

March 2020: ETF Inflows Stay Positive During Selloff

- Canadian ETFs had inflows of \$2.9 billion despite unprecedented volatility in equity and credit markets
- Equity ETFs inflows were most prominent mid-month, perhaps bottom-fishing contrarian plays
- March was a rare month of outflow for fixed income including darling cash-like ETFs, a sign of huge rotations
- 11 new ETFs launched; new provider Caldwell joined the fray with an ETF series of a mutual fund

Summary: After a run of 11 years, the U.S. Equity bull market ended abruptly in March 2020, as the COVID-19 pandemic wrought havoc on the global economy. The bear market plunge was the fastest ever in history, while the realized volatility spiked to levels seen only on Black Monday in 1987 and the 1929 Great Depression. Credit markets suffered unprecedented widening in credit spreads, which came along with a deep liquidity crunch in corporate, mortgage and even government bonds. After the Fed announced essentially unlimited QE and plans to buy U.S. investment grade bonds (and the U.S.-listed IG corporate ETFs that hold them), several U.S.-listed ETFs started to show signs of price recovery. Apparent discounts to NAV turned to premia as flow patterns suddenly flipped to creations. On the Canadian side, Fixed Income ETFs experienced a rare month of outflows at \$1.3 billion across all categories, with the only exception being a single institutional subscription in a new high yield ETF launch. On the other hand, Equity ETFs in Canada saw inflows of \$4 billion, spread across all regions, perhaps a sign of investors opting for rapid market exposure after liquidating single security positions.

Flows by Asset Class, Category and Product: (Table 1 & Tables 4 - 11 on page 3)

Inflows into **Equity** ETFs were led by market cap-weighted, thematic and sector ETFs (Financial and Energy). iShares low cost, building block ETFs (XSP, XIC, XFH) topped the Equity inflow leaderboard. Inflows into U.S. Equity inflows were dominated by currency-hedged products, especially in the second half of the month as the U.S. Dollar soared to new highs against CAD. Currency non-hedged U.S. Equity ETFs lost assets during that time, perhaps because investors were either profit-taking USD gains, or didn't believe the greenback rally is sustainable. It's interesting to note that most of the U.S. Equity ETF buying came during the two weeks when the markets performed their worst, signalling contrarian ETF buying through the selloff, a pattern that has emerged in past crises. The Canadian financial and energy sectors were beaten through the oil price crash, and contrarian flows were in evidence again – we saw sizable creations in XFN, ZEB, and XEG. ESG thematic ETFs from Desjardins also saw significant creation activity.

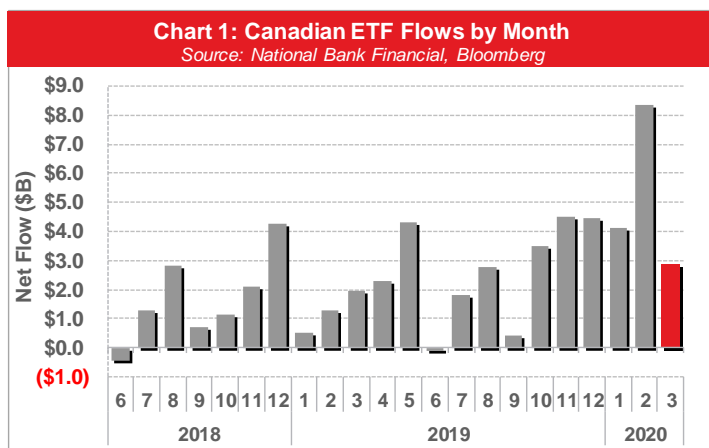
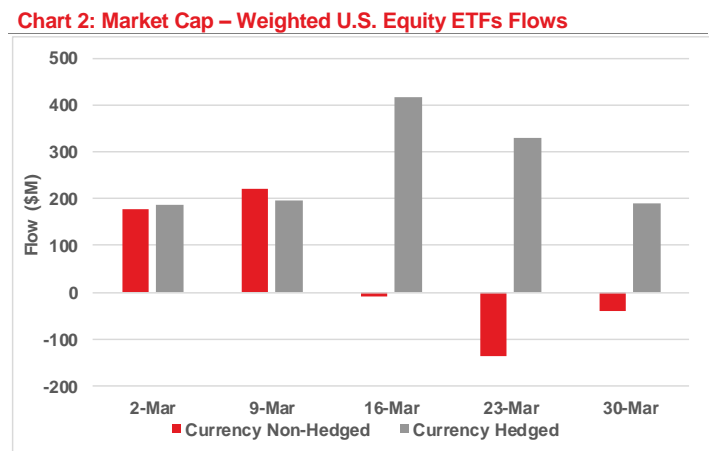


Table 1 - ETF Flows by Category - YTD March 2020

	AUM (\$M)	Mkt Shr (%)	March 2020		YTD March 2020	
			Flow \$M	Flow/AUM	Flow \$M	Flow/AUM
Equity	\$111,782		\$4,071	3.3%	\$10,350	8.2%
Canada	\$40,554	21%	\$1,403	2.9%	\$3,437	7.2%
United States	\$39,340	21%	\$1,624	3.9%	\$4,002	9.3%
International	\$31,888	17%	\$1,044	3.0%	\$2,910	8.2%
Fixed Income	\$71,778	38%	-\$1,300	-1.7%	\$4,129	5.9%
Commodities	\$1,129	1%	\$77	7.3%	\$138	14.5%
Multi-Asset	\$5,773	3%	-\$4	-0.1%	\$783	13.5%
Inverse / Levered	\$917	0%	\$17	1.5%	-\$88	-6.7%
Total	\$191,379	100%	\$2,860	1.4%	\$15,312	7.5%

*Equity Flows include option strategies; Source: National Bank of Canada, Bloomberg



Source: NBF ETF Research, Bloomberg. Data as of March 31, 2020

Fixed Income ETFs had inflows every month in 2019, but in March they experienced a rare month of outflow at \$1.3 billion. Several bond ETFs also traded to apparent NAV discounts as the underlying bond markets went no bid. ETF market makers who hedge their positions by selling bonds in the primary market suddenly saw very low or disappearing bids, which caused spread-widening and price declines in the ETFs as a reaction to the liquidity crunch. NAVs, however, continued to post at stale and/or elevated levels. This is not the first time fixed income ETFs traded to discounts during crisis scenarios – we plan to publish a research report on this market phenomenon as more data becomes available in the very near future.

Despite the punishing price declines, we caution investors from panic-selling fixed income ETFs during such conditions of illiquidity. Building block ETFs such as aggregate bonds or investment grade corporate bond products are best held long-term to allow their low-cost benefit to compound over time. If an investor ultimately decides to sell when underlying market liquidity dries up, ETFs at least provide an avenue to do so at discounted prices, whereas direct securities might not function at all.

Cash alternative (CSAV), ultra-short term and short-term ETFs (ZST, ZUS/U) and TRI aggregate bond ETF (HBB) also saw creations. On the outflow side, aggregate bond suffered the most outflows in terms of % flow compared to starting assets.

Flows by Provider (Table 2): One new provider (Caldwell Investment Management) launched an ETF series of its existing mutual fund, bringing the total number of ETF providers to 37. Auspice announced plan to delist its only ETF in May this year. ETF providers with the largest monthly inflows are RBC iShares (excluding Dynamic), NBI from the launch of NYHB, Vanguard and Desjardins.

Provider	AUM (\$M)	Mkt Shr (%)	March 2020		YTD March 2020	
			Flow (\$M)	Flow/AUM	Flow (\$M)	Flow/AUM
1 RBC iShares*	\$63,535	33.2%	\$1,550	2%	\$3,032	4%
2 BMO	\$57,507	30.0%	\$115	0%	\$3,089	5%
3 Vanguard	\$23,484	12.3%	\$592	2%	\$2,041	8%
4 Horizons	\$11,330	5.9%	\$63	0%	\$3,037	29%
5 CI First Asset	\$8,844	4.6%	\$21	0%	\$564	6%
6 Mackenzie	\$5,250	2.7%	-\$121	-2%	\$1,015	21%
7 Invesco	\$3,697	1.9%	-\$81	-2%	\$65	2%
8 Purpose	\$3,546	1.9%	-\$463	-11%	-\$329	-8%
9 Franklin Templeton	\$1,810	0.9%	\$55	3%	\$143	8%
10 TDAM	\$1,581	0.8%	\$110	7%	\$500	39%
11 PIMCO	\$1,552	0.8%	-\$167	-9%	-\$85	-5%
12 Dynamic	\$1,426	0.7%	\$4	0%	\$87	6%
13 Fidelity	\$1,183	0.6%	\$37	3%	\$285	26%
14 AGF	\$1,083	0.6%	-\$125	-10%	-\$14	-1%
15 NBI	\$1,054	0.6%	\$827	387%	\$842	404%
16 Desjardins	\$935	0.5%	\$416	66%	\$460	75%
17 CIBC	\$726	0.4%	\$64	9%	\$325	69%
18 Harvest	\$641	0.3%	\$13	2%	\$30	4%
19 Evolve Funds	\$580	0.3%	-\$46	-7%	\$132	24%
20 Manulife	\$279	0.1%	\$5	2%	\$5	2%
21 First Trust	\$226	0.1%	-\$17	-6%	-\$6	-2%
22 Middlefield	\$220	0.1%	-\$2	-1%	-\$4	-2%
23 Brompton Funds	\$215	0.1%	\$6	2%	\$18	7%
24 Bristol Gate	\$187	0.1%	\$12	6%	\$30	16%
25 Hamilton	\$159	0.1%	-\$3	-1%	-\$3	-1%
26 Picton Mahoney	\$107	0.1%	\$2	2%	\$36	44%
27 IA Clarington	\$77	0.0%	-\$7	-8%	\$7	9%
28 Lysander	\$57	0.0%	-\$1	-2%	-\$6	-7%
29 SmartBe	\$31	0.0%	\$0	0%	\$4	12%
30 Starlight	\$12	0.0%	\$1	8%	\$4	41%
31 Arrow Capital	\$11	0.0%	-\$1	-8%	-\$3	-21%
32 Emerge	\$10	0.0%	\$0	0%	\$0	0%
33 Russell Investments	\$8	0.0%	\$0	-1%	\$10	NA
34 Scotia Bank	\$7	0.0%	\$0	-1%	\$0	-5%
35 Auspice	\$3	0.0%	\$0	0%	\$0	0%
36 Accelerate	\$3	0.0%	\$0	0%	\$0	0%
37 Caldwell	\$1	0.0%	\$1	NA	\$1	NA
Total	\$191,379	100.0%	\$2,860	1.4%	\$15,312	7.5%

*Does not include Dynamic flows and AUM; Source: NBF, Bloomberg

New Launches (Table 3):

Eleven new ETFs were launched in March, including one from the new provider Caldwell Investment. Details are provided below and in Table 3.

National Bank Investments launched five ETFs, including three ESG ETFs.

- NBI Sustainable Canadian Bond ETF (NSCB) primarily invests in Canadian bonds designed to raise funds for projects or businesses that have a positive environmental or social impact. It is sub-advised by AlphaFixe Capital Inc.
- NBI Sustainable Canadian Equity ETF (NSCE) primarily invests in equities of Canadian large and medium cap companies. It is sub-advised by Fiera Capital. The sub-advisor undertakes an ESG analysis to assess the quality, capital allocation ability and long-

Name	Ticker	Mgmt Fee (%)	Focus
1 Invesco S&P 500 ESG Index ETF	ESG	0.15	ESG Equity
2 Invesco S&P 500 ESG Index ETF CAD-Hedged	ESG.F	0.15	ESG Equity
3 NBI Sustainable Canadian Bond ETF	NSCB	0.55	ESG Bond
4 NBI Sustainable Canadian Equity ETF	NSCE	0.60	ESG Equity
5 NBI Sustainable Global Equity ETF	NSGE	0.65	ESG Equity
6 NBI High Yield Bond ETF	NHYB	0.60	High Yield
7 NBI Global Private Equity ETF	NGPE	0.55	Private Equity
8 Caldwell U.S. Dividend Advantage Fund	UDA	0.75	U.S. Dividend
9 Harvest Healthcare Leaders Income ETF	HHL.B	0.85	Covered Call
10 Harvest Brand Leaders Plus Income ETF	HB.F.B	0.75	Covered Call
11 Harvest Tech Achievers Growth & Income ETF	HTA.B	0.85	Covered Call

Source: National Bank of Canada, SEDAR, Providers

term sustainability of a company.

- NBI Sustainable Global Equity ETF (**NSGE**) primarily invests in equities of large and medium cap companies located around the world. It is sub-advised by AllianceBernstein Canada Inc. The sub-advisor selects companies that generate revenues from products and services that are aligned with the United Nations Sustainable Development Goals.
- NBI High Yield Bond ETF (**NHYB**) primarily invests in high-yield debt securities of developed market issuers. It is sub-advised by J.P. Morgan Investment Management Inc.
- NBI Global Private Equity ETF (**NGPE**) tracks the Morningstar PitchBook Developed Markets Listed Private Equity Select Index.

Invesco launched one ESG ETF.

- Invesco S&P 500 ESG Index ETF (**ESG, ESG/F**) tracks the S&P 500 ESG Index.

Harvest launched three currency-unhedged units of existing covered call ETFs. All three funds may write call options on up to 33% of the portfolio to generate additional returns.

- Harvest Healthcare Leaders Income ETF (**HHL/B**) equally weights 20 large-cap dividend-paying names in the Healthcare sector. The equity securities portfolio seeks investment characteristics such as value and quality.
- Harvest Brand Leaders Plus Income ETF (**HBF/B**) equally weights 20 large-cap stocks selected from the Brand Leaders Investable Universe and has factor tilts to value, yield and quality. The Brand Leaders Investable Universe is determined by the annual Best Global Brands ranking published by Interbrand. The ranking considers the financial performance, role of the brand, and brand strength.
- Harvest Tech Achievers Growth & Income ETF (**HTA/B**) equally weights 20 large-cap technology stocks in North America.

New Provider Caldwell Investment Management launched the ETF series of an existing actively managed mutual fund.

- Caldwell U.S. Dividend Advantage Fund (**UDA**) invests primarily in dividend paying equities in the U.S.

March 2020 ETF Flows: Tables 4 - 11

Asset Class	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Equity	\$111,782	58%	\$4,071	3.3%
Fixed Income	\$71,778	38%	-\$1,300	-1.7%
Commodities	\$1,129	1%	\$77	7.3%
Multi-Asset	\$5,773	3%	-\$4	-0.1%
Inverse / Levered	\$917	0%	\$17	1.5%
Total	\$191,379	100%	\$2,860	1.4%

*Equity Flows include option strategies; Source: National Bank of Canada, Bloomberg

Geography	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Canada	\$40,554	36%	\$1,403	2.9%
United States	\$39,340	35%	\$1,624	3.9%
DM: Broad	\$13,669	12%	\$579	3.9%
DM: Regional & Country	\$4,307	4%	\$40	0.8%
Emerging Markets	\$4,099	4%	\$34	0.7%
Global	\$9,813	9%	\$390	3.7%
Total	\$111,782	100%	\$4,071	3.3%

*Equity Flows include option strategies; Source: National Bank of Canada, Bloomberg

Sector	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Financials	\$5,035	39%	\$419	7.1%
Real Estate	\$2,664	21%	\$39	1.1%
Health Care	\$1,317	10%	\$18	1.3%
Utilities	\$1,227	9%	\$52	3.8%
Materials	\$1,210	9%	-\$41	-3.0%
Technology	\$654	5%	-\$26	-3.4%
Energy	\$556	4%	\$185	24.7%
Other	\$283	2%	-\$14	-4.1%
Total	\$12,946	100%	\$632	4.1%

*Includes all geo focuses and Covered Call Strategies; Source: NBF, Bloomberg

Focus	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Cap-weighted	\$68,403	61%	\$2,930	3.9%
Dividend / Income	\$13,780	12%	\$220	1.4%
Factor: Low Vol	\$7,905	7%	-\$126	-1.4%
Factor: Multi-factor	\$1,940	2%	-\$112	-4.9%
Factor: Fundamental	\$2,291	2%	-\$176	-6.0%
Sector	\$12,946	12%	\$632	4.1%
Thematic	\$2,724	2%	\$617	24.0%
Other	\$1,792	2%	\$86	4.2%
Total	\$111,782	100%	\$4,071	3.3%

*Equity Flows include option strategies; Source: National Bank of Canada, Bloomberg

Type	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Canada Aggregate	\$22,563	31%	-\$802	-3.4%
Canada Government	\$8,245	11%	-\$260	-3.0%
Canada Corporate	\$11,999	17%	-\$301	-2.3%
U.S. / North America	\$8,110	11%	-\$6	-0.1%
Foreign	\$5,984	8%	-\$305	-4.5%
Sub-Investment Grade	\$4,376	6%	\$645	15.7%
Preferred/Convertible	\$5,517	8%	-\$199	-2.8%
Cash Alternative	\$4,983	7%	-\$72	-1.4%
Total	\$71,778	100%	-\$1,300	-1.7%

Source: National Bank of Canada, Bloomberg

Maturity	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Broad/Mixed	\$36,542	51%	-\$251	-0.6%
Ultra Short Term	\$4,068	6%	\$142	3.5%
Short Term	\$14,479	20%	-\$709	-4.4%
Mid Term	\$6,166	9%	-\$49	-0.8%
Long Term	\$3,827	5%	-\$303	-7.1%
Real Return	\$1,079	2%	-\$17	-1.5%
Target Maturity	\$633	1%	-\$41	-6.0%
Cash Deposit	\$4,983	7%	-\$72	-1.4%
Total	\$71,778	100%	-\$1,300	-1.7%

Source: National Bank of Canada, Bloomberg

Ticker	Name	Flow (\$M)	Flow/AUM
1	NHYB NBI High Yield Bond ETF	\$827	NA
2	XSP iShares Core S&P 500 Index ETF CAD- Hedged	\$767	16%
3	XIC iShares Core S&P/TSX Capped Composite Index ETF	\$602	11%
4	XFH iShares Core MSCI EAFE IMI Index ETF CAD-Hedged	\$404	166%
5	CSAV CI First Asset High Interest Savings ETF	\$328	17%
6	ZST BMO Ultra Short-Term Bond ETF	\$294	61%
7	HBB Horizons Cdn Select Universe Bond ETF	\$289	27%
8	VSP Vanguard S&P 500 Index ETF CAD-hedged	\$240	25%
9	ZUS/U BMO Ultra Short-Term US Bond ETF	\$220	285%
10	DRFC Desjardins RI Canada Multifactor - Low CO2 ETF	\$203	2142%
11	XEG iShares S&P/TSX Capped Energy Index ETF	\$173	34%
12	VCN Vanguard FTSE Canada All Cap Index ETF	\$148	7%
13	XFN iShares S&P/TSX Capped Financials Index ETF	\$142	14%
14	ZSP BMO S&P 500 Index ETF	\$136	2%
15	DRFU Desjardins RI USA Multifactor - Low CO2 ETF	\$133	1619%
16	ZEB BMO Equal Weight Banks Index ETF	\$125	12%
17	XWD iShares MSCI World Index ETF	\$124	18%
18	ZEA BMO MSCI EAFE Index ETF	\$123	4%
19	DRFE Desjardins RI Emerging Markets Multifactor - Low CO2 ETF	\$117	4452%
20	XQQ iShares NASDAQ 100 Index ETF CAD-Hedged	\$109	21%

Source: National Bank of Canada, Bloomberg;

Ticker	Name	Flow (\$M)	Flow/AUM
1	ZAG BMO Aggregate Bond Index ETF	-\$457	-8%
2	PSA Purpose High Interest Savings ETF	-\$443	-18%
3	ZFL BMO Long Federal Bond Index ETF	-\$250	-14%
4	XIU iShares S&P/TSX 60 Index ETF	-\$170	-2%
5	HXCN Horizons S&P/TSX Capped Composite Index ETF	-\$161	-14%
6	XBB iShares Core Canadian Universe Bond Index ETF	-\$139	-3%
7	ZCS BMO Short Corporate Bond Index ETF	-\$128	-11%
8	ZDB BMO Discount Bond Index ETF	-\$128	-12%
9	PMIF PIMCO Monthly Income Fund	-\$121	-8%
10	QBTL AGFIQ US Market Neutral Anti-Beta CAD-Hedged ETF	-\$116	-51%
11	XSB iShares Core Canadian Short Term Bond Index ETF	-\$110	-5%
12	XFR iShares Floating Rate Index ETF	-\$108	-19%
13	ZTL BMO Long-Term US Treasury Bond Index ETF	-\$94	-7%
14	FQC CI First Asset MSCI Canada Quality Index Class ETF	-\$89	-17%
15	DPE Desjardins Emerging Markets Multifactor-Controlled Volatility ETF	-\$76	-44%
16	HFR Horizons Active Ultra-Short Term Investment Grade Bond ETF	-\$74	-12%
17	VSC Vanguard Canadian Short-Term Corporate Bond Index ETF	-\$74	-6%
18	ZPR BMO Laddered Preferred Share Index ETF	-\$71	-3%
19	ZST/L BMO Ultra Short-Term Bond ETF	-\$69	-16%
20	XLB iShares Core Canadian Long Term Bond Index ETF	-\$67	-8%

Source: National Bank of Canada, Bloomberg;

YTD March 2020 ETF Flows: Tables 12 - 19

In the first quarter of 2020, Canadian ETFs gathered \$15 billion dollars inflow, or 8% of starting assets. This is impressive given the extraordinary market environment, proving once again that investors use ETFs to express market in calm or volatile markets alike. Unlike last year when fixed income ETFs were in the driver's seat, this year equity has taken the top spot with \$10 billion inflows year-to-date. Where does ETF inflow come from? Apart from retail buying, we notice buoyant institutional investor activity in both equity and fixed income asset classes based on the share of volume coming from large block trades, as well as new product launches with large seed money amounts (HXCN) or institutional subscriptions at launch (NHYB).

Ticker	Name	Flow (\$M)	Flow/AUM
1	HXCN Horizons S&P/TSX Capped Composite Index ETF	\$1,117	NA
2	HBB Horizons Cdn Select Universe Bond ETF	\$896	205%
3	CSAV CI First Asset High Interest Savings ETF	\$863	60%
4	NHYB NBI High Yield Bond ETF	\$827	NA
5	XSP iShares Core S&P 500 Index ETF CAD- Hedged	\$795	15%
6	HXS Horizons S&P 500 Index ETF	\$794	86%
7	XIU iShares S&P/TSX 60 Index ETF	\$585	7%
8	ZSP BMO S&P 500 Index ETF	\$531	7%
9	ZEM BMO MSCI Emerging Markets Index ETF	\$510	42%
10	XIC iShares Core S&P/TSX Capped Composite Index ETF	\$421	7%
11	XFH iShares Core MSCI EAFE IMI Index ETF CAD-Hedged	\$421	168%
12	QEBH Mackenzie Emerging Markets Bond Index Etf Cad-Hedged	\$304	123%
13	QUIG Mackenzie US Investment Grade Corporate Bond ETF CAD-H	\$266	89%
14	ZUS/U BMO Ultra Short-Term US Bond ETF	\$260	714%
15	VGRO Vanguard Growth ETF Portfolio	\$258	25%
16	VSP Vanguard S&P 500 Index ETF CAD-hedged	\$258	25%
17	VCN Vanguard FTSE Canada All Cap Index ETF	\$238	11%
18	ZEA BMO MSCI EAFE Index ETF	\$236	7%
19	HOU BetaPro Crude Oil 2x Daily Bull ETF	\$222	122%
20	HSAV Horizons Cash Maximizer ETF	\$220	NA

Source: National Bank of Canada, Bloomberg;

Ticker	Name	Flow (\$M)	Flow/AUM
1	PSA Purpose High Interest Savings ETF	-\$353	-15%
2	HOD BetaPro Crude Oil -2x Daily Be	-\$205	-184%
3	XFR iShares Floating Rate Index ETF	-\$175	-27%
4	ZCS BMO Short Corporate Bond Index ETF	-\$150	-12%
5	ZFL BMO Long Federal Bond Index ETF	-\$137	-9%
6	ZAG BMO Aggregate Bond Index ETF	-\$133	-3%
7	HFR Horizons Active Ultra-Short Term Investment Grade Bond ETF	-\$124	-18%
8	FQC CI First Asset MSCI Canada Quality Index Class ETF	-\$123	-21%
9	XCB iShares Canadian Corporate Bond Index ETF	-\$103	-5%
10	HPR Horizons Active Preferred Share ETF	-\$96	-7%
11	ZID BMO India Equity Index ETF	-\$96	-52%
12	CPD iShares S&P/TSX Canadian Preferred Share Index ETF	-\$94	-7%
13	XGB iShares Canadian Government Bond Index ETF	-\$88	-12%
14	MFT Mackenzie Floating Rate Income ETF	-\$80	-15%
15	ZDY BMO US Dividend ETF	-\$77	-8%
16	DPE Desjardins Emerging Markets Multifactor-Controlled Volatility ETF	-\$71	-38%
17	QBTL AGFIQ US Market Neutral Anti-Beta CAD-Hedged ETF	-\$65	-40%
18	XSB iShares Core Canadian Short Term Bond Index ETF	-\$61	-3%
19	CBO iShares 1-5 Year Laddered Corporate Bond Index ETF	-\$60	-6%
20	ZCN BMO S&P/TSX Capped Composite Index ETF	-\$60	-1%

Source: National Bank of Canada, Bloomberg;

Table 14 - ETF Flows by Category - YTD March 2020

Asset Class	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Equity	\$111,782	58%	\$10,350	8%
Fixed Income	\$71,778	38%	\$4,129	6%
Commodities	\$1,129	1%	\$138	15%
Multi-Asset	\$5,773	3%	\$783	13%
Inverse / Leveraged	\$917	0%	-\$88	-7%
Total	\$191,379	100%	\$15,312	7.5%

*Equity Flows include option strategies; Source: National Bank of Canada, Bloomberg

Table 15 - Equity ETF Flows by Geography - YTD March 2020

Geography	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Canada	\$40,554	36%	\$3,437	7%
United States	\$39,340	35%	\$4,002	9%
DM: Broad	\$13,669	12%	\$1,164	8%
DM: Regional & Country	\$4,307	4%	\$121	2%
Emerging Markets	\$4,099	4%	\$499	11%
Global	\$9,813	9%	\$1,126	11%
Total	\$111,782	100%	\$10,350	8.2%

*Equity Flows include option strategies; Source: National Bank of Canada, Bloomberg

Table 16 - Equity ETF Flows by Sector* - YTD March 2020

Sector	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Financials	\$5,035	39%	\$414	6%
Real Estate	\$2,664	21%	\$203	6%
Health Care	\$1,317	10%	\$39	3%
Utilities	\$1,227	9%	\$63	5%
Materials	\$1,210	9%	-\$20	-1%
Technology	\$654	5%	-\$14	-2%
Energy	\$556	4%	\$143	15%
Other	\$283	2%	\$0	0%
Total	\$12,946	100%	\$828	5%

*Includes all geo focuses and Covered Call Strategies; Source: NBF, Bloomberg

Table 17 - Equity ETF Flows by Focus - YTD March 2020

Focus	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Cap-weighted	\$68,403	61%	\$7,848	11%
Dividend / Income	\$13,780	12%	\$784	5%
Factor: Low Vol	\$7,905	7%	\$283	3%
Factor: Multi-factor	\$1,940	2%	-\$54	-2%
Factor: Fundamental	\$2,291	2%	-\$269	-8%
Sector	\$12,946	12%	\$828	5%
Thematic	\$2,724	2%	\$770	29%
Other	\$1,792	2%	\$159	8%
Total	\$111,782	100%	\$10,350	8.2%

*Equity Flows include option strategies; Source: National Bank of Canada, Bloomberg

Table 18 - Fixed Income ETF Flows by Type - YTD March 2020

Type	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Canada Aggregate	\$22,563	31%	\$1,245	6%
Canada Government	\$8,245	11%	-\$72	-1%
Canada Corporate	\$11,999	17%	-\$32	0%
U.S. / North America	\$8,110	11%	\$1,091	15%
Foreign	\$5,984	8%	\$580	10%
Sub-Investment Grade	\$4,376	6%	\$720	18%
Preferred/Convertible	\$5,517	8%	-\$242	-3%
Cash Alternative	\$4,983	7%	\$840	20%
Total	\$71,778	100%	\$4,129	5.9%

Source: National Bank of Canada, Bloomberg

Table 19 - Fixed Income ETF Flows by Maturity - YTD March 2020

Maturity	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Broad/Mixed	\$36,542	51%	\$2,933	8%
Ultra Short Term	\$4,068	6%	\$151	4%
Short Term	\$14,479	20%	-\$425	-3%
Mid Term	\$6,166	9%	\$501	9%
Long Term	\$3,827	5%	\$40	1%
Real Return	\$1,079	2%	\$133	14%
Target Maturity	\$633	1%	-\$45	-7%
Cash Deposit	\$4,983	7%	\$840	20%
Total	\$71,778	100%	\$4,129	5.9%

Source: National Bank of Canada, Bloomberg

Appendix 1 - Glossary

AUM (Assets Under Management): AUM is expressed in local currency, which is the Canadian dollar for the purpose of this report.

Flow/AUM (Flow as % AUM): Net flow as a percentage of assets under management from the beginning of the period.

Flow: The net dollar amount of fund creations and redemptions for the period based on daily NAV and daily changes in Shares Outstanding. Flows are expressed in local currency, which is the Canadian dollar for the purpose of this report.

Market Share (%): category's AUM as % of the total AUM.

MER (Management Expense Ratio): Manager's 2018 annual fee for managing and administering the fund, expressed as a percentage of total fund value. In most cases this includes fees from investing in other ETFs. Where audited MER is unavailable or if the fee has been significantly reduced recently, the MER is estimated using the Stated Management Fee and sales tax.

Canadian MER does not include trading commissions incurred by the ETF, nor does it include trading expenses (such as swap or forward fees). An asterisk (*) indicates that the fund pays additional expenses such as swap or forward fees, which are normally reported under trading expenses. The asterisk can also indicate that the fund charges a performance fee. Data are sourced from annual fillings.

NAV (Net Asset Value per share): ETF price is used when NAV is not available.

All numbers are as of last month's final business day.

Appendix 2 - Equity ETF Categories

We group Equity ETFs into the categories below. These groupings follow NBF's discretion and can differ from the ETF Provider's definition and classification from other sources.

Cap-Weighted: A fund that weights securities based on the total or float-adjusted market capitalization of each security.

Dividend/Income: A fund with primary goal of providing income. We classify a fund as belonging to the Income category when its strategy focuses on providing income, or the fund self-identifies as using an income strategy even though it may incorporate other factors in addition to income.

Fundamental: A fund that selects and/or weights securities based on fundamental metrics from a company's financial statements such as balance sheet. Strategies include Value, Growth, Quality, RAFI Fundamental, Earnings, etc.

Low Vol or Risk: A fund that aims to achieve reduced portfolio volatility, either by screening for low volatility stocks, low beta stocks and/or minimizing the portfolio volatility.

Multi-Factor: ETFs that consider more than one NBF-defined factor including Income, Fundamental and Risk.

Sector: ETFs that provide exposure to broad industry sectors classified by the Global Industry Classification Standard (GICS) or other similar classifications. This category contains all sector funds, including ones that screen and/or weight the portfolio using factors.

Thematic: ETFs that provide niche exposures such as blockchain technology, infrastructure, Marijuana companies, Socially Responsible Investing, technology sub-sectors, agriculture, water, sentiment & behavior, etc. This category contains all thematic funds, including ones that screen and/or weight the portfolio using factors.

Other: Any non-cap weighted strategy that is not covered by otherwise defined categories. This includes momentum, equal-weight, share buyback, high beta, proprietary, actively managed, tactical rotation, price-weighted, etc.

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