

ETF FOCUS LIST



September 2019

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The Focus List

% Returns at July 31, 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	0.38	2.89	2.79	2.31	0.78%	7.33	9.27	3.50	3.68	2K▼
Vanguard Canadian Short Term Bond ETF	VSB	0.58	3.97	1.13	1.67	0.11%	0.96	1.01	1.44	1.50	28K▼
BMO Short Corporate Bond Index	ZCS	1.06	5.17	2.13	2.43	0.11%	1.29	1.39	1.50	1.55	38K▼
iShares Core Canadian Universe Bond Index	XBB	2.76	8.23	2.25	3.53	0.10%	1.03	1.19	3.67	3.92	92K▲
Horizons Active Corporate Bond ETF	HAB	2.42	7.27	3.36	3.76	0.59%	1.98	2.26	2.98	3.08	10K▲
Vanguard Global ex-US Agg Bnd Idx	VBG	3.85	7.40	2.27	3.65	0.38%	6.02	7.21	2.45	2.73	5K▼
Income / Cash Flow											
iShares Core Balanced ETF Portfolio	XBAL	0.41	6.36	4.67	4.74	0.76%	4.97	6.40	4.65	5.15	22K▼
BMO Monthly Income ETF	ZMI	0.62	5.26	4.60	3.69	0.61%	4.03	5.74	4.48	4.93	5K↔
iShares Diversified Monthly Income Fund	XTR	1.09	5.63	4.67	3.71	0.62%	2.57	3.53	4.19	5.04	39K▼
Canadian Equity											
Invesco S&P/TSX Composite Low Volatility	TLV	1.36	7.48	6.19	7.02	0.34%	5.21	5.95	6.73	6.93	5K▼
Invesco Canadian Dividend ETF	PDC	-1.54	4.04	6.42	4.89	0.55%	3.65	4.37	8.88	9.17	10K↔
Invesco FTSE RAFI Cdn Fundamental	PXC	-3.42	-2.74	6.39	3.30	0.50%	2.81	3.56	9.92	10.61	4K▼
Horizons Active Canadian Dividend	HAL	1.55	6.17	9.24	5.89	0.78%	3.86	4.50	8.80	8.98	3K↔
iShares Core S&P/TSX Capped Composite	XIC	-0.26	3.19	7.15	4.42	0.06%	0.54	0.67	8.82	9.00	246K▲
iShares S&P/TSX Completion Index ETF	XMD	1.52	2.47	3.79	1.78	0.61%	0.99	0.89	9.77	10.33	4K↔
First Asset Morningstr Cdn Momentum	WXM	7.60	3.62	10.11	6.99	0.67%	6.48	6.68	11.88	11.35	14K▼

% Returns at July 31, 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	1.15	5.01	11.56	9.70	0.16%	7.16	9.04	12.72	12.49	18K▼
Vanguard S&P 500 Index ETF (VFV)	VFV	0.16	9.28	13.39	15.25	0.08%	1.47	1.74	10.80	11.58	102K▼
iShares MSCI Min Vol USA ETF (XMU)	XMU	3.46	17.69	12.28	17.38	0.33%	6.10	5.99	8.88	10.59	6K▲
BMO U.S. Dividend ETF (ZDY)	ZDY	-1.25	6.10	9.54	14.65	0.32%	4.12	4.65	9.96	10.31	13K▲
International / Global Equity											
iShares MSCI EAFE Minimum Volatility Index	XMI	-0.72	1.81	4.89	8.53	0.37%	5.58	6.31	7.99	10.57	5K↔
BMO MSCI EAFE Index (C\$ Hedged)	ZDM	0.47	1.42	9.44	6.77	0.22%	6.41	7.58	9.62	11.11	16K▲
iShares MSCI World	XWD	-1.07	4.55	10.42	10.89	0.47%	1.58	2.00	9.26	10.64	69K▲
BMO International Dividend C\$ Hedged	ZDH	-3.09	-1.36	7.20	-	0.44%	7.71	-	10.09	-	7K↔
First Asset MSCI Eur Risk Weighted C\$ Hdg)	RWE	1.93	7.39	8.23	8.21	0.66%	6.09	7.06	8.50	9.18	4K▲
Specialty / Sector											
Vanguard FTSE Emerging Markets All Cap	VEE	-4.65	-1.25	6.74	5.15	0.24%	3.66	3.76	11.43	12.77	46K▼
iShares Gold Bullion Fund ETF	CGL	9.91	14.07	0.03	0.86	0.55%	10.67	13.81	10.71	13.83	39K▲
First Asset Canadian REIT	RIT	4.76	15.26	10.33	12.96	0.90%	6.54	10.41	7.17	8.31	20K▲
BMO Global Infrastructure	ZGI	1.51	12.59	6.69	8.38	0.60%	5.94	6.35	9.69	10.72	5K▼
iShares S&P/TSX Capped Financials Index	XFN	-1.30	3.06	10.24	6.57	0.61%	7.30	10.44	10.83	11.52	313K▲

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

NONE

Deletions

NONE

ETFs of Note

Vanguard Canadian Short-Term Bond Index ETF (TSX: VSB) – This is my top pick for broad-based short-term bond exposure. Despite carrying an MER that is 1 basis point higher than the iShares version (XSB), I prefer it for its higher credit quality and greater exposure to government bonds. I have always viewed short-term fixed income as a safe haven, and with my expectation of higher equity-market volatility in the next few months, I believe this offering will hold up slightly better than XSB.

iShares Core Canadian Universe Bond Index ETF (TSX: XBB) – Designed to track the FTSE Canadian Universe Bond Index, this ETF is my top pick for broad-based Canadian fixed income exposure. It provides exposure to the largest government and corporate bonds in Canada and has provided a modest level of outperformance to its peers, the BMO Aggregate Bond ETF (TSX: ZAG) and the Vanguard Canadian Aggregate Bond Index ETF (TSX: VAB). The portfolio has a bit more exposure to corporate bonds than VAB, which offers a slightly higher yield and a slightly lower interest rate sensitivity. Costs are roughly in line, although VAB and ZAG are a basis point cheaper. Still, I currently favour XBB as my top core bond holding.

iShares Core S&P/TSX Capped Composite Index ETF (TSX: XIC) – This cap-weighted ETF provides exposure to the benchmark S&P/TSX Composite Index. Costs are low with a management fee of 5 basis points (bps), resulting in an MER of 0.06%. Performance between this and the BMO version (ZCN) has been similar; however, the higher share price of XIC would be expected to result in modestly lower trading costs when commissions and spreads are considered.

BMO MSCI EAFE Index (C\$ Hedged) (TSX: ZDM) – The pickings for international and global ETF offerings are significantly lower than what is available for Canadian and U.S. ETFs. This makes finding a ETF good solution a bit more difficult. Another challenge with the international and global offerings is they tend to come at a higher cost than Canadian and U.S. versions, making them much less attractive to using actively managed mutual fund offerings. But if you're looking for low-cost, passive international equity exposure, this BMO offering

would be my pick. It offers exposure to the broadly diversified MSCI EAFE Index, has outperformed other passive EAFE options, and does so at a cost of 22 basis points.

Invesco S&P/TSX Composite Low Volatility ETF (TSX: TLV) – The consensus is that to earn higher returns, you need to take on higher risk. This has held true across asset classes, with bonds earning more than cash, and equities gaining more than bonds. However, within equities, there is an anomaly where the least volatile stocks have outperformed in many different market environments, resulting in long-term return numbers that are in line with the broader markets, but with much less volatility.

In the past few years, we've seen many new low-volatility ETFs and funds come to market, each using their own unique spin to take advantage of the anomaly. In the Canadian equity space, this ETF from Invesco is my top pick. It invests in the 50 least volatile stocks that trade on the TSX. It has no constraints on sector weights or market cap, meaning concentration risk may be a potential concern, but looking at historic performance, it has tended to be the least volatile of the available offerings, making it a good pick for a potentially volatile period.

Invesco Canadian Dividend ETF (TSX: PDC) – Dividends have made up a substantial portion of the total return of equities over the long-term, and there is little sign that this will change into the future. That makes dividend investing a solid strategy for most investors.

This offering from Invesco is one of my favourites in the Canadian dividend category. It invests in liquid, high yielding Canadian equities that have a track record of growing dividends. To be included in the index, a company must have paid stable or growing dividends in each of the past five years. There are no limits on sector exposure, so it can get pretty concentrated from a sector perspective. Unlike some of the other dividend mandates, this focuses more on larger companies. It has historically offered a nice balance of return and lower volatility.

iShares MSCI Minimum Volatility USA ETF (TSX: XMU) – This iShares ETF tracks an index that is designed to provide exposure to a portfolio of lower volatility stocks. Unlike Invesco's TLV discussed above, which invests in the least volatile stocks, the methodology uses more of an optimization approach to build the portfolio. While the focus is on low volatility, the sector mix is roughly in line with the broader market.

The index providers then use an optimization process to build the mix of securities that provides the best risk-return trade-off. It tends to be a touch more volatile than the Invesco version, but the returns have also been slightly higher. I have found that this methodology has produced slightly better results in the U.S. and international markets, making this my top pick.

BMO U.S. Dividend ETF (TSX: ZDY) – ZDY invests in a portfolio of U.S. dividend-paying stocks. The portfolio is constructed using a rules-based approach that considers a stock's liquidity, three-year dividend growth rate, dividend yield, and dividend payout ratio. These factors are scored, and the top 100 or so most attractive stocks make up the fund's portfolio. It's been a very solid pick in the U.S. dividend category.

Absolute returns have trailed the broader U.S. market slightly, but with the lower volatility, risk-adjusted returns have been comparable. This version is unhedged, while hedged version (ZUD) offers the same underlying investment exposure with all of the foreign currency exposure hedged back to Canadian dollars. I prefer the unhedged version as it tends to be less volatile, particularly in a market selloff.

iShares MSCI EAFE Minimum Volatility ETF (TSX: XMI) – This ETF is built using a very similar approach to XMU, discussed above, with a key difference being that it uses the MSCI EAFE Index as its benchmark. It roughly matches the country mix and sector exposure of the broader index and is optimized to produce the best risk-reward balance. Returns over the past five years have outpaced the broader market with lower volatility. More recently, it's trailed modestly.

This is one of the few international equity offerings that doesn't include U.S. equities. I am more likely to blend this with a U.S. equity option when building my own portfolio, rather than using an option that incorporates both U.S. and international stocks. Costs are reasonable, coming in with a management fee of 35 basis points, compared with 20 bps for the broader EAFE Index.

BMO International Dividend CAD-Hedged (TSX: ZDH) – Like ZDY discussed above, this ETF provides exposure to a diversified portfolio of high-yielding equities, with the key difference being that this one is focused on non-U.S. equities.

The investment process is identical, using a rules-based approach that considers a stock's liquidity, three-year dividend growth rate, dividend yield, and dividend payout ratio. These factors are scored, and the top 100 or so most attractive stocks make up the portfolio. This version is fully hedged to Canadian dollars, while its companion ZDI is unhedged.

Unlike the U.S. version, the fully hedged fund has resulted in a more favourable risk-reward profile. More than 70% of the portfolio is invested in Europe, and with the uncertainty caused by Brexit and the overall economic environment in the region, I am not bullish on the outlook for the euro. That leads me to favour this fully hedged version.

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. 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 over-weight corporate issues in most scenarios as Corporates tend to offer higher yields and less interest rate sensitivity than government bonds. That will lead to outperformance in most market environments, compared with government bonds. However, it is likely there will be underperformance if we see significant market

volatility and investors seek safe haven in government bonds. 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%.

Horizons Active Canadian Dividend ETF (TSX: HAL) – This systematically managed ETF has delivered very strong absolute and risk-adjusted returns for investors since its launch in February 2010. Its 5-year average annual compounded rate of return to July 31 was 6.1%, outpacing the S&P/TSX Composite, which returned 4.4% over the same period. Manager Sri Iyer and his Systematic Strategies team at Guardian Capital look for Canadian companies that can pay, sustain, and grow their dividends. The team uses a ruled-based screening process that analyzes 31 different factors, looking for positive rates of change. These factors focus on growth, payout ratios, efficiency, valuation, and investor sentiment. The result is a well-diversified portfolio, holding around 45 names, with the top 10 making up roughly a third of the ETF. It invests in companies of any size and approximately half the portfolio is invested in large cap names, with the balance in small- and mid-caps. The sector mix is dramatically different than the broader Canadian market, with an overweight in energy, real estate, and utilities. It is significantly underweight financials, which is sort of rare for a dividend focused mandate. Valuation levels are slightly higher than the broader market and the peer group. However, the stronger-quality metrics, combined with the higher forward-looking earnings growth rate, more than offsets the higher valuation, making it one of the more attractive options in the dividend ETF category. It has also been one of the least volatile in the category, while delivering well above average returns. Looking at the defensive positioning of the portfolio, there is nothing to indicate a higher level of volatility ahead. The biggest knock on this ETF is its cost, with an MER 0.79%, which is well above the category average. Still, the alpha generated has more than offset this higher cost.

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%	\$46	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%	\$1,111	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%	\$1,340	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%	\$3,172	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	TSX: HAB	Canadian Fixed Income	Active	0.59%	\$589	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	TSX: VBG	Global Fixed Income	Cap Weighted	0.38%	\$294	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	0.38	2.89	2.79	2.31	-	-2.13	1.36	9.47	-2.29	0.49	3.77	5	-3	-36	-41
Vanguard Cdn Sht Term Bond	0.58	3.97	1.13	1.67	-	1.65	-0.36	1.25	2.02	2.80	1.58	81	74	54	47
BMO Short Corp. Bond Index	1.06	5.17	2.13	2.43	-	1.23	1.03	2.02	2.36	3.46	2.13	98	83	37	27
iShares Core Cdn Unv Bond	2.76	8.23	2.25	3.53	4.19	1.00	2.42	1.25	3.30	8.28	-1.31	112	107	88	88
Horizons Act Crp Bond ETF	2.42	7.27	3.36	3.76	-	0.45	4.11	3.24	2.22	7.08	0.02	92	80	39	36
Vgd Gbl ex-US Agg Bnd Idx	3.85	7.40	2.27	3.65	-	1.29	1.74	3.75	0.95	-	-	32	32	13	8

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%	\$159	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%	\$106	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%	\$611	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	0.41	6.36	4.67	4.74	6.47	-2.73	5.54	9.16	-1.36	9.03	5.91	59	51	51	50
BMO Monthly Income Fund	0.62	5.26	4.60	3.69	-	-2.39	4.97	5.97	-0.58	9.40	3.34	62	52	60	67
iShares Div. Monthly Income	1.09	5.63	4.67	3.71	7.79	-3.71	6.61	12.99	-6.04	6.51	2.06	122	108	104	129

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%	\$381	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%	\$639	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%	\$284	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%	\$38	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%	\$4,785	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	TSX: XMD	Canadian Small / Mid-Cap Equity	Cap Weighted	0.61%	\$183	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%	\$889	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	1.36	7.48	6.19	7.02	-	-6.62	10.15	14.90	0.40	16.56	11.35	71	80	58	47
Invesco Cdn Dividend ETF	-1.54	4.04	6.42	4.89	-	-11.9	10.26	23.37	-8.76	11.74	20.24	98	99	106	94
Invesco FTSE RAFI Canadian Fundamental	-3.42	-2.74	6.39	3.30	-	-10.3	7.16	29.01	-9.81	6.66	16.19	100	109	111	122
Horizons Active Canadian Dividend	1.55	6.17	9.24	5.89	-	-6.17	7.18	20.05	-7.20	12.59	19.76	101	94	77	77
iShares Core S&P/TSX Capped Composite	-0.26	3.19	7.15	4.42	7.23	-8.71	8.98	21.00	-8.62	10.95	12.46	97	98	97	96
iShares S&P/TSX Completion Index ETF	1.52	2.47	3.79	1.78	7.68	-13.1	6.16	19.98	-10.6	5.07	11.99	104	102	108	105
First Asset Morningstar Canadian Momentum	7.60	3.62	10.11	6.99	-	-4.87	10.05	9.24	-9.03	17.10	26.76	110	104	86	80

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%	\$682	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: VBV	U.S. Equity	Cap Weighted	0.08%	\$2,380	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%	\$428	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%	\$1,279	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)	1.15	5.01	11.56	9.70	-	-7.33	20.28	11.36	-0.81	13.13	33.90	83	69	79	76
Vanguard S&P 500 Index	0.16	9.28	13.39	15.25	-	2.93	13.67	8.18	20.27	24.05	40.90	98	100	97	101
iShares MSCI Min Vol USA ETF	3.46	17.69	12.28	17.38	-	9.20	10.95	6.21	24.86	27.16	34.07	78	91	61	63
BMO U.S. Dividend ETF	-1.25	6.10	9.54	14.65	-	3.36	6.90	20.12	17.67	26.27	-	81	87	93	75

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%	\$258	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%	\$591	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%	\$740	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%	\$120	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%	\$53	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.	-0.72	1.81	4.89	8.53	-	1.70	13.74	-5.81	27.81	12.91	24.14	73	84	79	64
BMO MSCI EAFE Idx (C\$ Hdg)	0.47	1.42	9.44	6.77	-	-10.1	16.17	6.42	4.71	5.12	26.95	99	86	76	81
iShares MSCI World	-1.07	4.55	10.42	10.89	11.64	-1.51	14.42	4.11	17.42	14.31	35.69	99	101	102	104
BMO Intl Dividend CAD Hedge	-3.09	-1.36	7.20	-	-	-9.14	13.03	14.66	-	-	-	89	-	84	-
FA MSCI Eur LR Weighted ETF	1.93	7.39	8.23	8.21	-	-4.30	13.54	1.38	10.82	-	-	78	73	61	49

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%	\$946	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%	\$421	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%	\$550	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%	\$244	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%	\$1,000	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	-4.65	-1.25	6.74	5.15	-	-7.97	22.55	8.10	0.21	8.37	1.05	96	97	109	105
iShares Gold Bullion Fund ETF	9.91	14.07	0.03	0.86	2.85	-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	4.76	15.26	10.33	12.96	15.96	3.93	11.72	16.88	15.44	11.19	0.05	76	57	22	12
BMO Global Infrastructure	1.51	12.59	6.69	8.38	-	-0.78	2.97	17.16	-4.05	30.36	22.43	95	98	121	121
iShares S&P/TSX Capped Fincl	-1.30	3.06	10.24	6.57	9.16	-9.76	12.54	23.36	-3.71	11.89	26.00	68	53	56	43

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.