

August 2022: Cash Alternative Is King

- Canadian ETFs gathered \$1.4 billion in August, with outflows from Commodity and Crypto-Asset ETFs
- Cash Alternative ETFs took in \$589 million, the highest across all Fixed Income categories which otherwise suffered widespread outflows
- Equity inflows were dominated by Canadian equity and XIU
- Three new ETFs launched in August, a relatively light month for new products

Summary: Canadian ETFs gathered \$1.4 billion in new money in August. The equity asset class saw the most demand at \$1.1 billion, dominated by creations in XIU; on the opposite end of the spectrum, crypto-asset ETFs lost steam as investors pulled out \$217 million from this newly established category.

Fixed Income ETF has \$258 million inflow; the net positive figure was driven entirely by cash alternative ETFs, which saw the creation of \$589 million (Chart 2). All the other bond ETF categories suffered outflows, except for Canada aggregate bonds, which had a meager inflow of \$71 million.

Commodities ETFs registered another month of outflow amounting to \$34 million in August, led by gold ETFs on the back of bullion's disappointing price performance.

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

Equity ETFs pulled in \$1.1 billion, concentrated in market-cap weighed ETFs for the Canadian region. XIU displayed its usual institutional activities that resulted in creations of \$683 million. Low-cost, cap-weighted passive ETFs for various regions like Canada (XIC), international developed (ZEA), and the U.S. (VFV, HXT, ZSP/U) also appeared on the top inflows leaderboard. The appetite for Dividend/Income (a persistent theme through a volatile year) remained strong in August. Covered call ETFs ZWB and ZWU enjoyed sizable inflows. Inflows into low volatility ETFs accelerated with \$63 million created, as investors rotated to safety while looking for

Chart 1: Canadian ETF Flows by Month

Source: National Bank Financial, Bloomberg

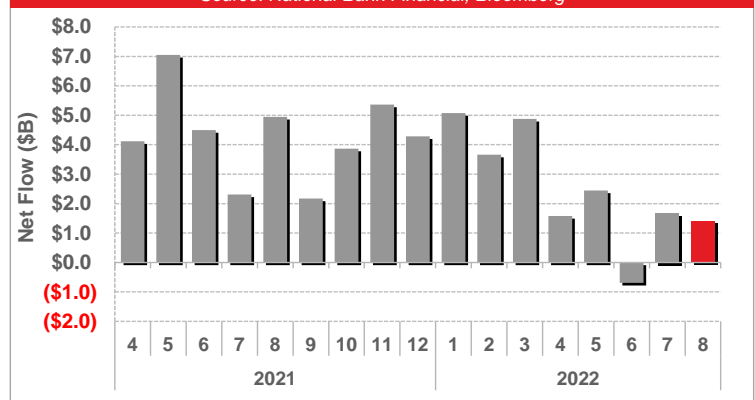
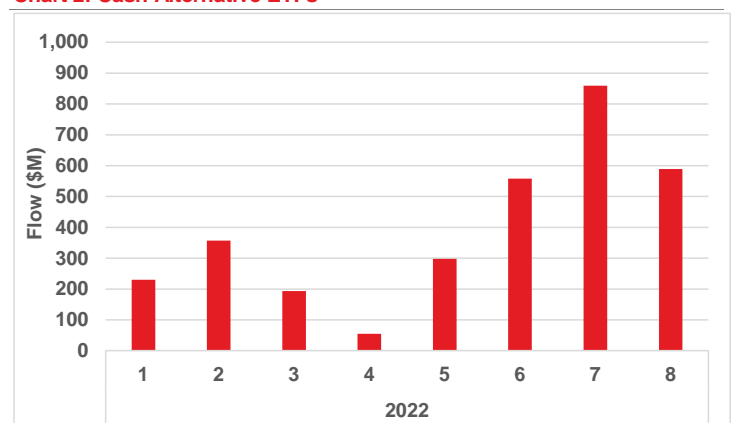


Table 1 - ETF Flows by Category - YTD Aug 2022

	AUM (\$M)	Mkt Shr (%)	Aug 2022		YTD Aug 2022	
			Flow \$M	Flow/AUM	Flow \$M	Flow/AUM
Equity	\$191,610		\$1,086	0.6%	\$10,115	4.5%
Canada	\$73,861	25%	\$813	1.1%	\$4,002	5.0%
United States	\$65,531	22%	\$28	0.0%	\$2,448	3.0%
International	\$52,218	17%	\$244	0.5%	\$3,665	5.7%
Fixed Income	\$86,264	29%	\$258	0.3%	\$6,740	7.0%
Commodities	\$1,491	0%	-\$34	-2.2%	-\$297	-15.6%
Multi-Asset	\$15,705	5%	\$121	0.8%	\$1,797	11.4%
Inverse / Levered	\$2,449	1%	\$174	7.4%	\$1,048	59.6%
Crypto-Asset	\$2,223	1%	-\$217	-7.9%	\$58	1.0%
Total	\$299,742	100%	\$1,388	0.5%	\$19,461	5.6%

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

Chart 2: Cash Alternative ETFs



Source: NBF ETF Research, SEDAR, ETF Providers. Data as of August 31, 2022

opportunities to outperform in volatile and down-trending markets. Financials (ZEB) and energy sector ETFs (e.g., XEG) bled assets while Utilities, Health Care, and Technology sector ETFs had inflows.

Fixed Income ETF witnessed small inflows of \$258 million. Absent the inflows into “cash alternative” ETFs, then the fixed income ETF category would have actually suffered outflows. Investors withdrew \$222 million from Canadian corporate bond ETFs, the highest among all categories. Cash alternative ETFs (CSAV, PSA, HSUV/U, CASH) had their second-best month of inflows year-to-date; this is despite the fact that several of Canada’s largest banks have blocked their advisors from investing in these ETFs in favour of their own internal high interest savings accounts (Globe and Mail [link: Canada’s largest banks block clients’ access to high-yielding funds](#), August 27, 2022).

Multi-asset ETFs gathered \$121 million. Uncorrelated alternative strategy ETF NALT and anti-beta ETF QBTL each gathered more assets in August than any of the asset allocation portfolio ETFs.

Crypto-asset ETFs saw redemptions of \$217 million. ETHH/U and BTCC/U (both of which are held by crypto-asset ETFs listed globally) occupied the outflow leaderboard for August.

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

BMO’s outflows were primarily driven by redemptions from two of its ultra-short-term bond ETF ZST and ZUS/U, which lost \$484 million combined. Other than BMO, all the other top five issuers had inflows. Mulvihill, Hamilton and Harvest Portfolios Group enjoyed the highest flow as a percentage of starting assets. Top inflows for each of these three providers went to their covered call ETFs, which speaks to the demand for high income; however, investors should keep in mind that the income from a covered call option overwriting program is not the same thing as dividend income emerging naturally from the underlying stock basket. When it

Provider	New Methodology (adjusted for ETF-of-ETFs)				Unadjusted	
	AUM (\$M)	Mkt Shr (%)	Aug 2022		Aug 2022	
			Flow (\$M)	Flow/AUM	AUM (\$M)	Flow (\$M)
1 RBC iShares	\$89,210	29.8%	\$715	1%	\$94,544	\$781
2 BMO	\$76,118	25.4%	-\$376	0%	\$84,203	-\$278
3 Vanguard	\$38,528	12.9%	\$171	0%	\$47,439	\$185
4 Horizons	\$21,161	7.1%	\$290	1%	\$21,688	\$290
5 CI First Asset	\$13,442	4.5%	\$42	0%	\$13,586	\$55
6 Mackenzie*	\$11,635	3.9%	\$81	1%	\$11,871	\$81
7 TDAM	\$7,718	2.6%	-\$47	-1%	\$7,796	-\$47
8 NBI	\$6,073	2.0%	\$134	2%	\$6,073	\$134
9 Purpose	\$5,258	1.8%	-\$23	0%	\$5,504	-\$25
10 Invesco	\$4,414	1.5%	\$149	3%	\$4,435	\$149
11 Fidelity	\$2,692	0.9%	-\$21	-1%	\$2,949	-\$9
12 CIBC	\$2,590	0.9%	\$12	0%	\$2,591	\$12
13 Manulife	\$2,412	0.8%	\$35	1%	\$2,412	\$35
14 Harvest	\$2,403	0.8%	\$143	6%	\$2,512	\$159
15 Dynamic	\$2,066	0.7%	-\$49	-2%	\$2,066	-\$49
16 PIMCO	\$1,950	0.7%	\$13	1%	\$1,950	\$13
17 Desjardins	\$1,751	0.6%	-\$20	-1%	\$1,751	-\$20
18 Evolve Funds	\$1,532	0.5%	\$6	0%	\$1,592	\$4
19 Franklin Templeton	\$1,289	0.4%	-\$8	-1%	\$1,289	-\$8
20 Hamilton	\$1,235	0.4%	\$84	7%	\$1,602	\$100
21 AGF	\$1,171	0.4%	\$52	5%	\$1,171	\$52
22 Scotia Bank	\$1,053	0.4%	\$6	1%	\$1,053	\$6
23 Ninepoint Partners	\$684	0.2%	-\$7	-1%	\$684	-\$7
24 Picton Mahoney	\$573	0.2%	\$13	2%	\$573	\$13
25 Brompton Funds	\$434	0.1%	\$0	0%	\$501	\$0
26 Middlefield	\$423	0.1%	-\$4	-1%	\$423	-\$4
27 3iQ	\$423	0.1%	-\$11	-2%	\$423	-\$11
28 First Trust	\$391	0.1%	\$1	0%	\$395	\$1
29 Bristol Gate	\$293	0.1%	-\$2	-1%	\$293	-\$2
30 Guardian Capital	\$224	0.1%	\$4	2%	\$224	\$4
31 Emerge	\$124	0.0%	\$2	1%	\$124	\$2
32 IA Clarington	\$118	0.0%	-\$1	-1%	\$118	-\$1
33 Lysander	\$89	0.0%	\$0	0%	\$89	\$0
34 Accelerate	\$67	0.0%	\$1	2%	\$75	\$2
35 Russell Investments	\$46	0.0%	\$0	0%	\$46	\$0
36 Mulvihill	\$41	0.0%	\$6	17%	\$41	\$6
37 Starlight	\$34	0.0%	\$0	0%	\$34	\$0
38 Arrow Capital	\$33	0.0%	\$0	0%	\$33	\$0
39 SmartBe	\$22	0.0%	-\$1	-5%	\$22	-\$1
40 Evermore Capital	\$10	0.0%	\$0	0%	\$10	\$0
41 NCM Investments	\$5	0.0%	\$0	0%	\$5	\$0
42 Caldwell	\$5	0.0%	\$0	0%	\$5	\$0
Total	\$299,742	100.0%	\$1,388	0.5%	\$324,197	\$1,620

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

Table 3: Newly launched ETFs - August 2022

Name	Ticker	Mgmt Fee (%)	Focus
1 Horizons Canadian Utility Services High Dividend Index ETF	UTIL	0.50	Utility Sector
2 TD Global Carbon Credit Index ETF	TCBN	0.65	Carbon Credit
3 US High Interest Savings Account Fund	HISU/U	0.05	Cash Alternative

Source: NBF ETF Research, SEDAR, ETF Providers. Data as of August 31, 2022

comes to covered call ETFs, the higher yield often comes with a trade-off of partially reduced upside participation.

August was relatively quiet in terms of ETF launches. Three products came to the scene: **UTIL** (Horizons Utility High Dividend ETF), **TCBN** (TD Global Carbon Credit ETF) and **HISU/U** (Evolve US Savings Account ETF).

Canadian ESG ETF Flows (Table 4): Net inflows to ESG ETFs were muted in August, with zero block-sized buy-orders over \$100 million (as we've seen in the past), but several ETFs still had noteworthy flows. The ESG ETF that ranked atop the inflows in August was the Invesco S&P 500 ESG Index ETF (**ESG** and **ESG/F**), whose currency-hedged and unhedged units received a combined \$44.6 million. The product had been steadily picking up assets since May and pulled in \$106 million over the past four months despite its small starting base. Next in line by flows were three ESG ETFs that gathered about \$19 million inflows each, namely, BMO MSCI China ESG Leaders Index ETF (**ZCH**), BMO Clean Energy Index ETF (**ZCLN**) and Invesco ESG Global Bond ETF (**IWBE**). On the outflow side, we noticed a large institutional redemption from BMO MSCI USA ESG Leaders Index ETF (**ESGY**) worth \$106 million, which is about 6% of the ETF's starting AUM.

Table 4: Canada-Listed ESG ETFs - August 2022

Category	AUM (\$M)	AUM (%)	August 2022		Jan - August 2022	
			Flow (\$M)	Flow/AUM	Flow (\$M)	Flow/AUM
Equity	\$8,491	83%	-\$23	-0.3%	\$1,585	19.3%
Broad - Canada	\$2,090	20%	\$6	0.3%	\$770	50.3%
Broad - U.S.	\$2,174	21%	-\$70	-3.0%	\$353	15.5%
Broad - DM	\$1,192	12%	\$13	1.1%	\$172	13.0%
Broad - EM	\$319	3%	\$14	4.6%	\$3	0.9%
Broad - Global	\$1,185	12%	\$1	-0.1%	\$196	16.8%
Environment	\$950	9%	\$1	-0.1%	-\$70	-6.0%
Clean Energy	\$364	4%	\$18	5.2%	\$190	110.8%
Social	\$150	1%	\$1	-0.5%	-\$13	-6.6%
Infrastructure	\$68	1%	\$2	-3.1%	-\$15	-148.2%
Commodities	\$13	0%	\$1	12.1%	\$14	NA
Multi-Asset	\$146	1%	\$1	0.7%	\$28	19.3%
Fixed Income	\$1,618	16%	\$23	1.4%	\$726	67.0%
Total Displayed	\$10,269	100%	\$3	0.0%	\$2,353	24.9%

Source: NBF ETF Research, Bloomberg. Data as of August 31, 2022

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

Table 5 - Top Single Long ETF Inflows - Aug 2022

Ticker	Name	Flow (\$M)	Flow/AUM
1	XIU iShares S&P/TSX 60 Index ETF	\$683	7%
2	CSAV CI High Interest Savings ETF	\$265	9%
3	PSA Purpose High Interest Savings ETF	\$173	8%
4	ZMU BMO Mid-Term US IG Corporate Bond Hedged to CAD	\$134	6%
5	QBB Mackenzie Canadian Aggregate Bond Index ETF	\$105	23%
6	NALT NBI Liquid Alternatives ETF	\$96	38%
7	HSUV/U Horizons USD Cash Maximizer ETF	\$71	12%
8	HXT Horizon S&P/TSX 60 Index ETF	\$70	2%
9	XFN iShares S&P/TSX Capped Financials Index ETF	\$60	4%
10	CASH Horizons High Interest Savings ETF	\$60	24%
11	RCDB RBC Canadian Discount Bond ETF	\$57	14%
12	ZWB BMO Covered Call Canadian Banks ETF	\$57	2%
13	ZEA BMO MSCI EAFE Index ETF	\$56	1%
14	VFV Vanguard S&P 500 Index ETF	\$56	1%
15	QBTL AGFIQ US Market Neutral Anti-Beta CAD-Hedged ETF	\$54	22%
16	XEQT iShares Core Equity ETF Portfolio	\$53	4%
17	ZSP/U BMO S&P 500 Index ETF	\$52	2%
18	ZWU BMO Covered Call Utilities ETF	\$52	3%
19	HHL Harvest Healthcare Leaders Income ETF	\$51	5%
20	VEQT Vanguard All-Equity ETF Portfolio	\$46	2%

Source: National Bank of Canada, Bloomberg;

Table 6 - Top Single Long ETF Outflows - Aug 2022

Ticker	Name	Flow (\$M)	Flow/AUM
1	ZST BMO Ultra Short-Term Bond ETF	-\$278	-27%
2	ZUS/U BMO Ultra Short-Term US Bond ETF	-\$205	-46%
3	ETHH/U Purpose Ether ETF	-\$151	-67%
4	ZEB BMO Equal Weight Banks Index ETF	-\$144	-6%
5	ESGY BMO MSCI USA ESG Leaders Index ETF	-\$107	-6%
6	XSP iShares Core S&P 500 Index ETF CAD- Hedged	-\$104	-1%
7	XSB iShares Core Canadian Short Term Bond Index ETF	-\$98	-3%
8	TTP TD Canadian Equity Index ETF	-\$85	-8%
9	ZQQ BMO Nasdaq 100 Equity Hedged To CAD Index ETF	-\$75	-5%
10	FGO CI Enhanced Government Bond ETF	-\$75	-9%
11	BTCC/U Purpose Bitcoin ETF	-\$71	-26%
12	CMR iShares Premium Money Market ETF	-\$70	-24%
13	XFR iShares Floating Rate Index ETF	-\$64	-13%
14	MFT Mackenzie Floating Rate Income ETF	-\$57	-6%
15	CGL iShares Gold Bullion ETF	-\$50	-7%
16	XEG iShares S&P/TSX Capped Energy Index ETF	-\$50	-2%
17	ZMMK BMO Money Market Fund ETF Series	-\$50	-22%
18	DXP Dynamic Active Preferred Shares ETF	-\$43	-7%
19	CMAG CI Munro Alternative Global Gr	-\$42	-17%
20	ZUE BMO S&P 500 Hedged to CAD Index ETF	-\$38	-2%

Source: National Bank of Canada, Bloomberg;

Tables continue on the next page

Table 7 - ETF Flows by Category - Aug 2022

Asset Class	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Equity	\$191,610	64%	\$1,086	0.6%
Fixed Income	\$86,264	29%	\$258	0.3%
Commodities	\$1,491	0%	-\$34	-2.2%
Multi-Asset	\$15,705	5%	\$121	0.8%
Inverse / Levered	\$2,449	1%	\$174	7.4%
Crypto-Asset	\$2,223	1%	-\$217	-7.9%
Total	\$299,742	100%	\$1,388	0.5%

*Equity Flows include option strategies; Source: National Bank of Canada, Bloomberg
\$18,083 \$19,471

Table 8 - Equity ETF Flows by Geography - Aug 2022

Geography	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Canada	\$73,861	39%	\$813	1.1%
United States	\$65,531	34%	\$28	0.0%
DM: Broad	\$19,456	10%	\$52	0.3%
DM: Regional & Country	\$5,346	3%	-\$7	-0.1%
Emerging Markets	\$5,102	3%	\$6	0.1%
Global	\$22,314	12%	\$194	0.9%
Total	\$191,610	100%	\$1,086	0.6%

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

Table 9 - Equity ETF Flows by Sector* - Aug 2022

Sector	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Financials	\$9,591	36%	-\$37	-0.4%
Energy	\$3,600	14%	-\$95	-2.6%
Real Estate	\$3,096	12%	\$4	0.1%
Technology	\$2,665	10%	\$49	1.8%
Utilities	\$2,574	10%	\$94	3.7%
Health Care	\$2,544	10%	\$70	2.7%
Materials	\$1,783	7%	-\$5	-0.3%
Other	\$557	2%	\$2	0.5%
Total	\$26,409	100%	\$83	0.3%

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

Table 10 - Equity ETF Flows by Focus - Aug 2022

Focus	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Cap-weighted	\$112,481	59%	\$741	0.6%
Dividend / Income	\$20,668	11%	\$199	0.9%
Factor: Low Vol	\$7,357	4%	\$63	0.9%
Factor: Multi-factor	\$2,886	2%	-\$21	-0.7%
Factor: Fundamental	\$4,847	3%	-\$30	-0.6%
Sector	\$26,409	14%	\$83	0.3%
Thematic	\$11,094	6%	-\$38	-0.3%
ESG**	\$7,109	4%	-\$30	-0.4%
Other	\$5,868	3%	\$89	1.5%
Total	\$191,610	100%	\$1,086	0.6%

*Equity Flows include option strategies; Source: National Bank of Canada, Bloomberg
** Only includes ESG ETFs under Thematic category

Table 11 - Fixed Income ETF Flows by Type - Aug 2022

Type	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Canada Aggregate	\$26,736	31%	\$71	0.3%
Canada Government	\$8,831	10%	-\$35	-0.4%
Canada Corporate	\$12,673	15%	-\$222	-1.7%
U.S. / North America	\$7,557	9%	\$4	0.1%
Foreign	\$9,997	12%	-\$27	-0.3%
Sub-Investment Grade	\$3,824	4%	-\$66	-1.7%
Preferred/Convertible	\$7,338	9%	-\$56	-0.8%
Cash Alternative	\$9,308	11%	\$589	6.8%
Total	\$86,264	100%	\$258	0.3%

Source: National Bank of Canada, Bloomberg

Table 12 - Fixed Income ETF Flows by Maturity - Aug 2022

Maturity	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Broad/Mixed	\$44,576	52%	\$208	0.5%
Ultra Short Term	\$4,295	5%	-\$718	-14.4%
Short Term	\$17,152	20%	-\$104	-0.6%
Mid Term	\$4,552	5%	\$162	3.6%
Long Term	\$4,463	5%	\$62	1.3%
Real Return	\$1,609	2%	\$5	0.3%
Target Maturity	\$308	0%	\$55	21.2%
Cash Alternative	\$9,308	11%	\$589	6.8%
Total	\$86,264	100%	\$258	0.3%

Source: National Bank of Canada, Bloomberg

YTD August 2022 Flow (Tables 13 - 21):

Canadian ETFs managed to rake in a net \$19.5 billion year-to-date. Equity inflows account for a little over half of the total at \$10 billion in flows, and fixed income ranks second with \$6.7 billion. Despite widespread inflation fears and headlines, Commodity ETFs in Canada had small outflows of \$297 million, primarily from gold ETFs. Multi-Asset ETFs welcomed \$1.9 billion in flows. Crypto asset ETF flows are almost flat on the year with \$58 million created on a net basis, although this activity can wax and wane depending on the underlying price actions which are famously volatile and risky.

Within Equity, Canada is still the leader, taking up 40% of the total inflows. U.S. and global equities rank a distant second and third place. Emerging Market ETFs had outflows following concern over the region's economic growth on the back of a strong U.S. dollar (which can impede debt servicing and raise input prices) in addition to China's COVID-zero policy. Market cap-weighted ETFs occupied 52% of the total flows year-to-date, while ESG and Dividend/Income ETF each pulled in approximately \$1.6 billion; sector ETFs (Financials and Energy had the highest inflows) registered \$1.3 billion in 2022 so far.

Fixed Income ETFs gathered \$6.7 billion. Eight months into the year, cash alternative ETFs have already beat their annual inflow record with creations of \$3.1 billion, with no net outflow for any single month year-to-date. This level of inflow is neck-and-neck with the mainstay fixed income ETF category that is triple the size of cash alternatives: Canadian aggregate bond ETFs, which welcomed \$3.5 billion year-to-date. On the other hand, investors redeemed from credit-sensitive categories such as Canada corporate bonds, sub-investment grade bonds and preferred shares.

Table 13 - Top ETF Inflows - YTD Aug 2022

Ticker	Name	Flow (\$M)	Flow/AUM
1	VFV Vanguard S&P 500 Index ETF	\$1,143	18%
2	TCLB TD Canadian Long Term Federal Bond ETF	\$1,124	383%
3	HXT Horizon S&P/TSX 60 Index ETF	\$1,095	38%
4	CSAV CI High Interest Savings ETF	\$1,086	52%
5	XIU iShares S&P/TSX 60 Index ETF	\$1,077	10%
6	HBB Horizons Cdn Select Universe Bond ETF	\$1,071	68%
7	ESGY BMO MSCI USA ESG Leaders Index ETF	\$982	108%
8	ZEA BMO MSCI EAFE Index ETF	\$825	15%
9	ZMU BMO Mid-Term US IG Corporate Bond Hedged to CAD	\$814	44%
10	NSCE NBI Sustainable Canadian Equity ETF	\$720	203%
11	VEQT Vanguard All-Equity ETF Portfolio	\$618	36%
12	ZCPB BMO Core Plus Bond Fund ETF	\$560	43%
13	PSA Purpose High Interest Savings ETF	\$550	30%
14	VGRO Vanguard Growth ETF Portfolio	\$544	16%
15	ZWB BMO Covered Call Canadian Banks ETF	\$534	21%
16	HSAV Horizons Cash Maximizer ETF	\$530	35%
17	XEQT iShares Core Equity ETF Portfolio	\$501	57%
18	ZEB BMO Equal Weight Banks Index ETF	\$443	16%
19	XSP iShares Core S&P 500 Index ETF CAD- Hedged	\$426	5%
20	QBB Mackenzie Canadian Aggregate Bond Index ETF	\$405	241%

Source: National Bank of Canada, Bloomberg;

Table 14 - Top ETF Outflows - YTD Aug 2022

Ticker	Name	Flow (\$M)	Flow/AUM
1	ESGY/F BMO MSCI USA ESG Leaders Index ETF	-\$768	-94%
2	TTP TD Canadian Equity Index ETF	-\$652	-37%
3	XIC iShares Core S&P/TSX Capped Composite Index ETF	-\$556	-5%
4	ZEM BMO MSCI Emerging Markets Index ETF	-\$538	-26%
5	ZLU BMO Low Volatility US Equity ETF	-\$472	-26%
6	TEC TD Global Technology Leaders Index ETF	-\$411	-19%
7	ZCM BMO Mid Corporate Bond Index ETF	-\$362	-35%
8	XSH iShares Core Canadian Short Term Corporate Bond	-\$357	-19%
9	HXS Horizons S&P 500 Index ETF	-\$347	-10%
10	CMUE CIBC Multifactor US Equity ETF	-\$342	-93%
11	ZMP BMO Mid Provincial Bond Index ETF	-\$340	-45%
12	CMCE CIBC Multifactor Canadian Equity ETF	-\$337	-103%
13	ZFL BMO Long Federal Bond Index ETF	-\$324	-13%
14	VALT/U CI Gold Bullion Fund	-\$315	-90%
15	HPR Horizons Active Preferred Share ETF	-\$283	-15%
16	XSB iShares Core Canadian Short Term Bond Index ETF	-\$267	-7%
17	CGXF CI Gold+ Giants Covered Call ETF	-\$267	-56%
18	ZPR BMO Laddered Preferred Share Index ETF	-\$260	-11%
19	DXG Dynamic Active Global Dividend ETF	-\$258	-20%
20	FLGA Franklin Global Aggregate Bond Active ETF	-\$255	-37%

Source: National Bank of Canada, Bloomberg;

Table 15 - ETF Flows by Category - YTD Aug 2022

Asset Class	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Equity	\$191,610	64%	\$10,115	4%
Fixed Income	\$86,264	29%	\$6,740	7%
Commodities	\$1,491	0%	-\$297	-16%
Multi-Asset	\$15,705	5%	\$1,797	11%
Inverse / Leveraged	\$2,449	1%	\$1,048	60%
Crypto-Asset	\$2,223	1%	\$58	1%
Total	\$299,742	100%	\$19,461	5.6%

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

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

Focus	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Cap-weighted	\$112,481	59%	\$5,288	4%
Dividend / Income	\$20,668	11%	\$1,632	7%
Factor: Low Vol	\$7,357	4%	-\$882	-10%
Factor: Multi-factor	\$2,886	2%	-\$947	-22%
Factor: Fundamental	\$4,847	3%	\$479	9%
Sector	\$26,409	14%	\$1,273	4%
Thematic	\$11,094	6%	\$2,010	19%
ESG**	\$7,109	4%	\$1,668	26%
Other	\$5,868	3%	\$1,263	23%
Total	\$191,610	100%	\$10,115	4.5%

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

** Only includes ESG ETFs under Thematic category

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

Geography	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Canada	\$73,861	39%	\$4,002	5%
United States	\$65,531	34%	\$2,448	3%
DM: Broad	\$19,456	10%	\$1,103	4%
DM: Regional & Country	\$5,346	3%	\$846	12%
Emerging Markets	\$5,102	3%	-\$345	-5%
Global	\$22,314	12%	\$2,060	9%
Total	\$191,610	100%	\$10,115	4.5%

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

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

Type	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Canada Aggregate	\$26,736	31%	\$3,481	12%
Canada Government	\$8,831	10%	\$574	6%
Canada Corporate	\$12,673	15%	-\$626	-4%
U.S. / North America	\$7,557	9%	\$1,184	12%
Foreign	\$9,997	12%	\$99	1%
Sub-Investment Grade	\$3,824	4%	-\$247	-5%
Preferred/Convertible	\$7,338	9%	-\$866	-9%
Cash Alternative	\$9,308	11%	\$3,140	50%
Total	\$86,264	100%	\$6,740	7.0%

Source: National Bank of Canada, Bloomberg

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

Sector	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Financials	\$9,591	36%	\$644	5%
Energy	\$3,605	14%	\$457	21%
Real Estate	\$3,096	12%	-\$208	-5%
Technology	\$2,665	10%	-\$31	-1%
Utilities	\$2,574	10%	\$352	15%
Health Care	\$2,544	10%	\$401	16%
Materials	\$1,783	7%	-\$268	-11%
Other	\$552	2%	-\$74	-11%
Total	\$26,409	100%	\$1,273	4%

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

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

Maturity	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Broad/Mixed	\$44,576	52%	\$2,791	5%
Ultra Short Term	\$4,295	5%	\$201	5%
Short Term	\$17,152	20%	-\$1,018	-5%
Mid Term	\$4,552	5%	\$210	3%
Long Term	\$4,463	5%	\$1,124	26%
Real Return	\$1,609	2%	\$58	3%
Target Maturity	\$308	0%	\$233	72%
Cash Alternative	\$9,308	11%	\$3,140	50%
Total	\$86,264	100%	\$6,740	7.0%

Source: National Bank of Canada, Bloomberg

Tables continue on the next page

Table 21 - ETF Flows by Provider - YTD Aug 2022

Provider	New Methodology (adjusted for ETF-of-ETFs)				Unadjusted	
	AUM (\$M)	Mkt Shr (%)	YTD Aug 2022		YTD Aug 2022	
			Flow (\$M)	Flow/AUM	AUM (\$M)	Flow (\$M)
1 RBC iShares	\$89,210	29.8%	\$3,052	3%	\$94,544	\$3,461
2 BMO	\$76,118	25.4%	\$3,262	4%	\$84,203	\$4,332
3 Vanguard	\$38,528	12.9%	\$3,865	8%	\$47,439	\$5,250
4 Horizons	\$21,161	7.1%	\$3,279	16%	\$21,688	\$3,371
5 CI First Asset	\$13,442	4.5%	-\$436	-3%	\$13,586	-\$352
6 Mackenzie*	\$11,635	3.9%	\$873	7%	\$11,871	\$897
7 TDAM	\$7,718	2.6%	\$780	9%	\$7,796	\$789
8 NBI	\$6,073	2.0%	\$1,800	37%	\$6,073	\$1,800
9 Purpose	\$5,258	1.8%	\$1,105	18%	\$5,504	\$1,127
10 Invesco	\$4,414	1.5%	\$379	8%	\$4,435	\$379
11 Fidelity	\$2,692	0.9%	\$392	14%	\$2,949	\$489
12 CIBC	\$2,590	0.9%	-\$197	-6%	\$2,591	-\$197
13 Manulife	\$2,412	0.8%	\$187	8%	\$2,412	\$187
14 Harvest	\$2,403	0.8%	\$860	44%	\$2,512	\$959
15 Dynamic	\$2,066	0.7%	-\$312	-11%	\$2,066	-\$312
16 PIMCO	\$1,950	0.7%	\$7	0%	\$1,950	\$7
17 Desjardins	\$1,751	0.6%	-\$174	-8%	\$1,751	-\$174
18 Evolve Funds	\$1,532	0.5%	\$230	13%	\$1,592	\$222
19 Franklin Templeton	\$1,289	0.4%	-\$660	-30%	\$1,289	-\$660
20 Hamilton	\$1,235	0.4%	\$570	49%	\$1,602	\$715
21 AGF	\$1,171	0.4%	-\$116	-8%	\$1,171	-\$116
22 Scotia Bank	\$1,053	0.4%	\$331	37%	\$1,053	\$331
23 Ninepoint Partners	\$684	0.2%	\$297	93%	\$684	\$297
24 Picton Mahoney	\$573	0.2%	\$110	23%	\$573	\$110
25 Brompton Funds	\$434	0.1%	\$18	3%	\$501	\$29
26 Middlefield	\$423	0.1%	\$1	1%	\$423	\$1
27 3iQ	\$423	0.1%	-\$246	-16%	\$423	-\$246
28 First Trust	\$391	0.1%	\$18	4%	\$395	\$18
29 Bristol Gate	\$293	0.1%	-\$5	-1%	\$293	-\$5
30 Guardian Capital	\$224	0.1%	\$113	77%	\$224	\$113
31 Emerge	\$124	0.0%	\$13	6%	\$124	\$13
32 IA Clarington	\$118	0.0%	-\$10	-7%	\$118	-\$10
33 Lysander	\$89	0.0%	-\$1	-1%	\$89	-\$1
34 Accelerate	\$67	0.0%	\$12	19%	\$75	\$13
35 Russell Investments	\$46	0.0%	-\$2	-4%	\$46	-\$2
36 Mulvihill	\$41	0.0%	\$46	NA	\$41	\$46
37 Starlight	\$34	0.0%	-\$2	-4%	\$34	-\$2
38 Arrow Capital	\$33	0.0%	\$12	49%	\$33	\$12
39 SmartBe	\$22	0.0%	-\$6	-19%	\$22	-\$6
40 Evermore Capital	\$10	0.0%	\$11	NA	\$10	\$11
41 NCM Investments	\$5	0.0%	\$0	0%	\$5	\$0
42 Caldwell	\$5	0.0%	\$5	NA	\$5	\$5
Total	\$299,742	100.0%	\$19,461	5.6%	\$324,197	\$22,899

*Includes Wealthsimple asset and flows. Source: NBF, 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 2021 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 filings.

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.

DISCLOSURES

Levered and Inverse Exchange-Traded Funds are very different from most ETFs. They pursue leveraged investment goals, and they are riskier than alternatives that do not use leverage because they magnify the performance of the benchmark on an investment. These ETFs seek daily leveraged investment results. The return of an inverse or levered ETF for periods longer than a single day, especially in periods of market volatility, may be completely uncorrelated to the return of the benchmark over such longer periods. Levered and inverse ETFs are intended to be used as short-term trading vehicles for investors managing their portfolios on a daily basis. They are not to be used by, and are not appropriate for, investors who intend to hold positions.

Unless otherwise agreed in writing, National Bank of Canada and its affiliates act solely in the capacity of an arm's length contractual counterparty and not as an adviser or fiduciary. Accordingly you should not regard transaction proposals or other written or oral communications from us as a recommendation or advice that a transaction is appropriate for you or meets your financial objectives. Any financial transaction involves a variety of potentially significant risks and issues; additionally, please note bitcoin and other crypto assets are extremely risky and highly speculative. Before entering into any financial transaction, you should ensure that you fully understand the terms, have evaluated the risks and have determined that the transaction is appropriate for you in all respects. If you believe that you need assistance, you should consult appropriate advisers before entering into the transaction. The attached material does not constitute an offer to enter into any transaction. Such material is believed by us to be reliable, but we make no representation as to its accuracy or completeness. This brief statement does not purport to describe all of the risks associated with financial transactions and should not be construed as advice to you.

General

This Report was prepared by National Bank Financial Inc. (NBF), a Canadian investment dealer, a dealer member of IIROC and an indirect wholly owned subsidiary of National Bank of Canada. National Bank of Canada is a public company listed on the Toronto Stock Exchange.

The particulars contained herein were obtained from sources which we believe to be reliable but are not guaranteed by us and may be incomplete and may be subject to change without notice. The information is current as of the date of this document. Neither the author nor NBF assumes any obligation to update the information or advise on further developments relating to the topics or securities discussed. The opinions expressed are based upon the author(s) analysis and interpretation of these particulars and are not to be construed as a solicitation or offer to buy or sell the securities mentioned herein, and nothing in this Report constitutes a representation that any investment strategy or recommendation contained herein is suitable or appropriate to a recipient's individual circumstances. In all cases, investors should conduct their own investigation and analysis of such information before taking or omitting to take any action in relation to securities or markets that are analyzed in this Report. The Report alone is not intended to form the basis for an investment decision, or to replace any due diligence or analytical work required by you in making an investment decision.

This Report is for distribution only under such circumstances as may be permitted by applicable law. This Report is not directed at you if NBF or any affiliate distributing this Report is prohibited or restricted by any legislation or regulation in any jurisdiction from making it available to you.

National Bank of Canada Financial Markets is a trade name used by National Bank Financial Inc. and National Bank of Canada Financial Inc.

National Bank Financial Inc. or an affiliate thereof, owns or controls an equity interest in TMX Group Limited ("TMX Group") and has a nominee director serving on the TMX Group's board of directors. As such, each such investment dealer may be considered to have an economic interest in the listing of securities on any exchange owned or operated by TMX Group, including the Toronto Stock Exchange, the TSX Venture Exchange and the Alpha Exchange. No person or company is required to obtain products or services from TMX Group or its affiliates as a condition of any such dealer supplying or continuing to supply a product or service.

Research analysts

The Research Analyst(s) who prepared these reports certify that their respective report accurately reflects his or her personal opinion and that no part of his/her compensation was, is, or will be directly or indirectly related to the specific recommendations or views as to the securities or companies.

NBF compensates its Research Analysts from a variety of sources. The Research Department is a cost centre and is funded by the business activities of NBF including Institutional Equity Sales and Trading, Retail Sales, the correspondent clearing business, and Corporate and Investment Banking. Since the revenues from these businesses vary, the funds for research compensation vary. No one business line has a greater influence than any other for Research Analyst compensation.

Canadian Residents

NBF or its affiliates may engage in any trading strategies described herein for their own account or on a discretionary basis on behalf of certain clients and, as market conditions change, may amend or change investment strategy including full and complete divestment. The trading interests of NBF and its affiliates may also be contrary to any opinions expressed in this Report.

NBF or its affiliates often act as financial advisor, agent, lender or underwriter or provides trading related services for certain issuers mentioned herein and may receive remuneration for its services. As well, NBF and its affiliates and/or their officers, directors, representatives, associates, may have a position in the securities mentioned herein and may make purchases and/or sales of these securities from time to time in the open market or otherwise. NBF and its affiliates may make a market in securities mentioned in this Report. This Report may not be independent of the proprietary interests of NBF and its affiliates.

NBF is a member of the Canadian Investor Protection Fund.

UK Residents

This Report is a marketing document. This Report has not been prepared in accordance with EU legal requirements designed to promote the independence of investment research and it is not subject to any prohibition on dealing ahead of the dissemination of investment research.

In respect of the distribution of this Report to UK residents, NBF has approved the contents (including, where necessary, for the purposes of Section 21(1) of the Financial Services and Markets Act 2000). This Report is for information purposes only and does not constitute a personal recommendation, or investment, legal or tax advice. NBF and/or its parent and/or any companies within or affiliates of the National Bank of Canada group and/or any of their directors, officers and employees may have or may have had interests or long or short positions in, and may at any time make purchases and/or sales as principal or agent, or may act or may have acted as market maker in the relevant investments or related investments discussed in this Report, or may act or have acted as investment and/or commercial banker with respect hereto. The value of investments, and the income derived from them, can go down as well as

DISCLOSURES

up and you may not get back the amount invested. Past performance is not a guide to future performance. If an investment is denominated in a foreign currency, rates of exchange may have an adverse effect on the value of the investment. Investments which are illiquid may be difficult to sell or realise; it may also be difficult to obtain reliable information about their value or the extent of the risks to which they are exposed. Certain transactions, including those involving futures, swaps, and other derivatives, give rise to substantial risk and are not suitable for all investors. The investments contained in this Report are not available to retail customers and this Report is not for distribution to retail clients (within the meaning of the rules of the Financial Conduct Authority). Persons who are retail clients should not act or rely upon the information in this Report. This Report does not constitute or form part of any offer for sale or subscription of or solicitation of any offer to buy or subscribe for the securities described herein nor shall it or any part of it form the basis of or be relied on in connection with any contract or commitment whatsoever.

This information is only for distribution to Eligible Counterparties and Professional Clients in the United Kingdom within the meaning of the rules of the Financial Conduct Authority. NBF is authorized and regulated by the Financial Conduct Authority and has its registered office at 70 St. Mary Axe, London, EC3A 8BE.

NBF is not authorized by the Prudential Regulation Authority and the Financial Conduct Authority to accept deposits in the United Kingdom.

U.S. Residents

With respect to the distribution of this report in the United States of America, National Bank of Canada Financial Inc. ("NBCFI") is registered with the Securities Exchange Commission (SEC), the Financial Industry Regulatory Authority (FINRA), and is a member of the Securities Investor Protection Corporation (SIPC). NBCFI operates pursuant to a 15 a-6 Agreement with its Canadian affiliates, NBF and National Bank of Canada.

This report has been prepared in whole or in part by research analysts employed by non-US affiliates of NBCFI that are not registered as broker/dealers in the US. These non-US research analysts are not registered as associated persons of NBCFI and are not licensed or qualified as research analysts with FINRA or any other US regulatory authority and, accordingly, may not be subject (among other things) to FINRA restrictions regarding communications by a research analyst with the subject company, public appearances by research analysts and trading securities held in a research analyst account.

All of the views expressed in this research report accurately reflects the research analyst's personal views regarding any and all of the subject securities or issuers. No part of the analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed in this research report. The analyst responsible for the production of this report certifies that the views expressed herein reflect his or her accurate personal and technical judgment at the moment of publication.

Because the views of analysts may differ, members of the National Bank Financial Group may have or may in the future issue reports that are inconsistent with this report, or that reach conclusions different from those in this report. To make further inquiry related to this report, United States residents should contact their NBCFI registered representative.

HK Residents

With respect to the distribution of this report in Hong Kong by NBC Financial Markets Asia Limited ("NBCFMA") which is licensed by the Securities and Futures Commission ("SFC") to conduct Type 1 (dealing in securities) and Type 3 (leveraged foreign exchange trading) regulated activities, the contents of this report are solely for informational purposes. It has not been approved by, reviewed by, verified by or filed with any regulator in Hong Kong. Nothing herein is a recommendation, advice, offer or solicitation to buy or sell a product or service, nor an official confirmation of any transaction. None of the products issuers, NBCFMA or its affiliates or other persons or entities named herein are obliged to notify you of changes to any information and none of the foregoing assume any loss suffered by you in reliance of such information.

The content of this report may contain information about investment products which are not authorized by SFC for offering to the public in Hong Kong and such information will only be available to those persons who are Professional Investors (as defined in the Securities and Futures Ordinance of Hong Kong ("SFO")). If you are in any doubt as to your status you should consult a financial adviser or contact us. This material is not meant to be marketing materials and is not intended for public distribution. Please note that neither this material nor the product referred to is authorized for sale by SFC. Please refer to product prospectus for full details.

There may be conflicts of interest relating to NBCFMA or its affiliates' businesses. These activities and interests include potential multiple advisory, transactional and financial and other interests in securities and instruments that may be purchased or sold by NBCFMA or its affiliates, or in other investment vehicles which are managed by NBCFMA or its affiliates that may purchase or sell such securities and instruments.

No other entity within the National Bank of Canada group, including National Bank of Canada and National Bank Financial Inc., is licensed or registered with the SFC. Accordingly, such entities and their employees are not permitted and do not intend to: (i) carry on a business in any regulated activity in Hong Kong; (ii) hold themselves out as carrying on a business in any regulated activity in Hong Kong; or (iii) actively market their services to the Hong Kong public.

Copyright

This Report may not be reproduced in whole or in part, or further distributed or published or referred to in any manner whatsoever, nor may the information, opinions or conclusions contained in it be referred to without in each case the prior express written consent of NBF.

Dissemination policy

[Please click on this link to access NBF's Research Dissemination Policy.](#)