

September 2024: ETF assets surpass the \$10 trillion milestone

- U.S. ETFs assets reached \$10 trillion after pulling in nearly \$100 billion in September
- Chinese equities soared on the announcement of new stimulus measures; related ETFs pulled in \$2 billion in flows
- Investors favoured the value factor over growth in September and Q3 2024
- U.S. aggregate bond and international core fixed income ETFs had \$12 billion and \$5 billion in flows, respectively, breaking their monthly inflow records

Summary (Table 1, Chart 1): Last month, the U.S. stock market celebrated the Federal Reserve's aggressive 50 bps rate cut on September 18, sending the S&P 500 to fresh new highs. Heightened risk of an all-out war in the Middle East has not seemed to dampen the stock market or U.S.-listed ETF inflow trends. U.S.-listed ETFs added \$95.4 billion in September, bringing the total asset of the ETF market across the \$10 trillion milestone, an astonishing feat consider ETFs crossed the \$5 trillion mark barely four years ago in November 2020. Persistent ETF inflows into broad equity markets remained in force in September, but in parallel, we saw surging demand for Chinese equity, the value factor and core fixed income ETFs.

Equity ETFs by Geography (Table 3): Equity ETFs took in \$57 billion of inflows in September, with investors expressing interest in the equities from every broad regional category. ETFs tracking the S&P 500 index continue to lead the way, with SPY and VOO each attracting over \$10 billion in assets for the month. Other broad market index-tracking ETFs also gained traction, such as EAFE (IEFA, \$1.5 billion) and global equities (VXUS, \$1.3 billion).

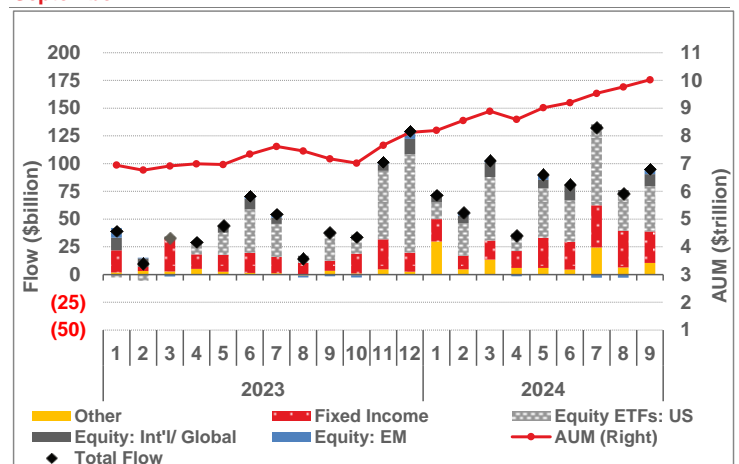
Looking overseas, ETFs holding Chinese equities ended their outflow streak with a strong comeback, pulling in a whopping \$2.4 billion of new money, or 15% of the category's starting AUM in September. This revival of interest in China coincided with the surging recovery of the Chinese A-shares market (Chart 2, Page 2), following the introduction of a new stimulus package from China's central bank and financial regulators on September 24, 2024. The stimulus package includes 800 billion yuan (US\$110 billion) of funding to incentivize financial institutions and corporations to purchase shares; it also contains measures that seek to stabilize the broader economy. Over recent years, the Chinese government has taken multiple steps to buoy its stock market, such as a reduction in stamp duties, restrictions on institutions' short selling and massive buying of broad market ETFs by the state-owned investment company Central Huijin, but until now, most regulatory interventions have had relatively marginal impact on the stock market compared to this latest stimulus. Market optimism persisted throughout the final weeks of

Table 1: ETF Flows by Category

	AUM (\$B)	Mkt Shr	Sept 2024		YTD Sept 2024	
			Flow (\$B)	Flow/AUM	Flow (\$B)	Flow/AUM
Equity	\$7,708		\$56.6	0.8%	\$415.9	6.7%
U.S. Broad/Large-Cap	\$2,775	28%	\$35.9	1.3%	\$190.8	8.9%
U.S. Other	\$3,314	33%	\$4.9	0.1%	\$146.4	5.3%
Int'l / Global	\$1,269	13%	\$10.8	0.9%	\$70.6	6.6%
Emerging Markets	\$351	3%	\$4.9	1.5%	\$8.1	2.7%
Fixed Income	\$1,773	18%	\$28.4	1.6%	\$216.9	14.2%
Commodity	\$159	2%	\$1.5	1.0%	-\$0.6	-0.5%
Multi-Asset	\$190	2%	\$4.8	2.6%	\$45.3	34.0%
Levered Long	\$110	1%	\$1.7	1.6%	\$1.6	2.0%
Inverse	\$13	0%	\$1.3	9.6%	\$2.1	13.4%
Crypto-Asset	\$68	1%	\$1.2	2.0%	\$57.6	3086.0%
Total	\$10,022	100%	\$95.4	1.0%	\$738.9	9.1%

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

Chart 1: U.S.- Listed ETF Flow and AUM by month - \$95 billion in September



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

September and peaked on September 30, the last trading day before the China National Day holiday, when the A-shares market set new daily records for trading volume, benchmark index gains and the number of advancing stocks.

As reflected in ETF flows, some investors expressed great optimism in response to the stimulus. However, there is also a large group of U.S. ETF investors who remain cautious about investing in China, as evidenced by the solid \$1 billion inflow into iShares MSCI Emerging Markets ex China ETF (EMXC). As BlackRock’s influential portfolio manager Micheal Gates noted in the firm’s latest target model portfolio rebalancing update, his team still favours EMXC, pointing to China’s “lack of fundamental market-driven behavior and weakening in economic data.”

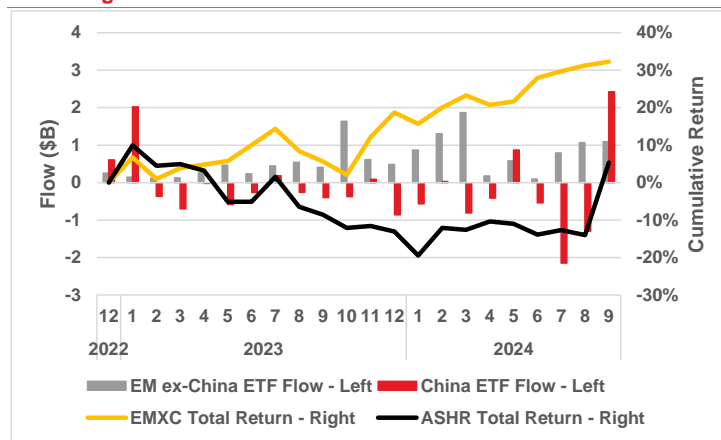
Equity Sector ETFs (Tables 4, 11): Sector ETFs suffered a combined outflow of \$7.4 billion in September, primarily because of redemptions from a suite of State Street’s sector ETFs and Vanguard Information Technology ETF (VGT). While some of these flows may

be the result of tactical sector trades by ETF investors, a large portion might be structural in nature. For example, VGT had an outflow of \$3.4 billion on September 3, preceded by a creation of similar size on August 29, a pattern we often observed around the month-end for this ETF. Adjusting for this “heart-beat” trade, outflows from the technology sector net to \$1.6 billion, which may be more reflective of broad market sentiment than the apparent outflow figure of \$5 billion from Table 4.

Equity Factor ETFs (Tables 7, 14): Value ETFs had a strong month of inflows in September, raking in \$9.3 billion in new money. Although growth ETFs outsold value ETFs by a wide margin in the first half of 2024, demand for growth ETFs declined drastically in Q3 2024. Value ETFs, on the other hand, have gathered assets at an accelerating pace since June (Chart 3). Institutional reallocation is likely one of the drivers for this shift in demand. For example, we noticed a combined outflow of \$0.9 billion from iShares’ U.S. and EAFE growth ETFs (IVW and EFG respectively) on September 5, 2024, and \$2.7 billion of inflows into iShares MSCI EAFE Value ETF (EFV) on the same day, likely related to BlackRock’s target model portfolio rebalances.

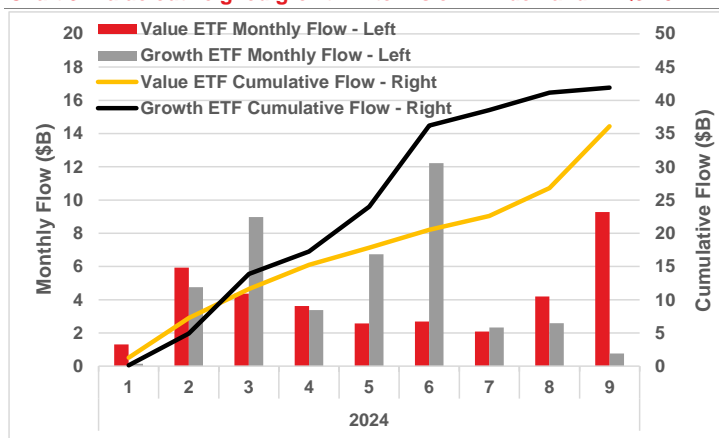
On the outflow side, low volatility ETFs have remained out of favour, suffering another \$1.3 billion of redemptions in September and \$10.7 billion year-to-date, even though the low volatility factor has outperformed value since the start of the year (measured by the total returns of S&P 500 Low Volatility Index and S&P 500 Value Index). Investors who seek to de-risk their portfolio might instead be turning to the rapidly growing category of “structured outcome” or buffer ETFs, which provide more customizable and measurable investment protection at the cost of the complexity that’s inherent to a derivative-based strategy.

Chart 2: Despite the recent strong comeback, China (measured by Xtrackers Harvest CSI 300 China A Shares ETF, ASHR) still underperformed the rest of the emerging market countries (EMXC) by a wide margin since 2023



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

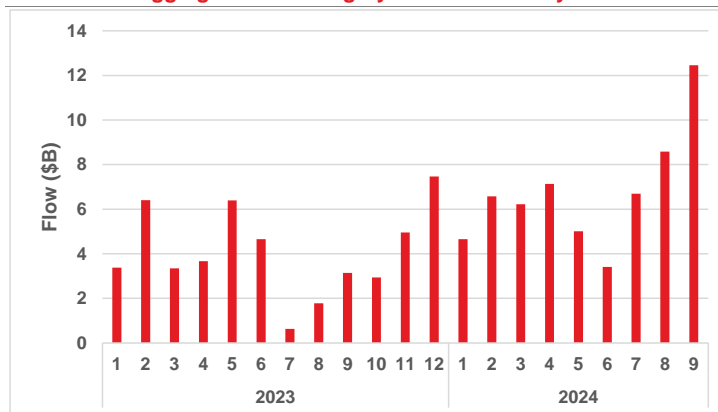
Chart 3: Value outweighed growth in terms of ETF demand in Q3 2024



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

Fixed Income ETFs (Tables 5, 6, 12, 13): In September, U.S.-listed bond ETFs received robust inflows. In the past, when rate cuts were imminent, we saw plenty of activity stemming from the popular trade of buying long-term treasury ETFs (such as TLT), which stood most to benefit from the start an easing cycle. However, this flow pattern diminished in September as the Fed delivered the long-anticipated 50 bps cut. Instead, it was the U.S. aggregate bond category that received its highest monthly inflow in history (Chart 4), as asset allocators began shifting towards more general (rather than tactical) fixed income investments during the easing cycle. This trend – shifting back into core fixed income – also drove the developed market bond and global bond ETF categories to break their own monthly inflow records. Leading products were the Blackrock Flexible Income ETF (**BINC**), Fidelity Total Bond ETF and Vanguard Total International Bond ETFs (**BNDX**).

Chart 4: U.S. aggregate bond category broke its monthly inflows record



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

ESG ETFs (Table 18): The positive inflows trend to ESG ETFs persisted throughout September. Net inflows for the category remained strong and the product focus from investors has remained largely unchanged. Notable demand remains for both broad market ESG products such as iShares ESG Aware MSCI USA ETF (**ESGU**) and Vanguard ESG US Stock ETF (**ESGV**) as well as for clean energy ETFs like **GRID** and **TAN**.

Top Performing ETFs (Table 2):

Chinese equity ETFs occupy the top performing ETF table for the month of September. Stocks rose sharply after China’s central bank unveiled its most aggressive stimulus package since the pandemic. Growth-oriented ETFs climbed the most, led by the VanEck ChiNext ETF (**CNXT**) which invests in small to medium-sized companies considered to have strong potential for growth, particularly in sectors like technology and healthcare.

Table 2: Best Performing ETFs* – September 2024

Ticker	Name	Total Return (%)	AUM (\$M)	Flow (\$M)
1 CNXT	VanEck ChiNext ETF	38.1	19	0
2 KWEB	KraneShares CSI China Internet ETF	35.2	6,522	829
3 CHIQ	Global X MSCI China Consumer Disc ETF	34.8	247	0
4 KTEC	KraneShares Hang Seng TECH Index ETF	33.8	10	0
5 CQQQ	Invesco China Technology ETF	31.3	783	6
6 MCH	Matthews China Active ETF	30.4	38	8
7 PGJ	Invesco Golden Dragon China ETF	29.9	159	10
8 CXSE	WisdomTree China ex-State-Owned Enterprises	29.5	438	1
9 KSTR	KraneShares SSE STAR Market 50 Index ETF	27.1	27	0
10 KGRN	KraneShares MSCI China Clean Tech Index ETF	26.7	60	-1

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

September 2024 ETF Flows: Tables 3 - 9

Table 3 - Equity ETF Flows by Geography - Sept 2024

Geography	AUM (\$B)	Mkt Shr	Flow (\$B)	Flow/AUM
U.S.	\$6,088		\$40.8	0.7%
Broad/Large Cap	\$2,775	36%	\$35.9	1.3%
U.S. Other	\$3,314	43%	\$4.9	0.1%
International Developed	\$776		\$6.0	0.8%
Broad Int'l Dev	\$611	8%	\$6.3	1.0%
Broad Europe	\$52	1%	-\$0.3	-0.7%
Japan	\$35	0%	-\$1.2	-3.2%
Canada	\$11	0%	\$0.2	2.4%
Other Developed	\$67	1%	\$1.0	1.6%
Emerging Markets	\$351		\$4.9	1.5%
Broad Cap Weighted	\$233	3%	\$1.7	0.8%
China (A+H)	\$23	0%	\$2.4	15.1%
Other EM	\$95	1%	\$0.8	0.8%
Global/Regional	\$492	6%	\$4.8	1.0%
Total Displayed	\$7,708	100%	\$56.6	0.8%

Source: National Bank of Canada, Bloomberg

Table 4 - Equity ETF Flows by Sector and Themes* - Sept 2024

Sector	AUM (\$B)	Mkt Shr	Flow (\$B)	Flow/AUM
Real Estate	\$88	9%	\$1.4	1.7%
Materials	\$48	5%	\$0.6	1.3%
Consumer Staples	\$30	3%	\$0.5	1.6%
Utilities	\$30	3%	\$0.4	1.5%
Communication Services	\$40	4%	\$0.3	0.9%
Health Care	\$101	10%	-\$0.2	-0.2%
Consumer Discretionary	\$39	4%	-\$0.5	-1.4%
Industrials	\$49	5%	-\$0.7	-1.5%
Energy	\$75	7%	-\$1.0	-1.2%
Financials	\$75	7%	-\$3.1	-4.0%
Technology	\$272	27%	-\$5.0	-1.9%
ESG	\$96	9%	\$0.3	0.3%
Thematic	\$72	7%	\$0.1	0.1%
Total Displayed	\$1,015	100%	-\$7.0	-0.7%

*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

Table 5 - Fixed Income ETF Flows by Type - Sept 2024

Type	AUM (\$B)	Mkt Shr	Flow (\$B)	Flow/AUM
U.S. Aggregate	\$439	25%	\$12.5	2.9%
U.S. Government	\$550	31%	\$1.8	0.3%
U.S. Municipals	\$129	7%	\$1.7	1.4%
U.S. I.G. Corporate	\$269	15%	\$2.0	0.8%
Developed Markets&Global	\$180	10%	\$5.3	3.1%
Emerging Markets	\$32	2%	\$0.1	0.4%
Sub-investment Grade	\$129	7%	\$3.8	3.0%
Convertibles and Preferreds	\$45	3%	\$1.1	2.6%
Total Displayed	\$1,773	100%	\$28.3	1.6%

Source: National Bank of Canada, Bloomberg

Table 6 - Fixed Income ETF Flows by Maturity - Sept 2024

Maturity	AUM (\$B)	Mkt Shr	Flow (\$B)	Flow/AUM
Broad/Mixed	\$877	49%	\$17.9	2.1%
Ultra Short Term	\$247	14%	\$2.9	1.2%
Short Term	\$235	13%	\$1.8	0.8%
Mid Term	\$225	13%	\$4.9	2.3%
Long Term	\$131	7%	\$0.3	0.2%
Target Maturity	\$55	3%	\$0.5	1.0%
Rate Hedged	\$2	0%	\$0.0	2.1%
Total Displayed	\$1,773	100%	\$28.3	1.6%

Source: National Bank of Canada, Bloomberg

Table 7 - Equity ETF Flows by Factor* - Sept 2024

Factor	AUM (\$B)	Mkt Shr	Flow (\$B)	Flow/AUM
Value	\$587	22%	\$9.3	1.6%
Income	\$438	17%	\$3.8	0.9%
Quality	\$94	4%	\$1.0	1.1%
Growth	\$595	23%	\$0.8	0.1%
Small/Mid Cap	\$581	22%	\$0.0	0.0%
Momentum	\$30	1%	\$0.0	-0.1%
Low Vol	\$56	2%	-\$1.9	-3.3%
Multi-Factor and Other	\$243	9%	\$2.9	1.2%
Total Displayed	\$2,622	100%	\$15.7	0.6%

*Includes all geographic focus, excluding sector ETFs; Source: NBC, Bloomberg

Table 8 - Top Single Long ETF Inflows - Sept 2024

Ticker	Name	Flow (\$B)	Flow/AUM
1 SPY	SPDR S&P 500 ETF Trust	\$16.1	2.9%
2 VOO	Vanguard S&P 500 ETF	\$10.2	2.0%
3 EFV	iShares MSCI EAFE Value ETF	\$4.2	27.6%
4 BND	Vanguard Total Bond Market ETF	\$3.0	2.6%
5 IUSB	iShares Core Total USD Bond Market ETF	\$2.8	9.4%
6 VTI	Vanguard Total Stock Market ETF	\$2.7	0.6%
7 USHY	iShares Broad USD High Yield Corp Bond ETF	\$2.1	12.0%
8 IVV	iShares Core S&P 500 ETF	\$2.0	0.4%
9 IEF	iShares 7-10 Year Treasury Bond ETF	\$1.8	5.7%
10 RSP	Invesco S&P 500 Equal Weight ETF	\$1.6	2.7%
11 BINC	Blackrock Flexible Income ETF	\$1.6	38.9%
12 IEFA	iShares Core MSCI EAFE ETF	\$1.5	1.2%
13 SPPL	SPDR Portfolio S&P 500 ETF	\$1.5	3.3%
14 VTWO	Vanguard Russell 2000 ETF	\$1.4	14.1%
15 AGG	iShares Core U.S. Aggregate Bond ETF	\$1.4	1.2%
16 VXUS	Vanguard Total International Stock ETF	\$1.3	1.7%
17 SPYV	SPDR Portfolio S&P 500 Value ETF	\$1.2	5.1%
18 QQQM	Invesco Nasdaq 100 ETF	\$1.2	3.7%
19 SCHD	Schwab US Dividend Equity ETF	\$1.1	1.9%
20 VCLT	Vanguard Long-Term Corporate Bond ETF	\$1.1	8.4%

Source: National Bank of Canada, Bloomberg

Table 9 - Top Single Long ETF Outflows - Sept 2024

Ticker	Name	Flow (\$B)	Flow/AUM
1 XLF	Financial Select Sector SPDR Fund	-\$3.5	-7.6%
2 VGT	Vanguard Information Technology ETF	-\$3.1	-3.9%
3 LQD	iShares iBoxx \$ Investment Grade Corporate Bond	-\$2.5	-7.5%
4 TLT	iShares 20+ Year Treasury Bond ETF	-\$2.0	-3.3%
5 IWM	iShares Russell 2000 ETF	-\$2.0	-2.8%
6 HEFA	iShares Currency Hedged MSCI EAFE ETF	-\$1.3	-19.4%
7 IVW	iShares S&P 500 Growth ETF	-\$0.8	-1.6%
8 XLK	Technology Select Sector SPDR Fund	-\$0.8	-1.2%
9 USMV	iShares MSCI USA Min Vol Factor ETF	-\$0.8	-3.2%
10 IJR	iShares Core S&P Small-Cap ETF	-\$0.8	-0.9%
11 XLI	Industrial Select Sector SPDR Fund	-\$0.7	-3.6%
12 XLY	Consumer Discretionary Select Sector SPDR	-\$0.7	-3.7%
13 XMMO	Invesco S&P MidCap Momentum ETF	-\$0.7	-22.0%
14 HYG	iShares iBoxx \$ High Yield Corporate Bond ETF	-\$0.7	-4.0%
15 BIL	SPDR Bloomberg 1-3 Month T-Bill ETF	-\$0.7	-1.9%
16 SHY	iShares 1-3 Year Treasury Bond ETF	-\$0.6	-2.7%
17 IBTE	iShares iBonds Dec 2024 Term Treasury ETF	-\$0.6	-24.1%
18 ITA	iShares U.S. Aerospace & Defense ETF	-\$0.6	-8.9%
19 EFV	iShares MSCI EAFE Growth ETF	-\$0.5	-3.4%
20 EFAV	iShares MSCI EAFE Min Vol Factor ETF	-\$0.5	-7.5%

Source: National Bank of Canada, Bloomberg

Appendix 1: 2024 January - September ETF Flow Tables

Table 10 - Equity ETF Flows by Geography - YTD Sept 2024

Geography	AUM (\$B)	Mkt Shr	Flow (\$B)	Flow/AUM
U.S.	\$6,088		\$337.2	6.9%
Broad/Large Cap	\$2,775	36%	\$190.8	8.9%
U.S. Other	\$3,314	43%	\$146.4	5.3%
International Developed	\$776		\$43.8	6.7%
Broad Int'l Dev	\$611	8%	\$40.2	7.8%
Broad Europe	\$52	1%	\$0.8	1.8%
Japan	\$35	0%	\$1.6	5.4%
Canada	\$11	0%	-\$0.8	-7.6%
Other Developed	\$67	1%	\$2.0	3.4%
Emerging Markets	\$351		\$8.1	2.7%
Broad Cap Weighted	\$233	3%	\$5.1	2.6%
China (A+H)	\$23	0%	-\$2.4	-11.7%
Other EM	\$95	1%	\$5.5	6.8%
Global/Regional	\$492	6%	\$26.8	6.5%
Total Displayed	\$7,708	100%	\$415.9	6.7%

Source: National Bank of Canada, Bloomberg

Table 11 - Equity ETF Flows by Sector and Themes* - YTD Sept 2024

Sector	AUM (\$B)	Mkt Shr	Flow (\$B)	Flow/AUM
Technology	\$272	27%	\$17.3	8.1%
Real Estate	\$88	9%	\$4.6	6.1%
Industrials	\$49	5%	\$2.3	5.9%
Utilities	\$30	3%	\$1.8	8.4%
Financials	\$75	7%	\$1.2	1.9%
Consumer Staples	\$30	3%	-\$0.2	-0.8%
Materials	\$48	5%	-\$0.6	-1.3%
Consumer Discretionary	\$39	4%	-\$1.7	-4.8%
Communication Services	\$40	4%	-\$3.1	-8.8%
Health Care	\$101	10%	-\$3.8	-4.0%
Energy	\$75	7%	-\$6.5	-8.5%
ESG	\$96	9%	-\$2.6	-3.0%
Thematic	\$72	7%	-\$1.8	-2.6%
Total Displayed	\$1,015	100%	\$6.9	0.8%

*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

Table 12 - Fixed Income ETF Flows by Type - YTD Sept 2024

Type	AUM (\$B)	Mkt Shr	Flow (\$B)	Flow/AUM
U.S. Aggregate	\$439	25%	\$60.7	16.4%
U.S. Government	\$550	31%	\$52.5	10.7%
U.S. Municipals	\$129	7%	\$10.3	8.8%
U.S. I.G. Corporate	\$269	15%	\$31.6	13.7%
Developed Markets&Global	\$180	10%	\$32.3	22.4%
Emerging Markets	\$32	2%	\$0.8	2.7%
Sub-investment Grade	\$129	7%	\$26.1	26.0%
Convertibles and Preferreds	\$45	3%	\$2.6	6.4%
Total Displayed	\$1,773	100%	\$216.9	14.2%

Source: National Bank of Canada, Bloomberg

Table 13 - Fixed Income ETF Flows by Maturity - YTD Sept 2024

Maturity	AUM (\$B)	Mkt Shr	Flow (\$B)	Flow/AUM
Broad/Mixed	\$877	49%	\$109.5	14.6%
Ultra Short Term	\$247	14%	\$30.1	13.9%
Short Term	\$235	13%	-\$0.2	-0.1%
Mid Term	\$225	13%	\$37.8	20.8%
Long Term	\$131	7%	\$26.9	26.1%
Target Maturity	\$55	3%	\$12.5	30.1%
Rate Hedged	\$72	0%	\$0.2	18.0%
Total Displayed	\$1,773	100%	\$216.9	14.2%

Source: National Bank of Canada, Bloomberg

Table 14 - Equity ETF Flows by Factor* - YTD Sept 2024

Factor	AUM (\$B)	Mkt Shr	Flow (\$B)	Flow/AUM
Growth	\$595	23%	\$41.9	9.3%
Value	\$587	22%	\$36.0	7.4%
Small/Mid Cap	\$581	22%	\$19.7	3.9%
Quality	\$94	4%	\$13.3	20.0%
Income	\$438	17%	\$9.2	2.5%
Momentum	\$30	1%	\$3.1	14.2%
Low Vol	\$56	2%	-\$10.7	-18.2%
Multi-Factor and Other	\$243	9%	\$28.0	15.1%
Total Displayed	\$2,622	100%	\$140.5	6.5%

*Includes all geographic focus, excluding sector ETFs; Source: NBC, Bloomberg

Table 15 - Top Single Long ETF Inflows - YTD Sept 2024

Ticker	Name	Flow (\$B)	Flow/AUM
1	VOO Vanguard S&P 500 ETF	\$70.9	19.0%
2	IVV iShares Core S&P 500 ETF	\$45.4	11.3%
3	VTI Vanguard Total Stock Market ETF	\$23.8	6.9%
4	IBIT iShares Bitcoin Trust	\$21.5	NA
5	QQQ Invesco QQQ Trust Series 1	\$18.3	8.0%
6	AGG iShares Core U.S. Aggregate Bond ETF	\$16.1	15.9%
7	SPLG SPDR Portfolio S&P 500 ETF	\$14.1	54.8%
8	BND Vanguard Total Bond Market ETF	\$11.7	11.1%
9	QQQM Invesco Nasdaq 100 ETF	\$10.9	58.8%
10	DYFN BlackRock U.S. Equity Factor Rotation ETF	\$10.6	20939.8%
11	VUG Vanguard Growth ETF	\$10.2	9.7%
12	FBTC Fidelity Wise Origin Bitcoin Fund	\$10.0	NA
13	TLT iShares 20+ Year Treasury Bond ETF	\$9.0	17.5%
14	IUSB iShares Core Total USD Bond Market ETF	\$8.7	36.5%
15	VXUS Vanguard Total International Stock ETF	\$8.5	13.4%
16	VGIT Vanguard Intermediate-Term Treasury ETF	\$8.4	38.7%
17	IEFA iShares Core MSCI EAFE ETF	\$8.0	7.5%
18	VEA Vanguard FTSE Developed Markets ETF	\$7.9	6.4%
19	RSP Invesco S&P 500 Equal Weight ETF	\$7.9	15.8%
20	SGOV iShares 0-3 Month Treasury Bond ETF	\$7.6	43.3%

Source: National Bank of Canada, Bloomberg

Table 16 - Top Single Long ETF Outflows - YTD Sept 2024

Ticker	Name	Flow (\$B)	Flow/AUM
1	USMV iShares MSCI USA Min Vol Factor ETF	-\$6.0	-22.4%
2	IWM iShares Russell 2000 ETF	-\$3.6	-5.3%
3	AMJ JPMorgan Alerian MLP Index ETN	-\$3.4	-111.8%
4	TFLO iShares Treasury Floating Rate Bond ETF	-\$3.1	-30.4%
5	HYG iShares iBoxx \$ High Yield Corporate Bond ETF	-\$3.0	-15.8%
6	SHY iShares 1-3 Year Treasury Bond ETF	-\$2.8	-10.8%
7	SPY SPDR S&P 500 ETF Trust	-\$2.7	-0.5%
8	ACWI iShares MSCI ACWI ETF	-\$2.7	-13.9%
9	ARKK ARK Innovation ETF	-\$2.6	-27.7%
10	ESGU iShares ESG Aware MSCI USA ETF	-\$2.4	-18.3%
11	IWD iShares Russell 1000 Value ETF	-\$2.4	-4.4%
12	SUSA iShares MSCI USA ESG Select ETF	-\$2.3	-42.2%
13	XLY Consumer Discretionary Select Sector SPDR	-\$2.2	-11.2%
14	XLE Energy Select Sector SPDR Fund	-\$2.2	-6.0%
15	VWO Vanguard FTSE Emerging Markets ETF	-\$2.1	-2.9%
16	FVD First Trust Value Line Dividend Index Fund	-\$2.1	-19.5%
17	VGSH Vanguard Short-Term Treasury ETF	-\$2.0	-9.0%
18	IAU iShares Gold Trust	-\$2.0	-7.4%
19	SDY SPDR S&P Dividend ETF	-\$1.9	-8.9%
20	LQD iShares iBoxx \$ IG Corporate Bond ETF	-\$1.7	-5.4%

Source: National Bank of Canada, Bloomberg

Table 17: ETF Provider Table

Provider	AUM (\$B)	Mkt Shr	Sept 2024		YTD Sept 2024	
			Flow (\$B)	Flow/AUM	Flow (\$B)	Flow/AUM
1 BlackRock iShares	\$3,108	31%	\$13.9	0.5%	\$174.9	6.7%
2 Vanguard	\$2,910	29%	\$25.9	0.9%	\$204.8	8.7%
3 State Street SSGA	\$1,444	14%	\$18.2	1.3%	\$28.6	2.3%
4 Invesco	\$587	6%	\$3.8	0.7%	\$55.6	12.2%
5 Charles Schwab	\$386	4%	\$3.9	1.0%	\$23.2	7.3%
6 First Trust	\$183	2%	\$1.5	0.8%	\$13.7	8.9%
7 JPMorgan	\$174	2%	\$4.5	2.7%	\$28.1	21.2%
8 Dimensional Holdings	\$162	2%	\$3.5	2.2%	\$28.2	24.0%
9 VanEck	\$89	1%	\$0.7	0.9%	\$8.1	12.0%
10 Fidelity	\$87	1%	\$1.7	2.1%	\$25.2	49.1%
11 WisdomTree	\$81	1%	-\$0.8	-1.0%	\$1.4	1.9%
12 ProShares	\$77	1%	\$1.9	2.6%	-\$5.0	-7.3%
13 American Century	\$55	1%	\$1.8	3.5%	\$12.7	34.5%
14 Global X	\$53	1%	\$0.6	1.1%	\$6.0	14.2%
15 Direxion	\$48	0%	\$0.8	1.8%	\$1.7	4.5%
16 Pacer Financial	\$47	0%	\$0.0	0.0%	\$8.7	24.8%
17 Capital Group	\$43	0%	\$2.4	6.0%	\$19.2	102.2%
18 Goldman Sachs	\$37	0%	\$0.3	0.8%	\$0.4	1.3%
19 PIMCO	\$30	0%	\$0.7	2.5%	\$5.5	22.8%
20 DWS Xtrackers	\$24	0%	\$0.6	2.9%	\$0.9	4.4%
Top 20 Total	\$9,625	96%	\$85.9		\$642.0	
Total ETF	\$10,022	100%	\$95.4		\$738.9	

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

Table 18: ESG ETF Flows by Categories

Category	AUM (\$M)	AUM (%)	Sept 2024		YTD Sept 2024	
			Flow (\$M)	Flow/AUM	Flow (\$M)	Flow/AUM
Equity	\$98,765	89%	\$383	0.4%	-\$2,455	-2.8%
Broad - U.S.	\$48,011	43%	-\$2	0.0%	-\$3,254	-7.5%
Broad - DM	\$10,906	10%	\$106	1.0%	\$387	4.1%
Broad - EM	\$5,231	5%	\$8	0.2%	\$39	0.9%
Broad - Global	\$4,969	4%	\$37	0.8%	\$150	3.5%
Environment	\$16,457	15%	\$69	0.4%	\$724	5.5%
Clean Energy	\$7,234	7%	\$138	2.0%	-\$660	-7.6%
Energy Transition	\$275	0%	\$1	0.5%	\$1	0.4%
Social	\$4,367	4%	\$6	0.1%	\$298	8.3%
Other	\$1,315	1%	\$19	1.5%	-\$141	-0.2%
Commodities	\$632	1%	\$0	0.1%	-\$85	-10.1%
Multi-Asset	\$71	0%	\$0	0.0%	-\$5	-7.8%
Fixed Income	\$10,980	10%	\$349	3.3%	\$897	9.1%
Total Displayed	\$110,447	100%	\$732	0.7%	-\$1,648	-1.7%

Source: NBF ETF Research, Bloomberg. Data as of Sept 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 Cyclicals, 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.

DISCLOSURES

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.

GENERAL: This Report was prepared by National Bank Financial Inc. (NBF), a Canadian investment dealer, a dealer member of the Canadian Investment Regulatory Organization (CIRO) 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 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 or your advisers, if needed, in making an investment decision.

The value of investments, and the income derived from them, can go down as well as up and you may not get back the amount invested. Neither past performance nor forecasts are a reliable 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 realize; 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.

NBF makes no representation as to the proper characterization of the investments for legal, regulatory or tax purposes, or as to the ability of a particular investor to invest or transact in the investments under applicable legal restrictions. Differences in the legal and regulatory regimes in different jurisdictions may significantly impact the legal and regulatory risks affecting the investment sector and / or investment. It is your responsibility to assess any such differences and associated risks.

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.

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.

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 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.

The report 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 (FCA). 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 FCA). Persons who are retail clients should not act or rely upon the information in this report.

As required by the FCA, we have a policy in place to identify and manage the conflicts of interest which may arise in the production of non-independent research as contained and distributed in this report.

DISCLOSURES

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). NBF is authorized and regulated by the Financial Conduct Authority with registration number FC009503 and has its registered office at 70 St. Mary Axe, London, EC3A 8BE.

U.S. RESIDENTS: With respect to the distribution of this report in the United States of America (the U.S.), National Bank of Canada Financial Inc. (NBCFI) is registered with the Securities Exchange Commission (SEC) as a broker-dealer and is a member of the Financial Industry Regulatory Authority (FINRA) and 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. NatWealth Management (USA) Inc. (NatWealth) is a SEC-registered investment adviser.

This report has been prepared in whole or in part by research analysts employed by non-U.S. affiliates of NBCFI that are not registered as broker-dealers or investment advisers in the U.S. These non-U.S. research analysts are not registered as associated persons of NBCFI and are not licensed or qualified as research analysts with FINRA or any other U.S. 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. NBF is a Participating Affiliate of NatWealth, and as such each research analyst who provides services to that constitute acting as an investment adviser under U.S. law and regulation is deemed an associated person of NatWealth as part of the participating affiliate regime established by SEC Staff no-action letters.

If you make "hard dollar" payments in respect of NBF research services, then such services, including this report, are provided to you by NatWealth under the U.S. Investment Advisers Act of 1940 (the Advisers Act). If you do not make "hard dollar" payments in respect of NBF research services, then such services, including this report, are provided to you via intermediation of NBCFI under Rule 15a-6, and are not subject to the Advisers Act.

Because the views of research analysts may differ, members of NBF 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, U.S. residents should contact their NBCFI registered representative or NatWealth associated person, as applicable.

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.

EU RESIDENTS: With respect to the distribution of this report in the member states of the European Union (EU) and the European Economic Area (EEA) by NBC Paris, the contents of this report are for information purposes only and do not constitute investment advice, investment research, financial analysis or other forms of general recommendation relating to transactions in financial instruments within the meaning of Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 (MiFID 2). This report is intended only for professional investors and eligible counterparties within the meaning of MiFID 2 and its contents have not been reviewed or approved by any EU/EEA authority. NBC Paris is an investment firm authorized by the French Prudential Control and Resolution Authority (ACPR) to provide investment services in France and has passported its investment services throughout the EU/EEA under the freedom to provide services and has its registered office at 8 avenue Percier, 75008 Paris, France.

DISCLOSURES

NBF is not authorized to provide investment services in the EU/EEA.

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.

RESEARCH ANALYSTS: All of the views expressed in this research report accurately reflect 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.

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.

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