

April 2024: ETF flows taking a breather

- U.S. ETFs inflows softened to \$35 billion in April while the S&P 500 index experienced consecutive weekly declines
- Actively managed and factor-based ETFs (value, growth, quality and mid-cap) gained traction
- Cash-like and cash alternative ETFs had the highest inflows since October 2023
- In Canada, Horizons ETFs rebrands as Global X in May, so we provide background info on the namesake firm

Summary (Table 1, Chart 1): In April 2024, inflows into U.S.-listed ETFs took a breather; equity inflows softened to about 20% of March's haul while the S&P 500 posted consecutive weekly losses. In these volatile market conditions, active/factor equity ETFs gained traction. Inflows into fixed income ETFs stayed strong, led by cash-like or ultra-short-term bond ETFs. Investors favour these products for their attractive yield in our current "higher for longer" rate environment.

Equity ETFs by Geography (Table 4): Equity ETFs took in \$14.1 billion in April. Within the U.S. equity ETF category, new money primarily went into active/strategic products. Passive, cap-weighted U.S. equity index ETFs actually suffered mild outflows in April; although typical inflow stalwarts VOO, VTI and SPLG ranked atop the leaderboard in April, the category's inflows were largely offset by outflows from SPY and IVV.

International/global saw a steady inflow of \$5.0 billion. iShares Core MSCI EAFE ETF (IEFA) and Vanguard Total International Stock ETF (VXUS) received \$1.3 billion and \$1.0 billion, respectively.

Equity Sector ETFs (Table 5, 12): Among S&P 500 Sector indices, all except Utilities posted losses in April. Despite the backsliding performances, four sector ETF categories (Technology, Energy, Financials, Industrials) welcomed new assets. Traditional broad sector index ETFs enjoyed the most creation activity in April, but one niche product

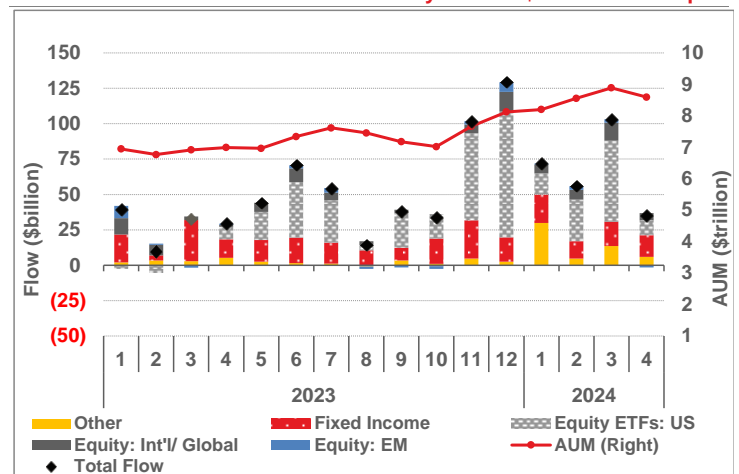
also gained significant traction: iShares U.S. Broker-Dealers & Securities Exchanges ETF (IAI) took in a few institutional blocks totaling \$605 million, more than doubling its AUM from the start of the month. The spike in demand might be attributed to robust trading revenues and recent promising earnings within this branch of the financial services industry.

Table 1: ETF Flows by Category

	AUM (\$B)	Mkt Shr	April 2024 Flow (\$B)	Flow/AUM	YTD April 2024 Flow (\$B)	Flow/AUM
Equity	\$6,606		\$14.1	0.2%	\$147.4	2.4%
U.S. Broad/Large-Cap	\$2,302	27%	-\$0.3	0.0%	\$55.1	2.6%
U.S. Other	\$2,871	33%	\$10.9	0.4%	\$57.4	2.1%
Int'l / Global	\$1,122	13%	\$5.0	0.4%	\$30.8	2.9%
Emerging Markets	\$311	4%	-\$1.5	-0.5%	\$4.1	1.4%
Fixed Income	\$1,544	18%	\$15.2	1.0%	\$64.6	4.2%
Commodity	\$139	2%	\$0.7	0.5%	-\$4.5	-3.5%
Multi-Asset	\$155	2%	\$5.2	3.4%	\$19.4	14.6%
Levered Long	\$84	1%	\$1.3	1.4%	-\$0.8	-0.9%
Inverse	\$14	0%	-\$0.6	-4.3%	-\$0.6	-3.5%
Crypto-Asset	\$52	1%	-\$0.6	-1.0%	\$40.7	2180.0%
Total	\$8,594	100%	\$35.3	0.4%	\$266.3	3.3%

Source: NBF ETF Research, Bloomberg. Data as of April 30, 2024.

Chart 1: U.S.- Listed ETF Flow and AUM by month - \$35.3 billion in April



Source: NBF ETF Research, Bloomberg. Data as of April 30, 2024.

Equity Factor ETFs (Table 8, 15): Value, growth and quality ETFs continued to draw investors' interests, taking in \$8.6 billion combined. Small and mid-caps were the focus of much investor interest toward the end of 2023, but these have disappointed so far this year. The S&P MidCap 400 and the S&P SmallCap 600 each underperformed the S&P 500 in April, and the corresponding small/mid-cap ETF category experienced a net outflow of \$907 million in the month. However, a closer examination of the flows reveals an interesting divergence: while investors pulled back from broad *small*-caps (such as *IWM*), they remained optimistic toward *mid*-cap ETFs (*IWR*, *VO*) which welcomed \$2.5 billion in creations in April.

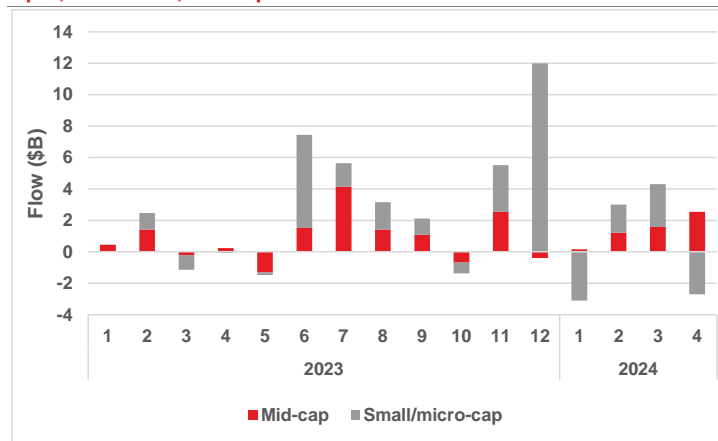
Mid-cap companies are often perceived as offering a “sweet spot” between the growthy, higher-risk small-caps and well-established (but potentially overvalued) large-caps.

Mid-caps tend to be more stable than small-caps, often demonstrating stronger financials and profitability; at the same time, mid-caps possess greater growth potential than large-caps. The persistent inflows into mid-cap ETFs might suggest that investors are seeking stability in a tumultuous market environment, but they remain open to growth opportunities (Chart 2).

Fixed Income ETFs (Table 6, 7): U.S.-listed fixed income ETFs saw \$15.2 billion inflows in April, in line with the last few months. The inflows remain strong despite a significant upward shift of the yield curve that occurred amid strong economic data, hot CPI readings and the Fed's hawkish signals. With fewer Fed rate cuts being priced in for 2024, investors once again poured money into cash-like or cash-alternative ETFs, taking advantage of short-term rates that might remain higher for longer. April's net flows of \$7 billion into ultra-short-term bond ETFs was the highest monthly figure for the category since October 2023 (Chart 3). April's top ETF inflow leaderboard (Table 9, page 4) is still full of “regulars” like aggregate bond index ETFs and treasury ETFs, but three noteworthy fixed income ETFs also attracted \$0.9 billion (or more) each: iShares MBS ETF (*MBB*), Fidelity Total Bond ETF (*FBND*) and Janus Henderson AAA CLO ETF (*JAAA*).

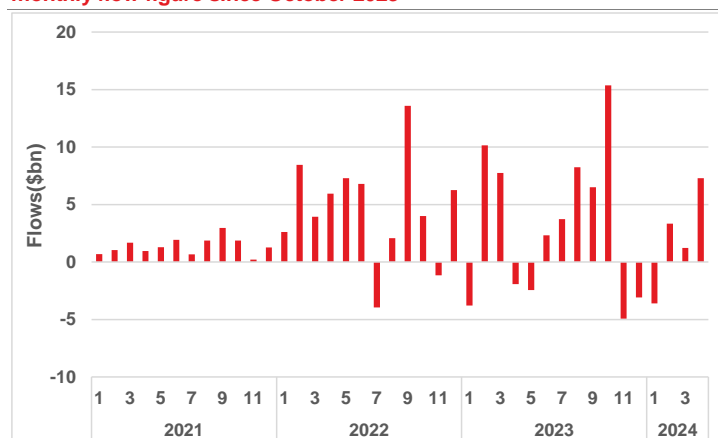
ESG ETFs (Table 19): U.S.-listed ESG ETFs continued their outflows streak in April. Similar to the situation in Canada, the outflows mostly stemmed from a few individual equity ESG ETFs. Fixed income ESG ETFs, on the other hand, received net inflows in April. In recent history, bond ETFs with a sustainable mandate had net inflows year-to-date, and the sub-category's inflows in 2022 and 2023 remain robust and in line with the inflows received during the ESG “peak inflow years” of 2020 and 2021. While equity ESG ETF assets may be suffering from an “anti-ESG backlash” in the U.S., the demand for sustainable bond ETFs seems unscathed.

Chart 2: Small/micro-cap ETFs experienced \$2.7 billion of outflows in April; in contrast, mid-cap ETFs continue to welcome new assets



Source: NBF ETF Research, Bloomberg. Data as of April 30, 2024.

Chart 3: Ultra-short-term ETFs took in \$7 billion in April, their highest monthly flow figure since October 2023



Source: NBF ETF Research, Bloomberg. Data as of April 30, 2024.

Top Performing ETFs (Table 2):

Two interest-rate-hedge ETFs, Simplify’s PFIX and Global X’s RATE, stood out in April. Both primarily invest in interest rate payer swaptions, which gives one the right (but not the obligation) to enter into a swap agreement to pay a fixed interest rate and receive a floating interest rate. PFIX and RATE have thus benefited from recent upward revision of long-term interest rate forecasts.

Cannabis ETFs also saw a big boost as the U.S. Drug Enforcement Administration (DEA) moves to reclassify marijuana as a less dangerous drug.

Global X ETFs: In conjunction with the news in Canada that Horizons ETFs was rebranded to Global X Investments Canada on May 1, 2024, we thought it would be helpful to outline Global X’s namesake ETF business in the U.S.

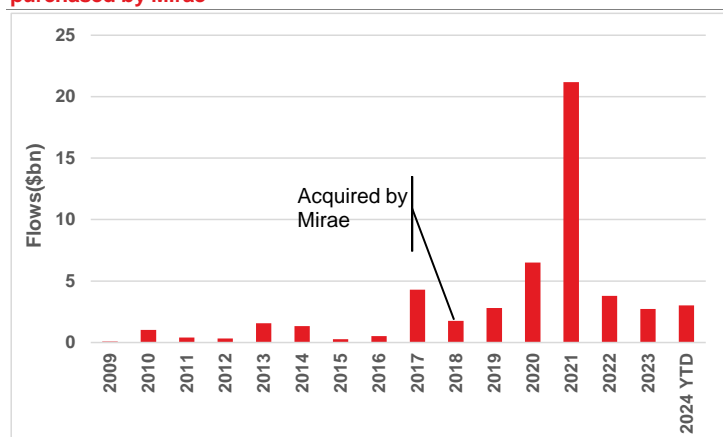
Global X ETFs was founded in 2008 in New York, and in its 16-year history, the company has focused on bringing previously unexplored ETF strategies to the market. A decade after the firm’s establishment, it was acquired by Mirae Asset Global Investments, a South Korean company that also bought the Canadian independent provider Horizons ETFs in 2011. At the time of this writing, Global X ranks as the 13th largest ETF provider in the U.S. with \$46 billion assets under management across 92 products. The firm’s top ETFs by assets are Global X Nasdaq 100 Covered Call ETF (QYLD), Global X US Infrastructure Development ETF (PAVE) and Global X Uranium ETF (URA). Chart 4 shows that Global X saw strong inflows year-to-date, led by their thematic ETFs such as PAVE, Global X AI & Technology ETF (AIQ), and URA. Now that the two companies across the border are sharing the same brand name, it’s possible that some successful Global X ETFs in the U.S. might arrive in Canada, either as wraps or in their own versions. For example, among the 17 new ETFs Global X has already filed to launch in Canada in May, one of them is Global X Artificial Intelligence & Technology Index ETF (AIGO), which tracks the same index as the popular U.S.-listed ETF with the ticker AIQ.

Table 2: Best Performing ETFs* – April 2024

Ticker	Name	Total Return (%)	AUM (\$M)	Flow (\$M)
1 PFIX	Simplify Interest Rate Hedge ETF	22.0	163	4
2 RATE	Global X Interest Rate Hedge ETF	15.2	2	0
3 MJ	ETFMG Alternative Harvest ETF	14.7	324	0
4 DBB	Invesco DB Base Metals Fund	14.0	158	22
5 BCIM	Abrdn Bbg Industrial Metals Strategy K-1 Free	13.7	32	3
6 CPER	United States Copper Index Fund	13.4	198	19
7 MSOS	AdvisorShares Pure US Cannabis ETF	13.1	1,312	74
8 TUR	iShares MSCI Turkey ETF	12.2	240	6
9 YOLO	AdvisorShares Pure Cannabis ETF	11.4	58	0
10 CNBS	Amplify Seymour Cannabis ETF	10.3	41	0

*Excluding leveraged/inverse ETFs. Source: NBF ETF Research, Bloomberg. Data as of April 30, 2024.

Chart 4: Global X has shown a strong asset-gathering pace since being purchased by Mirae



Source: NBF ETF Research, Bloomberg. Data as of April 30, 2024.

Table 3: Global X’s top ETFs by AUM

Ticker	Name	AUM (\$M)
1 QYLD	Global X Nasdaq 100 Covered Call ETF	7,935
2 PAVE	Global X US Infrastructure Development ETF	7,177
3 URA	Global X Uranium ETF	3,125
4 XYLD	Global X S&P 500 Covered Call ETF	2,788
5 BOTZ	Global X Robotics & Artificial Intelligence ETF	2,632
6 COPX	Global X Copper Miners ETF	2,319
7 PFFD	Global X US Preferred ETF	2,319
8 AIQ	Global X Artificial Intelligence & Technology ETF	1,660
9 MLPA	Global X MLP ETF	1,613
10 LIT	Global X Lithium & Battery Tech ETF	1,569
Total 10 Total		33,136
Total ETF		46,374

Source: NBF ETF Research, Bloomberg. Data as of April 30, 2024.

April 2024 ETF Flows: Tables 4 - 10

Geography	AUM (\$B)	Mkt Shr	Flow (\$B)	Flow/AUM
U.S.	\$5,174		\$10.6	0.2%
Broad/Large Cap	\$2,302	35%	-\$0.3	0.0%
U.S. Other	\$2,871	43%	\$10.9	0.4%
International Developed	\$694		\$5.3	0.7%
Broad Int'l Dev	\$540	8%	\$4.2	0.8%
Broad Europe	\$50	1%	\$0.8	1.6%
Japan	\$36	1%	\$0.8	2.0%
Canada	\$10	0%	\$0.1	0.6%
Other Developed	\$58	1%	-\$0.6	-0.9%
Emerging Markets	\$311		-\$1.5	-0.5%
Broad Cap Weighted	\$206	3%	-\$1.3	-0.6%
China (A+H)	\$20	0%	-\$0.4	-2.2%
Other EM	\$85	1%	\$0.2	0.3%
Global/Regional	\$428	6%	-\$0.2	-0.1%
Total Displayed	\$6,606	100%	\$14.1	0.2%

Source: National Bank of Canada, Bloomberg

Sector	AUM (\$B)	Mkt Shr	Flow (\$B)	Flow/AUM
Technology	\$231	26%	\$1.3	0.5%
Energy	\$85	9%	\$1.0	1.2%
Financials	\$64	7%	\$1.0	1.5%
Industrials	\$44	5%	\$1.0	2.2%
Utilities	\$21	2%	-\$0.1	-0.6%
Materials	\$44	5%	-\$0.4	-1.0%
Consumer Discretionary	\$36	4%	-\$0.6	-1.6%
Communication Services	\$37	4%	-\$0.8	-2.0%
Real Estate	\$69	8%	-\$0.8	-1.0%
Consumer Staples	\$25	3%	-\$1.1	-4.1%
Health Care	\$93	10%	-\$2.2	-2.2%
ESG	\$83	9%	-\$0.5	-0.6%
Thematic	\$67	7%	\$0.0	0.0%
Total Displayed	\$900	100%	-\$2.3	-0.2%

*Includes all geographic focus; Source: National Bank of Canada, Bloomberg
QQQ is classified as a broad market ETF and does not belong to technology sector

Ticker	Name	Flow (\$B)	Flow/AUM
1	VOO Vanguard S&P 500 ETF	\$7.6	1.7%
2	AGG iShares Core U.S. Aggregate Bond ETF	\$3.1	3.0%
3	VTI Vanguard Total Stock Market ETF	\$2.7	0.7%
4	VUG Vanguard Growth ETF	\$2.7	2.2%
5	RSP Invesco S&P 500 Equal Weight ETF	\$2.2	4.0%
6	VGT Vanguard Information Technology ETF	\$1.5	2.3%
7	IBIT iShares Bitcoin Trust	\$1.5	8.5%
8	SPLG SPDR Portfolio S&P 500 ETF	\$1.4	4.3%
9	MBB iShares MBS ETF	\$1.4	5.0%
10	COWZ Pacer US Cash Cows 100 ETF	\$1.4	6.0%
11	BIL SPDR Bloomberg Barclays 1-3 Month T-Bill ETF	\$1.3	4.1%
12	IEFA iShares Core MSCI EAFE ETF	\$1.3	1.1%
13	SGOV iShares 0-3 Month Treasury Bond ETF	\$1.2	6.2%
14	IWR iShares Russell Mid-Cap ETF	\$1.1	3.4%
15	FBND Fidelity Total Bond ETF	\$1.1	13.6%
16	VXUS Vanguard Total International Stock ETF	\$1.0	1.5%
17	IEF iShares 7-10 Year Treasury Bond ETF	\$1.0	3.4%
18	JEPQ JPMorgan Nasdaq Equity Premium Income ETF	\$1.0	8.0%
19	JAAA Janus Henderson AAA CLO ETF	\$0.9	12.3%
20	VO Vanguard Mid-Cap ETF	\$0.9	1.3%

Source: National Bank of Canada, Bloomberg

Type	AUM (\$B)	Mkt Shr	Flow (\$B)	Flow/AUM
U.S. Aggregate	\$382	25%	\$7.1	1.9%
U.S. Government	\$484	31%	\$5.1	1.0%
U.S. Municipals	\$117	8%	\$0.9	0.8%
U.S. I.G. Corporate	\$234	15%	-\$2.9	-1.2%
Developed Markets&Global	\$150	10%	\$4.4	3.0%
Emerging Markets	\$28	2%	\$1.2	4.2%
Sub-investment Grade	\$108	7%	-\$0.5	-0.5%
Convertibles and Preferreds	\$40	3%	-\$0.2	-0.4%
Total Displayed	\$1,544	100%	\$15.2	1.0%

Source: National Bank of Canada, Bloomberg

Maturity	AUM (\$B)	Mkt Shr	Flow (\$B)	Flow/AUM
Broad/Mixed	\$757	49%	\$5.4	0.7%
Ultra Short Term	\$225	15%	\$7.3	3.3%
Short Term	\$223	14%	-\$1.8	-0.8%
Mid Term	\$191	12%	\$2.3	1.2%
Long Term	\$99	6%	\$0.8	0.8%
Target Maturity	\$48	3%	\$1.1	2.4%
Rate Hedged	\$1	0%	\$0.0	2.9%
Total Displayed	\$1,544	100%	\$15.2	1.0%

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Factor	AUM (\$B)	Mkt Shr	Flow (\$B)	Flow/AUM
Value	\$513	23%	\$3.6	0.7%
Growth	\$494	22%	\$3.4	0.7%
Quality	\$78	3%	\$1.6	2.0%
Income	\$383	17%	\$0.0	0.0%
Momentum	\$26	1%	\$0.0	0.1%
Small/Mid Cap	\$507	22%	-\$0.9	-0.2%
Low Vol	\$53	2%	-\$1.0	-1.8%
Multi-Factor and Other	\$209	9%	\$3.7	1.7%
Total Displayed	\$2,264	100%	\$10.4	0.4%

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Ticker	Name	Flow (\$B)	Flow/AUM
1	SPY SPDR S&P 500 ETF Trust	-\$10.3	-1.9%
2	LQD iShares iBoxx \$ IG Corporate Bond ETF	-\$3.6	-11.1%
3	IVV iShares Core S&P 500 ETF	-\$3.6	-0.8%
4	IWM iShares Russell 2000 ETF	-\$3.2	-4.9%
5	GBTC Grayscale Bitcoin Trust BTC	-\$2.5	-10.7%
6	HYG iShares iBoxx \$ High Yield Corporate Bond ETF	-\$2.1	-12.5%
7	VCSH Vanguard Short-Term Corporate Bond ETF	-\$1.5	-4.2%
8	DIA SPDR Dow Jones Industrial Average ETF Trust	-\$1.3	-3.8%
9	ACWI iShares MSCI ACWI ETF	-\$1.1	-5.9%
10	XLV Health Care Select Sector SPDR Fund	-\$1.1	-2.7%
11	GDX VanEck Gold Miners ETF/USA	-\$1.1	-8.1%
12	XLP Consumer Staples Select Sector SPDR Fund	-\$1.0	-6.4%
13	SPTS SPDR Portfolio Short Term Treasury ETF	-\$1.0	-18.7%
14	EEM iShares MSCI Emerging Markets ETF	-\$1.0	-5.4%
15	IWS iShares Russell Mid-Cap Value ETF	-\$1.0	-7.0%
16	IGV iShares Expanded Tech-Software Sector ETF	-\$0.9	-11.8%
17	TLT iShares 20+ Year Treasury Bond ETF	-\$0.8	-1.6%
18	VGSH Vanguard Short-Term Treasury ETF	-\$0.7	-3.7%
19	IWP iShares Russell Mid-Cap Growth ETF	-\$0.7	-4.6%
20	VCIT Vanguard Intermediate-Term Corporate Bond ETF	-\$0.6	-1.3%

Source: National Bank of Canada, Bloomberg

Appendix 1: 2024 January - April ETF Flow Tables

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5	VTI Vanguard Total Stock Market ETF	\$10.7	3.1%
6	QQQ Invesco QQQ Trust Series 1	\$10.0	4.4%
7	FBTC Fidelity Wise Origin Bitcoin Fund	\$8.1	NA
8	AGG iShares Core U.S. Aggregate Bond ETF	\$7.9	7.8%
9	DYFN BlackRock U.S. Equity Factor Rotation ETF	\$7.3	14415.3%
10	SPLG SPDR Portfolio S&P 500 ETF	\$6.3	24.5%
11	VUG Vanguard Growth ETF	\$5.4	5.2%
12	VGIT Vanguard Intermediate-Term Treasury ETF	\$5.0	23.1%
13	IUSB iShares Core Total USD Bond Market ETF	\$4.8	20.0%
14	VXUS Vanguard Total International Stock ETF	\$4.0	6.3%
15	IEFA iShares Core MSCI EAFE ETF	\$3.9	3.6%
16	EMXC iShares MSCI Emerging Markets ex China ETF	\$3.8	43.4%
17	IVE iShares S&P 500 Value ETF	\$3.8	13.8%
18	JEPQ JPMorgan Nasdaq Equity Premium Income ETF	\$3.7	43.3%
19	BND Vanguard Total Bond Market ETF	\$3.6	3.4%
20	SMH VanEck Semiconductor ETF	\$3.5	29.6%

Source: National Bank of Canada, Bloomberg

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2	IWM iShares Russell 2000 ETF	-\$8.2	-12.1%
3	HYG iShares iBoxx \$ High Yield Corporate Bond ETF	-\$4.2	-22.1%
4	USMV iShares MSCI USA Min Vol Factor ETF	-\$3.9	-14.7%
5	TFLO iShares Treasury Floating Rate Bond ETF	-\$3.4	-32.9%
6	IWD iShares Russell 1000 Value ETF	-\$3.3	-5.9%
7	GLD SPDR Gold Shares	-\$2.9	-5.0%
8	VGSH Vanguard Short-Term Treasury ETF	-\$2.6	-11.9%
9	LQD iShares iBoxx \$ IG Corporate Bond ETF	-\$2.4	-7.4%
10	XLU Utilities Select Sector SPDR Fund	-\$2.4	-16.6%
11	EMB iShares J.P. Morgan USD EM Bond ETF	-\$2.3	-14.0%
12	SUSA iShares MSCI USA ESG Select ETF	-\$2.1	-40.1%
13	ACWI iShares MSCI ACWI ETF	-\$2.1	-11.1%
14	OEF iShares S&P 100 ETF	-\$2.0	-16.0%
15	ESGU iShares ESG Aware MSCI USA ETF	-\$1.8	-13.4%
16	IWF iShares Russell 1000 Growth ETF	-\$1.5	-1.8%
17	ARKK ARK Innovation ETF	-\$1.5	-15.6%
18	XLP Consumer Staples Select Sector SPDR Fund	-\$1.4	-9.5%
19	SCHO Schwab Short-Term U.S. Treasury ETF	-\$1.4	-11.5%
20	VTIP Vanguard Short-Term TIPS ETF	-\$1.3	-11.0%

Source: National Bank of Canada, Bloomberg

Table 18: ETF Provider Table

Provider	AUM (\$B)	Mkt Shr	April 2024		YTD April 2024	
			Flow (\$B)	Flow/AUM	Flow (\$B)	Flow/AUM
1 BlackRock iShares	\$2,691	31%	\$2.5	-0.1%	\$45.6	1.8%
2 Vanguard	\$2,492	29%	\$19.0	0.7%	\$84.4	3.6%
3 State Street SSGA	\$1,252	15%	-\$10.6	-0.8%	-\$14.2	-1.2%
4 Invesco	\$497	6%	\$4.8	0.9%	\$26.0	5.7%
5 Charles Schwab	\$332	4%	\$1.5	0.4%	\$6.4	2.0%
6 First Trust	\$160	2%	\$1.2	0.7%	\$5.0	3.3%
7 JPMorgan	\$150	2%	\$3.6	2.4%	\$14.4	10.8%
8 Dimensional Holdings	\$133	2%	\$3.4	2.5%	\$12.5	10.6%
9 WisdomTree	\$77	1%	\$0.2	0.2%	\$2.1	2.8%
10 VanEck	\$76	1%	-\$0.9	-1.1%	\$4.3	6.3%
11 Fidelity	\$68	1%	\$2.8	4.0%	\$13.9	27.1%
12 ProShares	\$65	1%	-\$1.5	-2.0%	-\$5.9	-8.5%
13 Global X	\$46	1%	\$1.2	2.5%	\$3.0	7.1%
14 Pacer Financial	\$43	1%	\$1.9	4.4%	\$7.2	20.5%
15 American Century	\$43	0%	\$1.1	2.5%	\$5.4	14.5%
16 Direxion	\$38	0%	\$1.3	3.1%	\$0.2	0.5%
17 Goldman Sachs	\$33	0%	-\$0.1	-0.2%	-\$0.2	-0.5%
18 PIMCO	\$26	0%	\$1.2	4.7%	\$2.7	11.1%
19 Capital Group	\$26	0%	\$1.5	5.9%	\$5.7	30.4%
20 DWS Xtrackers	\$21	0%	-\$0.1	-0.6%	-\$0.2	-0.8%
Top 20 Total	\$8,269	96%	\$28.8		\$218.3	
Total ETF	\$8,594	100%	\$35.3		\$266.3	

Source: NBF ETF Research, Bloomberg. Data as of April 30, 2024.

Table 19: ESG ETF Flows by Categories

Category	AUM (\$M)	AUM (%)	April 2024		YTD April 2024	
			Flow (\$M)	Flow/AUM	Flow (\$M)	Flow/AUM
Equity	\$85,270	89%	-\$483	-0.5%	-\$4,950	-5.6%
Broad - U.S.	\$42,076	44%	\$98	0.2%	-\$3,440	-7.9%
Broad - DM	\$9,787	10%	\$50	0.5%	\$145	1.5%
Broad - EM	\$4,567	5%	-\$32	-0.7%	-\$9	-0.2%
Broad - Global	\$4,364	5%	\$19	0.4%	\$23	0.5%
Environment	\$13,070	14%	-\$301	-2.2%	-\$789	-5.6%
Clean Energy	\$6,228	7%	-\$355	-5.1%	-\$1,029	-11.9%
Energy Transition	\$228	0%	-\$6	-2.5%	-\$27	-11.7%
Social	\$3,833	4%	\$33	0.8%	\$203	5.7%
Other	\$1,119	1%	\$10	0.9%	-\$78	-0.1%
Commodities	\$697	1%	-\$3	-0.5%	-\$7	-8.4%
Multi-Asset	\$62	0%	-\$2	-3.2%	-\$8	-10.9%
Fixed Income	\$9,753	10%	\$186	1.9%	\$240	2.4%
Total Displayed	\$95,782	100%	-\$302	-0.3%	-\$4,788	-4.8%

Source: NBF ETF Research, Bloomberg. Data as of April 30, 2024.

Appendix 2 - Glossary

Exchange Traded Funds (ETFs) are open-ended mutual funds in continuous distribution. This report also includes other Exchange Traded Products such as notes, grantor trusts, limited partnerships and unit investment trusts.

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

Market Share / AUM (%): AUM as % of category total AUM on the last line of the table.

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

Maturity: We categorize fixed income ETFs into the following maturity brackets:

- **Broad/Mixed:** ETF that holds issues from across more than one maturity bucket (short, mid and/or long-term).
- **Floating Rate:** ETF that mainly invests in floating rate issues with periodic interest rate resets.
- **Long-Term:** ETF that mainly invests in long-term issues and has a weighted average maturity greater than 10 years.
- **Mid-Term:** ETF that mainly invests in intermediate-term fixed issues and has a weighted average maturity between three and 10 years.
- **Short-Term:** ETF that mainly invests in short-term issues with weighted average maturity less than three years.
- **Target Maturity:** ETF that has a target maturity, such as a fixed date or year.
- **Rate Hedged:** ETF that uses derivatives to mitigate interest rate risk and to maintain a zero or negative portfolio duration.

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

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

Defensive Sectors: We classify Consumer non-cyclicals, Energy, Health Care, Utilities as defensive sectors.

Cyclical Sectors: We classify Consumer Cyclical, Financials, Real Estate, Industrials, Information Technology, Materials, Communication Services as cyclical sectors.

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

Appendix 3 - Equity ETF by Factor Categories

We group Factor Equity ETFs (exclude cap-weighted ETFs, sector ETFs and thematic 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.

Small/Mid-Cap: A fund with small/mid-cap focus.

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.

Value: A fund that invests primarily in the stocks that are considered undervalued using metrics such as price-to-earnings, price-to-book, EV/EBITDA, etc.

Growth: A fund that invests primarily in fast-growing stocks using metrics such as earnings growth, sales growth, momentum, etc.

Momentum: A fund that invests primarily in high momentum stocks using metrics such as period returns.

Quality: A fund that invests primarily in high quality stocks using metrics like ROE, debt/equity and earnings growth.

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.

Other: Any non-cap weighted factor strategy that is not covered by otherwise defined categories. This includes equal-weight, multi-factor, AlphaDEX and other fundamental-based ETFs.

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Leveraged 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 leveraged 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. Leveraged 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. In addition, please note Bitcoin and other crypto assets are extremely risky and highly speculative investments.

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