

April 2022: A rough year so far, but ETF flows still strong

- Flow to Canadian ETFs slowed down with \$1.5 billion inflow in April
- Both Equity and Bond flows were positive while Crypto-Asset ETFs suffered its worst month of outflow
- Canadian Equity remained in favour with large creations in ESG ETFs
- Seven new ETFs listed in April, including thematic ETFs from iShares and bond ETFs from CI First Asset

Summary: Canadian ETF inflows slowed in April with \$1.5 billion created, bringing the year-to-date figure to \$15 billion, or 4% of assets from the start of the year. Equity ETFs still dominated the leaderboard, but their inflows declined significantly amid a wider market selloff. In total, Equities took in \$917 million in April, and thanks to some specific institutional allocations, ESG equity ETFs took up 70% of this figure with inflows of \$642 million. In contrast, Low Volatility ETFs suffered a month of outflows, despite strong relative returns.

Fixed Income welcomed \$645 million, driven by creations in Canadian aggregate bond and foreign bond ETFs. Preferred share ETFs, Canadian government bond ETFs and Canadian corporate bond ETFs all lost assets.

Crypto-asset ETFs suffered their largest single month of outflow since this asset class was introduced to Canada in February 2021; \$338 million flowed out from bitcoin and Ethereum ETFs in April, a figure that represents 5.5% of the category's starting assets.

Flows by Asset Class, Category and Product: (Table 1 & Tables 5 - 12)

Equity inflows slowed down significantly for U.S. and International regions; what's remarkable is that U.S. equity inflows are still positive despite the S&P 500's -13% decline year-to-date, its worst start to any year calendar year since the 1930s. Canadian Equity fared better in terms of both flows and returns, with net inflows of \$792 million. Actively managed Canada region ESG ETF **NSCE** received \$522 million inflows over several days in late April in what looked like block institutional allocations. In addition to ESG, certain sector ETFs attracted inflows as well, namely financials (**ZEB**, **ZWB**), technology and utilities. Low Volatility ETFs (**ZLU**, **ZLB**) bled \$411 million, but despite the redemptions, both ETFs have delivered positive returns year-to-date, outperforming their respective benchmarks. Market cap weighted ETFs (**XIC**, **ZSP**, **ZEM**, **ZEA**, **HXCN**), Multi-factor ETFs and Fundamental ETFs all had minor outflows, whereas Dividend/Income was the only category among factor-based ETFs with consistent inflows over the past four months.

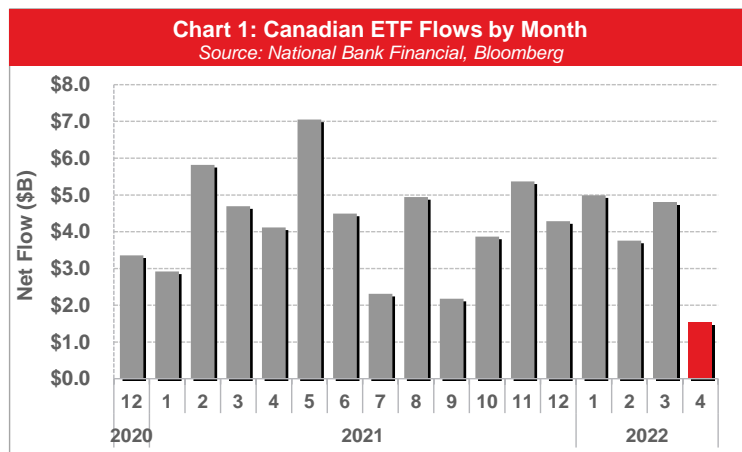
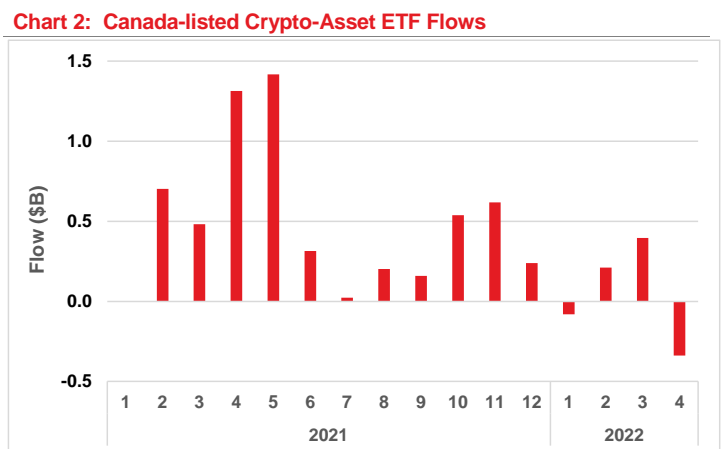


Table 1 - ETF Flows by Category - YTD April 2022

Category	AUM (\$M)	Mkt Shr (%)	April 2022		YTD April 2022	
			Flow \$M	Flow/AUM	Flow \$M	Flow/AUM
Equity	\$203,641		\$917	0.4%	\$10,931	4.9%
Canada	\$81,236	26%	\$792	0.9%	\$5,519	6.9%
United States	\$67,639	22%	\$79	0.1%	\$2,843	3.5%
International	\$54,766	18%	\$46	0.1%	\$2,569	4.0%
Fixed Income	\$83,568	27%	\$645	0.8%	\$2,479	2.6%
Commodities	\$1,744	1%	\$34	2.0%	-\$250	-13.1%
Multi-Asset	\$15,665	5%	\$177	1.1%	\$1,168	7.4%
Inverse / Levered	\$2,189	1%	\$102	4.6%	\$541	30.8%
Crypto-Asset	\$4,943	2%	-\$338	-5.5%	\$190	3.2%
Total	\$311,751	100%	\$1,536	0.5%	\$15,060	4.3%

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



Source: NBF ETF Research, Bloomberg. Data as of April 30, 2022

Fixed Income ETFs pulled in net flows of \$645 million, even as the broad fixed income market has rarely seemed more challenging. Aggregate indices for the U.S. and Canada have already suffered double-digit losses year-to-date. Persistent inflationary pressures erode the purchasing power of bond positions in real terms and hawkish central banks undermine the outlook for absolute returns, but investors are still opting for bond exposure through ETFs, quite selectively. Despite major price declines, Canadian aggregate bond ETFs (XBB, ZAG) enjoyed the highest inflows among all categories with \$678 million in new money. Canadian corporate bond (ZCS, ZCM), Canadian government bond (ZFL, ZMP, ZPL), preferred share (ZPR) ETFs were on the outflow side.

Commodity ETFs registered a small inflow of \$34 million, led by gold bullion ETFs. Gold prices have been plagued by a rising U.S. dollar and increasing bond yields that might be overwhelming inflationary concerns.

Crypto-Asset ETF saw outflows of \$338 million, the worst monthly outflow since its inception in February 2021 (Chart 2, Page 1). BTCC/B and BTCQ both showed up on the outflow leaderboard.

Flows by Provider and New Launches (Tables 2 - 3):

National Bank Investments led the provider table in April with \$596 million inflow, primarily into two ESG ETFs. Based on flow as percent of starting assets, new provider Mulvihill's 83% inflows look like an outlier; this is from inflow to the provider's single ETF CBNK, a "lightly levered" (125% leverage) Canadian Bank ETF that received inflows in April.

The Canadian ETF landscape welcomed seven new launches. RBC iShares launched a suite of thematic ETFs focusing on several technology themes and CI launched two strategies (one with a USD series) in the Fixed Income asset class.

Canadian ESG ETF Flows (Table 4): Canadian-listed ESG ETFs amassed \$642 million in April, bringing the year-to-date inflows figure to \$1.6 billion. The demand for ESG ETFs has reached record-high levels, despite a continuously volatile market shaken by geopolitical events and ongoing pandemic disruptions around the globe. However, there is one caveat – inflows to Canadian ESG ETFs have been mostly dominated by institutional orders. For example, in April, NBI's two ESG

Table 2 - ETF Flows by Provider - YTD April 2022

Provider	AUM (\$M)	Mkt Shr (%)	April 2022		YTD April 2022	
			Flow (\$M)	Flow/AUM	Flow (\$M)	Flow/AUM
1 RBC iShares	\$94,339	30.3%	\$122	0%	\$2,997	3%
2 BMO	\$78,879	25.3%	\$278	0%	\$2,742	3%
3 Vanguard	\$38,790	12.4%	\$283	1%	\$2,590	5%
4 Horizons	\$21,343	6.8%	-\$51	0%	\$2,594	13%
5 CI First Asset	\$14,564	4.7%	\$153	1%	-\$385	-2%
6 Mackenzie*	\$12,284	3.9%	\$138	1%	\$1,021	8%
7 TDAM	\$7,750	2.5%	\$95	1%	\$501	6%
8 Purpose	\$5,971	1.9%	-\$146	-2%	\$504	8%
9 National Bank Investments	\$5,593	1.8%	\$596	11%	\$1,142	23%
10 Invesco	\$4,334	1.4%	-\$12	0%	\$100	2%
11 CIBC	\$2,812	0.9%	\$17	1%	-\$24	-1%
12 Fidelity	\$2,770	0.9%	\$65	2%	\$321	11%
13 Manulife	\$2,458	0.8%	\$28	1%	\$103	4%
14 Dynamic	\$2,268	0.7%	-\$105	-4%	-\$159	-6%
15 Harvest	\$2,211	0.7%	\$152	7%	\$439	22%
16 Desjardins	\$2,005	0.6%	\$74	4%	\$28	1%
17 PIMCO	\$1,907	0.6%	-\$23	-1%	-\$68	-3%
18 Evolve Funds	\$1,535	0.5%	-\$42	-2%	\$41	2%
19 Hamilton	\$1,504	0.5%	\$73	5%	\$451	39%
20 Franklin Templeton	\$1,457	0.5%	-\$68	-4%	-\$545	-25%
21 3iQ	\$1,296	0.4%	-\$87	-5%	\$5	0%
22 AGF	\$1,171	0.4%	-\$60	-5%	-\$144	-11%
23 Scotia Bank	\$1,062	0.3%	\$24	2%	\$303	34%
24 Ninepoint Partners	\$637	0.2%	\$27	4%	\$229	71%
25 Picton Mahoney	\$544	0.2%	\$18	3%	\$70	14%
26 Brompton Funds	\$463	0.1%	-\$5	-1%	\$19	3%
27 First Trust	\$442	0.1%	\$5	1%	\$54	12%
28 Bristol Gate	\$309	0.1%	-\$1	0%	\$4	1%
29 Middlefield	\$245	0.1%	-\$9	-3%	-\$22	-8%
30 Guardian Capital	\$215	0.1%	-\$9	-4%	\$94	64%
31 IA Clarington	\$134	0.0%	\$0	0%	\$2	1%
32 Emerge	\$119	0.0%	\$4	3%	\$1	0%
33 Lysander	\$88	0.0%	-\$1	-1%	-\$2	-2%
34 Accelerate	\$61	0.0%	-\$6	-9%	\$4	6%
35 Russell Investments	\$48	0.0%	-\$2	-4%	-\$2	-3%
36 Starlight	\$36	0.0%	-\$1	-1%	-\$1	-2%
37 Arrow Capital	\$33	0.0%	\$0	0%	\$11	47%
38 Mulvihill	\$29	0.0%	\$14	83%	\$31	NA
39 SmartBe	\$24	0.0%	-\$1	-5%	-\$4	-15%
40 Evermore Capital	\$11	0.0%	\$0	0%	\$11	NA
41 NCM Investments	\$6	0.0%	\$0	0%	\$0	0%
42 Caldwell	\$5	0.0%	\$0	0%	\$5	NA
Total	\$311,751	100.0%	\$1,536	0.5%	\$15,060	4.3%

*Includes Wealthsimple asset and flows. Source: NBF, Bloomberg

Name	Ticker	Mgmt Fee (%)	Focus
1 CI Floating Rate Income Fund/ETF	CFRT	0.35	Floating Rate
2 CI Global High Yield Credit Private Pool ETF	CGHY	0.55	High Yield
3 CI Global High Yield Credit Private Pool ETF	CGHY/U	0.55	High Yield
4 iShares Global Clean Energy Index ETF	XCLN	0.35	Clean Energy
5 iShares Genomics Immunology and Healthcare Index ETF	XDNA	0.39	Healthcare
6 iShares Exponential Technologies Index ETF	XEXP	0.39	Technology
7 iShares Cybersecurity And Tech Index Etf	XHAK	0.39	Cybersecurity

Source: NBF, SEDAR, ETF Providers

Table 4: Canada Listed ESG ETFs - April 2022

Category	AUM (\$M)	AUM (%)	April 2022		Jan-Apr 2022	
			Flow (\$M)	Flow/AUM	Flow (\$M)	Flow/AUM
Equity	\$8,554	87%	\$642	7.7%	\$1,310	16.0%
Broad - Canada	\$2,021	20%	\$533	33.5%	\$613	40.1%
Broad - U.S.	\$2,271	23%	\$8	0.3%	\$371	16.3%
Broad - DM	\$1,233	12%	\$1	0.1%	\$140	10.5%
Broad - EM	\$323	3%	\$2	0.5%	\$0	0.0%
Broad - Global	\$1,183	12%	\$66	5.5%	\$139	11.9%
Environment	\$1,043	11%	\$11	1.0%	-\$28	-2.4%
Clean Energy	\$238	2%	\$36	16.1%	\$91	53.3%
Social	\$161	2%	-\$9	-4.9%	-\$9	-4.4%
Infrastructure	\$81	1%	-\$5	-5.8%	-\$7	-67.9%
Commodities	\$10	0%	\$3	45.5%	\$11	NA
Multi-Asset	\$149	2%	\$1	0.8%	\$24	16.4%
Fixed Income	\$1,175	12%	-\$1	-0.1%	\$306	29.9%
Total Displayed	\$9,878	100%	\$642	6.6%	\$1,640	17.5%

Source: NBF ETF Research, Bloomberg. Data as of April 29, 2022

equity ETFs received \$600 million in apparent institutional subscriptions. Without them, April's ESG ETF inflows would have been only \$42 million (still positive, but more indicative of grassroots buying interest). Previous months of high ESG inflow exhibited similar patterns of majority institutional demand superimposed over a lower background of retail activity. If the Canadian ESG ETF market follows the U.S. market's trajectory, the ESG space may indeed grow in maturity because of these large institutional orders, which in turn might trigger more grassroots demand for ESG ETFs.

Note: the tables below all use the "new" flows calculation methodology.

Rank	Ticker	Name	Flow (\$M)	Flow/AUM
1	NSCE	NBI Sustainable Canadian Equity ETF	\$522	134%
2	FGO	CI Enhanced Government Bond ETF	\$362	69%
3	ZCPB	BMO Core Plus Bond Fund ETF	\$358	26%
4	ZCN	BMO S&P/TSX Capped Composite Index ETF	\$229	3%
5	ZMU	BMO Mid-Term US IG Corporate Bond Hedged to CAD Index ETF	\$222	10%
6	XBB	iShares Core Canadian Universe Bond Index ETF	\$220	6%
7	VFV	Vanguard S&P 500 Index ETF	\$179	NA
8	ZEB	BMO Equal Weight Banks Index ETF	\$149	7%
9	XIU	iShares S&P/TSX 60 Index ETF	\$148	1%
10	ZEF	BMO Emerging Markets Bond Hedged to CAD Index ETF	\$117	23%
11	ZHY	BMO High Yield US Corporate Bond Hedged to CAD Index ETF	\$108	12%
12	CINF	CI Global Infrastructure Private Pool ETF	\$97	38%
13	ZWB	BMO Covered Call Canadian Banks ETF	\$84	3%
14	XSP	iShares Core S&P 500 Index ETF CAD- Hedged	\$81	1%
15	NSGE	NBI Sustainable Global Equity ETF	\$80	20%
16	ZST	BMO Ultra Short-Term Bond ETF	\$79	11%
17	ZAG	BMO Aggregate Bond Index ETF	\$79	1%
18	VGRO	Vanguard Growth ETF Portfolio	\$70	2%
19	QUU	Mackenzie US Large Cap Equity Index ETF	\$68	3%
20	XEQT	iShares Core Equity ETF Portfolio	\$68	6%

Source: National Bank of Canada, Bloomberg;

Rank	Ticker	Name	Flow (\$M)	Flow/AUM
1	XIC	iShares Core S&P/TSX Capped Composite Index ETF	-\$330	-3%
2	BTCC/B	Purpose Bitcoin ETF	-\$318	-32%
3	ZLU	BMO Low Volatility US Equity ETF	-\$192	-13%
4	ZLB	BMO Low Volatility Canadian Equity ETF	-\$172	-6%
5	ZSP	BMO S&P 500 Index ETF	-\$167	-2%
6	ZCM	BMO Mid Corporate Bond Index ETF	-\$148	-20%
7	ZFL	BMO Long Federal Bond Index ETF	-\$139	-7%
8	ZEM	BMO MSCI Emerging Markets Index ETF	-\$124	-8%
9	XEI	iShares S&P/TSX Composite High Dividend Index ETF	-\$113	-7%
10	VUS	Vanguard US Total Market Index ETF CAD Hedged	-\$111	-11%
11	ZEA	BMO MSCI EAFE Index ETF	-\$104	-2%
12	HXCN	Horizons S&P/TSX Capped Composite Index ETF	-\$96	-4%
13	ZCS	BMO Short Corporate Bond Index ETF	-\$95	-7%
14	XHB	iShares Canadian HYbrid Corporate Bond Index ETF	-\$88	-31%
15	BTCCQ	3iQ CoinShares Bitcoin ETF	-\$86	-7%
16	ZMP	BMO Mid Provincial Bond Index ETF	-\$82	-16%
17	ZPL	BMO Long Provincial Bond Index ETF	-\$77	-47%
18	VSC	Vanguard Canadian Short-Term Corporate Bond Index ETF	-\$76	-6%
19	HPR	Horizons Active Preferred Share ETF	-\$69	-4%
20	ZSP/US	BMO S&P 500 Index ETF	-\$64	-2%

Source: National Bank of Canada, Bloomberg;

Asset Class	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Equity	\$203,641	65%	\$917	0.4%
Fixed Income	\$83,568	27%	\$645	0.8%
Commodities	\$1,744	1%	\$34	2.0%
Multi-Asset	\$15,665	5%	\$177	1.1%
Inverse / Levered	\$2,189	1%	\$102	4.6%
Crypto-Asset	\$4,943	2%	-\$338	-5.5%
Total	\$311,751	100%	\$1,536	0.5%

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

Geography	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Canada	\$81,236	40%	\$792	0.9%
United States	\$67,639	33%	\$79	0.1%
DM: Broad	\$20,652	10%	-\$123	-0.6%
DM: Regional & Country	\$5,838	3%	\$50	0.8%
Emerging Markets	\$5,349	3%	-\$115	-2.0%
Global	\$22,926	11%	\$234	1.0%
Total	\$203,641	100%	\$917	0.4%

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

Sector	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Financials	\$10,348	36%	\$220	2.0%
Energy	\$3,827	13%	-\$11	-0.3%
Real Estate	\$3,607	13%	\$43	1.2%
Technology	\$2,698	9%	\$68	2.2%
Materials	\$2,534	9%	-\$59	-2.1%
Utilities	\$2,486	9%	\$60	2.4%
Health Care	\$2,465	9%	\$49	1.9%
Other	\$654	2%	\$2	0.3%
Total	\$28,618	100%	\$371	1.2%

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

Focus	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Cap-weighted	\$119,658	59%	-\$21	0.0%
Dividend / Income	\$21,608	11%	\$120	0.5%
Factor: Low Vol	\$7,667	4%	-\$411	-5.0%
Factor: Multi-factor	\$3,615	2%	-\$22	-0.6%
Factor: Fundamental	\$5,277	3%	-\$44	-0.8%
Sector	\$28,618	14%	\$371	1.2%
Thematic	\$11,235	6%	\$781	7.0%
ESG**	\$7,065	3%	\$666	9.8%
Other	\$5,962	3%	\$143	2.3%
Total	\$203,641	100%	\$917	0.4%

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

** Only includes ESG ETFs under Thematic category

Type	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Canada Aggregate	\$25,346	30%	\$678	2.7%
Canada Government	\$8,117	10%	-\$406	-4.6%
Canada Corporate	\$12,791	15%	-\$238	-1.8%
U.S. / North America	\$7,480	9%	\$235	3.2%
Foreign	\$10,360	12%	\$399	3.9%
Sub-Investment Grade	\$4,528	5%	\$104	2.3%
Preferred/Convertible	\$7,953	10%	-\$182	-2.1%
Cash Alternative	\$6,994	8%	\$53	0.8%
Total	\$83,568	100%	\$645	0.8%

Source: National Bank of Canada, Bloomberg

Maturity	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Broad/Mixed	\$44,313	53%	\$877	1.9%
Ultra Short Term	\$4,659	6%	\$248	5.6%
Short Term	\$17,597	21%	-\$312	-1.7%
Mid Term	\$4,644	6%	-\$18	-0.4%
Long Term	\$3,565	4%	-\$254	-6.2%
Real Return	\$1,671	2%	\$23	1.3%
Target Maturity	\$125	0%	\$28	28.1%
Cash Alternative	\$6,994	8%	\$53	0.8%
Total	\$83,568	100%	\$645	0.8%

Source: National Bank of Canada, Bloomberg

YTD March Flow (Tables 13 - 20):

Canadian ETFs welcomed \$15 billion year-to-date, of which a whopping \$11 billion went to Equity. In contrast to the flow pattern south of the border, commodity is the only asset class that has bled assets year-to-date with outflows of \$250 million. Canadian equity ETF flows have outpaced their U.S. and international counterparts year, taking up close to 50% of total Equity inflows. Market cap-weighted ETFs dominate the equity story with \$6.6 billion in flows, a mainstay feature of the ETF landscape given their liquidity and low cost. ESG and Dividend/Income equity are the distant second and third place for Equity inflows. Demand for value and dividend products has remained robust as the growth-to-value rotation seems unstoppable, but low volatility and multi-factor ETFs have lost favour among investors still scarred by the pandemic experience of underperformance.

Within Fixed Income, Canada aggregate bond, U.S./North America bond and cash alternative ETFs took the lion's share of the \$2.5 billion inflow into bond ETFs in 2022. Short-term ETFs, preferred share ETFs and Canadian Corporate bond ETFs suffered outflows.

Ticker	Name	Flow (\$M)	Flow/AUM
1	XIU iShares S&P/TSX 60 Index ETF	\$1,867	17%
2	ESGY BMO MSCI USA ESG Leaders Index ETF	\$1,078	118%
3	HXT Horizon S&P/TSX 60 Index ETF	\$966	34%
4	VFV Vanguard S&P 500 Index ETF	\$812	12%
5	ZMU BMO Mid-Term US IG Corporate Bond Hedged to CAD Index ETF	\$725	39%
6	ZAG BMO Aggregate Bond Index ETF	\$579	9%
7	ZEA BMO MSCI EAFE Index ETF	\$569	11%
8	NSCE NBI Sustainable Canadian Equity ETF	\$550	155%
9	TCLB TD Canadian Long Term Federal Bond ETF	\$536	183%
10	HSAV Horizons Cash Maximizer ETF	\$530	35%
11	ZCPB BMO Core Plus Bond Fund ETF	\$518	40%
12	QCN Mackenzie Canadian Equity Index ETF	\$498	65%
13	VEQT Vanguard All-Equity ETF Portfolio	\$415	24%
14	FGO CI Enhanced Government Bond ETF	\$400	79%
15	XEG iShares S&P/TSX Capped Energy Index ETF	\$378	30%
16	QUU Mackenzie US Large Cap Equity Index ETF	\$373	17%
17	ZHY BMO High Yield US Corporate Bond Hedged to CAD Index ETF	\$372	58%
18	VGRO Vanguard Growth ETF Portfolio	\$354	11%
19	HXS Horizons S&P 500 Index ETF	\$351	11%
20	ZSP BMO S&P 500 Index ETF	\$347	3%

Source: National Bank of Canada, Bloomberg;

Ticker	Name	Flow (\$M)	Flow/AUM
1	ESGY/F BMO MSCI USA ESG Leaders Index ETF	-\$764	-93%
2	ZLU BMO Low Volatility US Equity ETF	-\$479	-26%
3	ZEM BMO MSCI Emerging Markets Index ETF	-\$478	-24%
4	TEC TD Global Technology Leaders Index ETF	-\$453	-21%
5	XSH iShares Core Canadian Short Term Corporate Bond Index ETF	-\$371	-20%
6	XEF iShares Core MSCI EAFE IMI Index ETF	-\$353	-6%
7	ZCM BMO Mid Corporate Bond Index ETF	-\$344	-34%
8	ZFL BMO Long Federal Bond Index ETF	-\$301	-12%
9	ZLB BMO Low Volatility Canadian Equity ETF	-\$284	-10%
10	VALT/U CI Gold Bullion Fund	-\$282	-81%
11	ZMP BMO Mid Provincial Bond Index ETF	-\$276	-37%
12	XFN iShares S&P/TSX Capped Financials Index ETF	-\$251	-14%
13	FLGA Franklin Liberty Global Aggregate Bond ETF Cad-Hedged	-\$245	-36%
14	CGXF CI Gold+ Giants Covered Call ETF	-\$225	-47%
15	ZGB BMO Government Bond Index ETF	-\$215	-24%
16	VUS Vanguard US Total Market Index ETF CAD Hedged	-\$198	-17%
17	HPR Horizons Active Preferred Share ETF	-\$169	-9%
18	XIC iShares Core S&P/TSX Capped Composite Index ETF	-\$168	-2%
19	DXG Dynamic Active Global Dividend ETF	-\$141	-11%
20	FIG BMO Covered Call Dow Jones Industrial Average CAD Hedged	-\$128	-17%

Source: National Bank of Canada, Bloomberg

Tables continues on the next page

Table 15 - ETF Flows by Category - YTD April 2022

Asset Class	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Equity	\$203,641	65%	\$10,931	5%
Fixed Income	\$83,568	27%	\$2,479	3%
Commodities	\$1,744	1%	-\$250	-13%
Multi-Asset	\$15,665	5%	\$1,168	7%
Inverse / Leveraged	\$2,189	1%	\$541	31%
Crypto-Asset	\$4,943	2%	\$190	3%
Total	\$311,751	100%	\$15,060	4.3%

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

Table 16 - Equity ETF Flows by Geography - YTD April 2022

Geography	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Canada	\$81,236	40%	\$5,519	7%
United States	\$67,639	33%	\$2,843	4%
DM: Broad	\$20,652	10%	\$802	3%
DM: Regional & Country	\$5,838	3%	\$793	12%
Emerging Markets	\$5,349	3%	-\$328	-5%
Global	\$22,926	11%	\$1,301	5%
Total	\$203,641	100%	\$10,931	4.9%

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

Table 17 - Equity ETF Flows by Sector* - YTD April 2022

Sector	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Financials	\$10,348	36%	\$352	3%
Energy	\$3,832	13%	\$701	32%
Real Estate	\$3,607	13%	-\$73	-2%
Technology	\$2,698	9%	-\$180	-5%
Materials	\$2,534	9%	-\$213	-9%
Utilities	\$2,486	9%	\$136	6%
Health Care	\$2,465	9%	\$218	9%
Other	\$649	2%	-\$2	0%
Total	\$28,618	100%	\$940	3%

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

Table 18 - Equity ETF Flows by Focus - YTD April 2022

Focus	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Cap-weighted	\$119,658	59%	\$6,607	5%
Dividend / Income	\$21,608	11%	\$1,277	6%
Factor: Low Vol	\$7,667	4%	-\$895	-10%
Factor: Multi-factor	\$3,615	2%	-\$401	-9%
Factor: Fundamental	\$5,277	3%	\$611	12%
Sector	\$28,618	14%	\$940	3%
Thematic	\$11,235	6%	\$1,649	15%
ESG**	\$7,065	3%	\$1,351	20%
Other	\$5,962	3%	\$1,143	21%
Total	\$203,641	100%	\$10,931	4.9%

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

** Only includes ESG ETFs under Thematic category

Table 19 - Fixed Income ETF Flows by Type - YTD April 2022

Type	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Canada Aggregate	\$25,346	30%	\$1,490	5%
Canada Government	\$8,117	10%	-\$333	-3%
Canada Corporate	\$12,791	15%	-\$677	-4%
U.S. / North America	\$7,480	9%	\$893	9%
Foreign	\$10,360	12%	\$279	2%
Sub-Investment Grade	\$4,528	5%	\$319	6%
Preferred/Convertible	\$7,953	10%	-\$324	-3%
Cash Alternative	\$6,994	8%	\$832	13%
Total	\$83,568	100%	\$2,479	2.6%

Source: National Bank of Canada, Bloomberg

Table 20 - Fixed Income ETF Flows by Maturity - YTD April 2022

Maturity	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Broad/Mixed	\$44,313	53%	\$1,525	3%
Ultra Short Term	\$4,659	6%	\$541	13%
Short Term	\$17,597	21%	-\$836	-4%
Mid Term	\$4,644	6%	\$220	3%
Long Term	\$3,565	4%	\$91	2%
Real Return	\$1,671	2%	\$58	3%
Target Maturity	\$125	0%	\$47	15%
Cash Alternative	\$6,994	8%	\$832	13%
Total	\$83,568	100%	\$2,479	2.6%

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 2020 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 the 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 & behaviour, 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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