

ETF FOCUS LIST



June 2019

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The Focus List

% Returns at April 30, 2019											
Name	Ticker	3 Mth	1 Yr.	3 Yr.	5 Yr.	MER	3 Yr. Tracking Error	5 Yr. Tracking Error	3 Yr. Standard Deviation	5 Yr. Standard Deviation	Average Daily Volume

Fixed Income

Invesco Senior Loan CAD Hedged ETF	BKL.F	3.69	2.89	3.25	2.34	0.78%	7.44	9.24	3.43	3.65	3K↔
Vanguard Canadian Short Term Bond ETF	VSB	1.28	3.62	1.38	1.66	0.11%	1.01	1.01	1.47	1.49	30K▲
BMO Short Corporate Bond Index	ZCS	1.78	4.21	2.22	2.32	0.11%	1.28	1.38	1.49	1.54	39K↔
iShares Core Cdn Universe Bond Index ETF	XBB	2.45	5.95	2.47	3.40	0.10%	1.02	1.17	3.69	3.88	82K▲
Invesco Tactical Bond ETF	PTB	2.68	4.85	2.48	3.11	0.54%	1.37	1.61	3.41	3.68	6K▼
Horizons Active Corporate Bond ETF	HAB	2.48	5.18	3.46	3.57	0.59%	2.01	2.23	2.97	3.04	12K
Vanguard Glb ex-US Agg Bnd Idx ETF C\$Hgd	VBG	1.69	3.65	2.12	-	0.38%	5.93	-	2.45	-	5K

Income / Cash Flow

iShares Core Balanced ETF Portfolio	XBAL	6.46	9.36	6.07	5.00	0.76%	5.26	6.45	4.43	4.98	24K
BMO Monthly Income ETF	ZMI	4.61	6.76	5.94	3.95	0.61%	4.21	5.80	4.51	4.87	5K↔
iShares Diversified Monthly Income Fund	XTR	4.95	6.69	5.92	3.76	0.62%	2.52	3.53	4.21	4.98	40K▼

Canadian Equity

Invesco S&P/TSX Comp.Low Volatility ETF	TLV	6.28	9.39	8.06	8.08	0.34%	4.53	5.48	7.06	7.09	6K▲
Invesco Canadian Dividend ETF	PDC	7.46	10.94	8.68	6.40	0.55%	3.55	4.42	8.81	9.20	10K▼
Invesco FTSE RAFI Cdn Fundamental	PXC	7.78	5.59	9.11	5.23	0.50%	2.83	3.59	9.42	10.49	5K↔
Horizons Active Canadian Dividend	HAL	6.55	12.01	10.36	6.69	0.78%	3.92	4.50	8.86	9.02	3K▲
iShares Core S&P/TSX Capped Composite	XIC	7.47	9.54	9.08	5.56	0.06%	0.34	0.50	8.71	8.98	237K▼
iShares S&P/TSX Small Cap Index	XCS	2.68	-6.61	1.82	-0.72	0.61%	5.50	7.16	12.01	14.82	9K↔
iShares S&P/TSX Completion Idx ETF (XMD)	XMD	6.32	3.58	5.63	2.02	0.61%	0.91	0.83	9.65	10.31	4K
First Asset Morningstr Cdn Momentum	WXM	6.30	4.81	10.24	5.96	0.67%	6.12	6.42	11.90	11.18	19K▼

% Returns at April 30, 2019											
Name	Ticker	3 Mth	1 Yr.	3 Yr.	5 Yr.	MER	3 Yr. Tracking Error	5 Yr. Tracking Error	3 Yr. Standard Deviation	5 Yr. Standard Deviation	Average Daily Volume
U.S. Equity											
Vanguard U.S. Total Mkt (C\$ Hedged)	VUS	8.73	10.40	13.35	10.20	0.16%	7.54	9.23	11.65	11.87	19K▼
iShares US Fundamental Index	CLU	7.29	5.70	10.00	7.34	0.72%	-	-	-	-	6K▼
Vanguard S&P 500 Index ETF (VFV)	VFV	11.55	18.00	16.99	15.77	0.08%	1.25	1.40	10.69	11.11	103K
iShares Core S&P 500 Index	XSP	9.05	11.37	13.39	10.52	0.11%	7.07	8.81	10.91	11.34	589K▼
iShares MSCI Min Vol USA ETF (XMU)	XMU	10.91	22.25	15.28	16.75	0.33%	5.17	5.14	9.34	10.58	5K
BMO U.S. Dividend ETF (ZDY)	ZDY	9.14	14.23	14.52	15.24	0.32%	4.39	4.61	9.45	9.64	12K

International / Global Equity

iShares MSCI EAFE Minimum Volatility Index	XMI	5.53	3.96	7.30	9.09	0.37%	5.57	6.14	8.46	10.55	5K↔
BMO MSCI EAFE Index (C\$ Hedged)	ZDM	8.73	3.20	10.66	7.11	0.22%	6.19	7.32	9.18	10.72	17K↔
iShares International Fundamental Index	CIE	6.69	-2.24	9.99	5.57	0.72%	-	-	-	-	8K↔
iShares MSCI World	XWD	10.25	10.92	13.66	11.42	0.47%	1.30	1.49	9.33	10.27	66K▼
BMO Int'l Dividend CAD Hedged ETF	ZDH	6.65	2.74	9.39	-	0.44%	7.61	-	10.31	-	7K
First Asset MSCI Europe Low Weighted ETF	RWE	9.66	9.09	8.79	7.76	0.66%	6.33	6.87	8.43	9.16	3K▲

Specialty / Sector

Vanguard FTSE Emerging Mkts All Cap ETF	VEE	6.10	1.34	12.19	7.62	0.24%	3.40	3.47	11.27	12.53	53K▼
iShares Gold Bullion Fund ETF	CGL	-3.60	-4.24	-1.62	-1.10	0.55%	11.77	13.87	11.78	13.88	35K▼
First Asset Canadian REIT	RIT	5.06	15.50	12.20	12.81	0.90%	6.68	10.42	7.49	8.29	19K▲
BMO Global Infrastructure	ZGI	9.17	19.86	10.77	9.34	0.60%	1.07	1.26	10.62	10.77	6K▲
iShares S&P/TSX Capped Financials Index	XFN	7.37	8.52	11.17	8.64	0.61%	7.75	11.13	10.63	11.39	304K▼

Source: Morningstar, Fundata, iShares, BMO, Vanguard, Invesco, First Asset

Notes:

- ETFs highlighted in Green represent new additions to the Focus List. ETFs highlighted in Red are being removed from the Focus List
- Returns stated are the market returns of the ETF, including all reinvested dividends and/or distributions.
- Returns do not include the effect of sales commissions or dealer compensation
- The arrows beside the Average Daily Volume show if the average daily volume has increased or decreased over the last report.

List Changes

Additions

Horizons Active Corporate Bond ETF (TSX: HAB) – This is an actively managed bond ETF that is run by the fixed income team at Fiera Capital. Fiera is a Montreal based Canadian money manager with more than \$144 billion in assets under management. The company offers a wide range of investment strategies from traditional fixed income and equities to alternative strategies and ESG investing. This ETF is managed using a blend of top down macro analysis and bottom up security selection. The process starts with an overview of the economy and bond market, looking at the outlook, their expected outcomes, and how the market has priced each area. This helps to identify the mispricing and the potential for outsized gains. They will also review the trends and consider the outlook for central bank activity and the direction of yields. Once this is complete, they look for the sectors that offer the most attractive opportunities and then seek to identify individual issues where the true value has not been fully recognized by the market. The Managers have the flexibility to invest in the areas where they see the best opportunities, irrespective of the constraints of a benchmark. It is expected the portfolio will be overweight corporate issues in most scenarios as Corporates tend to offer higher yields and less interest rate sensitivity than government bonds. At the end of April, the ETF had just over 1% in government issues with the balance in corporate credit. Performance has been strong, outperforming the broader Canadian bond market over the past three years. It trailed in the last year on the overweight to corporate bonds as corporate bonds underperformed governments on worries over a slowing economy and the potential fallout from an escalating global trade war. Costs, while more expensive than the passive bond options are very reasonable. The management fee is 0.50%, which results in an MER of 0.59%. This ETF replaces the **Invesco Tactical Bond ETF (TSX: PTB)** which I am removing from the ETF Focus List immediately.

Vanguard Global ex-US Aggregate Bond Index ETF C\$ Hedged ETF (TSX: VBG) – When doing a fulsome review of the ETF Focus List, I noted that there was not much in the way of global fixed income exposure on the list. To remedy that, am adding this Vanguard offering to the list immediately. It provides low cost exposure to the Bloomberg Barclays Global Aggregate ex-USD Float Adjusted Index, which invests in a diversified portfolio of investment grade bonds from issuers around the world, excluding the U.S. The portfolio is extremely well-diversified holding nearly 6,000 issues. The largest country weights at April 30th were Japan at 21%, France at 12%, Germany at 11%, and Italy and the UK at 8% each. There is a very modest Canadian weight at just under 6%, which makes this a nice compliment to a bond sleeve that is heavily weighted toward Canadian issues. Credit quality is very high with nearly 75% of the Fund rated A or better. There are no high yield or unrated issues in the portfolio. An unfortunate downside to this ETF is that yields around the globe are quite low, with the result being an underlying yield to maturity of just 0.88%. The average maturity is just shy of ten years resulting in a duration of 7.8 years. In practice however, I believe this number overstates the sensitivity to interest rates because of the very well diversified portfolio with a wide range of

geographic exposure. We would need to see a coordinated rise in yields across several countries or regions before the duration would be a concern. Costs are reasonable with a management fee of 35 basis points. Given the current environment I would likely favour the **iShares Core Canadian Universe Bond Index (TSX: XBB)** as my core bond holding over this offering because of the higher Canadian bond yields available. The yield to maturity of XBB is higher at 2.15%. All things considered, this can be a great diversifier if used as a portion of a fixed income sleeve of a portfolio.

iShares Core Balanced ETF Portfolio ETF (TSX: XBAL) – In general, I'm not a big fan of balanced funds. This is particularly true with ETFs as the wide selection of higher quality low cost investments available in an ETF provide investors with a great deal of options and control when creating their own balanced portfolios. However, I also realize that there are investors who are looking for a one ticket solution and this newly revamped ETF from iShares may be a strong contender. It invests in a basket of other low cost, mainly cap weighted iShares and has a strategic asset mix of 60% equity and 40% fixed income. At the end of May, it held roughly 38% in bonds, 15% in Canadian equity, 27% in U.S. equity and 18% in international stocks. Any foreign currency exposure for the fixed income sleeve is hedged back to Canadian dollars, while the equity sleeve remains unhedged. This would be expected to be beneficial in a meaningful market selloff as investors tend to flock to the U.S. dollar, pushing it upward, which would help mitigate some of the downside for the equities. The fund is rebalanced continuously to ensure that the asset mix remains near the target. In December, when the ETF was repositioned, the management fee was reduced to 18 basis points. It is expected the all in cost will come in at approximately 21 basis points, including the management fee of the underlying ETFs. The asset mix is roughly in line with the Vanguard Balanced ETF Portfolio (TSX: VBAL), however I favour the iShares offering for its lower costs. VBAL has a management fee listed at 22 basis points. I have always maintained that when looking at two very similar investments, it is very prudent to favour the one with the lower cost structure. If you already own the Vanguard offering, I don't see a compelling reason to switch given the slight difference in cost. However, if you're looking for a new one-ticket offering, this would be my pick.

iShares S&P/TSX Completion Index ETF (XMD) – For Canadian investors looking for Canadian small and mid-cap ETFs, there aren't a lot of choices. In fact, a very quick scan on Morningstar shows there are only six Canadian traded ETFs that focus on small and mid-cap issues. Looking at the available options, this cap weighted ETF looks to be the most attractive. It seeks to track the S&P/TSX Completion Index, which is an index made up of the stocks in the S&P/TSX Composite Index that aren't found in the S&P/TSX 60 Index. The portfolio is well diversified, holding more than 180 names. The top ten holding represent slightly more than 20% of the overall portfolio. From a sector perspective, it has significant exposure to energy and materials, which when combined make up roughly 28% of the portfolio. However, it has less exposure to those cyclical sectors than the S&P/TSX Small Cap Index. This results in significantly less volatility than the small cap index. One drawback is that it is not exactly cheap, carrying a management fee of 0.55% that results in an MER of 0.61%. Despite this high price tag, it is the cheapest option around. Typically, I favour an actively managed strategy for small and mid-cap exposure because a high quality manager is more likely to be able to generate alpha relative to the passive benchmark in the small and mid-cap space. Unfortunately, there

isn't much choice in the ETF space, making this the de-facto option for those looking for an ETF. I am substituting this for the **iShares S&P TSX Small Cap ETF (TSX: XCS)** which I am removing from the Focus List. I am making this substitution as I believe that as we head into a potentially more volatile period, the large companies in the completion index will hold up better than the small caps. Further, the reduced exposure to the cyclical sectors should also provide a better buffer against volatility going forward.

Vanguard S&P 500 Index ETF (TSX: VFV) – This Vanguard offering is designed to track the S&P 500 Index. I am adding it to the ETF Focus List replacing the **iShares Core S&P 500 ETF (TSX: XUS)** because of its lower cost. Vanguard's version has an MER of 8 basis points, compared to 11 basis points for the iShares offering. If you hold the iShares offering, there is no immediate reason to switch, however for those looking to initiate new positions, you may want to consider Vanguard because of the lower cost. I have always said that if there are two substantially similar offerings, you should favour the lower cost version.

iShares MSCI Minimum Volatility USA ETF (TSX: XMU) – Conventional wisdom suggests that if you want to earn higher returns, you need to take bigger risks. While there is some truth to this, mounting evidence shows that there is a notable exception in that over the long-term, many stocks that exhibit lower levels of volatility tend to outperform those with higher levels of volatility. Further, when a low volatility strategy is used in a portfolio, it can also help to reduce the overall level of volatility in the portfolio, without there being any material impact on the return potential. This offering from BlackRock's iShares is my top pick for low vol exposure to U.S. equities. It is designed to track the performance of the MSCI Minimum Volatility USA Index, net of fees. Over the past five years, it has outperformed the broader market with less volatility. It has delivered roughly 90% of the upside of the market, while participating in less than two thirds of the downside. The currency exposure is unhedged, which is expected to help reduce downside in periods of market volatility. This happens because typically investors flock to the U.S. dollar in periods of market stress at a safe haven, pushing up the value of the U.S. dollar, increasing the value of any positions held unhedged. A full currency hedged version is available under the ticker symbol XMS. Costs are reasonable with a management fee of 0.30% resulting in an MER of 0.33%. I'm not sure I would use this as a core holding, but rather as a piece of a well-diversified portfolio with the main objective of reducing overall volatility.

BMO U.S. Dividend ETF (TSX: ZDY) – Over the long-term dividends have historically made up a meaningful part of the total return of equity markets. This ETF provides investors to a yield weighted portfolio of U.S. dividend stocks. The portfolio is built using a rules based approach that scores U.S. traded companies on many factors including liquidity, three-year dividend growth rate, dividend yield, and payout ratio. The portfolio is rebalanced once a year in June, and the screening process is run annually in December. At the end of May, the underlying dividend yield was just north of 3%, compared with the 2% yield of the broader U.S. equity market. Performance has been decent, gaining an annualized 13.5% for the five years ending May 30. This trailed the index, but outpaced its U.S. equity peer group. Volatility has also been well below the index and peer group. The currency exposure is unhedged. If you prefer, ZUD will provide you the same underlying investment

exposure, but with the currency fully hedged. Costs for both the hedged and unhedged version are higher than a pure cap weighted ETF with a management fee of 0.30%. Still, I believe this to be the strongest Canadian traded U.S. dividend offering currently available.

BMO International Dividend Hedged to CAD ETF (TSX: ZDH) – One area I noted the ETF Focus List was lacking exposure to was International or Global Dividends. With that in mind, this International focused dividend offering from BMO was the most attractive Canadian traded offering. Like its U.S. counterpart, ZDH is constructed using a rules based approach that scores non-North American traded companies on many factors including liquidity, three-year dividend growth rate, dividend yield, and payout ratio. The portfolio is rebalanced once a year in June, and the screening process is run annually in December. Over the most recent three-year period (to May 31), the ETF returned an annualized 6.9%, which outpaced the 6.4% rise in the MSCI EAFE Index (USD). Currency exposure for this ETF is fully hedged back to Canadian dollars. If you prefer an unhedged currency version, you'll want to consider ZDI. Costs are fair, with a management fee of 0.40% resulting in an MER of 0.44%.

Deletions

Invesco Tactical Bond ETF (TSX: PTB) – I have to admit that I was, and still am rather fond of the idea of this ETF, particularly as we head in to what could be a potentially challenging market environment. What's not to like about the idea of a team of fixed income experts from one of the world's largest investment managers making tactical shifts among several underlying fixed income strategies including Canadian government bonds, investment grade corporate bonds, real return bonds, and U.S. high yield bonds, based on market conditions? It's not that they did a bad job at it. In fact, performance was downright decent, gaining an annualized 3.1% for the five years ending May 31. However, when we compare that to the **iShares Core Canadian Universe Bond Index (TSX: XBB)** which gained an annualized 3.5% over the same period, the ETF just did not add any appreciable value. Interestingly, the difference in return is nearly identical to the difference in MER. PTB carried an MER of 0.54% compared with 0.10% for XBB. Further, when looking at other active fixed income ETFs, the **Horizons Active Corporate Bond ETF (TSX: HAB)** provided a more attractive risk reward profile than this, and has been added to the ETF Focus List in place of PTB.

iShares S&P/TSX Small Cap Index ETF (TSX: XCS) – This ETF provides cap weighted exposure to the Canadian small cap equity universe. To qualify, a company must have a total market value of at least \$100 million, but less than \$1.5 billion. The index is reconstituted semi-annually. While this is a decent proxy for Canadian small caps, I believe the **iShares S&P/TSX Completion Index ETF (TSX: XMD)** is a better representation. Given that, I removed XCS from the ETF Focus List and replaced it with XMD.

iShares US Fundamental Index ETF (TSX: CLU) – This is an ETF that looked good in theory, but in practice has not delivered compared to a basic cap weighted index. Unlike the S&P 500, which weights companies in the index based on their size, CLU looks to replicate an index

where companies are weighted based on fundamental factors including dividends, free cash flow, sales, and book value. The rationale for this type of strategy is that by focusing more on company fundamentals, it is less likely to have an overweight exposure to overvalued companies. The theory is solid, but the ETF has not delivered from a return perspective, either on an absolute or risk adjusted basis. For example, the ETF has returned an annualized 5.4% for the past five years, however, XSP, an ETF that tracks the S&P 500 gained 8.6% over the same period. Somewhat surprisingly, the volatility of CLU has also been higher, resulting in lower risk adjusted returns. Factor in a significantly higher cost and it becomes more difficult to continue to keep this ETF on my ETF Focus List. As a result, I am removing it from the list immediately.

iShares Core S&P 500 Index ETF (XUS) – Let me start by saying this is a very good ETF. It is designed to replicate the performance of the S&P 500 in Canadian dollar terms. I'm sure you're now asking that if it is so good, why am I taking it off the ETF Focus List? It all comes down to cost. The Vanguard offering, which is taking this ETF's spot on the ETF Focus List, VFV, carries a management fee of 8 basis points compared to XUS which is 0.10%. I have always emphasized that if there are two ETFs that have substantially similar, or in this case identical risk reward characteristics, you should always favour the one with the lower cost. If you currently hold XUS, I don't see an immediate need to sell it and move into VFV. However, if you are looking to add a new position of low cost U.S. equity exposure to your portfolio, I would favour VFV.

iShares International Fundamental Index (TSX: CIE) – This ETF is very much like the **iShares US Fundamental Index (TSX: CLU)** discussed above in that it looks to replicate an index where companies are weighted based on fundamental factors including dividends, free cash flow, sales, and book value. The key difference is that instead of investing in U.S. companies, it invests in non-North American companies. But similarly to the CLU, the investing experience has been similar with an underperformance both on an absolute and risk adjusted basis. As a result, I am removing it from the ETF Focus List immediately.

ETFs of Note

NONE

Fixed Income

Fund	Ticker	Asset Class	Construction Method	MER	Assets (\$ mil)	Description
Invesco Senior Loan CAD Hgd	TSX: BKL.F	Leveraged Loans	Cap Weighted	0.78%	\$47	BKL seeks to replicate, before fees and expenses, the performance of the S&P/LSTA (Loan Syndications and Trading Association) U.S. Leveraged Loan 100 Index (CAD Hedged). The index gives investors exposure to the largest 100 loan facilities drawn from a larger benchmark - the S&P/LSTA Leveraged Loan Index.
Vanguard Canadian Short Term Bond	TSX: VSB	Short Term Fixed Income	Cap Weighted	0.11%	\$1,033	VSB seeks to track the performance of a broad Canadian bond index with a short-term dollar-weighted average maturity. Currently, this tracks the Barclays Global Aggregate Canadian Government/Credit 1–5-year Float Adjusted Bond Index. It invests primarily in investment-grade fixed income securities issued in Canada.
BMO Short Corporate Bond Index	TSX: ZCS	Short Term Fixed Income	Cap Weighted	0.11%	\$1,346	ZCS is designed to replicate the performance of the FTSE TMX Canada Short Term Corporate Bond Index TM, net of expenses. It invests in a variety of debt securities primarily with a term to maturity between one and five years. Securities held in the Index are generally corporate bonds issued domestically in Canada in Canadian dollars, with an investment grade rating.
iShares Core Canadian Universe Bond Index ETF	TSX: XBB	Canadian Fixed Income	Cap Weighted	0.10%	\$2,895	XBB seeks to provide income by replicating the performance of the FTSE TMX Canada Universe Bond Index (the "Index"), net of expenses. The Index is a market capitalization-weighted index consisting of federal, provincial, corporate and municipal bonds. The strategy is to invest in a regularly rebalanced portfolio of bonds that closely matches the characteristics of the Index.

Fund	Ticker	Asset Class	Construction Method	MER	Assets (\$ mil)	Description
Horizons Active Corporate Bond ETF - NEW	TSX: HAB	Canadian Fixed Income	Active	0.59%	\$562	The ETF seeks to provide long-term moderate capital growth and generate high income. The fund invests primarily in a portfolio of debt securities of Canadian and U.S. companies, directly, or through investments in securities of other investment funds, including exchange traded funds. It, to the best of its ability, seeks to hedge its non-Canadian dollar currency exposure to the Canadian dollar at all times.
Vanguard Global ex-US Agg Bnd Idx ETF C\$ Hgd - NEW	TSX: VBG	Global Fixed Income	Cap Weighted	0.38%	\$247	VBG seeks to track the performance of a broad global bond index, which Index is hedged to the Canadian dollar. Currently, it seeks to track the Barclays Global Aggregate ex-USD Float Adjusted RIC Capped Index (CAD Hedged). It invests directly or indirectly in a wide spectrum of the global investment-grade, fixed rate, fixed income markets outside the U.S. and uses derivative instruments to seek to hedge the foreign currency exposure of the portfolio to the Canadian dollar.

Fund	Annualized Returns (%)					Calendar Year Returns (%)						Upside		Downside	
	3mth	1 Yr	3 Yr	5 Yr	10Yr	2018	2017	2016	2015	2014	2013	3Yr	5Yr	3Yr	5Yr
Invesco Senior Loan	3.69	2.89	3.25	2.34	-	-2.13	1.36	9.47	-2.29	0.49	3.77	9	-4	-37	-45
Vanguard Cdn Sht Term Bond	1.28	3.62	1.38	1.66	-	1.65	-0.36	1.25	2.02	2.80	1.58	80	73	48	46
BMO Short Corp. Bond Index	1.78	4.21	2.22	2.32	-	1.23	1.03	2.02	2.36	3.46	2.13	95	80	34	27
iShares Core Cdn Unv Bond	2.45	5.95	2.47	3.40	4.09	1.00	2.42	1.25	3.30	8.28	-1.31	108	106	86	87
Horizons Act Crp Bond ETF	2.48	5.18	3.46	3.57	-	0.45	4.11	3.24	2.22	7.08	0.02	88	78	41	37
Vgd Gbl ex-US Agg Bnd Idx	1.69	3.65	2.12	-	-	1.29	1.74	3.75	0.95	-	-	31	-	19	-

Note: Source: Morningstar, Fundata, iShares, BMO, Vanguard, Invesco

Income / Cash Flow

Fund	Ticker	Asset Class	Construction Method	MER	Assets (\$ mil)	Notes
iShares Core Balanced ETF Portfolio	TSX: XBAL	Global Neutral Balanced	Strategic Asset Allocation Fund of ETFs	0.76%	\$121	The Fund seeks to provide long-term capital growth and income by investing primarily in one or more exchange-traded funds managed by BlackRock Canada or an affiliate ("iShares ETFs") that provide exposure to equity and/or fixed income securities.
BMO Monthly Income Fund	TSX: ZMI	Canadian Neutral Balanced	Strategic Asset Allocation Fund of ETFs	0.61%	\$110	ZMI has been designed to deliver the performance of an underlying basket of higher yielding BMO ETFs. ETFs are eligible to be selected by having a higher yield than either the equity market or the fixed income market. The holdings are weighted to emphasize yield, with 50 percent in each of equity and fixed income and a cap of 20 percent for each security. It is rebalanced and reconstituted semi-annually in October and January. In addition, as ZMI is a fund of fund, the management fees charged are reduced by those accrued in the underlying funds.
iShares Diversified Monthly Income	TSX: XTR	Fixed Income Balanced	Strategic Asset Allocation Fund of ETFs	0.62%	\$603	XTR seeks to provide a consistent monthly cash distribution, with the potential for modest long-term capital growth, by investing in iShares Funds that provide exposure to a diversified portfolio of income-bearing equity and fixed income investments. BlackRock Canada will develop and maintain a strategic asset allocation policy for XTR. The fund will rebalance to this allocation policy on a quarterly basis but may also do so more frequently if market conditions warrant. The majority of the XTR's investment exposure will be to Canadian securities, but foreign asset classes may also be included. BlackRock Canada will review, and may adjust, XTR's strategic asset allocation from time to time, as market conditions change, and as the investible universe evolves.

Fund	Annualized Returns (%)					Calendar Year Returns (%)						Upside		Downside	
	3mth	1 Yr	3 Yr	5 Yr	10Yr	2018	2017	2016	2015	2014	2013	3Yr	5Yr	3Yr	5Yr
iShares Core Bal ETF Portfolio	6.46	9.36	6.07	5.00	7.42	-2.73	5.54	9.16	-1.36	9.03	5.91	55	49	44	42
BMO Monthly Income Fund	4.61	6.76	5.94	3.95	-	-2.39	4.97	5.97	-0.58	9.40	3.34	60	51	60	62
iShares Div. Monthly Income	4.95	6.69	5.92	3.76	9.08	-3.71	6.61	12.99	-6.04	6.51	2.06	119	103	94	123

Note: Source: Morningstar, Fundata, iShares, BMO, Vanguard, Invesco

Canadian Equity

Fund	Ticker	Asset Class	Construction Method	MER	Assets (\$ mil)	Description
Invesco S&P/TSX Composite Low Volatility ETF	TSX: TLV	Canadian Equity	Rules Based	0.34%	\$357	TLV seeks to replicate the performance of the S&P/TSX Composite Low Volatility Index, or any successor thereto. This ETF invests, directly or indirectly, primarily in Canadian equity securities. Low-volatility stocks (i.e., securities with a standard deviation of price returns lower than that of the broader market) have historically provided a layer of protection in declining markets by capturing a smaller portion of downside.
Invesco Canadian Dividend ETF	TSX: PDC	Cdn Dividend & Income Equity	Rules Based / Cap Weighted	0.55%	\$655	PDC seeks to replicate the performance of the NASDAQ Select Canadian Dividend Index, or any successor thereto. This Invesco ETF invests primarily in Canadian equity securities. PDC invests in liquid, high-yielding securities of Canadian corporations with a track record of growing dividends.
Invesco FTSE RAFI Canadian Fundamental	TSX: PXC	Canadian Equity	Fundamental	0.50%	\$278	PXC seeks to replicate the performance of the FTSE RAFI® Canada Index. This ETF gives investors exposure to all Canadian equities in the FTSE RAFI® Developed ex U.S. 1000 Index, a fundamentally weighted index.
Horizons Active Canadian Dividend	TSX: HAL	Cdn Dividend & Income Equity	Active - Fundamental	0.78%	\$37	HAL seeks long-term total returns consisting of regular dividend income and modest long-term capital growth. The ETF invests primarily in equity securities of major North American companies with above average dividend yields. The ETF, to the best of its ability, seeks to hedge its U.S. currency exposure to the Canadian dollar at all times.
iShares Core S&P/TSX Capped Composite	TSX: XIC	Canadian Equity	Cap Weighted	0.06%	\$5,076	XIC seeks to provide long-term capital growth by replicating the performance of the S&P®/TSX® Capped Composite Index through investments in the constituent issuers of such index. The index is comprised of the largest (by market capitalization) and most liquid securities listed on the Toronto Stock Exchange, selected by S&P Dow Jones Indices LLC using its industrial classifications and guidelines for evaluating issuer capitalization, liquidity and fundamentals.

Fund	Ticker	Asset Class	Construction Method	MER	Assets (\$ mil)	Description
iShares S&P/TSX Completion Index - NEW	TSX: XMD	Canadian Small / Mid-Cap Equity	Cap Weighted	0.61%	\$190	XMD seeks to replicate the performance of the S&P/TSX Completion Index. The index is comprised of securities that, on the basis of market capitalization, make up the mid and smaller tier of the issuers listed on the TSX, selected by S&P using its industrial classifications and guidelines for evaluating issuer capitalization, liquidity & fundamentals.
First Asset Morningstar Canadian Momentum	TSX: WXM	Canadian Equity	Rules Based	0.67%	\$665	WXM has been designed to replicate the performance of the Morningstar® Canada Target Momentum Index. The Index is comprised of liquid equity securities of Canadian companies, utilizing proprietary screens to find above average returns on equity, with an emphasis on upward earnings estimate revisions and technical price momentum indicators. The Index is comprised of the top 30 issuers that meet the screening requirements and are equally weighted and rebalanced quarterly.

Fund	Annualized Returns (%)					Calendar Year Returns (%)						Upside		Downside	
	3mth	1 Yr	3 Yr	5 Yr	10Yr	2018	2017	2016	2015	2014	2013	3Yr	5Yr	3Yr	5Yr
Invesco S&P/TSX Composite Low Volatility ETF	6.28	9.39	8.06	8.08	-	-6.62	10.15	14.90	0.40	16.56	11.35	80	84	69	50
Invesco Cdn Dividend ETF	7.46	10.94	8.68	6.40	-	-11.9	10.26	23.37	-8.76	11.74	20.24	103	102	112	95
Invesco FTSE RAFI Canadian Fundamental	7.78	5.59	9.11	5.23	-	-10.3	7.16	29.01	-9.81	6.66	16.19	102	113	105	124
Horizons Active Canadian Dividend	6.55	12.01	10.36	6.69	-	-6.17	7.18	20.05	-7.20	12.59	19.76	101	94	86	79
iShares Core S&P/TSX Capped Composite	7.47	9.54	9.08	5.56	8.89	-8.71	8.98	21.00	-8.62	10.95	12.46	99	99	98	99
iShares S&P/TSX Completion Index ETF	6.32	3.58	5.63	2.02	9.06	-13.1	6.16	19.98	-10.6	5.07	11.99	103	101	109	105
First Asset Morningstar Canadian Momentum	6.30	4.81	10.24	5.96	-	-4.87	10.05	9.24	-9.03	17.10	26.76	106	94	99	87

Note: Source: Morningstar, Fundata, iShares, BMO, Vanguard, Invesco

U.S. Equity

Fund	Ticker	Asset Class	Construction Method	MER	Assets (\$ mil)	Description
Vanguard U.S. Total Market (C\$ Hedged)	TSX: VUS	U.S. Equity	Cap Weighted	0.16%	\$753	VUS seeks to track the performance of a broad U.S. equity index that measures the investment returns of primarily large-capitalization U.S. stocks, which index is hedged to the Canadian dollar. Currently, this ETF seeks to track the CRSP US Total Market Index (CAD-hedged). It invests in stocks of U.S. companies and hedges the U.S. dollar exposure back to the Canadian dollar.
Vanguard S&P 500 Index – NEW	TSX: VFV	U.S. Equity	Cap Weighted	0.08%	\$2,262	The ETF seeks to track, to the extent reasonably possible and before fees and expenses, the performance of a broad U.S. equity index that measures the investment return of large-capitalization U.S. stocks. Currently, this ETF seeks to track the S&P 500 Index. It invests in stocks of U.S. companies.
iShares MSCI Min Vol USA ETF – NEW	TSX: XMU	U.S. Equity	Risk Weighted	0.33%	\$418	XMU seeks to replicate the MSCI USA Minimum Volatility Index USD. It invests in one or more US iShares Funds such that the resulting portfolio will have characteristics that closely match the characteristics of the underlying index. The index measures the performance of equity securities in both emerging and developed markets that have lower volatility relative to the equity securities included in the MSCI USA Index.
BMO U.S. Dividend ETF - NEW	TSX: ZDY	U.S. Equity	Dividend Weighted	0.32%	\$1,322	BMO US Dividend ETF seeks to provide exposure to a yield weighted portfolio of U.S. dividend paying stocks. The selected companies will have the potential for long-term capital appreciation.

Fund	Annualized Returns (%)					Calendar Year Returns (%)						Upside		Downside	
	3mth	1 Yr	3 Yr	5 Yr	10Yr	2018	2017	2016	2015	2014	2013	3Yr	5Yr	3Yr	5Yr
Vanguard MSCI U.S. Broad Market (C\$ Hedged)	8.73	10.40	13.35	10.20	-	-7.33	20.28	11.36	-0.81	13.13	33.90	73	67	66	73
Vanguard S&P 500 Index	11.55	18.00	16.99	15.77	-	2.93	13.67	8.18	20.27	24.05	40.90	101	101	109	108
iShares MSCI Min Vol USA ETF	10.91	22.25	15.28	16.75	-	9.20	10.95	6.21	24.86	27.16	34.07	80	91	64	71
BMO U.S. Dividend ETF	9.14	14.23	14.52	15.24	-	3.36	6.90	20.12	17.67	26.27	-	82	86	80	73

Note: Source: Morningstar, Fundata, iShares, BMO, Vanguard, Invesco

International / Global Equity

Fund	Ticker	Asset Class	Construction Method	MER	Assets (\$ mil)	Description
iShares MSCI EAFE Minimum Volatility Index	TSX: XMI	International Equity	Rules Based	0.37%	\$259	XMI seeks to provide long-term capital growth by replicating the performance of the MSCI EAFE Minimum Volatility Index (USD). The index measures the performance of international equity securities that have lower volatility relative to the equity securities included in the MSCI EAFE Index. MSCI, Inc. follows a rules-based methodology to determine optimal weights for securities in the index in order to seek to minimize total risk of the MSCI EAFE Index. The index includes stocks from Europe, Australasia, the Middle East and the Far East. The index is optimized in U.S. dollars and reported in Canadian dollars.
BMO MSCI EAFE Index (C\$ Hedged)	TSX: ZDM	International Equity	Cap Weighted	0.22%	\$614	ZDM has been designed to replicate the performance of the MSCI EAFE 100% Hedged to CAD Dollars Index. It invests in developed markets equity, excluding Canada and the U.S. The Manager may use a sampling methodology in selecting investments for the fund. The Fund may also invest in or hold securities intended to replicate the performance of the Index. The foreign currency exposure is hedged back to the Canadian dollar.
iShares MSCI World	TSX: XWD	Global Equity	Cap Weighted	0.47%	\$676	XWD seeks to provide long-term capital growth by replicating the performance of the MSCI World Index. The MSCI World Index is a free float-adjusted market capitalization weighted index provided by MSCI, Inc. that is designed to measure the equity market performance of developed markets.
BMO International Dividend Hedged to CAD ETF - NEW	TSX: ZDH	International Equity	Dividend	0.44%	\$129	ZDH seeks to provide exposure to the performance of a yield weighted portfolio of high dividend paying equities of international companies to provide long-term capital appreciation and to generate income. It will hedge foreign currency exposure.

Fund	Ticker	Asset Class	Construction Method	MER	Assets (\$ mil)	Description
First Asset MSCI Europe Low Risk Weighted ETF (Hedged)	TSX: RWE	European Equity	Risk Weighted	0.66%	\$52	RWE has been designed to replicate the performance of the MSCI Europe Risk Weighted Top 100 Index Hedged to CAD. Constructed using a simple, but effective and transparent process, each security of the parent index (MSCI Europe) is reweighted so that stocks with lower risk are given higher index weights. The Index seeks to emphasize stocks with lower historical return variance and tend to have a bias towards lower size and lower risk stocks. Historically, the Index has exhibited lower realized volatility in comparison to its parent index. At least 90% of the foreign currency exposure will be hedged back to the Canadian dollar.

Fund	Annualized Returns (%)					Calendar Year Returns (%)						Upside		Downside	
	3mth	1 Yr	3 Yr	5 Yr	10Yr	2018	2017	2016	2015	2014	2013	3Yr	5Yr	3Yr	5Yr
iShares MSCI EAFE Min Vol.	5.53	3.96	7.30	9.09	-	1.70	13.74	-5.81	27.81	12.91	24.14	75	87	81	64
BMO MSCI EAFE Idx (C\$ Hdg)	8.73	3.20	10.66	7.11	-	-10.1	16.17	6.42	4.71	5.12	26.95	91	85	78	78
iShares MSCI World	10.25	10.92	13.66	11.42	-	-1.51	14.42	4.11	17.42	14.31	35.69	96	97	101	103
BMO Intl Dividend CAD Hedge	6.65	2.74	9.39	-	-	-9.14	13.03	14.66	-	-	-	86	-	82	-
FA MSCI Eur LR Weighted ETF	9.66	9.09	8.79	7.76	-	-4.30	13.54	1.38	10.82	-	-	73	76	61	54

Note: Source: Morningstar, Fundata, iShares, BMO, Vanguard, Invesco, First Asset

Specialty / Sector

Fund	Ticker	Asset Class	Construction Method	MER	Assets (\$ mil)	Description
Vanguard FTSE Emerging Markets All Cap ETF	TSX: VEE	Emerging Markets	Cap Weighted	0.24%	\$975	VEE seeks to track the performance of a broad emerging markets index. Currently, this Vanguard ETF seeks to track the FTSE Emerging Markets All Cap China A Inclusion Index. It invests primarily in stocks of companies located in emerging markets.
iShares Gold Bullion Fund ETF	TSX: CGL	Commodity	Other	0.55%	\$330	CGL seeks to replicate the performance of the price of physical gold bullion. The fund is not actively managed. The fund invests in long-term holdings of unencumbered gold bullion, in 100 or 400 troy ounce international bar sizes. The ETF holds gold bullion, but may hold, cash, permitted gold certificates, if any, and forward contracts relating to the currency hedge.
First Asset Canadian REIT ETF	TSX: RIT	Real Estate Equity	Active	0.90%	\$490	RIT will invest in an actively managed portfolio comprised primarily of securities of Canadian REITs, real estate operating corporations ("REOCs") and corporations involved in real estate related services. It may also invest up to 30% of its net asset value in securities of non-Canadian REITs, REOCs and corporations involved in real estate related services.
BMO Global Infrastructure	TSX: ZGI	Global Equity	Cap Weighted	0.60%	\$247	ZGI has been designed to replicate the performance of the Dow Jones Brookfield Global Infrastructure North American Listed Index. It invests in securities of the Index in the same proportion as they are reflected in the Index. The Index is a float-adjusted market capitalization weighted Index. Companies must have a minimum market cap of \$500 million as well as a minimum three-month average daily trading volume of US\$1 million. Securities must be listed in Canada or the United States. More than 70% of a company's cash flows must be derived from the development, ownership, lease, concession or management of infrastructure assets.

Fund	Ticker	Asset Class	Construction Method	MER	Assets (\$ mil)	Description
iShares S&P/TSX Capped Financials Index	TSX: XFN	Financial Services Equity	Cap Weighted	0.61%	\$986	XFN seeks to provide long-term capital growth by replicating the performance of the S&P/TSX Capped Financials Index. The index is comprised of constituents of the S&P/TSX Composite Index in GICS Sector 40 but excluding GICS Industry Group 4040 – Real Estate. Constituents are capped at 25% weight.

Fund	Annualized Returns (%)					Calendar Year Returns (%)						Upside		Downside	
	3mth	1 Yr	3 Yr	5 Yr	10Yr	2018	2017	2016	2015	2014	2013	3Yr	5Yr	3Yr	5Yr
Vanguard FTSE EM All Cap	6.10	1.34	12.19	7.62	-	-7.97	22.55	8.10	0.21	8.37	1.05	96	96	111	101
iShares Gold Bullion Fund ETF	-3.60	-4.24	-1.62	-1.10	-	-3.19	11.68	8.25	-11.3	-1.50	-28.7	N/A	N/A	N/A	N/A
First Asset Canadian REIT ETF	5.06	15.50	12.20	12.81	16.49	3.93	11.72	16.88	15.44	11.19	0.05	72	55	26	11
BMO Global Infrastructure	9.17	19.86	10.77	9.34	-	-0.78	2.97	17.16	-4.05	30.36	22.43	101	102	101	104
iShares S&P/TSX Capped Fincl	7.37	8.52	11.17	8.64	12.17	-9.76	12.54	23.36	-3.71	11.89	26.00	63	52	46	30

Note: Source: Morningstar, Fundata, iShares, BMO, Vanguard, Invesco

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Information used in this analysis is historic in nature. Past performance is no guarantee of future performance.

Monthly Standard Deviation is the most recent 60-month historical standard deviation of returns.

Sharpe Ratio is a measure of risk adjusted returns. The higher the ratio, the better the manager has been at delivering more return for less risk.

Alpha represents the excess return which the manager has been able to deliver over and above the applicable benchmark.

Beta represents the volatility of the fund relative to its applicable benchmark. A beta of one means that there is a level of volatility equal that of the benchmark. A beta in excess of one indicates that the volatility is greater than the benchmark, while a beta of less than one indicates that volatility is less than the benchmark.

Correlation measures the similarity in return patterns between the fund and a benchmark. The correlation will range between -1 and +1. A correlation close to +1 indicates that the fund and the index have very similar return patterns. A correlation close to -1 indicates that the returns are almost opposite, while a correlation close to zero indicates no relationship.

Historic returns are calculated using the monthly return data in our database. Slight variations in return results will be attributable to decimal rounding and number truncation.

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About Us

Dave Paterson is the Director of Research, Investment Funds for D.A. Paterson & Associates Inc. Paterson & Associates is an independent consulting firm specializing in providing research and due diligence on a wide range of different investment products including mutual funds, exchange traded funds, hedge funds and other exempt market products to financial advisors, individual investors and investment dealers.

Dave has worked in the mutual fund industry since 1994. Prior to starting his own firm in 2002, he worked for a variety of respected mutual fund companies and money managers including the Mackenzie Financial, Guardian Group of Funds, the Bank of Montreal and Jones Heward. In these roles, Dave has had the opportunity to work with some of the most respected money managers in the country.

Using this knowledge, Dave has developed a unique analytical approach which focuses on identifying the funds which have consistently delivered strong, risk adjusted returns on both an absolute and relative basis.

In 2011, Dave took over the publication and editor duties of Gordon Pape's Mutual Fund and ETF Update and Top Funds Report, the most widely read mutual fund newsletters in the country. He is also regularly quoted in the Financial Post, Globe and Mail and the FundLibrary.com and has appeared on BNN.

Dave was awarded the Chartered Financial Analyst (CFA) designation in 2000 and holds a Bachelor of Commerce (Finance) from the University of Windsor.