is QAH.

TD U.S. Equity Index

TPU



Mar. 13, 2018
\$20.09

Mar. 13, 2023
\$29.69

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
1,490	0.07	0	1.3
# of holdings	50-day avg. vol	LAUNCH DATE	
496	16,594	3/22/16	

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Tech 30	1-yr -2.1
Health care 14	3-yr 12.0
Financials 13	5-yr 10.8

Similar to QUU in cost, underlying index and returns. Note the heavy tech weighting, which is typical of U.S. equity ETFs. Canada's benchmark stock index has a lower tech weighting of close to 6 per cent. For hedging, there's THU.

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Vanguard S&P 500 Index

VFV



Mar. 13, 2018
\$63.91

Mar. 13, 2023
\$94.09

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
7,201	0.09	0	1.3
# of holdings	50-day avg. vol	LAUNCH DATE	
507	156,830	11/2/12	

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Tech 27	1-yr -1.0
Health care 15	3-yr 12.6
Financials 12	5-yr 10.8

Money keeps flowing into this massively popular S&P 500 tracker, and why not? Vanguard pretty much invented low-cost index investing. For hedging, try VSP.

Vanguard U.S. Total Market Index

VUN



Mar. 13, 2018
\$50.15

Mar. 13, 2023
\$71.88

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
5,729	0.16	0	1.2
# of holdings	50-day avg. vol	LAUNCH DATE	
3,945	56,977	8/2/13	

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Tech 24	1-yr -1.4
Con discr 14	3-yr 12.1
Health care 14	5-yr 10.3

VUN is the diversification king in this group by virtue of the 3,945 large, medium-sized and small stocks it holds. Unlike XUU, though, you have to pay extra for such a varied portfolio. For hedging, try VUS.

GLOSSARY

ASSETS Shown to give you a sense of how interested other investors are in a fund.

MANAGEMENT EXPENSE RATIO (MER) The main annual cost of owning an ETF on a continuing basis; returns are shown on an after-fee basis.

TRADING EXPENSE RATIO (TER) The cost of trading commissions racked up by the managers of an ETF; add the TER to the MER for a fuller picture of a fund's cost. Most of the U.S. equity ETFs included here don't do enough trading to generate much of a TER.

DIVIDEND YIELD U.S. dividend yields tend to be lower than those in Canada, so don't expect much in the way of income from most U.S. equity ETFs.

50-DAY TRADING VOLUME Average number of shares traded daily over the previous 50 days; it's easier to buy and sell at competitive prices if an ETF is heavily traded.

NUMBER OF HOLDINGS Gives you an indication of whether a fund offers broad stock market coverage, or holds a more concentrated portfolio that may behave differently than benchmark indexes.

SECTOR WEIGHTINGS Included to help you verify how well a U.S. equity ETF will diversify your Canadian holdings with more exposure to sectors such as tech and health care.

LAUNCH DATE The older an ETF is, the more likely it is that you can look back at a history of returns through good markets and bad.

Notes: Market data as of Mar. 13, 2023. Returns to Feb. 28, 2023. Source: Rob Carrick; Globeinvestor.com, TMX Money, ETF company websites

CHAPTER 1

Best international equity funds

Finally, some diversification benefit for Canadian investors holding international stocks. While both the Canadian and U.S. markets were down a bit for the year to Feb. 28, the benchmark MSCI EAFE Index made 4 per cent in Canadian dollars. Feeling the excitement?

If you check out the EAFE index's five-year returns, maybe not. But shorter-term numbers do show clearly that stocks from outside North America are worth having. The diversification they supply is real, not just investing theory.

For help in picking an international equity fund, check out this fourth chapter of the 2023 Globe and Mail ETF Buyer's Guide. A change for this year: Global equity funds have been dropped and international dividend funds added. Money flows suggest investors prefer to augment their Canadian equity holdings with separate U.S. and international funds. Global funds are a catch-all for stock markets outside Canada.

All funds presented here are core funds, which means they're suitable as your one and only international or global fund. Many of these funds come in versions with and without currency hedging, which mutes the effect of fluctuations in the value of our dollar on returns. Unhedged funds are more popular and thus are the focus in this edition of the ETF guide.

It's widely thought that hedging is unnecessary if you're a long-term investor holding a diversified group of international stocks, but hedged funds performed better over the past year. With hedging, your returns from non-Canadian stocks won't be undermined when our dollar rises, nor will they be enhanced when the dollar falls. Unhedged funds do better when our dollar is falling and lag when the dollar rises.

This year's ETF Buyer's Guide has so far covered Canadian equity and bond funds and U.S. equity funds. Still to come: Canadian dividend funds and asset allocation funds.

For the tax implications of holding funds in a non-registered account, consult our [ETF tax primer](https://www.tgam.ca/ETF-tax-primer) (tgam.ca/ETF-tax-primer).

BMO MSCI EAFE Index

ZEA.TO



Mar. 28, 2018 \$18.84 Mar. 28, 2023 \$19.95

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
6,417	0.22	0.04	3.1
# of holdings	50-day avg. vol	LAUNCH DATE	
799	67,646	2/10/14	

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)		
Financials 19	1-yr	4.0	
Industrials 15	3-yr	6.9	
Health care 13	5-yr	3.9	

One of the whales in this group - big in assets and trading volume. At the same time, ZEA illustrates some of the compromises investors have to make with international ETFs. Management expense ratios are much higher than those for other core asset classes, and TERs above zero are more prevalent as well. ZDM, the much smaller hedged version, made 7.5 per cent in the past 12 months.

BMO International Dividend

ZDI.TO



Mar. 28, 2018 \$21.98 Mar. 28, 2023 \$20.98

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
477	0.44	0.03	4.1
# of holdings	50-day avg. vol	LAUNCH DATE	
101	4,469	11/5/14	

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)		
Financials 20	1-yr	8.2	
Health care 15	3-yr	7.2	
Industrials 12	5-yr	3.3	

Several international dividend ETFs were considered for inclusion here, but ZDI stood out for its returns. If you're loaded up with U.S. exposure, note that ZDI has a 12 per cent weighting in the U.S. market. Consider the high MER as the cost of doing business in a niche like international dividend stocks. Unlike most funds on this list, ZDI pays dividends monthly.

Franklin International Equity Index

FLUR.NE



Feb. 22, 2019 \$20.69
Mar. 28, 2023 \$24.54

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
158	0.1	0.01	n/a
# of holdings	50-day avg. vol	LAUNCH DATE	
847	n/a	2/20/19	

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)		
Financials 18	1-yr	3.4	
Industrials 16	3-yr	7.5	
Health care 13	5-yr	n/a	

The low-cost leader on this list. Tracks the Solactive GBS Developed Markets ex North America Large & Mid Cap CAD Index, a competitor to the more established MSCI EAFE index. Solactive has barged its way into the Canadian ETF scene with lower-cost indexes in a variety of categories. Returns shown here mostly reflect the fund's previous mandate to track European markets, excluding the UK.

Horizons International Developed

Markets Equity Index HXDM.TO



Mar. 28, 2018 \$33.08
Mar. 28, 2023 \$39.19

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
308	0.22	0.3	n/a
# of holdings	50-day avg. vol	LAUNCH DATE	
n/a	7,966	9/26/17	

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)		
Financials 19	1-yr	4.2	
Industrials 16	3-yr	6.4	
Health care 13	5-yr	3.3	

The combined MER and TER is an attention-grabber, and not in a good way. Why consider this fund for international equity exposure? The answer is that it's part of the Horizons total return product line, where no dividends are paid. Instead, the price of fund units roughly reflects the changing price of underlying stocks and dividends together. No cash dividends means no foreign withholding taxes to undermine returns. Tracks the Horizons EAFE Futures Roll Index (Total Return), so returns may differ a bit from a straight EAFE fund.

iShares Inter. Fundamental Index

CIE.NE



Mar. 28, 2018 \$20.66
 Mar. 28, 2023 \$21.16

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
122	0.73	0.01	3.1
# of holdings	50-day avg. vol	LAUNCH DATE	
1,032	n/a	2/14/07	

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Financials 25	1-yr 6.0
Industrials 13	3-yr 9.7
Cons Disc 10	5-yr 3.9

That is one honking big MER. But you have to give this fund its due - returns have beat traditional index funds over the past five years. The approach here is to screen developed market stocks for those that score well on criteria like dividends, free cash flow, sales and book value. Fundamental indexing is nailing it lately, but it sometimes lags traditional indexes.

iShares Core MSCI EAFE IMI Index

XEF.TO



Mar. 28, 2018 \$31.14
 Mar. 28, 2023 \$32.83

SOURCE: BARCHART

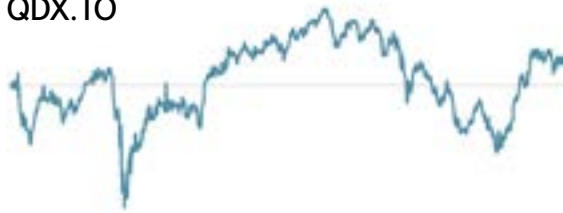
ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
5,987	0.22	0.01	2.8
# of holdings	50-day avg. vol	LAUNCH DATE	
2,601	74,677	4/10/13	

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Financials 17	1-yr 2.9
Industrials 17	3-yr 7.1
Cons Disc 12	5-yr 3.6

XEF includes small, medium and large companies in the developed markets of Europe, Australasia and the Far East whereas a standard EAFE fund holds larger stocks. We have not seen the benefit of this greater diversification in recent years, but there is a theoretical advantage in including smaller companies. Note that IMI stands for Investable Market Index. The hedged version of this fund is XFH.

Mackenzie International Equity Index

QDX.TO



Apr. 10, 2018
\$97.12

Mar. 28, 2023
\$102.13

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
534	0.19	0.01	2.6
# of holdings	50-day avg. vol	LAUNCH DATE	
1,019	1,858	1/24/18	

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Financials 19	1-yr 3.6
Industrials 16	3-yr 6.9
Health care 13	5-yr 3.5

Another lower-cost offering that tracks Solactive's international stocks index. Covers about 85 per cent of non-Canadian and U.S. market capitalization, a size measure for stocks derived from multiplying the number of shares outstanding by market price.

TD International Equity Index

TPE.TO



Mar. 28, 2018
\$18.02

Mar. 28, 2023
\$19.25

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
1,098	0.19	0.03	2.8
# of holdings	50-day avg. vol	LAUNCH DATE	
1,000	6,738	3/22/16	

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Cons goods 18	1-yr 3.5
Financials 18	3-yr 7.1
Health care 13	5-yr 3.8

TPE is a reminder of the importance of getting the total fee picture for international ETFs, which means adding the MER and TER. TPE has a comparatively low MER, but the TER offsets a lot of this benefit. Not a deal-breaker -- we're talking about tiny increments of cost. Still, you should understand the full cost of the ETFs you own.

**Vanguard FTSE Dev. ex NA
High Div. Yield Index VIDY.TO**



Aug. 28, 2018 \$25.26 Mar. 28, 2023 \$26.21

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
80	0.31	0	4.3
# of holdings	50-day avg. vol	LAUNCH DATE	
582	7,821	8/21/18	

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)		
Financials 33	1-yr	8.2	
Industrials 13	3-yr	9.3	
Cons disc 9	5-yr	n/a	

There are lot of plain-vanilla international equity ETFs on this list, and they're probably all you need to diversify the Canadian and U.S. stocks in a portfolio. But you know what they say about variety. To that end, low-volatility international equity ETFs were considered for this list and rejected because of weak returns in recent years. That leaves international dividend funds like VIDY and ZDI. No dividend tax credit for foreign dividends in non-registered accounts.

**Vanguard FTSE Developed All Cap ex
North America Index VIU.TO**



Mar. 28, 2018 \$28.88 Mar. 28, 2023 \$30.03

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
3,200	0.23	0	2.6
# of holdings	50-day avg. vol	LAUNCH DATE	
3,682	40,276	12/1/15	

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)		
Financials 18	1-yr	2.1	
Industrials 18	3-yr	6.7	
Cons disc 14	5-yr	3.3	

Notice the TER for this fund -- it's zero. This makes the fund cost competitive, even though its MER is on the higher side. Tracks the FTSE Developed All Cap ex North America Index, which has lagged the corresponding Solactive and MSCI indexes in recent years. Worth noting, although this discrepancy should not be considered as chronic just yet.

GLOSSARY

ASSETS Shown to give you a sense of how interested other investors are in a fund.

MANAGEMENT EXPENSE RATIO (MER) The main cost of owning an ETF on a continuing basis; published returns are shown on an after-fee basis. The other cost component is the TER, or trading expense ratio.

YIELD An annualized number based on the latest dividend payout.

50-DAY TRADING VOLUME Average number of shares traded daily over the previous 50 days; it's easier to buy and sell at competitive prices if an ETF is heavily traded.

NUMBER OF HOLDINGS Gives you an indication of whether a fund offers broad stock market coverage, or holds a more concentrated portfolio that may behave differently than benchmark indexes.

SECTOR WEIGHTINGS Included to help you verify how well a global or international equity ETF will diversify your Canadian holdings with exposure to various sectors, such as tech and health care.

LAUNCH DATE The older an ETF is, the more likely it is that you can look back at a history of returns through good markets and bad.

Notes: Market data as of Mar. 28, 2023. Returns to Feb. 28, 2023. Source: Rob Carrick; ETF company websites; Globeinvestor.com; Morningstar Canada; TMX Money

CHAPTER 1

Best Canadian dividend funds

So much for the idea that dividend stocks are safer. The average 12-month result for the 10 dividend funds in this fifth instalment of the 2023 Globe and Mail ETF Buyer's Guide was a loss of 5.7 per cent, compared with a 5.2-per-cent decline for the S&P/TSX composite index.

Several things went wrong for the stocks held by dividend ETFs, including a bad year for bank stocks and headwinds for utilities and pipelines as a result of high interest rates. The good news here is that falling prices for dividend stocks, and dividend ETFs, means higher yields.

The ETF guide highlights how yields vary widely among dividend ETFs. Some funds target lower-yielding stocks with more growth potential, while others put more of an emphasis on yield. The average yield for the funds listed in the guide is 3.8 per cent, up from 2.9 per cent last year. Higher-yielding funds this year are in the mid-4-per-cent range.

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The setback for financial stocks in the past year is a reminder to consider the sector breakdowns in the guide. Financials dominate some, but not all, dividend ETFs. Energy, a sector with extreme ups and downs, is another top holding for some funds.

The 2023 edition of the ETF Buyer's Guide wraps up later in April by looking at asset allocation funds, which offer a well-diversified portfolio in a single ETF. The guide has already covered Canadian, U.S. and international equity funds, as well as bond funds.

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BMO Canadian Dividend

ZDV



Apr. 11, 2018
\$16.30

Apr. 11, 2023
\$19.93

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
1,002	0.39	0.01	4.2
BETA	# of holdings	50-day avg. vol	LAUNCH DATE
0.99	52	61,988	10/21/11

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Financials 39	1-yr -6.4
Energy 19	3-yr 19.4
Utilities 10	5-yr 8.4

This popular dividend ETF uses a screening process emphasizing three-year dividend growth, yield and payout ratio, which is the percentage of earnings paid out to shareholders as dividends. A good all-arounder, but the MER is up there.

CI WisdomTree Cda Quality Dividend Growth

ZDI.TO



Apr. 20, 2018
\$25.98

Apr. 11, 2023
\$35.19

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
535	0.23	0.05	2.4
BETA	# of holdings	50-day avg. vol	LAUNCH DATE
0.96	50	2,536	9/19/17

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Energy 22	1-yr -1.5
Telecom 17	3-yr 18.5
Cons svcs 16	5-yr 8.5

Targets dividend growth potential by screening for stocks using quality measures like return on equity and return on assets. This approach took the edge off the decline generally experienced by dividend ETFs in the past 12 months. The comparatively small 13.5 per cent weighting in financials certainly helped.

Dynamic Active Canadian Dividend DXC



Apr. 12, 2018
\$21.23

Apr. 11, 2023
\$32.98

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
153	0.84	0.06	2
BETA	# of holdings	50-day avg. vol	LAUNCH DATE
0.77	40	8,311	1/20/17

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Financials 39	1-yr -2.7
Energy 13	3-yr 18.1
Utilities 10	5-yr 11.0

Most of the ETF Buyer's Guide is populated by ultra cheap index-tracking funds because they can generally be counted on to deliver strong long-term results. But attention must be paid to this high-fee, actively managed fund because of its performance in recent years. In fact, DXC might be the highest-cost fund ever to appear in the guide. Can Dynamic keep more than justifying DXM's cost with its mix of strong returns and lower volatility? That's always the question with active management. A small slice of the portfolio is in U.S. stocks.

Horizons Canadian High Dividend Index HXH



Apr. 12, 2018
\$30.20

Apr. 11, 2023
\$45.51

SOURCE: BARCHART

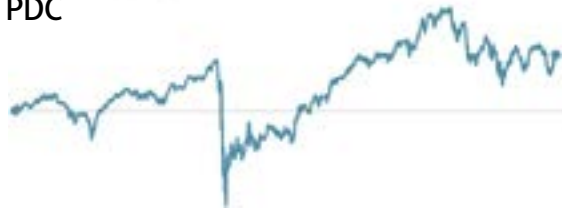
ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
92	0.11	0	n/a
BETA	# of holdings	50-day avg. vol	LAUNCH DATE
0.97	40	2,273	4/18/16

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Energy 34	1-yr -5.4
Financials 31	3-yr 19.9
Telecom 15	5-yr 8.1

HXH is a dividend fund for people who value the total return of dividend stocks and don't want cash dividends paid to them. Horizons uses derivatives to track the Solactive Canadian High Dividend Yield Index, which means the price of your fund units reflects the performance of stocks in the index plus dividends. In non-registered accounts, high earners may find they pay less tax on the capital gains produced by HXH than on dividend income.

Invesco Canadian Dividend Index

PDC



Apr. 11, 2018
\$25.95

Apr. 11, 2023
\$30.92

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
848	0.54	0	4.2
BETA	# of holdings	50-day avg. vol	LAUNCH DATE
0.91	45	27,898	6/8/11

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Financials 42	1-yr -9.0
Energy 26	3-yr 15.8
Utilities 16	5-yr 7.6

The underlying NASDAQ Select Canadian Dividend Index includes companies with stable or growing dividends over the past five or more consecutive years. The top holding in mid-April 2023 was Enbridge Inc., with a plus-size yield of 6.7 per cent.

iShares S&P/TSX Cdn. Dividend

Aristocrats Index CDZ



Apr. 11, 2018
\$25.03

Apr. 11, 2023
\$30.86

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
951	0.66	0.02	3.8
BETA	# of holdings	50-day avg. vol	LAUNCH DATE
1.02	91	20,711	9/8/06

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Financials 29	1-yr -5.5
Industrials 12	3-yr 19.0
Energy 10	5-yr 8.4

A popular veteran dividend ETF that manages competitive returns in spite of a hefty MER that seems out of step with the usual cost competitiveness found in iShares funds. Dividend growth investors, take note. CDZ is built with stocks that have increased their dividend annually for at least five straight years.

iShares Canadian Select Dividend Index XDV



Apr. 11, 2018 \$24.10
Apr. 11, 2023 \$28.44

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
1,641	0.55	0.01	4.2
BETA	# of holdings	50-day avg. vol	LAUNCH DATE
0.88	30	40,621	12/19/05

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Financials 51	1-yr -8.0
Utilities 12	3-yr 16.4
Telecom 11	5-yr 7.5

Last year's guide said this ETF would get smoked if financials ever plunge. Financials have had a rough go in the past year or so, and that means XDV has fared worse than most others on this list in the past 12 months. Consider it a potential way to play a rebound in bank stocks.

iShares S&P/TSX Composite High Div. Index XEI



Apr. 11, 2018 \$20.35
Apr. 11, 2023 \$25.65

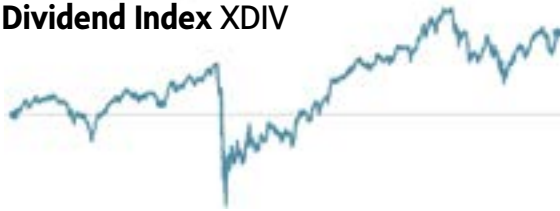
SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
1,480	0.22	0.02	4.8
BETA	# of holdings	50-day avg. vol	LAUNCH DATE
1.05	75	71,846	4/12/11

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Energy 30	1-yr -6.9
Financials 29	3-yr 21.5
Utilities 17	5-yr 9.2

More volatile than most on this list, but there's an offsetting benefit in the combination of a comparatively high yield and solid longer-term results.

iShares Core MSCI Canadian Quality Dividend Index XDIV



Apr. 11, 2018 \$19.75
Apr. 11, 2023 \$25.32

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
793	0.11	0.03	3.9
BETA	# of holdings	50-day avg. vol	LAUNCH DATE
0.86	20	35,253	6/7/17

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Financials 51	1-yr -3.2
Utilities 19	3-yr 18.2
Telecom 14	5-yr 9.0

This list is turning into the iShares show. BlackRock's iShares lineup is rich in dividend ETF options and the asset levels in each suggest investors are digging it. Here, we have a small portfolio of blue chips with strong balance sheets and less volatile earnings. The smaller than average loss in the past 12 months suggests there's some value in this approach when stocks are falling. Bargain MER.

Vanguard FTSE Cdn High Div. Yield Index VDY



Apr. 11, 2018 \$32.04
Apr. 11, 2023 \$42.47

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
2,000	0.22	0	4.4
BETA	# of holdings	50-day avg. vol	LAUNCH DATE
0.92	47	229,951	11/2/12

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Financials 57	1-yr -7.9
Energy 26	3-yr 19.3
Telecom 9	5-yr 9.5

Arguably, VDY is a bet on the financial sector more than a diversified dividend fund. The asset size for this fund suggests a lot of investors are A-OK with that. Apparently, low fees and competitive long-term returns speak loudly.

GLOSSARY

ASSETS Shown to give you a sense of how interested other investors are in a fund.

MANAGEMENT EXPENSE RATIO (MER) The main cost of owning an ETF on a continuing basis; published returns are shown on an after-fee basis.

TRADING EXPENSE RATION (TER) The cost of trading commissions racked up by the managers of an ETF as they make adjustments to the portfolio of investments; add the TER to the MER for a full picture of a fund's cost.

YIELD Based on the recent pattern of monthly payouts and the latest share price; may reflect payments of dividends and return of capital; check the fund profiles on ETF issuer websites to find out what kinds of income have been contained in distributions in recent years.

50-DAY TRADING VOLUME Average number of shares traded daily over the previous 50 days; it's easier to buy and sell at competitive prices if an ETF is heavily traded.

RETURNS ETF companies show total returns or share-price change plus dividends or distributions.

BETA A measure of volatility that compares funds with a benchmark stock index, which always has a beta of one. A lower beta means less volatility on both the upside and the downside.

Notes: Market data as of April 11, 2023. Returns to March 31, 2023. Source: Rob Carrick; Globeinvestor.com, TMX Money, ETF company websites

CHAPTER 1

Best asset allocation funds

There's a simple, three-word answer to your questions about which investments to use in the new first home savings account: asset allocation ETFs – they're all you need to build wealth in an FHSA, as well as in a tax-free savings account, registered retirement savings plan, registered retirement income fund, non-registered account and any other accounts you have.

Exchange-traded funds are excellent low-cost portfolio building blocks, but there are 1,000-plus funds to choose from on the TSX alone. Asset allocation ETFs bundle roughly six to 10 stock and bond ETFs into single portfolios suitable for conservative, middle-of-the-road and aggressive investors.

The rise of asset allocation ETFs is one of the greatest advancements for individual investors of the past five years. But while investors have put billions of dollars into these products, they're still underutilized. A lot of money sitting in individual ETFs, and stocks as well, would be better off invested in a cheap, well-diversified asset allocation ETF.

The sixth and final chapter of the 2023 Globe and Mail ETF Buyer's Guide will acquaint you with the choices available. Key points of comparison include fees, returns, top holdings and the mix of stocks, bonds and, in a couple of cases, cryptocurrency.

The ETFs presented here are "funds of funds," which means they hold individual stock and bond ETFs from the same corporate family. Each fund has a guideline on how much of the portfolio to keep in each asset class and how often to rebalance back to those levels.

The full menu of asset allocation ETFs includes conservative, balanced, growth and all-equity versions. Because they appeal to the broadest swath of investors, we focus here on balanced and growth funds.

BMO Balanced

ZBAL.TO



Feb. 15, 2019
\$30.24

Apr. 25, 2023
\$34.15

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
142	0.1	0.01	2.6
STOCK/BOND SPLIT	DIST. FREQUENCY	LAUNCH DATE	
61/39	Quarterly	2/15/19	

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Cdn. broad bond 27	1-yr -1.3
S&P 500 26	3-yr 7.8
S&P/TSX Composite 15	5-yr n/a

Oddity alert. BMO's balanced asset allocation ETF did worse than its growth fund in the past 12 months, something you're not likely to see again any time soon. The reason is that both bonds and stocks had a bad year in 2022. In normal times, bonds hold up better than stocks in moments of market stress. Expect balanced funds to lose less than growth funds in bad years and make less in strong years.

BMO Growth

ZGRO.TO



Feb. 15, 2019
\$30.30

Apr. 25, 2023
\$36.73

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
181	0.2	0.02	2.4
STOCK/BOND SPLIT	DIST. FREQUENCY	LAUNCH DATE	
81/19	Quarterly	2/15/19	

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
S&P 500 34	1-yr -0.9
S&P/TSX Composite 20	3-yr 11.2
MSCI EAFE 18	5-yr n/a

A well-priced, conventional growth fund that holds familiar indexes like the S&P 500, S&P/TSX Composite and MSCI EAFE.

Fidelity All-In-One Balanced

FBAL.NE



Jan. 26, 2021 \$10.02
Apr. 25, 2023 \$10.43

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
184	0.4	0.04	n/a
STOCK/BOND SPLIT	DIST. FREQUENCY	LAUNCH DATE	
62/38	Annual	1/21/21	

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)		
U.S. Stocks	30	1-yr	-0.4
Cdn. broad bond	29	3-yr	n/a
Int. equities	15	5-yr	n/a

Lacks the usual longer-term track record required for inclusion in this list, but an exception was made because Fidelity's asset allocation funds have performed well in a small sample. Also, Fidelity has taken the bold step of adding a 2.5 per cent weighting in cryptocurrency. Trades on the NEO exchange.

Fidelity All-In-One Growth

FGRO.NE



Jan. 26, 2021 \$10.03
Apr. 25, 2023 \$11.07

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
104	0.42	0.05	n/a
STOCK/BOND SPLIT	DIST. FREQUENCY	LAUNCH DATE	
85/15	Annual	1/21/21	

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)		
U.S. Stocks	41	1-yr	0.3
Int. Stocks	21	3-yr	n/a
Cdn. Stocks	20	5-yr	n/a

An aggressive growth fund with 3.6 per cent of its assets in crypto. One year of results is far from definitive, but FGRO was basically flat in a challenging 12-month period.

Franklin Core Balanced Active

FLBA.TO



Jun. 26, 2018
\$20.16

Apr. 25, 2023
\$22.98

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
3.4	0.35	0	3.8
STOCK/ BOND SPLIT	DIST. FREQUENCY	LAUNCH DATE	
53/47	Quarterly	1/29/18	

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
Cdn. bonds 47	1-yr -3.0
U.S. stocks 27	3-yr 8.3
Cdn. stocks 26	5-yr 5.8

Not yet attracting any investor interest, but this ETF offers an actively managed alternative to the index trackers that dominate this list. Quite a fair MER for an active fund.

Horizons Balanced TRI ETF Portfolio

HBAL.TO



Aug. 2, 2018
\$10.00

Apr. 25, 2023
\$13.01

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
139	0.16	0.09	n/a
STOCK/ BOND SPLIT	DIST. FREQUENCY	LAUNCH DATE	
70/30	n/a	8/1/18	

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)
U.S. large cap 25	1-yr -6.1
Cdn. broad bond 20	3-yr 9.6
Int. Stocks 18	5-yr n/a

Last year's guide showed a Nasdaq 100 fund among the top holdings - that helps explain why the one-year loss exceeds most others on this list. What stands out with this fund is the 70/30 mix of stocks and bonds, which compares to a traditional 60/40 split elsewhere. HBAL is part of Horizons' total return series of funds, which make no cash payments of dividends or bond interest. Instead, units change in price based on total returns reflecting price moves plus interest and dividends. These funds use a derivative-based structure to build their portfolios and do not hold individual stocks and bonds. This approach explains the high TER.

iShares Core Balanced ETF Portfolio

XBAL.TO



Apr. 25, 2018
\$21.45

Apr. 25, 2023
\$25.60

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
943	0.2	0	2
STOCK/ BOND SPLIT	DIST. FREQUENCY	LAUNCH DATE	
61/39	Quarterly	6/21/07	

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)		
U.S. total stock mkt	27	1-yr	-1.3
Cdn. broad bond	25	3-yr	8.4
Int. stocks	15	5-yr	5.7

A well-priced option for the investor seeking a balanced portfolio that de-emphasizes the Canadian stock market, a common theme in the funds listed here. For context, Canada accounts for about 3 per cent of the global stock market.

iShares Core Growth ETF Portfolio

XGRO.TO



Apr. 25, 2018
\$20.87

Apr. 25, 2023
\$24.40

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
1,557	0.2	0	1.8
STOCK/ BOND SPLIT	DIST. FREQUENCY	LAUNCH DATE	
80/20	Quarterly	6/21/07	

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)		
U.S. total stock mkt	36	1-yr	-1.0
Int. total stock mkt	21	3-yr	11.6
S&P/TSX Composite	20	5-yr	6.2

Note the 2007 start date for this fund, and XBAL as well. The iShares people jumped on the general idea of all-in-one ETFs before anyone, but the overly complex asset allocation and a lack of marketing rendered them pretty much invisible to investors. The current versions of these ETFs are a lower priced version of what market leader Vanguard offers.

Vanguard Balanced ETF Portfolio

VBAL.TO



Apr. 25, 2018
\$24.45

Apr. 25, 2023
\$28.22

SOURCE: BARCHART

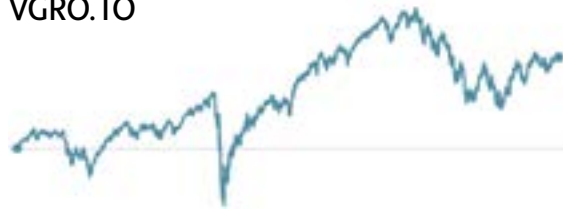
ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
2,380	0.24	0	2.2
STOCK/ BOND SPLIT	DIST. FREQUENCY	LAUNCH DATE	
60/40	Quarterly	1/25/18	

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)		
U.S. total stock mkt	26	1-yr	-2.3
Cdn. broad bond	23	3-yr	8.1
Cdn. total stock mkt	18	5-yr	4.9

It's a testament to Vanguard's dominance in the asset allocation ETF category that investors flock to its offerings despite moderately higher fees. That said, Vanguard does run a tight ship where TERs are consistently squeezed down to nothing.

Vanguard Growth ETF Portfolio

VGRO.TO



Apr. 25, 2018
\$24.30

Apr. 25, 2023
\$30.03

SOURCE: BARCHART

ASSETS (\$ Mil.)	MER (%)	TER (%)	DIV YLD (%)
3,970	0.24	0	2.1
STOCK/ BOND SPLIT	DIST. FREQUENCY	LAUNCH DATE	
80/20	Quarterly	1/25/18	

TOP SECTOR WEIGHT (%)	ANNUALIZED RETURNS (%)		
U.S. total stock mkt	35	1-yr	-2.0
Cdn. total stock mkt	23	3-yr	11.6
Int. stock mkt	16	5-yr	6.3

The investor's choice for a one-stop aggressive portfolio. Younger investors, this fund could carry you for decades all on its own.

GLOSSARY

ASSETS Shown to give you a sense of how interested other investors are in a fund.

MANAGEMENT EXPENSE RATIO (MER) The MER is the main cost of owning an ETF on a continuing basis; published returns are shown on an after-fee basis. The MERs shown here include the cost of the underlying funds. There is no double-dipping.

TRADING EXPENSE RATION (TER) The TER is the cost of trading commissions racked up by the managers of an ETF as they make adjustments to the portfolio of investments; add the TER to the MER for a full picture of a fund's cost.

DIVIDEND DISTRIBUTION FREQUENCY Noted for investors who want regular income from dividends and bond interest. Some funds are more suited to this purpose than others.

STOCKS/BONDS SPLIT Shown as of the most recent portfolio update on ETF company websites. It's normal for the actual split to drift a little bit from the targeted asset allocation – periodic rebalancing takes care of this.

TOP THREE WEIGHTINGS "Canadian broad bond" means a bond ETF that includes both government and corporate bonds; the "total stock market" exposure some ETFs have means large, medium and small companies; the S&P 500 and S&P/TSX Composite tend to hold larger stocks.

RETURNS Total returns are shown – price changes plus dividends and bond interest.

Notes: Bond weighting may include a small amount of cash. Market data as of April 25, 2023. Returns to March 31, 2023. Source: Rob Carrick; Globeinvestor.com, TMX Money, ETF company websites

CHAPTER 1

Online brokerage comparison

A quiet battle is underway in the world of digital investing between brokers that charge clients to trade stocks and ETFs and those with zero commissions. Who's winning depends on where you look. In the 2023 Globe and Mail digital brokerage ranking, the top firms charge close to \$10 per trade. They justify the cost by equipping clients with the tools to be better investors.

Take the number one broker, TD Direct Investing, as an example. While many brokers still waste your time with a landing page after login that just shows you current account value, TD hits you with a five-fingered data punch that gets you up to speed on your entire portfolio and individual holdings.

Number two broker Qtrade Direct Investing is good at everything and peerless in producing improvements for customers year to year. Online stock trading costs at TD and Qtrade: a flat \$9.99 and \$8.75, respectively.

The zero-commission brokers in the ranking ranged from good to middling, which

tells us something. It's not economical right now for a no-cost broker to build up a website and app that set new standards.

For now, that is. An investment industry report in 2022 showed that zero-commission brokers punched above their weight in attracting new clients and generating trading volume. Investors seem wide open to the idea of picking a broker on the basis of cost.

The job of the 24th annual Globe ranking is to help investors find the best digital broker to meet their needs. If you're a young investor who puts low trading costs first, the ranking will help you sort the choices. If you're further along in life's investing journey and need help managing what you already own, the ranking again points the way.

Thirteen brokers are included, with one extra mentioned peripherally. It's TD Easy Trade, a junior partner to TD Direct Investing that targets a young audience of people who transact on their phones and like the idea of 50 free stock trades per year.

Commissions and fees play a big role in the ranking, but so does the design of websites and apps for mobile devices, portfolio management tools, and resources for researching stocks and ETFs. Also part of the ranking is the availability of high interest savings account ETFs and mutual funds. A few bank-owned brokers, TD among them, block clients from purchasing anything but in-house HISA mutual funds.

We know from the trading frenzy of 2021 that online investors sometimes need to reach their broker by phone. This year's ranking includes an evaluation by the investment industry consulting firm Dalbar Canada of how responsive each broker is to telephone calls from clients.

Here are notes on the brokers in the 2023 ranking, listed alphabetically:

BMO InvestorLine

Owner: Bank of Montreal

Grade: B+

There's a clean, efficient look to InvestorLine's website and mobile app, which were both refreshed relatively recently. Log in to the website and you get concise presentation of need-to-know things about your account, including a performance chart with various time frames and a status update on open orders. BMO's commissions are old school at \$9.95 per trade, but clients can trade from a list of almost 100 exchange-traded funds from various issuers at no cost. All in all, a player.

CIBC Investor's Edge

Owner: Canadian Imperial Bank of Commerce

Grade: B

Investor's Edge is not in the top rank of digital brokers, but you could be happy here. Among big bank brokers, the flat \$6.95 commission is at the low end and clients under 25 years old with a CIBC Smart Start account trade stocks for free. There's lots of research on specific stocks from CIBC Capital Markets, Refinitiv and Morningstar, and seniors and others who prefer paper statements and trade confirmations can get them for free. Most other brokers charge for this. Another way CIBC differs from some other banks is in allowing clients access to a full range of HISA mutual funds and ETFs. The mobile app is comprehensive – you can even buy GICs, which isn't possible on other apps.

CI Direct Trading

Owner: CI Financial Corp.

Grade: B

Back several years ago, CI Direct took the other brokers to school with low stock-trading commissions, zero costs for buying ETFs (the usual cost applies when you sell) and a funky website that made its rivals look stale. But time marches on. Commission-free trading is now available from competitors, and there are brokers with websites that do a better job of empowering clients with informative dashboards and simplified navigation. The mobile app is quite competitive. A perk

for CI DT clients is access to a fantastic portfolio analysis tool called Wealthscope.

Desjardins Online Brokerage

Owner: Desjardins Group

Grade: C+

A zero-commission broker with a strong research package that includes the Morningstar reports that near everyone else offers, as well as reports from Desjardins analysts. The formerly dreary website has been freshened in a way that improves the ambience, and the app is just fine. GICs are not available online, if that's on your radar.

HSBC InvestDirect

Owner: HSBC Bank Canada

Grade: C-

Royal Bank of Canada has a deal to buy HSBC Canada, so it's hard to say how much longer InvestDirect will be around. InvestDirect offers online access to several global markets, so take a look if that's of interest. For everyone else, InvestDirect has plugged two giant holes that made it look hopelessly behind the curve. There are now U.S.-dollar registered accounts, and a mobile app for Apple devices. An Android app is coming.

Interactive Brokers

Owner: Interactive Brokers Group

Grade: B+

IB is graded here for people who think of themselves as traders more than investors. If you're in this group, it's a no-brainer to give IB a look as a trading platform. Costs are at the low end for brokers that haven't gone commission-free, forex is comparatively cheap, margin rates are highly competitive and large accounts actually earn interest. Most other brokers pay little or no interest on cash balances. If you're a mainstream investor who trades only now and then, IB is like taking a Ferrari to the corner store for milk.

National Bank Direct Brokerage

Owner: National Bank of Canada

Grade: B

How other bank-owned brokers must dislike NBDB for being the first of their little clique to eliminate commissions on trading of stocks and ETFs. Desjardins followed, and then crickets. NBDB doesn't have the attention to detail of, say, a TD Direct Investing. But if your want list includes zero-commission trading, a zippy, pleasant-to-use website and access to analyst research, then for sure give NBDB a look. The mobile app only works on iPhones (as of publication), with Android to be added in 2023.

Qtrade Direct Investing

Owner: Aviso Wealth

Grade: A

For commissions at a flat \$8.75, this consistently top-ranked broker gives you one of the better websites and apps for looking after your investments. More than many others, Qtrade has created a mini-me app that reflects the high level of utility in the website, including a quickie chart that shows portfolio results over the past year. Online, there's a Portfolio Score tool that slices and dices your holdings to provide insights on returns, fees, downside risk, income and environmental, social and governance (ESG) factors. Unlike some brokers, Qtrade never coasts. The latest improvements include expedited transfers of money from your bank and a more useful database of analyst opinions. A negative for GIC investors buying online: The minimum purchase is \$30,000 for one year and \$15,000 for longer terms.

Questrade

Owner: Questrade Financial Group

Grade: B+

Spot on for young investors who may not value the dividend income trackers and full-body portfolio scans offered by other brokers. You get trades as cheap as \$4.95, commission-free ETF buying (normal commissions to sell), a well-executed app for mobile and no-cost access to a service called Passiv to help you set goals and manage your portfolio. Love the Questrade trading screen on the app – it guides

you through the process of making a trade in way that makes you feel totally in control. Note: Electronic communications network (ECN) fees can add to the cost of some trades.

RBC Direct Investing

Owner: Royal Bank of Canada

Grade: C+

RBC is a member of the old guard of bank-owned brokers that refuse to retreat on the just-under-\$10 stock-trading commission. Where RBC differs from others in this group, say BMO and TD, is in not backing up those high-cost commissions with premium design and utility. RBC is big on interspersing freshly redesigned website components with old ones that remind you that they stopped short of a top-to-bottom reno. Part of the newer stuff is a trading dashboard that looks good, but offers a three-ring circus of customizing options. Guys, build us something cool that's good to go. Note: RBC is part of the terrible trio, including BMO and TD, that blocks clients from buying HISA ETFs and third-party HISA mutual funds.

Scotia iTrade

Owner: Bank of Nova Scotia

Grade: B

Another bank-owned broker in need of new upholstery. The frame underneath is more than fine for managing a portfolio, researching stocks and tracking dividend income, but anyone under the age of 40 will find the website looking a bit worn. The app is better, having been refreshed recently. Two good things to note: Scotia iTrade doesn't get in your way if you want to choose a HISA ETF or mutual fund, and it offers 100-plus commission-free ETFs. This feature is oddly hard to find when you log in – you have to access the list of applicable funds through the ETF screener.

TD Direct Investing

Owner: Toronto-Dominion Bank

Grade: A

TD's shrewd approach on commissions is to offer 50 free stock trades per year on

its TD Easy Trade app (unlimited free trades for TD ETFs), and charge \$9.99 flat on its website. Fair enough. While a couple of years old now, the TD Direct website is state of the art in getting you up to speed on your portfolio from the second you log in. From there, you can dig into your portfolio diversification, project your dividend income, do a detailed performance analysis and delve into a strong database of market data and research. TD Direct's mobile app is fine, but Gen Z and millennial investors are directed to Easy Trade.

Wealthsimple Invest

Owner: Wealthsimple

Grade: B

For boomers, this digital disruptor rates a D. There's really nothing there to help manage portfolios and validate ideas with views from analyst research, and it doesn't sell GICs. Where Wealthsimple excels is in offering a platform for young investors to invest in a way in which all their money goes to ETFs or stocks, with nothing lost to commissions. Also, fractional shares are available. On the downside, you have to subscribe to a \$10 per month upgrade for access to U.S-dollar accounts, as well as instant deposits of up to \$5,000. This is an app-first broker, but the website is surprisingly good to use.

How do online stock trading commissions compare?

These are flat commission rates unless otherwise specified and apply to investors as opposed to active traders.

BMO InvestorLine	\$9.95
CIBC Investor's Edge	\$6.95
CI Direct Trading	1 cent a share (\$1.99 min., \$7.99 max.)
Desjardins Online Brokerage	zero
HSBC InvestDirect	\$6.88
Interactive Brokers	Cdn-listed stocks (in C\$): One cent per share with a minimum of \$1 and a maximum of 0.5 per cent of trade value; U.S.-listed stocks (in \$US): Half a cent per share, with a minimum of \$1 and a maximum of 1 per cent of trade value*
National Bank Direct Brokerage	zero
Qtrade Direct Investing	\$8.75
Questrade	1 cent a share (\$4.95 min., \$9.95 max.)**
RBC Direct Investing	\$9.95
Scotia iTrade	\$9.99
TD Direct Investing	\$9.99 ***
Wealthsimple Invest	zero

*Electronic communications network (ECN) fees may also apply; in addition, IB offers streaming market data with packages starting at US\$1 per month; **ECN fees may also apply; ***TD's Easy Trade app offers 50 free trades per calendar year and unlimited free trading of TD's family of ETFs.

Note: Commissions are generally charged in U.S. dollars for trading of U.S. stocks

Is commission-free ETF trading available?

Low-cost exchange-traded funds are an excellent way to build a portfolio if you're a DIY investor, but commissions can add up if you make frequent purchases. Some brokers address this by waiving some or all commissions on ETF investments.

BMO InvestorLine	96 commission-free ETFs
CIBC Investor's Edge	No
CI Direct Trading	Buy ETFs with no commissions; regular charges apply to sells
Desjardins Online Brokerage	Zero commissions for stocks and ETFs
HSBC InvestDirect	No
Interactive Brokers	A limited number of U.S.-listed ETFs
National Bank Direct Brokerage	Zero commissions for stocks and ETFs
Qtrade Direct Investing	100+ commission-free ETFs
Questrade	Buy ETFs with no commissions; regular charges apply to sells
RBC Direct Investing	No
Scotia iTrade	100+ commission-free ETFs
TD Direct Investing	No (see footnote above re TD Easy Trade)
Wealthsimple Invest	Zero commissions for stocks and ETFs

Foreign exchange rates

Brokers were asked to say what they would charge a client who bought \$10,000 in U.S. dollars as part of a purchase of a U.S. stock. The hypothetical transaction was made on the morning of Dec. 5, 2022 (stock trading commission not included).

BMO InvestorLine	\$13,606
CIBC Investor's Edge	\$13,645
CI Direct Trading	\$13,695
Desjardins Online Brokerage	\$13,641
HSBC InvestDirect	\$13,636
Interactive Brokers	\$13,484
National Bank Direct Brokerage	\$13,645
Qtrade Direct Investing	\$13,615
Questrade	\$13,707
RBC Direct Investing	\$13,694
Scotia iTrade	\$13,675
TD Direct Investing	\$13,657
Wealthsimple Invest	\$13,730

SAFE PARKING

Elevated interest rates in 2023 have increased the appeal of safe cash parking spots such as high interest savings account exchange-traded funds and mutual funds, as well as guaranteed investment certificates. Here's how brokers compare in availability of these products:

Third-party HISA mutual funds

BMO InvestorLine	no
CIBC Investor's Edge	yes
CI Direct Trading	yes
Desjardins Online Brokerage	yes
HSBC InvestDirect	yes
Interactive Brokers	no
National Bank Direct Brokerage	yes
Qtrade Direct Investing	yes
Questrade	yes (a charge of \$9.95 per trade applies)
RBC Direct Investing	no
Scotia iTrade	yes
TD Direct Investing	no
Wealthsimple Invest	no

HISA ETFs

BMO InvestorLine	no
CIBC Investor's Edge	yes
CI Direct Trading	yes
Desjardins Online Brokerage	yes
HSBC InvestDirect	yes
Interactive Brokers	yes
National Bank Direct Brokerage	yes
Qtrade Direct Investing	yes
Questrade	yes
RBC Direct Investing	no
Scotia iTrade	yes
TD Direct Investing	no
Wealthsimple Invest	yes

Online GIC buying

BMO InvestorLine	yes
CIBC Investor's Edge	yes
CI Direct Trading	yes
Desjardins Online Brokerage	no
HSBC InvestDirect	no
Interactive Brokers	no
National Bank Direct Brokerage	no
Qtrade Direct Investing	yes
Questrade	no
RBC Direct Investing	yes
Scotia iTrade	yes
TD Direct Investing	yes
Wealthsimple Invest	no

GIC minimum purchase

BMO InvestorLine	\$5,000
CIBC Investor's Edge	\$5,000 reg., \$10,000 non-reg.
CI Direct Trading	none*
Desjardins Online Brokerage	\$5,000
HSBC InvestDirect	\$1,000
Interactive Brokers	n/a
National Bank Direct Brokerage	\$5,000
Qtrade Direct Investing	\$30,000 for one-year term, \$15,000 for longer terms
Questrade	\$5,000
RBC Direct Investing	\$3,500 to \$20,000, depending on term and account type
Scotia iTrade	as low as \$1,000*
TD Direct Investing	as low as \$500
Wealthsimple Invest	n/a

* depends on the issuer

Mobile apps

Mobile apps typically allow investors to make trades, check order status and get stock quotes. Here are a few helpful functions that some apps also offer:

BMO InvestorLine	Monitor returns over various time frames, Transfer funds
CIBC Investor's Edge	Monitor returns over various time frames, Set up, receive alerts, Transfer funds, Trade GICs and/or bonds
CI Direct Trading	Set up, receive alerts, Transfer funds
Desjardins Online Brokerage	Transfer funds
HSBC InvestDirect	Transfer funds
Interactive Brokers	Monitor returns over various time frames, Set up, receive alerts, Transfer funds, Trade GICs and/or bonds
National Bank Direct Brokerage	Set up, receive alerts
Qtrade Direct Investing	Monitor returns over various time frames, Transfer funds
Questrade	Monitor returns over various time frames, Set up, receive alerts, Transfer funds
RBC Direct Investing	Monitor returns over various time frames, Transfer funds
Scotia iTrade	Monitor returns over various time frames, Transfer funds
TD Direct Investing	Monitor returns over various time frames, Set up, receive alerts, Transfer funds
Wealthsimple Invest	Monitor returns over various time frames, Set up, receive alerts, Transfer funds

FOR RETIREES

How brokers compare in helping clients manage their registered retirement income fund accounts:

Can you initiate a RRIF withdrawal online?

BMO InvestorLine	no
CIBC Investor's Edge	no
CI Direct Trading	yes
Desjardins Online Brokerage	no
HSBC InvestDirect	no
Interactive Brokers	RRIF accounts unavailable
National Bank Direct Brokerage	no
Qtrade Direct Investing	no
Questrade	yes
RBC Direct Investing	no
Scotia iTrade	no
TD Direct Investing	yes
Wealthsimple Invest	RRIF accounts unavailable

Can you make changes to scheduled RRIF withdrawals online?

BMO InvestorLine	no
CIBC Investor's Edge	no
CI Direct Trading	yes
Desjardins Online Brokerage	no
HSBC InvestDirect	no
Interactive Brokers	RRIF accounts unavailable
National Bank Direct Brokerage	no
Qtrade Direct Investing	no
Questrade	yes
RBC Direct Investing	yes
Scotia iTrade	no
TD Direct Investing	no
Wealthsimple Invest	RRIF accounts unavailable

INVESTORS ON HOLD

The investment industry consulting firm Dalbar Canada called brokers five times each on average Jan. 19-25 during standard business hours to see how long it took to reach a live representative. Here are the results, with comparisons to previous years:

Average wait time in minutes in 2023

BMO InvestorLine	2 (In 2022: 2 min; In 2021: 87 min)
CIBC Investor's Edge	1 (In 2022: 49 min; In 2021: 101 min)
CI Direct Trading	1 (In 2022: CI Direct Trading was not part of the survey by Dalbar; In 2021: 7 min)
Desjardins Online Brokerage	38 (In 2022: 32 min; In 2021: 170 min)
HSBC InvestDirect	16 (In 2022: 11 min; In 2021: 125 min)
Interactive Brokers	5 (In 2022: 10 min; In 2021: 66 min)
National Bank Direct Brokerage	6 (In 2022: 32 min; In 2021: 69 min)
Qtrade Direct Investing	2 (In 2022: 7 min; In 2021: 28 min)
Questrade	2 (In 2022: 2 min; In 2021: 128 min)
RBC Direct Investing	3 (In 2022: 13 min; In 2021: 90 min)
Scotia iTrade	5 (In 2022: 21 min; In 2021: 179 min)
TD Direct Investing	1 (In 2022: 25 min; In 2021: 58 min)
Wealthsimple Invest	39 (In 2022: 7 min; In 2021: n/a)

Is secure e-mail and/or online chat available so clients can ask account-related questions without calling?

BMO InvestorLine	yes
CIBC Investor's Edge	yes
CI Direct Trading	yes
Desjardins Online Brokerage	no
HSBC InvestDirect	yes
Interactive Brokers	yes
National Bank Direct Brokerage	yes
Qtrade Direct Investing	yes
Questrade	yes
RBC Direct Investing	yes
Scotia iTrade	yes
TD Direct Investing	no
Wealthsimple Invest	yes

Source: Rob Carrick. Data management for the online brokerage ranking by Audrey Carleton

