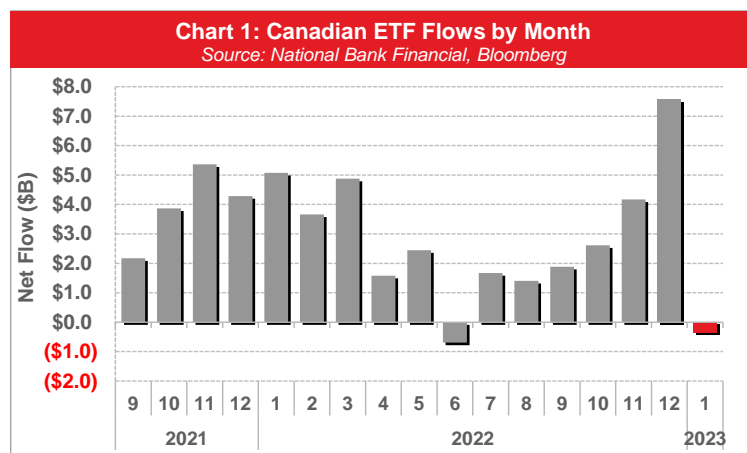


January 2023: Minor Outflows to Start the Year

- Canadian ETFs kicked off the year with a small outflow of \$342 million
- Both Equity and Fixed Income ETFs saw redemptions, but the other asset classes had inflows
- The year-long gangbuster inflows into cash alternative ETFs slowed down
- 22 new ETFs listed in January, bringing the total number to 1,317

Summary: After a record-breaking month of inflows in December 2022, Canadian ETFs took a pause and bled \$342 million. It was a rare month of outflows for both Equity and Fixed Income asset classes. Equities lost \$328 million and Fixed Income saw withdrawal of \$501 million. Within Equity, broad developed market and emerging market ETFs outsold their Canadian and U.S. counterparts. Many categories within Fixed Income also suffered outflows, including the evergreen Canadian aggregate bond ETFs; and demand of the cash alternative ETFs were still strong but showed signs of slowdown compared to the frenzy of previous months.



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

Equity ETFs had an outflow month of \$328 million. The largest redemptions came from the heavyweight market cap weighted ETFs, which combined had outflows of \$474 million, led by ZSP and XIU. Sector ETF outflows were concentrated in Financials (ZEB) and Energy (XEG). Dividend/Income, low volatility and ESG ETFs ran counter to the month's trend with net inflows into each group. Year-to-date, Emerging market and developed market equities (ZEA, NINT) fared much better than U.S. equity in terms of flows and performance, speaking to the importance of diversification in portfolio construction.

Fixed Income ETFs suffered redemptions of \$501 million, a reversal from the large inflows in December. Cash alternative ETFs overall had a strong month. In fact, their \$641 million inflow was the highest among all Fixed Income ETF categories, but the cash ETF flow patterns were quite mixed depending on the product; CSAV, HISA, CASH and PSU/U showed up on the inflows leaderboard, but the category trailblazer PSA topped the outflow side with \$452 million redeemed. Long-term bond (XLB, TCLB) welcomed \$330 million as the yield curve continued to invert (even more) and long bonds rallied.

	AUM (\$M)	Mkt Shr (%)	Jan 2023	
			Flow \$M	Flow/AUM
Equity	\$206,897		-\$328	-0.2%
Canada	\$77,935	24%	-\$542	-0.7%
United States	\$70,385	21%	-\$340	-0.5%
International	\$58,577	18%	\$554	0.9%
Fixed Income	\$98,160	30%	-\$501	-0.5%
Commodities	\$1,710	1%	\$24	1.5%
Multi-Asset	\$16,559	5%	\$188	1.2%
Inverse / Levered	\$3,249	1%	\$169	5.6%
Crypto-Asset	\$2,349	1%	\$105	6.2%
Total	\$328,925	100%	-\$342	-0.1%

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

Crypto-asset ETFs benefited from a bottoming of market sentiment together with double-digit intra-month returns (typical in both directions given their enormous volatility); they took in \$105 million in flows, their strongest month since August of last year.

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

Many ETF issuers were impacted by January's outflow trend, especially those that offer broad-based index tracking equity and bond ETFs. In a rare confluence, all three top issuers - RBC iShares, BMO and Vanguard - suffered net outflows. Mackenzie's \$535 million outflow came mostly from its Fixed Income ETFs, primarily QEBL (Mackenzie Emerging Market Local Currency Bond Index ETF) with institutional-sized redemptions. Withdrawals from PSA are what contributed to the overall net outflow from Purpose.

A wide range of ETF strategies launched in January. Covered call, "minimum volatility," TIPs, agriculture and U.S. aggregate bonds strategies were all represented among the new launches.

Table 2 - ETF Flows by Provider - January 2023

Provider	New Methodology (adjusted for ETF-of-ETFs)		Jan 2023		Unadjusted	
	AUM (\$M)	Mkt Shr (%)	Flow (\$M)	Flow/AUM	AUM (\$M)	Flow (\$M)
1 RBC iShares	\$94,888	28.4%	-\$1,368	-1%	\$100,656	-\$1,317
2 BMO	\$82,142	25.8%	-\$674	-1%	\$91,254	-\$482
3 Vanguard	\$42,644	14.7%	-\$115	0%	\$52,463	-\$6
4 Horizons	\$23,408	6.7%	\$302	1%	\$24,021	\$316
5 CI GAM	\$16,990	4.7%	\$561	8%	\$17,188	\$579
6 Mackenzie*	\$12,119	3.7%	-\$535	-4%	\$12,381	-\$541
7 TDAM	\$9,073	2.3%	\$709	9%	\$9,163	\$712
8 NBI	\$7,032	2.0%	\$420	7%	\$7,032	\$420
9 Purpose	\$6,563	1.9%	-\$347	-5%	\$6,849	-\$377
10 Invesco	\$4,929	1.4%	\$72	2%	\$4,948	\$71
11 Fidelity	\$3,228	1.0%	\$79	2%	\$3,506	\$90
12 Harvest	\$2,601	0.8%	\$91	3%	\$3,085	\$143
13 CIBC	\$2,572	0.7%	\$23	1%	\$2,583	\$23
14 Manulife	\$2,546	0.7%	\$25	1%	\$2,546	\$25
15 Evolve Funds	\$2,519	0.7%	\$299	14%	\$2,573	\$297
16 Dynamic	\$2,266	0.6%	-\$39	-2%	\$2,266	-\$39
17 PIMCO	\$2,161	0.6%	\$35	2%	\$2,161	\$35
18 Desjardins	\$1,713	0.5%	\$44	3%	\$1,713	\$44
19 Hamilton	\$1,689	0.5%	\$131	7%	\$2,102	\$129
20 Scotia Bank	\$1,283	0.4%	-\$23	-2%	\$1,283	-\$23
21 Franklin Templeton	\$1,276	0.4%	-\$93	-7%	\$1,276	-\$93
22 AGF	\$1,156	0.3%	-\$10	-1%	\$1,156	-\$10
23 Ninepoint Partners	\$683	0.2%	\$12	2%	\$683	\$12
24 Picton Mahoney	\$585	0.2%	\$5	1%	\$585	\$5
25 Brompton Funds	\$471	0.2%	\$17	3%	\$565	\$26
26 Middlefield	\$435	0.1%	\$1	0%	\$435	\$1
27 3iQ	\$425	0.1%	\$47	17%	\$425	\$47
28 First Trust	\$381	0.1%	\$0	0%	\$381	\$0
29 Bristol Gate	\$303	0.1%	-\$1	0%	\$303	-\$1
30 Guardian Capital	\$235	0.1%	-\$1	0%	\$235	-\$1
31 Emerge	\$120	0.0%	-\$4	-4%	\$120	-\$4
32 IA Clarington	\$103	0.0%	-\$13	-12%	\$103	-\$13
33 Lysander	\$86	0.0%	\$0	-1%	\$86	\$0
34 Mulvihill	\$70	0.0%	\$6	10%	\$70	\$6
35 Accelerate	\$59	0.0%	-\$3	-4%	\$66	-\$3
36 Russell Investments	\$56	0.0%	\$2	4%	\$56	\$2
37 Arrow Capital	\$40	0.0%	\$0	1%	\$40	\$0
38 Starlight	\$26	0.0%	-\$1	-2%	\$26	-\$1
39 SmartBe	\$24	0.0%	\$0	0%	\$24	\$0
40 Evermore Capital	\$14	0.0%	\$0	0%	\$14	\$0
41 NCM Investments	\$6	0.0%	\$0	0%	\$6	\$0
42 Caldwell	\$5	0.0%	\$0	7%	\$5	\$0
Total	\$328,925	100.0%	-\$342	-0.1%	\$356,435	\$114

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

Table 3 - Canadian ETFs Launched in 2023

Ticker	Name	Fee	Launch Date
1 ZUAG*	BMO US Aggregate Bond Index ETF	0.08%	1/26/2023
2 TIPS*	BMO US TIPS Index ETF	0.15%	1/26/2023
3 ZEAT	BMO Global Agriculture ETF	0.35%	1/23/2023
4 ZWHC	BMO Covered Call Health Care ETF	0.65%	1/26/2023
5 ZWEN	BMO Covered Call Energy ETF	0.65%	1/26/2023
6 ZGRO.T	BMO Growth ETF	0.18%	1/26/2023
7 CUDV**	CI US Minimum Downside Volatility Index ETF	0.30%	1/24/2023
8 CGDV**	CI Global Minimum Downside Volatility Index ETF	0.35%	1/24/2023
9 CSBI	CIBC Canadian Short-Term Bond Index ETF	0.07%	1/23/2023
10 CUEH	CIBC US Equity Index ETF	0.05%	1/23/2023
11 ESPX**	Evolve S&P 500 Enhanced Yield Fund	0.45%	1/10/2023
12 ETSX	Evolve S&P/TSX 60 Enhanced Yield Fund	0.45%	1/10/2023
13 HMAX	Hamilton Canadian Financials Yield Maximizer ETF	0.65%	1/23/2023
14 XLVE	Mulvihill U.S. Health Care Enhanced Yield ETF	0.65%	2/1/2023
15 RCDC	RBC Canadian Dividend Covered Call ETF	0.64%	1/17/2023
16 RUDC	RBC US Dividend Covered Call ETF	0.64%	1/17/2023

* Also has Hedged (.F) Units and USD (.U) Units. ** Also has Unhedged (.B) Units

Source: NBF Research

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

Table 4 - Top Single Long ETF Inflows - Jan 2023

Rank	Ticker	Name	Flow (\$M)	Flow/AUM
1	CSAV	CI High Interest Savings ETF	\$529	10%
2	TDB	TD Canadian Aggregate Bond Index ETF	\$467	95%
3	ZHY	BMO High Yield US Corporate CAD Hedged ETF	\$237	36%
4	HISA	High Interest Savings Account Fund	\$225	21%
5	CASH	Horizons High Interest Savings ETF	\$178	12%
6	ZEA	BMO MSCI EAFE Index ETF	\$177	3%
7	NUBF	NBI Unconstrained Fixed Income ETF	\$116	6%
8	XLB	iShares Core Canadian Long Term Bond Index ETF	\$115	17%
9	TCLB	TD Canadian Long Term Federal Bond ETF	\$104	8%
10	HBB	Horizons Cdn Select Universe Bond ETF	\$80	3%
11	NINT	NBI Active International Equity ETF	\$76	31%
12	VEQT	Vanguard All-Equity ETF Portfolio	\$75	3%
13	CRED	CI Alternative Investment Grade Credit Fund	\$68	173%
14	PSU/U	Purpose US Cash Fund	\$67	17%
15	VGRO	Vanguard Growth ETF Portfolio	\$66	2%
16	EQL/F	Invesco S&P 500 Equal Weighted Index ETF	\$66	23%
17	NHYB	NBI High Yield Bond ETF	\$63	6%
18	ZMU	CI Mid-Term US IG Corporate Bond CAD Hedged ETF	\$59	2%
19	CMR	iShares Premium Money Market ETF	\$58	18%
20	QCB	Mackenzie Canadian All Corporate Bond Index ETF	\$55	14%

Source: National Bank of Canada, Bloomberg;

Table 5 - Top Single Long ETF Outflows - Jan 2023

Rank	Ticker	Name	Flow (\$M)	Flow/AUM
1	PSA	Purpose High Interest Savings Fund	-\$452	-12%
2	QEBL	Mackenzie Emerging Markets Local Currency Bond ETF	-\$417	-51%
3	XBB	iShares Core Canadian Universe Bond Index ETF	-\$383	-8%
4	ZSP	BMO S&P 500 Index ETF	-\$307	-3%
5	ZAG	BMO Aggregate Bond Index ETF	-\$301	-5%
6	ZEB	BMO Equal Weight Banks Index ETF	-\$291	-9%
7	XIU	iShares S&P/TSX 60 Index ETF	-\$251	-2%
8	CBH	iShares 1-10 Year Laddered Corporate Bond Index ETF	-\$244	-40%
9	XSB	iShares Core Canadian Short Term Bond Index ETF	-\$230	-8%
10	ZMMK	BMO Money Market Fund ETF Series	-\$188	-40%
11	VSB	Vanguard Canadian Short-Term Bond Index ETF	-\$157	-12%
12	MGB	Mackenzie Core Plus Global Fixed Income ETF	-\$125	-53%
13	XEG	iShares S&P/TSX Capped Energy Index ETF	-\$123	-6%
14	ZST	BMO Ultra Short-Term Bond ETF	-\$121	-14%
15	CLF	iShares 1-5 Year Laddered Government Bond Index ETF	-\$106	-15%
16	ZCPB	BMO Core Plus Bond Fund ETF	-\$95	-6%
17	DXZ	Dynamic Active US Mid-Cap ETF	-\$78	-91%
18	XHY	iShares US High Yield Bond Index ETF CAD-Hedged	-\$75	-19%
19	HFR	Horizons Active Ultra-Short Term Investment Grade Bond ETF	-\$65	-14%
20	FSF	CI Global Financial Sector ETF	-\$60	-7%

Source: National Bank of Canada, Bloomberg;

Table 6 - ETF Flows by Category - Jan 2023

Asset Class	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Equity	\$206,897	63%	-\$328	-0.2%
Fixed Income	\$98,160	30%	-\$501	-0.5%
Commodities	\$1,710	1%	\$24	1.5%
Multi-Asset	\$16,559	5%	\$188	1.2%
Inverse / Levered	\$3,249	1%	\$169	5.6%
Crypto-Asset	\$2,349	1%	\$105	6.2%
Total	\$328,925	100%	-\$342	-0.1%

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

Table 9 - Equity ETF Flows by Focus - Jan 2023

Focus	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Cap-weighted	\$120,717	58%	-\$474	-0.4%
Dividend / Income	\$22,596	11%	\$92	0.4%
Factor: Low Vol	\$7,983	4%	\$51	0.6%
Factor: Multi-factor	\$3,042	1%	\$5	0.2%
Factor: Fundamental	\$5,073	2%	-\$103	-2.1%
Sector	\$28,234	14%	-\$278	-1.0%
Thematic	\$12,705	6%	\$228	1.9%
ESG**	\$8,620	4%	\$206	2.5%
Other	\$6,547	3%	\$150	2.5%
Total	\$206,897	100%	-\$328	-0.2%

*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 - Jan 2023

Geography	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Canada	\$77,935	38%	-\$542	-0.7%
United States	\$70,385	34%	-\$340	-0.5%
DM: Broad	\$22,404	11%	\$239	0.9%
DM: Regional & Country	\$5,866	3%	\$12	-0.2%
Emerging Markets	\$5,857	3%	\$72	1.2%
Global	\$24,450	12%	\$256	1.1%
Total	\$206,897	100%	-\$328	-0.2%

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

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

Type	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Canada Aggregate	\$29,410	30%	-\$611	-2.0%
Canada Government	\$10,949	11%	\$55	0.5%
Canada Corporate	\$13,190	13%	-\$432	-3.0%
U.S. / North America	\$8,265	8%	\$123	1.1%
Foreign	\$10,126	10%	-\$363	-3.4%
Sub-Investment Grade	\$4,048	4%	\$79	1.7%
Preferred/Convertible	\$6,444	7%	\$6	0.1%
Cash Alternative	\$15,727	16%	\$641	4.2%
Total	\$98,160	100%	-\$501	-0.5%

Source: National Bank of Canada, Bloomberg

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

Sector	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Financials	\$10,100	36%	-\$392	-3.4%
Energy	\$3,642	13%	-\$74	-2.0%
Real Estate	\$3,327	12%	-\$7	-0.2%
Technology	\$2,832	10%	\$89	1.5%
Health Care	\$2,815	10%	\$61	2.1%
Utilities	\$2,489	9%	\$9	0.3%
Materials	\$2,428	9%	\$80	3.6%
Other	\$601	2%	\$7	1.3%
Total	\$28,234	100%	-\$278	-1.0%

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

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

Maturity	AUM (\$M)	Mkt Shr	Flow (\$M)	Flow/AUM
Broad/Mixed	\$47,401	48%	-\$333	-0.7%
Ultra Short Term	\$4,457	5%	-\$303	-6.4%
Short Term	\$17,177	17%	-\$667	-3.7%
Mid Term	\$5,706	6%	-\$165	-2.0%
Long Term	\$5,513	6%	\$330	6.7%
Real Return	\$1,424	1%	-\$41	-2.8%
Target Maturity	\$756	1%	\$37	4.2%
Cash Alternative	\$15,727	16%	\$641	4.2%
Total	\$98,160	100%	-\$501	-0.5%

Source: National Bank of Canada, Bloomberg

Tables continue on the next page

Table 12 - Canada listed ESG ETF Flows by Categories - January 2023

Category	AUM (\$M)	AUM (%)	Flow (\$M)	Flow/AUM
Equity	\$9,766	84%	\$199	2.1%
Broad - Canada	\$2,645	23%	\$64	2.6%
Broad - U.S.	\$2,426	21%	\$39	1.7%
Broad - DM	\$1,414	12%	\$16	1.2%
Broad - EM	\$375	3%	\$29	8.9%
Broad - Global	\$1,272	11%	\$41	3.5%
Environment	\$1,070	9%	\$6	0.6%
Clean Energy	\$329	3%	\$2	0.7%
Social	\$157	1%	-\$4	-2.4%
Infrastructure	\$80	1%	\$5	6.3%
Commodities	\$14	0%	\$0	0.0%
Multi-Asset	\$159	1%	\$2	1.6%
Fixed Income	\$1,626	14%	\$8	0.5%
Total Displayed	\$11,565	100%	\$209	1.9%

Source: National Bank of Canada, Bloomberg

Appendix 1 - Glossary

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

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

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

Market Share (%): C78category'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 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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