

### June 2023: \$70 billion in flows to a market in recovery

- U.S. ETFs received \$225 billion in the first half of 2023; equity and fixed income products saw similar demand
- After a lacklustre Q1, U.S. equity ETFs raked in assets at an accelerated pace in the second quarter
- Equal-weighted S&P 500 and small/mid-cap ETFs gathered money as investors sought broader equity exposure
- Crypto-related equity ETFs rallied in June amid speculation around the potential approval of a spot bitcoin ETF

**Summary (Table 1, Chart 1):** U.S. ETFs concluded the first half of 2023 with \$225 billion of net inflow, a lot of money (to say the least) but a 30% decrease compared with the \$313 billion recorded in the same period in 2022. The decline may come from a widespread hesitation to investing in U.S. equity ETFs, despite their strong recovery into the year. U.S. equity ETFs received \$54 billion in H1 2023, whereas the category pulled in \$127 billion by the same point last year.

**Launches and delistings:** While the pace of new ETF listings has not slowed, the number of ETF terminations has surged compared to past years (Chart 2). In the first half of 2023, 126 ETFs delisted, which is in line with the average *annual* number of delistings over the past 10 years (129). Meanwhile, the number of active ETF launches in 2023 so far is greater than that of passive ETFs, a pattern that has been in place since 2020.

#### Equity ETFs by Geography (Table 3):

Despite a slow start in Q1, U.S.-focused ETFs have rapidly gained assets in recent months, experiencing an accelerated pace of inflows. Notably, there has been a significant net creation of \$39.1 billion into U.S. equity ETFs in June, leaping the U.S. market ahead of international/global regions in terms ETF inflows year-to-date. Despite concerns surrounding a potential economic recession and uncertainty surrounding the Federal Reserve's rate decisions, in the first half of 2023, U.S. equities made a strong comeback – the S&P 500 registered a gain of 16.9% in the past six months. Additionally, the S&P MidCap 400 and S&P SmallCap 600 delivered returns of 8.4% and 6.0%, respectively, during the same period.

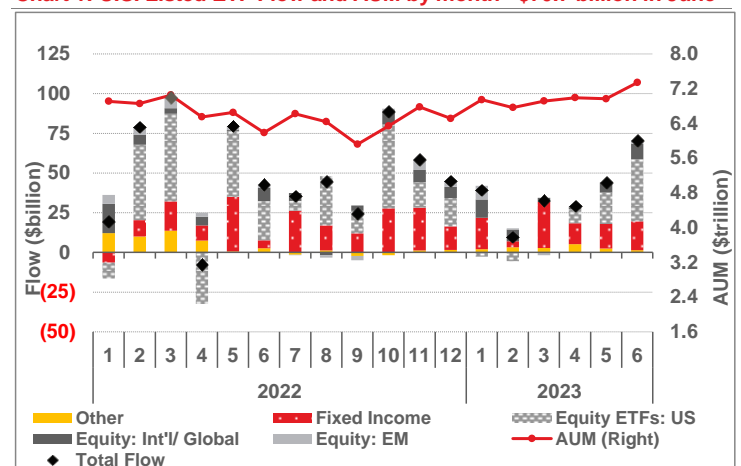
**Equity Sector ETFs (Table 4):** In June, all S&P 500 Sector indices delivered positive returns, but the sector ETF flows did not echo this performance. Impressive double-digit gains ensued for Consumer Discretionary, Industrials and Materials sectors, but the ETFs investing in these sectors only attracted a modest \$0.4 billion (combined) in flows for the month. The Technology sector experienced the weakest ETF flows among sectors in June, largely influenced by a structural single-day outflow of \$6.7 billion from the Vanguard Information Technology ETF (VGT). This outflow followed the ETF's creation of \$6.6 billion on May 30, a pattern that suggests a “heartbeat trade.”

**Table 1: ETF Flows by Category**

	AUM (\$B)	Mkt Shr	June 2023		Jan-June 2023	
			Flow (\$B)	Flow/AUM	Flow (\$B)	Flow/AUM
Equity	\$5,605		\$51.1	1.0%	\$103.9	2.1%
U.S. Broad/Large-Cap	\$1,849	25%	\$25.6	1.5%	\$48.2	3.2%
U.S. Other	\$2,475	34%	\$13.5	0.6%	\$6.2	0.3%
Int'l / Global	\$994	14%	\$9.8	1.0%	\$38.8	4.5%
Emerging Markets	\$286	4%	\$2.2	0.8%	\$10.7	4.0%
Fixed Income	\$1,407	19%	\$18.1	1.3%	\$99.2	7.7%
Commodity	\$131	2%	-\$3.0	-2.2%	-\$2.5	-1.9%
Multi-Asset	\$109	1%	\$3.7	3.6%	\$17.6	20.4%
Levered Long	\$69	1%	\$0.1	0.1%	\$0.6	1.4%
Inverse	\$20	0%	\$0.6	2.9%	\$6.0	25.0%
Crypto-Asset	\$1	0%	\$0.1	8.5%	\$0.2	31.5%
<b>Total</b>	<b>\$7,341</b>	<b>100%</b>	<b>\$70.7</b>	<b>1.0%</b>	<b>\$225.0</b>	<b>3.5%</b>

Source: NBF ETF Research, Bloomberg. Data as of June 30, 2023.

**Chart 1: U.S. Listed ETF Flow and AUM by month - \$70.7 billion in June**



Source: NBF ETF Research, Bloomberg. Data as of June 30, 2023.

Year-to-date, sector ETFs experienced a net outflow of \$15.3 billion, primarily driven by two defensive sector categories: Energy and Health Care. On the other hand, Consumer Discretionary enjoyed the highest growth year-to-date, both in terms of flows (\$2.3 billion) and as a percentage the year’s starting AUM (9.9%). ETFs within this sector that attracted significant inflows generally have substantial holdings in mega-cap tech-adjacent companies. For instance, the Consumer Discretionary Select SPDR Fund (XLY) witnessed an inflow of \$0.6 billion YTD. It allocates 23% to Amazon and 21% to Tesla, which together accounted for two-thirds of XLY’s 33.9% YTD total return.

**Equity Factor ETFs (Table 7):** Despite the U.S. stock market’s recovering performance year-to-date, the bulk of its returns can be attributed to a handful of mega-cap companies. The S&P 500 Top 50 Index went up by 27.6% in 2023 so far, outperforming the broader S&P 500 by almost 10%. However, there has been an improvement in uptrend participation in June, with 312 constituents of the S&P 500 achieving year-to-date gains, which is 83 more than in May. Reversing a trend that’s been in place for the whole year so far, June marked the first month in 2023 when the S&P 500 outperformed the S&P 500 Top 50 Index (Chart 3).

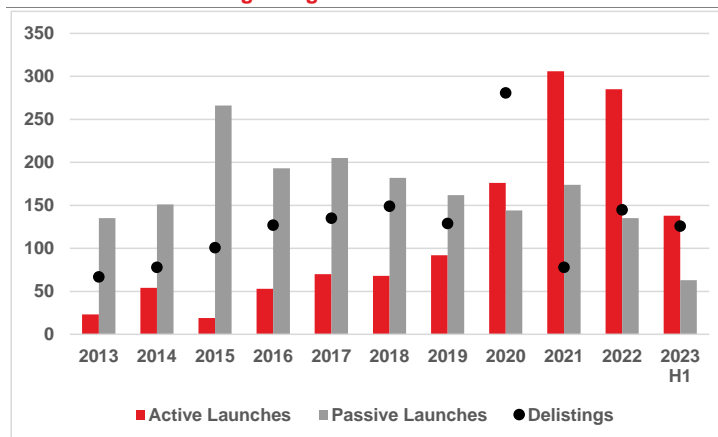
Similarly, in the ETF space, investors have favoured a size tilt, as exemplified by inflows to Invesco S&P 500 Equal Weight ETF (RSP), which welcomed \$5.0 billion of new money in June, or 15.5% of its starting assets. Equal-weighted equity ETFs are grouped under the category labeled as “Multi-Factor and Other.”

Small/Mid-Cap ETFs also received significant demand with a \$7.3 billion in creations in a month when both the S&P MidCap 400 and the S&P SmallCap 600 outperformed the (large-cap) S&P 500 in June. The inflows were well-distributed across various ETFs in both size categories. The SPDR Portfolio S&P 600 SmallCap ETF (SPSM) and the iShares Russell 2000 ETF (IWM) each attracted nearly \$2.0 billion in inflows. Additionally, nine other Small/Mid-Cap ETFs received at least \$100 million of fresh assets, indicating broad-based interest in this segment, coupled with possible skepticism over the continued dominance of the mega-cap leaders of the S&P 500 index.

Year-to-date, quality ETFs led factor ETF flows, followed by Small/Mid-Cap and Growth. On the other hand, defensive factor ETFs such as Value and Low Volatility bled assets.

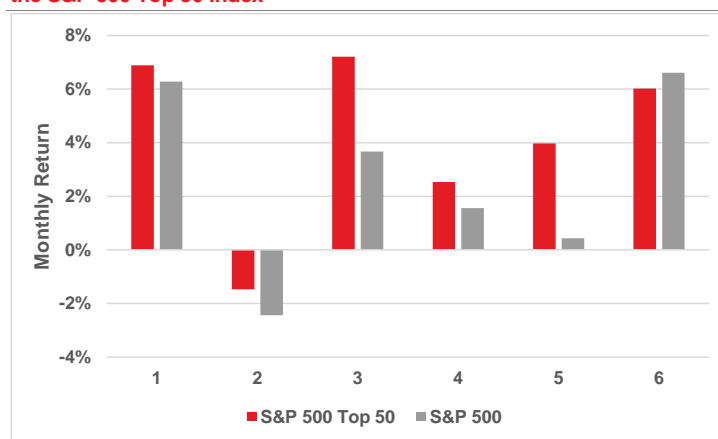
**Fixed Income ETFs (Tables 5 & 6):** After 10 consecutive rate hikes, the Fed decided to keep the Fed Fund Rate unchanged in June. Nevertheless, the updated dot plot, which indicates the individual projections of Fed officials, suggests an additional 50 basis point increase by the end of the year. This projection is more hawkish than the market’s expectation of a 25 basis point increase. Our Economics and Strategy team anticipates the tightening of monetary policy will resume in July ([The FOMC presses ‘pause’... but likely pressing ‘play’ soon](#)).

**Chart 2: U.S. Active ETF Launches Continue to Outnumber Passive; Number of ETF Delistings Surged**



Source: NBF ETF Research, Bloomberg. Data as of June 30, 2023.

**Chart 3: June is the first month in 2023 when the S&P 500 outperformed the S&P 500 Top 50 Index**



Source: NBF ETF Research, Bloomberg. Data as of June 30, 2023.

Despite the uncertainty around the Fed's rate projections, ETF investors steadily poured money into mid- and long-duration bond ETFs, especially those holding U.S. government bonds. At the same time, short-term bond products continue to see outflows.

### ESG ETFs (Table 18):

In June, we observed a \$2.1 billion institutional-size switch from iShares ESG MSCI USA Leaders ETF (**SUSL**) to the newly launched iShares Climate Conscious & Transition MSCI USA Index ETF (**USCL**). Similar to the \$2.0 billion reallocation trade from **USSG** to **USCA** in April ([U.S. ETF Flows - April 2023: Sector flows following returns](#)), this switch to **USCL** was again made by the Finnish pension fund Ilmarinen. **USCL** tracks the MSCI USA Extended Climate Action Index, a version of the same index behind **USCA** – except the *extended* index also excludes producers of civilian firearms.

It is noteworthy that the best-performing single long ETF in June was the KraneShares Global Carbon Offset Strategy ETF (**KSET**), which invests in voluntary carbon credit futures. The prices of voluntary carbon credit futures experienced a significant rally ahead of the “vintage\*” roll (*see below*) and the release of the Claims Code of Practice by the Voluntary Carbon Markets Integrity Initiative (VCMI) added to the positive sentiment. The Claims Code of Practice, in our ESG Analyst’s view, helps “build confidence within the market by way of putting up guardrails for corporate demand with an aim to minimize greenwashing” ([Voluntary Carbon Market: VCMI - Putting Guardrails on Corporate Demand and Greenwashing](#)). However, the current voluntary carbon market is still highly volatile, with low transparency and a sense of lower credibility. Despite its 70% gain in June, **KSET** is still down 84% since its inception in April 2022.

*\*Vintage refers to the year an emission reduction occurred or when the carbon offset was issued. It is important to note that the voluntary carbon market is still in its early stages and protocols and monitoring methodologies for carbon offsets are continuously evolving and improving. As a result, newer carbon offsets are often considered to be more credible and standardized, making them more valuable compared to older vintages.*

### Top Performing ETFs (Table 2):

Please note that crypto-assets are highly risky and speculative.

Crypto-related equity ETFs such as **BKCH**, **SATO**, **CRPT**, **WGMI** and **BITS** were among the top performers, largely driven by renewed optimism surrounding the potential approval of the first U.S. spot bitcoin ETF. This optimism stemmed from BlackRock’s filing of the iShares Bitcoin Trust on June 15. The filing also included a surveillance-sharing agreement (SSA)

between the ETF’s listing exchange, in this case, Nasdaq, and a U.S.-based crypto exchange. Other large asset managers like Invesco, Fidelity and Ark Investment quickly followed suit by filing or refiling their own spot bitcoin ETFs, incorporating the SSA. It was later revealed that Coinbase would serve as the surveillance-sharing partner for these spot bitcoin ETFs.

The world's largest asset manager (BlackRock) may have joined dozens of others in the spot bitcoin ETF race, but it is important to note that the recent rally in the crypto market is largely speculative. There is no certainty the SEC will approve any of the filings.

**Table 2: Best Performing ETFs\* – June 2023**

Ticker	Name	Total Return (%)	AUM (\$M)	Flow (\$M)
1 <b>KSET</b>	KraneShares Global Carbon Offset Strategy ETF	70.3	2	0
2 <b>BWET</b>	Breakwave Tanker Shipping ETF	40.9	4	0
3 <b>UNG</b>	United States Natural Gas Fund LP	20.1	1,120	-105
4 <b>BKCH</b>	Global X Blockchain ETF	19.9	84	0
5 <b>SATO</b>	Invesco Alerian Galaxy Crypto Economy ETF	18.8	4	0
6 <b>PKB</b>	Invesco Dynamic Building & Construction ETF	18.6	229	2
7 <b>CRPT</b>	FT SkyBridge Crypto Industry & Digital Economy	17.5	20	0
8 <b>WGMI</b>	Valkyrie Bitcoin Miners ETF	17.7	14	2
9 <b>JETS</b>	US Global Jets ETF	17.3	1,939	-41
10 <b>BITS</b>	Global X Blockchain & Bitcoin Strategy ETF	17.1	14	1

\*Excluding leveraged/inverse ETFs. Source: NBF ETF Research, Bloomberg. Data as of June 30, 2023.

June 2023 ETF Flows: Tables 3 - 9

**Table 3 - Equity ETF Flows by Geography - June 2023**

Geography	AUM (\$B)	Mkt Shr	Flow (\$B)	Flow/AUM
U.S.	\$4,325		\$39.0	1.0%
Broad/Large Cap	\$1,849	33%	\$25.6	1.5%
U.S. Other	\$2,475	44%	\$13.5	0.6%
International Developed	\$615		\$8.3	1.4%
Broad Int'l Dev	\$474	8%	\$7.7	1.7%
Broad Europe	\$49	1%	-\$2.0	-4.0%
Japan	\$27	0%	\$2.9	12.7%
Canada	\$10	0%	-\$0.2	-2.4%
Other Developed	\$55	1%	-\$0.1	-0.2%
Emerging Markets	\$286		\$2.2	0.8%
Broad Cap Weighted	\$192	3%	\$1.4	0.8%
China (A+H)	\$24	0%	-\$0.3	-1.1%
Other EM	\$70	1%	\$1.1	1.6%
Global/Regional	\$379	7%	\$1.5	0.4%
<b>Total Displayed</b>	<b>\$5,605</b>	<b>100%</b>	<b>\$51.1</b>	<b>1.0%</b>

Source: National Bank of Canada, Bloomberg

**Table 4 - Equity ETF Flows by Sector and Themes\* - June 2023**

Sector	AUM (\$B)	Mkt Shr	Flow (\$B)	Flow/AUM
Financials	\$57	7%	\$1.8	3.4%
Industrials	\$37	4%	\$1.1	3.4%
Communication Services	\$31	4%	\$1.0	3.6%
Consumer Discretionary	\$33	4%	\$0.5	1.8%
Real Estate	\$68	8%	\$0.3	0.5%
Health Care	\$100	12%	-\$0.2	-0.2%
Utilities	\$24	3%	-\$0.5	-2.2%
Consumer Staples	\$32	4%	-\$0.7	-2.2%
Materials	\$41	5%	-\$1.2	-3.0%
Energy	\$70	9%	-\$2.3	-3.4%
Technology	\$186	22%	-\$6.6	-3.7%
ESG	\$85	10%	\$0.4	0.5%
Thematic	\$65	8%	\$0.6	1.0%
<b>Total Displayed</b>	<b>\$828</b>	<b>100%</b>	<b>-\$5.9</b>	<b>-0.8%</b>

\*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 - June 2023**

Type	AUM (\$B)	Mkt Shr	Flow (\$B)	Flow/AUM
U.S. Aggregate	\$322	23%	\$4.4	1.4%
U.S. Government	\$456	32%	\$5.6	1.2%
U.S. Municipals	\$104	7%	\$0.9	0.9%
U.S. I.G. Corporate	\$224	16%	\$1.3	0.6%
Developed Markets&Global	\$151	11%	\$2.2	1.4%
Emerging Markets	\$28	2%	\$0.8	2.8%
Sub-investment Grade	\$84	6%	\$2.3	2.9%
Convertibles and Preferreds	\$39	3%	\$0.7	1.9%
<b>Total Displayed</b>	<b>\$1,407</b>	<b>100%</b>	<b>\$18.1</b>	<b>1.3%</b>

Source: National Bank of Canada, Bloomberg

**Table 6 - Fixed Income ETF Flows by Maturity - June 2023**

Maturity	AUM (\$B)	Mkt Shr	Flow (\$B)	Flow/AUM
Broad/Mixed	\$686	49%	\$13.5	2.0%
Ultra Short Term	\$180	13%	\$2.4	1.4%
Short Term	\$256	18%	-\$4.0	-1.5%
Mid Term	\$162	11%	\$2.4	1.5%
Long Term	\$82	6%	\$2.8	3.5%
Target Maturity	\$40	3%	\$1.0	2.6%
Rate Hedged	\$1	0%	-\$0.1	-4.2%
<b>Total Displayed</b>	<b>\$1,407</b>	<b>100%</b>	<b>\$18.1</b>	<b>1.3%</b>

Source: National Bank of Canada, Bloomberg

**Table 7 - Equity ETF Flows by Factor\* - June 2023**

Factor	AUM (\$B)	Mkt Shr	Flow (\$B)	Flow/AUM
Small/Mid Cap	\$452	23%	\$7.3	1.8%
Growth	\$394	20%	\$2.8	0.8%
Quality	\$56	3%	\$1.4	2.7%
Income	\$374	19%	\$0.6	0.2%
Value	\$410	21%	\$0.4	0.1%
Momentum	\$23	1%	\$0.2	1.0%
Low Vol	\$62	3%	-\$0.3	-0.6%
Multi-Factor and Other	\$161	8%	\$7.1	4.9%
<b>Total Displayed</b>	<b>\$1,933</b>	<b>100%</b>	<b>\$19.4</b>	<b>1.1%</b>

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

**Table 8 - Top Single Long ETF Inflows - June 2023**

Ticker	Name	Flow (\$B)	Flow/AUM
1	VOO Vanguard S&P 500 ETF	\$11.3	3.8%
2	IVV iShares Core S&P 500 ETF	\$5.8	1.9%
3	RSP Invesco S&P 500 Equal Weight ETF	\$5.0	15.5%
4	VTI Vanguard Total Stock Market ETF	\$3.1	1.1%
5	BND Vanguard Total Bond Market ETF	\$2.4	2.6%
6	USCL iShares Climate Conscious & Transition MSCI US	\$2.2	NA
7	XLF Financial Select Sector SPDR Fund	\$2.2	7.6%
8	QQQM Invesco Nasdaq 100 ETF	\$2.1	18.9%
9	SPSM SPDR Portfolio S&P 600 Small Cap ETF	\$1.9	36.7%
10	IWM iShares Russell 2000 ETF	\$1.8	3.8%
11	LQD iShares iBoxx \$ IG Corporate Bond ETF	\$1.8	5.0%
12	EWJ iShares MSCI Japan ETF	\$1.6	14.9%
13	AGG iShares Core U.S. Aggregate Bond ETF	\$1.5	1.7%
14	IEFA iShares Core MSCI EAFE ETF	\$1.5	1.5%
15	SPY SPDR S&P 500 ETF Trust	\$1.4	0.3%
16	JEPI JPMorgan Equity Premium Income ETF	\$1.3	4.9%
17	USFR WisdomTree Floating Rate Treasury Fund	\$1.2	7.4%
18	VEA Vanguard FTSE Developed Markets ETF	\$1.2	1.1%
19	IEF iShares 7-10 Year Treasury Bond ETF	\$1.1	4.0%
20	XLI Industrial Select Sector SPDR Fund	\$1.1	8.6%

Source: National Bank of Canada, Bloomberg

**Table 9 - Top Single Long ETF Outflows - June 2023**

Ticker	Name	Flow (\$B)	Flow/AUM
1	VGT Vanguard Information Technology ETF	-\$6.7	-11.8%
2	SUSL iShares ESG MSCI USA Leaders ETF	-\$2.3	-69.9%
3	BBEU JPMorgan BetaBuilders Europe ETF	-\$1.8	-19.9%
4	SHY iShares 1-3 Year Treasury Bond ETF	-\$1.5	-5.4%
5	XLE Energy Select Sector SPDR Fund	-\$1.5	-4.6%
6	GLD SPDR Gold Shares	-\$1.1	-1.8%
7	BIL SPDR Bloomberg Barclays 1-3 Month T-Bill ETF	-\$1.0	-3.4%
8	FXZ First Trust Materials AlphaDEX Fund	-\$0.9	-66.0%
9	IGSB iShares 1-5 Year IG Corporate Bond ETF	-\$0.7	-3.0%
10	JPST JPMorgan Ultra-Short Income ETF	-\$0.7	-2.7%
11	EEM iShares MSCI Emerging Markets ETF	-\$0.7	-2.8%
12	HYG iShares iBoxx High Yield Corporate Bond ETF	-\$0.6	-4.1%
13	HYDW Xtrackers Low Beta High Yield Bond ETF	-\$0.6	-68.8%
14	SCHP Schwab US TIPS ETF	-\$0.5	-4.4%
15	VCSH Vanguard Short-Term Corporate Bond ETF	-\$0.5	-1.5%
16	SMH VanEck Semiconductor ETF	-\$0.5	-5.3%
17	XLU Utilities Select Sector SPDR Fund	-\$0.5	-3.1%
18	SPYG SPDR Portfolio S&P 500 Growth ETF	-\$0.5	-2.8%
19	ARKK ARK Innovation ETF	-\$0.5	-5.9%
20	IAU iShares Gold Trust	-\$0.4	-1.4%

Source: National Bank of Canada, Bloomberg

January - June 2023 ETF Flows: Tables 10 - 16

**Table 10 - Equity ETF Flows by Geography - Jan-June 2023**

Geography	AUM (\$B)	Mkt Shr	Flow (\$B)	Flow/AUM
U.S.	\$4,325		\$54.4	1.4%
Broad/Large Cap	\$1,849	33%	\$48.2	3.2%
U.S. Other	\$2,475	44%	\$6.2	0.3%
International Developed	\$615		\$35.2	6.7%
Broad Int'l Dev	\$474	8%	\$21.9	5.3%
Broad Europe	\$49	1%	\$8.1	22.4%
Japan	\$27	0%	\$4.6	23.2%
Canada	\$10	0%	-\$0.7	-7.3%
Other Developed	\$55	1%	\$1.4	2.8%
Emerging Markets	\$286		\$10.7	4.0%
Broad Cap Weighted	\$192	3%	\$9.4	5.4%
China (A+H)	\$24	0%	\$0.1	0.4%
Other EM	\$70	1%	\$1.2	1.9%
Global/Regional	\$379	7%	\$3.6	1.1%
<b>Total Displayed</b>	<b>\$5,605</b>	<b>100%</b>	<b>\$103.9</b>	<b>2.1%</b>

Source: National Bank of Canada, Bloomberg

**Table 11 - Equity ETF Flows by Sector and Themes\* - Jan-June 2023**

Sector	AUM (\$B)	Mkt Shr	Flow (\$B)	Flow/AUM
Consumer Discretionary	\$33	4%	\$2.3	9.9%
Financials	\$57	7%	\$1.7	2.9%
Communication Services	\$31	4%	\$1.5	6.2%
Industrials	\$37	4%	\$0.8	2.6%
Utilities	\$24	3%	\$0.0	0.0%
Consumer Staples	\$32	4%	-\$0.1	-0.2%
Technology	\$186	22%	-\$1.2	-0.9%
Materials	\$41	5%	-\$1.6	-4.0%
Real Estate	\$68	8%	-\$3.4	-4.9%
Health Care	\$100	12%	-\$4.2	-4.0%
Energy	\$70	9%	-\$11.2	-13.1%
ESG	\$85	10%	-\$5.5	-6.7%
Thematic	\$65	8%	\$1.4	2.5%
<b>Total Displayed</b>	<b>\$828</b>	<b>100%</b>	<b>-\$19.4</b>	<b>-2.5%</b>

\*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 15 - Top Single Long ETF Inflows - Jan-June 2023**

Ticker	Name	Flow (\$B)	Flow/AUM
1 VOO	Vanguard S&P 500 ETF	\$20.8	7.9%
2 TLT	iShares 20+ Year Treasury Bond ETF	\$11.6	43.1%
3 SPY	SPDR S&P 500 ETF Trust	\$11.5	3.3%
4 JEPI	JPMorgan Equity Premium Income ETF	\$10.1	58.0%
5 QUAL	iShares MSCI USA Quality Factor ETF	\$9.9	56.4%
6 VTI	Vanguard Total Stock Market ETF	\$8.9	3.4%
7 BND	Vanguard Total Bond Market ETF	\$8.6	10.2%
8 AGG	iShares Core U.S. Aggregate Bond ETF	\$8.5	10.3%
9 IEF	iShares 7-10 Year Treasury Bond ETF	\$6.1	26.9%
10 QQQM	Invesco Nasdaq 100 ETF	\$5.3	93.0%
11 GOVT	iShares US Treasury Bond ETF	\$5.2	23.3%
12 RSP	Invesco S&P 500 Equal Weight ETF	\$4.9	14.9%
13 SCHI	Schwab 5-10 Year Corporate Bond ETF	\$4.8	1472.0%
14 SCHD	Schwab US Dividend Equity ETF	\$4.7	10.6%
15 IEMG	iShares Core MSCI Emerging Markets ETF	\$4.7	7.4%
16 SCHO	Schwab Short-Term U.S. Treasury ETF	\$4.2	41.3%
17 BNDX	Vanguard Total International Bond ETF	\$4.1	9.3%
18 VGSH	Vanguard Short-Term Treasury ETF	\$4.0	21.9%
19 MBB	iShares MBS ETF	\$3.9	16.8%
20 BBEU	JPMorgan BetaBuilders Europe ETF	\$3.9	NA

Source: National Bank of Canada, Bloomberg

**Table 12 - Fixed Income ETF Flows by Type - Jan-June 2023**

Type	AUM (\$B)	Mkt Shr	Flow (\$B)	Flow/AUM
U.S. Aggregate	\$322	23%	\$23.8	8.1%
U.S. Government	\$456	32%	\$55.6	14.0%
U.S. Municipals	\$104	7%	\$2.7	2.7%
U.S. I.G. Corporate	\$224	16%	\$9.6	4.5%
Developed Markets&Global	\$151	11%	\$11.9	8.7%
Emerging Markets	\$28	2%	\$0.9	3.4%
Sub-investment Grade	\$84	6%	-\$4.6	-5.3%
Convertibles and Preferreds	\$39	3%	-\$0.8	-2.1%
<b>Total Displayed</b>	<b>\$1,407</b>	<b>100%</b>	<b>\$99.1</b>	<b>7.7%</b>

Source: National Bank of Canada, Bloomberg

**Table 13 - Fixed Income ETF Flows by Maturity - Jan-June 2023**

Maturity	AUM (\$B)	Mkt Shr	Flow (\$B)	Flow/AUM
Broad/Mixed	\$686	49%	\$45.8	7.3%
Ultra Short Term	\$180	13%	\$11.9	7.1%
Short Term	\$256	18%	-\$5.5	-2.1%
Mid Term	\$162	11%	\$17.6	12.4%
Long Term	\$82	6%	\$22.1	37.9%
Target Maturity	\$40	3%	\$7.8	24.2%
Rate Hedged	\$1	0%	-\$0.5	-30.6%
<b>Total Displayed</b>	<b>\$1,407</b>	<b>100%</b>	<b>\$99.1</b>	<b>7.7%</b>

Source: National Bank of Canada, Bloomberg

**Table 14 - Equity ETF Flows by Factor\* - Jan-June 2023**

Factor	AUM (\$B)	Mkt Shr	Flow (\$B)	Flow/AUM
Quality	\$56	3%	\$14.6	40.5%
Small/Mid Cap	\$452	23%	\$7.6	1.8%
Growth	\$394	20%	\$7.4	2.4%
Income	\$374	19%	\$4.6	1.3%
Momentum	\$23	1%	-\$1.8	-7.7%
Low Vol	\$62	3%	-\$7.4	-10.9%
Value	\$410	21%	-\$10.2	-2.5%
Multi-Factor and Other	\$161	8%	\$12.9	9.4%
<b>Total Displayed</b>	<b>\$1,933</b>	<b>100%</b>	<b>\$27.7</b>	<b>1.6%</b>

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

**Table 16 - Top Single Long ETF Outflows - Jan-June 2023**

Ticker	Name	Flow (\$B)	Flow/AUM
1 ESGU	iShares ESG Aware MSCI USA ETF	-\$7.0	-35.9%
2 VCSH	Vanguard Short-Term Corporate Bond ETF	-\$6.0	-14.9%
3 IWD	iShares Russell 1000 Value ETF	-\$5.3	-9.8%
4 XLE	Energy Select Sector SPDR Fund	-\$4.3	-10.5%
5 EEMV	iShares MSCI EM Min Vol Factor ETF	-\$3.9	-47.4%
6 IWF	iShares Russell 1000 Growth ETF	-\$3.8	-6.4%
7 ACWI	iShares MSCI ACWI ETF	-\$2.6	-14.1%
8 XLK	Technology Select Sector SPDR Fund	-\$2.6	-6.7%
9 SCHP	Schwab US TIPS ETF	-\$2.5	-18.4%
10 MTUM	iShares MSCI USA Momentum Factor ETF	-\$2.5	-21.1%
11 HDV	iShares Core High Dividend ETF	-\$2.2	-17.1%
12 SUSL	iShares ESG MSCI USA Leaders ETF	-\$2.2	-76.0%
13 VTIP	Vanguard Short-Term Inflation-Protected Securities	-\$2.1	-12.8%
14 USSG	Xtrackers MSCI USA ESG Leaders Equity ETF	-\$2.0	-69.2%
15 IVE	iShares S&P 500 Value ETF	-\$1.9	-7.5%
16 SHYG	iShares 0-5 Year High Yield Corporate Bond ETF	-\$1.8	-25.7%
17 TIP	iShares TIPS Bond ETF	-\$1.8	-7.7%
18 DVY	iShares Select Dividend ETF	-\$1.7	-7.5%
19 XBI	SPDR S&P Biotech ETF	-\$1.5	-19.3%
20 VNQ	Vanguard Real Estate ETF	-\$1.5	-4.6%

Source: National Bank of Canada, Bloomberg

**Table 17: ETF Provider Table**

Provider	AUM (\$B)	Mkt Shr	June 2023		Jan-June 2023	
			Flow (\$B)	Flow/AUM	Flow (\$B)	Flow/AUM
1 BlackRock iShares	\$2,404	33%	\$22.0	1.0%	\$26.3	1.2%
2 Vanguard	\$2,138	29%	\$16.7	0.8%	\$64.4	3.4%
3 State Street SSGA	\$1,091	15%	\$7.9	0.8%	\$20.2	2.1%
4 Invesco	\$402	5%	\$7.4	2.0%	\$9.2	2.8%
5 Charles Schwab	\$293	4%	\$1.9	0.7%	\$14.2	5.5%
6 First Trust	\$142	2%	\$0.7	0.5%	\$2.1	1.6%
7 JPMorgan	\$117	2%	\$1.8	1.6%	\$22.5	25.6%
8 Dimensional Holdings	\$93	1%	\$3.3	3.8%	\$14.8	20.4%
9 ProShares	\$69	1%	\$0.9	1.4%	\$3.3	5.8%
10 WisdomTree	\$66	1%	\$2.0	3.3%	\$7.3	13.0%
11 VanEck	\$59	1%	\$0.2	0.3%	\$0.8	1.5%
12 Global X	\$42	1%	\$0.9	2.3%	\$2.6	7%
13 Fidelity	\$37	0%	\$1.1	3.2%	\$2.3	8%
14 Direxion	\$31	0%	\$0.0	0.0%	\$2.5	11.2%
15 Goldman Sachs	\$30	0%	\$0.3	1.0%	\$0.8	2.9%
16 American Century	\$26	0%	\$0.9	3.9%	\$5.8	30.5%
17 Pacer Financial	\$25	0%	\$0.1	0.5%	\$4.2	21.4%
18 PIMCO	\$22	0%	\$0.9	4.3%	\$0.5	2.3%
19 Northern Trust	\$21	0%	-\$0.2	-0.8%	\$0.0	0.0%
20 DWS Xtrackers	\$20	0%	-\$0.3	-1.5%	\$0.3	1.7%
<b>Top 20 Total</b>	<b>\$7,128</b>	<b>97%</b>	<b>\$68.6</b>		<b>\$204.1</b>	
<b>Total ETF</b>	<b>\$7,341</b>	<b>100%</b>	<b>\$70.7</b>		<b>\$225.0</b>	

Source: NBF ETF Research, Bloomberg. Data as of June 30, 2023.

**Table 18: ESG ETF Flows by Categories**

Category	AUM (\$M)	AUM (%)	June 2023		June YTD 2023	
			Flow (\$M)	Flow/AUM	Flow (\$M)	Flow/AUM
Equity	\$88,411	90%	\$493	0.6%	-\$5,282	-6.2%
Broad - U.S.	\$41,320	42%	\$2,022	-5.0%	-\$10,619	-23.1%
Broad - DM	\$9,015	9%	\$193	2.2%	\$295	3.7%
Broad - EM	\$4,898	5%	\$32	0.7%	\$540	13.0%
Broad - Global	\$4,140	4%	-\$3	-0.1%	\$120	3.2%
Environment	\$11,677	12%	\$2,236	25.3%	\$4,870	85.4%
Clean Energy	\$11,181	11%	-\$32	-0.3%	-\$947	-7.7%
Energy Transition	\$2,151	2%	\$4	0.2%	\$12	-0.6%
Social	\$3,322	3%	\$73	2.4%	\$403	15.4%
Other	\$699	1%	\$11	1.7%	\$69	12.6%
Commodities	\$981	1%	-\$52	-5.3%	\$81	-8.7%
Multi-Asset	\$67	0%	\$0	0.0%	\$9	15.9%
Fixed Income	\$8,426	9%	\$174	2.1%	\$1,462	21.2%
<b>Total Displayed</b>	<b>\$97,885</b>	<b>100%</b>	<b>\$614</b>	<b>0.7%</b>	<b>-\$3,892</b>	<b>-4.2%</b>

Source: NBF ETF Research, Bloomberg. Data as of June 30, 2023.

## Appendix 1 - 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 2 - 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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Levered and Inverse Exchange-Traded Funds are very different from most ETFs. They pursue leveraged investment goals, and they are riskier than alternatives that do not use leverage because they magnify the performance of the benchmark on an investment. These ETFs seek daily leveraged investment results. The return of an inverse or levered ETF for periods longer than a single day, especially in periods of market volatility, may be completely uncorrelated to the return of the benchmark over such longer periods. Levered and inverse ETFs are intended to be used as short-term trading vehicles for investors managing their portfolios on a daily basis. They are not to be used by, and are not appropriate for, investors who intend to hold positions.

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