

April 2023: Investors getting their Fixed Income Fix

- \$2 billion flowed into Canadian ETFs in April, almost entirely led by Fixed Income ETFs
- Muted equity outflows show a clear demand for international over Canada or U.S. exposure
- Money market ETFs continued to rake in money with \$1 billion created
- Rotation from sub-investment grade to government and aggregate bonds suggests defensive positioning

Summary: As investors around the world watch the developing banking crisis and the Fed's reaction with a mix of flashbacks and consternation, we have observed cautious and defensive ETF activity in Canada and the U.S.; fixed income ETFs have been doing most of the heavy lifting in terms of inflows. Close to \$2 billion flowed into fixed income in April, whereas equity lost \$263 million. Commodities, Leverage & Inverse and Crypto-Asset ETFs had flat flow numbers, while Multi-Asset ETFs took in \$286 million.

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

Equity ETFs lost \$263 million to outflows in April. Canada and U.S. equity were especially out of favour, losing \$836 million (XIU, ZCN) and \$349 million (ZNQ, ZSP, XSP), respectively. In contrast, demand for foreign equity has remained strong this year, with net inflows of almost \$1 billion in April and \$4.1 billion year-to-date. Broad developed market equity (ZEA) as well as emerging market equity (XSEM) each registered inflows of more than \$400 million last month.

The top inflow of the month was Hamilton's equal-weight Canadian Bank ETF **HEB** and it was a structural shift that took place within Hamilton's fund complex that also led to outflows from their mean-reversion bank index ETF **HCA** for approximately the same amount. Although this activity won't register as net inflows when adjusting for cross-ETF holdings, Hamilton nevertheless took in over \$100 million on a net basis owing to creations in **HMAX**, their covered call ETF that writes at-the-money (ATM) options on financial stocks; other financial sector ETFs (**ZEB**, **FSF**, **XFN**) mostly suffered redemptions last month, leading to a \$206 million outflow from the financial sector, a reversal to the inflow trend that has been co-travelling with the regional banking crisis that started in March. Other sectors such as energy (**XEG**), real estate (**XRE**) and materials suffered outflows, but healthcare (notably CI's new Global Healthcare Leaders ETF **CHCL/B**) welcomed inflows of \$102 million.

Fixed Income ETFs topped the inflow leaderboard with nearly \$2 billion created in April. Money market ETFs kept their grip on the throne with more than \$1 billion in creation. Top inflows went to **CSAV**, **PSA**, **CASH**, **ZMMK**, **UBIL/U**, **CBIL** and **HISA**. Other than sub-investment grade bonds (such as **ZHY** for U.S. high-yield) and preferred share categories, all other fixed

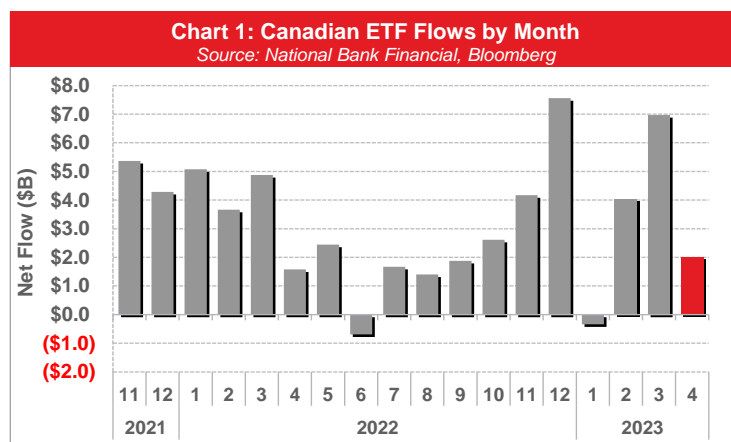


Table 1 - ETF Flows by Category - April YTD 2023

	AUM (\$M)	Mkt Shr (%)	April 2023		April YTD 2023	
			Flow \$M	Flow/AUM	Flow \$M	Flow/AUM
Equity	\$213,717		-\$263	-0.1%	\$4,083	1.9%
Canada	\$78,649	23%	-\$836	-1.1%	\$1,008	1.3%
United States	\$71,635	21%	-\$349	-0.5%	-\$1,114	-1.5%
International	\$63,433	18%	\$922	1.5%	\$4,189	6.8%
Fixed Income	\$105,747	31%	\$1,956	1.9%	\$7,152	6.9%
Commodities	\$1,714	0%	-\$23	-1.4%	-\$48	-2.9%
Multi-Asset	\$17,481	5%	\$286	1.7%	\$1,008	6.4%
Inverse / Levered	\$3,463	1%	\$59	1.8%	\$495	16.5%
Crypto-Asset	\$2,493	1%	\$3	0.1%	-\$231	-13.5%
Total	\$344,615	100%	\$2,017	0.6%	\$12,459	3.7%

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

income ETF categories had inflows as well. The largest inflow category (besides money market) was Canada government bond (ZFL) with \$419 million created.

Multi-asset ETFs welcomed inflows of \$286 million, primarily into market-neutral ETFs and asset allocation strategies.

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

April's inflows spread widely between many different ETF issuers, although a few did have outflows from a concentrated number of products. Desjardins and Hamilton showed the highest percentage flow compared with starting AUM. Emerge ETFs experienced an unprecedented and ongoing Cease-Trade-Order (CTO) for missing a regulatory deadline on fund reporting (the ETF company has posted a list of resources on their website: <https://emergecm.ca/cto/>). We continue to report their AUM because the fund NAV is still updated daily, but their flows are effectively zero while investors are unable to trade these ETFs on the secondary market.

10 ETFs were launched in April. Money market, sector, covered call and ESG are the themes for these new products.

Note: the tables below all use the adjusted flows calculation methodology. (Adjusted for ETF cross-holdings)

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Table 2 - ETF Flows by Provider - April 2023							
New Methodology (adjusted for ETF-of-ETFs)						Unadjusted	
Provider	AUM (\$M)	Mkt Shr (%)	April 2023		AUM (\$M)	Flow (\$M)	
			Flow (\$M)	Flow/AUM			
1	RBC iShares	\$96,843	28.1%	-\$158	0%	\$102,798	-\$110
2	BMO	\$85,159	24.7%	\$319	0%	\$94,540	\$311
3	Vanguard	\$44,340	12.9%	\$225	1%	\$54,712	\$332
4	Horizons	\$25,147	7.3%	\$527	2%	\$25,936	\$569
5	CI GAM	\$18,347	5.3%	\$186	1%	\$18,576	\$188
6	Mackenzie*	\$12,941	3.8%	\$124	1%	\$13,203	\$134
7	TDAM	\$9,730	2.8%	\$110	1%	\$9,831	\$116
8	NBI	\$9,118	2.6%	\$126	1%	\$9,118	\$126
9	Purpose	\$7,476	2.2%	\$292	4%	\$7,710	\$285
10	Invesco	\$5,254	1.5%	-\$139	-3%	\$5,273	-\$139
11	Fidelity	\$3,564	1.0%	\$24	1%	\$3,913	\$38
12	Evolve Funds	\$2,739	0.8%	\$98	4%	\$2,790	\$97
13	Harvest	\$2,728	0.8%	\$12	0%	\$3,303	\$35
14	CIBC	\$2,650	0.8%	\$26	1%	\$2,666	\$26
15	Manulife	\$2,514	0.7%	\$3	0%	\$2,514	\$3
16	Dynamic	\$2,282	0.7%	-\$51	-2%	\$2,282	-\$51
17	PIMCO	\$2,133	0.6%	-\$7	0%	\$2,133	-\$7
18	Hamilton	\$2,018	0.6%	\$118	6%	\$2,432	\$135
19	Desjardins	\$1,880	0.5%	\$249	15%	\$1,880	\$249
20	Scotia Bank	\$1,352	0.4%	\$1	0%	\$1,352	\$1
21	Franklin Templeton	\$1,288	0.4%	-\$18	-1%	\$1,288	-\$18
22	AGF	\$1,200	0.3%	-\$10	-1%	\$1,200	-\$10
23	Ninepoint Partners	\$682	0.2%	\$17	3%	\$682	\$17
24	Picton Mahoney	\$631	0.2%	-\$1	0%	\$631	-\$1
25	Brompton Funds	\$472	0.1%	\$0	0%	\$567	\$3
26	Middlefield	\$435	0.1%	-\$18	-4%	\$435	-\$18
27	First Trust	\$374	0.1%	-\$8	-2%	\$374	-\$8
28	Bristol Gate	\$362	0.1%	\$0	0%	\$362	\$0
29	Guardian Capital	\$223	0.1%	\$1	0%	\$224	\$1
30	3iQ	\$142	0.0%	-\$25	-15%	\$142	-\$25
31	Emerge	\$108	0.0%	\$0	0%	\$108	\$0
32	IA Clarington	\$103	0.0%	-\$4	-4%	\$103	-\$4
33	Lysander	\$83	0.0%	\$3	4%	\$83	\$3
34	Mulvihill	\$75	0.0%	\$1	1%	\$75	\$1
35	Russell Investments	\$70	0.0%	\$2	3%	\$70	\$2
36	Accelerate	\$61	0.0%	-\$1	-1%	\$66	-\$1
37	Arrow Capital	\$46	0.0%	\$2	5%	\$46	\$2
38	Starlight	\$25	0.0%	-\$1	-2%	\$25	-\$1
39	SmartBe	\$16	0.0%	\$0	0%	\$16	\$0
40	Caldwell	\$5	0.0%	\$0	0%	\$5	\$0
41	NCM Investments	\$0	0.0%	\$0	0%	\$0	\$0
Total	\$344,615	100.0%	\$2,028	0.6%	\$373,464	\$2,285	

*Includes Wealthsimple asset and flows. Source: NBF, Bloomberg. Evermore is no longer in the provider table but contributed to \$11 million outflows in April.

Table 3 - New Launches in April 2023			
	Ticker	Name	Fee (%)
1	HEB	Hamilton Canadian Bank Equal-Weight Index ETF	0.19
2	HRIF	Harvest Diversified Equity Income Etf	0.73
3	TRVI	Harvest Travel & Leisure Income ETF	0.75
4	UBIL/U	Horizons 0-3 Month US T-Bill ETF	0.12
5	CBIL	Horizons 0-3 Month T-Bill ETF	0.10
6	MCKG	Mackenzie Corporate Knights Global 100 Index ETF	0.50
7	MNU/U	Purpose USD Cash Management Fund	0.20
8	TECX	TD Global Technology Leaders CAD Hedged Index ETF	0.35
9	TBNK	TD Canadian Bank Dividend Index ETF	0.25
10	TUEX	TD Active US Enhanced Dividend CAD Hedged ETF	0.65

Source: NBF, ETF provider.

Table 4 - Top Single Long ETF Inflows - April 2023

Ticker	Name	Flow (\$M)	Flow/AUM
1	HEB Hamilton Canadian Bank Equal-Weight Index ETF	\$495	NA
2	XSEM iShares ESG Aware MSCI Emerging Markets Index ETF	\$463	223%
3	ZEI BMO MSCI EAFE Index ETF	\$463	8%
4	ZFL BMO Long Federal Bond Index ETF	\$284	11%
5	CSAV CI High Interest Savings ETF	\$228	3%
6	PSA Purpose High Interest Savings Fund	\$210	6%
7	CASH Horizons High Interest Savings ETF	\$175	8%
8	ZMMK BMO Money Market Fund ETF Series	\$134	32%
9	ZMU BMO Mid-Term US IG Corporate Bond CAD-Hedged	\$128	5%
10	HXT Horizon S&P/TSX 60 Index ETF	\$115	3%
11	ZUAG/F BMO US Aggregate Bond Index ETF	\$106	62%
12	CHCL/B CI Global Healthcare Leaders Index ETF	\$102	116%
13	UBIL/U Horizons 0-3 Month US T-Bill ETF	\$93	NA
14	NSCE NBI Sustainable Canadian Equity ETF	\$84	5%
15	XBB iShares Core Canadian Universe Bond Index ETF	\$84	2%
16	DANC Desjardins Alt Long/Short Equity Market Neutral ETF	\$80	16%
17	HISA High Interest Savings Account Fund	\$75	5%
18	HMAX Hamilton Canadian Financials Yield Maximizer Etf	\$73	37%
19	ZEQ BMO MSCI Europe High Quality CAD-Hedged	\$70	9%
20	CBIL Horizons 0-3 Month T-Bill ETF	\$68	NA

Source: National Bank of Canada, Bloomberg;

Table 5 - Top Single Long ETF Outflows - April 2023

Ticker	Name	Flow (\$M)	Flow/AUM
1	XIU iShares S&P/TSX 60 Index ETF	-\$615	-6%
2	HCA Hamilton Canadian Bank Mean Reversion Index ETF	-\$481	-85%
3	ZCPB BMO Core Plus Bond Fund ETF	-\$195	-13%
4	ZEB BMO Equal Weight Banks Index ETF	-\$190	-6%
5	ZNQ BMO NASDAQ 100 Equity Index ETF	-\$177	-39%
6	ZHY BMO High Yield US Corporate Bond CAD-H	-\$152	-17%
7	XEG iShares S&P/TSX Capped Energy Index ETF	-\$152	-8%
8	ZSP BMO S&P 500 Index ETF	-\$125	-2%
9	FSF CI Global Financial Sector ETF	-\$112	-17%
10	ZCN BMO S&P/TSX Capped Composite Index ETF	-\$99	-1%
11	ZDY BMO US Dividend ETF	-\$87	-21%
12	XSP iShares Core S&P 500 Index ETF CAD- Hedged	-\$85	-1%
13	ZCH BMO MSCI China ESG Leaders Index ETF	-\$84	-34%
14	XRE iShares S&P/TSX Capped REIT Index ETF	-\$77	-7%
15	ZMID BMO S&P US Mid Cap Index ETF	-\$69	-24%
16	XFN iShares S&P/TSX Capped Financials Index ETF	-\$59	-4%
17	FCUV Fidelity US Value Index ETF	-\$56	-40%
18	FHI/B CI Health Care Giants Covered Call ETF	-\$47	-76%
19	FXM CI Morningstar Canada Value Index ETF	-\$40	-10%
20	PFL Invesco 1-3 Year Laddered Floating Rate Note Index	-\$35	-4%

Source: National Bank of Canada, Bloomberg;

Table 6 - ETF Flows by Category - April 2023

Asset Class	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Equity	\$213,717	62%	-\$263	-0.1%
Fixed Income	\$105,747	31%	\$1,956	1.9%
Commodities	\$1,714	0%	-\$23	-1.4%
Multi-Asset	\$17,481	5%	\$286	1.7%
Inverse / Levered	\$3,463	1%	\$59	1.8%
Crypto-Asset	\$2,493	1%	\$3	0.1%
Total	\$344,615	100%	\$2,017	0.6%

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

Table 9 - Equity ETF Flows by Focus - April 2023

Focus	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Cap-weighted	\$123,334	58%	-\$366	-0.3%
Dividend / Income	\$23,382	11%	\$79	0.3%
Factor: Low Vol	\$8,127	4%	\$36	0.5%
Factor: Multi-factor	\$2,966	1%	-\$34	-1.1%
Factor: Fundamental	\$5,159	2%	-\$79	-1.5%
Sector	\$28,693	13%	-\$469	-1.6%
Thematic	\$15,007	7%	\$525	3.7%
ESG**	\$9,940	5%	\$561	6.1%
Other	\$7,050	3%	\$44	0.6%
Total	\$213,717	100%	-\$263	-0.1%

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

** Only includes ESG ETFs under Thematic category

Table 7 - Equity ETF Flows by Geography - April 2023

Geography	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Canada	\$78,649	37%	-\$836	-1.1%
United States	\$71,635	34%	-\$349	-0.5%
DM: Broad	\$25,125	12%	\$484	2.0%
DM: Regional & Country	\$5,961	3%	-\$1	0.0%
Emerging Markets	\$6,396	3%	\$431	7.2%
Global	\$25,951	12%	\$7	0.0%
Total	\$213,717	100%	-\$263	-0.1%

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

Table 8 - Equity ETF Flows by Sector* - April 2023

Sector	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Financials	\$10,566	37%	-\$206	-2.0%
Energy	\$3,417	12%	-\$146	-4.3%
Real Estate	\$3,087	11%	-\$68	-2.8%
Health Care	\$3,063	11%	\$32	1.1%
Technology	\$2,849	10%	-\$19	-0.6%
Utilities	\$2,579	9%	\$1	0.1%
Materials	\$2,461	9%	-\$51	-2.1%
Other	\$671	2%	\$7	1.2%
Total	\$28,693	100%	-\$469	-1.6%

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

Table 10 - Fixed Income ETF Flows by Type - April 2023

Type	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Canada Aggregate	\$30,009	28%	\$76	0.3%
Canada Government	\$12,810	12%	\$419	3.4%
Canada Corporate	\$13,595	13%	\$146	1.1%
U.S. / North America	\$9,039	9%	\$279	3.2%
Foreign	\$10,587	10%	\$168	1.6%
Sub-Investment Grade	\$3,948	4%	-\$150	-3.7%
Preferred/Convertible	\$5,898	6%	-\$57	-0.9%
Money Market	\$19,862	19%	\$1,074	5.7%
Total	\$105,747	100%	\$1,956	1.9%

Source: National Bank of Canada, Bloomberg

Table 11 - Fixed Income ETF Flows by Maturity - April 2023

Maturity	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Broad/Mixed	\$49,674	47%	\$211	0.4%
Ultra Short Term	\$4,131	4%	\$31	0.8%
Short Term	\$16,538	16%	-\$37	-0.2%
Mid Term	\$6,067	6%	\$194	3.3%
Long Term	\$7,093	7%	\$436	6.7%
Real Return	\$1,395	1%	-\$19	-1.4%
Target Maturity	\$987	1%	\$65	7.0%
Money Market	\$19,862	19%	\$1,074	5.7%
Total	\$105,747	100%	\$1,956	1.9%

Source: National Bank of Canada, Bloomberg

YTD April ETF Flows (Tables 12 - 21):

Canadian ETFs have taken in \$12.5 billion YTD, led by fixed income at \$7.2 billion with equity in a distant second place at \$4 billion created. Commodities and Crypto-Asset ETFs have been each bleeding assets this year, a curious pattern given that their performance has been recovering in 2023. Within equities, dividend/income ETFs, sector ETFs (Financials, Healthcare), ESG and non-ESG thematic products welcomed the lion’s share of equity inflows. In terms of the latter category – non-ESG thematics – most of the inflow was driving by a single institutional allocation to **NREA**, NBI’s Global Real Assets Income ETF.

All regions other than the U.S. have been enjoying inflows this year. As for fixed income, the craze for money market or “cash-like” exposure seems unstoppable, especially now that these ETFs are yielding close to 5%. Money market ETFs had inflows of \$3.8 billion year-to-date, followed by Canada government bond ETFs at \$1.9 billion and Canada aggregate bond ETFs at \$661 million; fixed income ETFs that have a combination of credit and duration risk like Canada corporate bonds, sub-investment grade bonds and preferred share ETFs were on the outs.

ESG ETF flows year to date, Table 20: ESG ETF **XSEM** (iShares ESG Aware MSCI Emerging Markets) had an institutional-sized creation at \$450 million in one day. Outside **XSEM**, the inflows into ESG ETFs were muted in April.

Table 12 - Top ETF Inflows - April YTD 2023

Ticker	Name	Flow (\$M)	Flow/AUM
1	CSAV CI High Interest Savings ETF	\$1,761	33%
2	ZEAA BMO MSCI EAFE Index ETF	\$1,455	27%
3	NREA NBI Global Real Assets Income ETF	\$1,063	2326%
4	CASH Horizons High Interest Savings ETF	\$984	68%
5	ZFL BMO Long Federal Bond Index ETF	\$801	41%
6	HBB Horizons Cdn Select Universe Bond ETF	\$641	23%
7	XSEM iShares ESG Aware MSCI Emerging Markets Index ETF	\$626	1477%
8	TDB TD Canadian Aggregate Bond Index ETF	\$501	101%
9	HEB Hamilton Canadian Bank Equal-Weight Index ETF	\$495	NA
10	ZEB BMO Equal Weight Banks Index ETF	\$451	15%
11	PFL Invesco 1-3 Year Laddered Floating Rate Note Index ETF	\$371	92%
12	HISA High Interest Savings Account Fund	\$363	33%
13	TCLB TD Canadian Long Term Federal Bond ETF	\$349	27%
14	ZUAG/F BMO US Aggregate Bond Index ETF	\$307	NA
15	ZMU BMO Mid-Term US IG Corporate Bond CAD-H	\$295	12%
16	NSCE NBI Sustainable Canadian Equity ETF	\$286	21%
17	HMAX Hamilton Canadian Financials Yield Maximizer Etf	\$285	NA
18	NSCB NBI Sustainable Canadian Bond ETF	\$276	79%
19	QBB Mackenzie Canadian Aggregate Bond Index ETF	\$273	47%
20	XGB iShares Core Canadian Governm	\$262	44%

Source: National Bank of Canada, Bloomberg;

Table 13 - Top ETF Outflows - April YTD 2023

Ticker	Name	Flow (\$M)	Flow/AUM
1	ZSP BMO S&P 500 Index ETF	-\$875	-9%
2	XIU iShares S&P/TSX 60 Index ETF	-\$509	-5%
3	HCA Hamilton Canadian Bank Mean Reversion Index ETF	-\$485	-88%
4	ZCPB BMO Core Plus Bond Fund ETF	-\$404	-25%
5	ZSP/U BMO S&P 500 Index ETF	-\$381	-15%
6	QEBL Mackenzie Emerging Markets Local Currency Bond	-\$380	-47%
7	XSB iShares Core Canadian Short Term Bond Index ETF	-\$366	-13%
8	ZAG BMO Aggregate Bond Index ETF	-\$350	-5%
9	XIC iShares Core S&P/TSX Capped Composite Index ETF	-\$285	-3%
10	CBH iShares 1-10 Year Laddered Corporate Bond	-\$275	-45%
11	BTCQ 3iQ Bitcoin ETF	-\$262	-101%
12	HXT Horizon S&P/TSX 60 Index ETF	-\$214	-6%
13	FSF CI Global Financial Sector ETF	-\$206	-26%
14	ZCN BMO S&P/TSX Capped Composite Index ETF	-\$206	-3%
15	XSP iShares Core S&P 500 Index ETF CAD- Hedged	-\$200	-3%
16	ZNQ BMO NASDAQ 100 Equity Index ETF	-\$194	-50%
17	ZST BMO Ultra Short-Term Bond ETF	-\$190	-23%
18	XEG iShares S&P/TSX Capped Energy Index ETF	-\$183	-9%
19	TEC TD Global Technology Leaders Index ETF	-\$168	-14%
20	ZFS BMO Short Federal Bond Index ETF	-\$151	-13%

Source: National Bank of Canada, Bloomberg

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Table 14 - ETF Flows by Category - April YTD 2023

Asset Class	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Equity	\$213,717	62%	\$4,083	2%
Fixed Income	\$105,747	31%	\$7,152	7%
Commodities	\$1,714	0%	-\$48	-3%
Multi-Asset	\$17,481	5%	\$1,008	6%
Inverse / Leveraged	\$3,463	1%	\$495	17%
Crypto-Asset	\$2,493	1%	-\$231	-14%
Total	\$344,615	100%	\$12,459	3.7%

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

Table 15 - Equity ETF Flows by Geography - April YTD 2023

Geography	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Canada	\$78,649	37%	\$1,008	1%
United States	\$71,635	34%	-\$1,114	-2%
DM: Broad	\$25,125	12%	\$1,914	7%
DM: Regional & Country	\$5,961	3%	\$83	1%
Emerging Markets	\$6,396	3%	\$811	14%
Global	\$25,951	12%	\$1,381	6%
Total	\$213,717	100%	\$4,083	1.9%

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

Table 16 - Equity ETF Flows by Sector* - April YTD 2023

Sector	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Financials	\$10,566	37%	\$896	8%
Energy	\$3,422	12%	-\$116	-3%
Real Estate	\$3,087	11%	-\$29	-1%
Health Care	\$3,063	11%	\$261	9%
Technology	\$2,849	10%	-\$188	-7%
Utilities	\$2,579	9%	\$80	3%
Materials	\$2,461	9%	\$71	3%
Other	\$666	2%	\$57	11%
Total	\$28,693	100%	\$1,032	4%

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

Table 17 - Equity ETF Flows by Focus - April YTD 2023

Focus	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Cap-weighted	\$123,334	58%	-\$408	0%
Dividend / Income	\$23,382	11%	\$799	3%
Factor: Low Vol	\$8,127	4%	-\$21	0%
Factor: Multi-factor	\$2,966	1%	-\$113	-4%
Factor: Fundamental	\$5,159	2%	-\$109	-2%
Sector	\$28,693	13%	\$1,032	4%
Thematic	\$15,007	7%	\$2,372	20%
ESG**	\$9,940	5%	\$1,328	16%
Other	\$7,050	3%	\$531	9%
Total	\$213,717	100%	\$4,083	1.9%

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

** Only includes ESG ETFs under Thematic category

Table 18 - Fixed Income ETF Flows by Type - April YTD 2023

Type	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Canada Aggregate	\$30,009	28%	\$661	2%
Canada Government	\$12,810	12%	\$1,928	18%
Canada Corporate	\$13,595	13%	-\$80	-1%
U.S. / North America	\$9,039	9%	\$863	8%
Foreign	\$10,587	10%	\$140	1%
Sub-Investment Grade	\$3,948	4%	-\$19	0%
Preferred/Convertible	\$5,898	6%	-\$175	-3%
Money Market	\$19,862	19%	\$3,835	24%
Total	\$105,747	100%	\$7,152	6.9%

Source: National Bank of Canada, Bloomberg

Table 19 - Fixed Income ETF Flows by Maturity - April YTD 2023

Maturity	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Broad/Mixed	\$49,674	47%	\$2,135	4%
Ultra Short Term	\$4,131	4%	\$239	6%
Short Term	\$16,538	16%	-\$1,241	-7%
Mid Term	\$6,067	6%	\$137	2%
Long Term	\$7,093	7%	\$1,854	37%
Real Return	\$1,395	1%	-\$71	-5%
Target Maturity	\$987	1%	\$264	30%
Money Market	\$19,862	19%	\$3,835	24%
Total	\$105,747	100%	\$7,152	6.9%

Source: National Bank of Canada, Bloomberg

Tables continue on the next page

Table 20 - Canada listed ESG ETF Flows by Categories* - April 2023

Category	AUM (\$M)	AUM (%)	April 2023		April YTD 2023	
			Flow (\$M)	Flow/AUM	Flow (\$M)	Flow/AUM
Equity	\$11,041	84%	\$532	5.1%	\$1,257	13.6%
Broad - Canada	\$2,981	23%	\$63	2.2%	\$321	12.9%
Broad - U.S.	\$2,595	20%	\$8	0.3%	\$117	5.0%
Broad - DM	\$1,550	12%	\$1	0.0%	\$91	6.8%
Broad - EM	\$975	7%	\$380	62.3%	\$656	199.2%
Broad - Global	\$1,298	10%	-\$11	-0.9%	\$52	4.4%
Environment	\$1,095	8%	\$97	9.9%	\$18	1.8%
Clean Energy	\$316	2%	-\$1	-0.4%	\$6	2.0%
Social	\$153	1%	-\$4	-2.5%	-\$11	-7.6%
Infrastructure	\$80	1%	\$0	-0.3%	\$7	9.2%
Commodities	\$14	0%	\$0	0.0%	\$1	10.2%
Multi-Asset	\$167	1%	\$0	-0.1%	\$7	5.0%
Fixed Income	\$1,953	15%	-\$7	-0.4%	\$331	20.5%
Total Displayed	\$13,175	100%	\$525	4.2%	\$1,597	14.5%

Source: National Bank of Canada, Bloomberg

Table 21 - ETF Flows by Provider - April YTD 2023						
Provider	New Methodology (adjusted for ETF-of-ETFs)				Unadjusted	
	AUM (\$M)	Mkt Shr (%)	April YTD 2023		April YTD 2023	
			Flow (\$M)	Flow/AUM	AUM (\$M)	Flow (\$M)
1 RBC iShares	\$96,843	28.1%	-\$15	0%	\$102,798	\$159
2 BMO	\$85,159	24.7%	\$1,804	2%	\$94,540	\$2,410
3 Vanguard	\$44,340	12.9%	\$954	2%	\$54,712	\$1,475
4 Horizons	\$25,147	7.3%	\$1,922	8%	\$25,936	\$2,053
5 CI GAM	\$18,347	5.3%	\$1,826	11%	\$18,576	\$1,875
6 Mackenzie*	\$12,941	3.8%	\$79	1%	\$13,203	\$96
7 TDAM	\$9,730	2.8%	\$1,094	14%	\$9,831	\$1,106
8 NBI	\$9,118	2.6%	\$2,439	38%	\$9,118	\$2,439
9 Purpose	\$7,476	2.2%	\$285	4%	\$7,710	\$287
10 Invesco	\$5,254	1.5%	\$381	8%	\$5,273	\$380
11 Fidelity	\$3,564	1.0%	\$375	12%	\$3,913	\$456
12 Evolve Funds	\$2,739	0.8%	\$512	23%	\$2,790	\$507
13 Harvest	\$2,728	0.8%	\$203	7%	\$3,303	\$352
14 CIBC	\$2,650	0.8%	\$78	3%	\$2,666	\$80
15 Manulife	\$2,514	0.7%	-\$15	-1%	\$2,514	-\$15
16 Dynamic	\$2,282	0.7%	-\$10	0%	\$2,282	-\$10
17 PIMCO	\$2,133	0.6%	\$36	2%	\$2,133	\$36
18 Hamilton	\$2,018	0.6%	\$532	29%	\$2,432	\$562
19 Desjardins	\$1,880	0.5%	\$199	12%	\$1,880	\$199
20 Scotia Bank	\$1,352	0.4%	\$12	1%	\$1,352	\$12
21 Franklin Templeton	\$1,288	0.4%	-\$99	-8%	\$1,288	-\$99
22 AGF	\$1,200	0.3%	\$4	0%	\$1,200	\$4
23 Ninepoint Partners	\$682	0.2%	\$37	6%	\$682	\$37
24 Picton Mahoney	\$631	0.2%	\$49	9%	\$631	\$49
25 Brompton Funds	\$472	0.1%	\$31	6%	\$567	\$52
26 Middlefield	\$435	0.1%	-\$9	-2%	\$435	-\$9
27 First Trust	\$374	0.1%	-\$4	-1%	\$374	-\$4
28 Bristol Gate	\$362	0.1%	\$49	17%	\$362	\$49
29 Guardian Capital	\$223	0.1%	-\$19	-8%	\$224	-\$19
30 3iQ	\$142	0.0%	-\$261	-94%	\$142	-\$261
31 Emerge	\$108	0.0%	-\$6	-6%	\$108	-\$6
32 IA Clarington	\$103	0.0%	-\$13	-11%	\$103	-\$13
33 Lysander	\$83	0.0%	\$1	1%	\$83	\$1
34 Mulvihill	\$75	0.0%	\$16	NA	\$75	\$16
35 Russell Investments	\$70	0.0%	\$17	32%	\$70	\$17
36 Accelerate	\$61	0.0%	-\$3	-5%	\$66	-\$3
37 Arrow Capital	\$46	0.0%	\$6	16%	\$46	\$6
38 Starlight	\$25	0.0%	-\$1	-2%	\$25	-\$1
39 SmartBe	\$16	0.0%	-\$6	-28%	\$16	-\$6
40 Caldwell	\$5	0.0%	\$0	0%	\$5	\$0
41 NCM Investments	\$0	0.0%	-\$5	-99%	\$0	-\$5
Total	\$344,615	100.0%	\$12,473	3.7%	\$373,464	\$14,263

*Includes Wealthsimple asset and flows. Source: NBF, Bloomberg
Evermore is no longer in the provider table but contributed to \$11 million outflows in April.

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 2022 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 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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