

## September 2022: Cash cushions growing

- Canadian ETFs gathered \$1.9 billion in September thanks entirely to \$2.3 billion created in Fixed Income
- Cash Alternative ETFs took in \$1.7 billion in on month, their highest inflow in history
- Equity outflows were dominated by Canadian equity and XIU; dividend/income inflows remained strong
- A whopping 28 ETFs launched in September, bringing the total number to 1271 in Canada

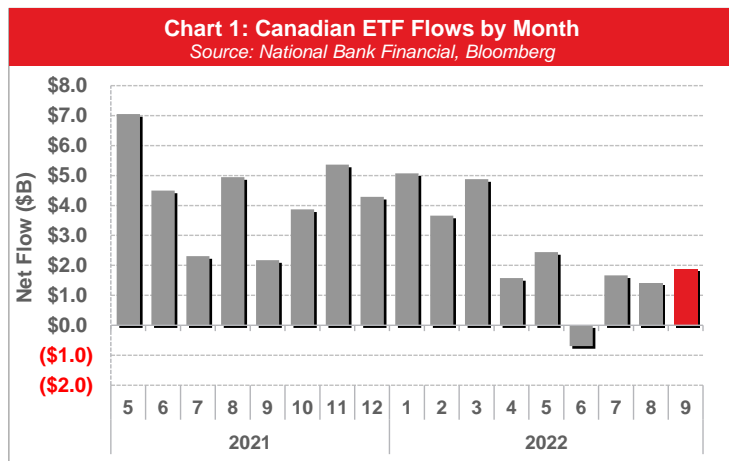
**Summary:** Canadian ETFs gathered \$1.9 billion in net flows in September, almost entirely on the back of demand for cash-like ETFs. The equity asset class saw redemptions of \$436 million from Canadian and International region, but U.S. equity managed to pull in \$506 million. The outflow from Canada was mostly concentrated in institutional redemptions from XIU, with smaller withdrawals coming from other broad Canadian ETFs.

Fixed Income ETFs enjoyed inflows of \$2.3 billion split almost entirely among cash alternatives and ultra-short-term bonds; some long-term bond ETFs also added to the haul as some investors may be preparing for a possible recessionary environment. The inflows into cash alternative ETFs (amounting to a net \$1.7 billion) was the highest monthly inflow ever for this category (Chart 2) since Purpose introduced PSA in 2013.

Minor redemptions occurred in commodity ETFs, Multi-asset, and Crypto-asset ETFs. In all, the flow pattern in September was the most defensive that we've observed this year.

### Flows by Asset Class, Category and Product: (Table 1 & Tables 5 - 12)

Equity ETFs lost \$436 million, concentrated in market-cap weighed ETFs for the Canadian region. XIU displayed its usual institutional activity, which in September resulted in redemptions of \$737 million. Low-cost, cap-weighted passive ETFs for various regions like Canada (XIC, HXT), international developed (ZEA), and the U.S. (HXS) also suffered outflows. Overall, the U.S. is the only region to post net positive ETF inflows in September (\$506 million), with broad market ETFs XSP and VSP on top of the leaderboard.

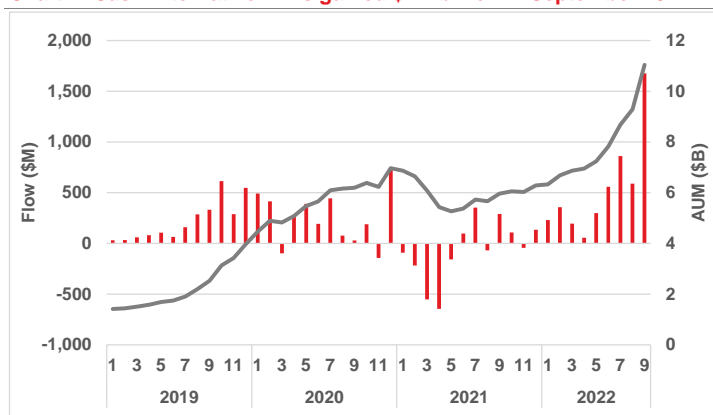


**Table 1 - ETF Flows by Category - YTD Sept 2022**

|                   | AUM (\$M)        | Mkt Shr (%) | Sept 2022      |             | YTD Sept 2022   |             |
|-------------------|------------------|-------------|----------------|-------------|-----------------|-------------|
|                   |                  |             | Flow \$M       | Flow/AUM    | Flow \$M        | Flow/AUM    |
| Equity            | \$180,528        |             | -\$436         | -0.2%       | \$9,552         | 4.2%        |
| Canada            | \$69,371         | 24%         | -\$837         | -1.1%       | \$3,163         | 4.0%        |
| United States     | \$62,053         | 21%         | \$506          | 0.8%        | \$2,938         | 3.6%        |
| International     | \$49,104         | 17%         | -\$105         | -0.2%       | \$3,451         | 5.3%        |
| Fixed Income      | \$87,188         | 30%         | \$2,327        | 2.7%        | \$9,064         | 9.4%        |
| Commodities       | \$1,461          | 1%          | -\$15          | -1.0%       | -\$312          | -16.3%      |
| Multi-Asset       | \$15,147         | 5%          | -\$36          | -0.2%       | \$1,761         | 11.2%       |
| Inverse / Levered | \$2,482          | 1%          | \$98           | 4.0%        | \$1,146         | 65.1%       |
| Crypto-Asset      | \$2,070          | 1%          | -\$81          | -3.6%       | -\$22           | -0.4%       |
| <b>Total</b>      | <b>\$288,876</b> | <b>100%</b> | <b>\$1,856</b> | <b>0.6%</b> | <b>\$21,188</b> | <b>6.1%</b> |

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

### Chart 2: Cash Alternative ETFs gained \$1.7 billion in September 2022



Source: NBF ETF Research, SEDAR, ETF Providers. Data as of September 2022

Dividend/Income ETFs, sector ETFs such as XEG (iShares S&P/TSX Energy), and defensive sectors (health care, utility) attracted the most inflows. Thematic ETFs in the field of private equity, infrastructure, and agriculture also registered inflows, speaking to the usage of thematic ETFs for an inflationary environment.

**Fixed Income** ETF flows show clear signs of flight-to-safety. Cash alternative ETFs, after already experiencing positive inflows every month this year, broke another monthly record; three “high interest savings” ETFs from different providers (CSAV, HISA, PSA) occupy the top three ETF inflows in September, while others in the category (CASH and HSUV/U U.S. dollars) also climbed the leaderboard. Ultra-short-term bond products with minimal duration and credit risk (ZST, CMR, PFL) welcomed inflows as well. Recession fears loom larger by the day, but short-term rates continue to rise; consequently, the relative attractiveness of this class of products grows too—not just for safety, but as actual yield instruments. On the other end of the spectrum, sub-investment grade (ZHY) and preferred share ETFs suffered redemptions.

**Multi-asset** ETFs registered a rare month of outflows of \$36 million led by market neutral ETF (DANC) and several other ETFs that use alternative strategies. Asset allocation ETF inflows remained intact and steady.

**Crypto-asset** ETFs saw redemptions of \$81 million. ETHQ led the outflows with \$91 million redeemed.

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

The flow patterns of many providers were impacted by a single product from their lineup. RBC iShares outflows were primarily driven by large outflows from XIU; 3iQ by ETHQ; and Desjardins by DANC. On the inflow side, Evolve had inflows of \$472 million because of \$452 million created in HISA; Purpose’s \$321 million inflow is mostly attributable to PSA’s flows of \$358 million; CI First Asset’s inflow of \$418 million are also due to \$458 million created in CSAV.

| Provider               | New Methodology (adjusted for ETF-of-ETFs) |               |                      |                    | Unadjusted          |                      |
|------------------------|--|---------------|----------------------|--------------------|---------------------|----------------------|
|                        | AUM (\$M)                                  | Mkt Shr (%)   | Sept 2022 Flow (\$M) | Sept 2022 Flow/AUM | Sept 2022 AUM (\$M) | Sept 2022 Flow (\$M) |
| 1 RBC iShares          | \$84,668                                   | 29.3%         | -\$419               | 0%                 | \$89,767            | -\$387               |
| 2 BMO                  | \$73,356                                   | 25.4%         | \$262                | 0%                 | \$80,915            | \$261                |
| 3 Vanguard             | \$37,150                                   | 12.9%         | \$515                | 1%                 | \$45,737            | \$605                |
| 4 Horizons             | \$20,557                                   | 7.1%          | -\$42                | 0%                 | \$21,084            | -\$39                |
| 5 CI First Asset       | \$13,259                                   | 4.6%          | \$418                | 3%                 | \$13,399            | \$427                |
| 6 Mackenzie*           | \$11,242                                   | 3.9%          | \$49                 | 0%                 | \$11,466            | \$48                 |
| 7 TDAM                 | \$7,467                                    | 2.6%          | \$101                | 1%                 | \$7,549             | \$109                |
| 8 NBI                  | \$5,898                                    | 2.0%          | \$46                 | 1%                 | \$5,898             | \$46                 |
| 9 Purpose              | \$5,502                                    | 1.9%          | \$321                | 6%                 | \$5,750             | \$320                |
| 10 Invesco             | \$4,190                                    | 1.5%          | \$25                 | 1%                 | \$4,210             | \$24                 |
| 11 Fidelity            | \$2,670                                    | 0.9%          | \$31                 | 1%                 | \$2,847             | \$37                 |
| 12 CIBC                | \$2,534                                    | 0.9%          | \$17                 | 1%                 | \$2,546             | \$17                 |
| 13 Manulife            | \$2,260                                    | 0.8%          | -\$46                | -2%                | \$2,260             | -\$46                |
| 14 Harvest             | \$2,185                                    | 0.8%          | \$98                 | 4%                 | \$2,466             | \$127                |
| 15 Dynamic             | \$2,040                                    | 0.7%          | \$39                 | 2%                 | \$2,040             | \$39                 |
| 16 PIMCO               | \$1,951                                    | 0.7%          | \$63                 | 3%                 | \$1,951             | \$63                 |
| 17 Evolve Funds        | \$1,930                                    | 0.7%          | \$472                | 31%                | \$1,985             | \$471                |
| 18 Desjardins          | \$1,640                                    | 0.6%          | -\$66                | -4%                | \$1,640             | -\$66                |
| 19 Franklin Templeton  | \$1,226                                    | 0.4%          | -\$13                | -1%                | \$1,226             | -\$13                |
| 20 Hamilton            | \$1,209                                    | 0.4%          | \$48                 | 4%                 | \$1,568             | \$53                 |
| 21 AGF                 | \$1,122                                    | 0.4%          | -\$4                 | 0%                 | \$1,122             | -\$4                 |
| 22 Scotia Bank         | \$1,019                                    | 0.4%          | \$11                 | 1%                 | \$1,019             | \$11                 |
| 23 Ninepoint Partners  | \$606                                      | 0.2%          | -\$15                | -2%                | \$606               | -\$15                |
| 24 Picton Mahoney      | \$589                                      | 0.2%          | \$23                 | 4%                 | \$589               | \$23                 |
| 25 Brompton Funds      | \$409                                      | 0.1%          | \$2                  | 1%                 | \$471               | \$2                  |
| 26 Middlefield         | \$399                                      | 0.1%          | -\$1                 | 0%                 | \$399               | -\$1                 |
| 27 First Trust         | \$379                                      | 0.1%          | \$10                 | 3%                 | \$383               | \$10                 |
| 28 3iQ                 | \$345                                      | 0.1%          | -\$90                | -21%               | \$345               | -\$90                |
| 29 Bristol Gate        | \$282                                      | 0.1%          | -\$2                 | -1%                | \$282               | -\$2                 |
| 30 Guardian Capital    | \$215                                      | 0.1%          | \$1                  | 0%                 | \$215               | \$1                  |
| 31 Emerge              | \$122                                      | 0.0%          | \$5                  | 4%                 | \$122               | \$5                  |
| 32 IA Clarington       | \$114                                      | 0.0%          | -\$1                 | -1%                | \$114               | -\$1                 |
| 33 Lysander            | \$88                                       | 0.0%          | \$1                  | 1%                 | \$88                | \$1                  |
| 34 Accelerate          | \$62                                       | 0.0%          | -\$4                 | -5%                | \$68                | -\$5                 |
| 35 Mulvihill           | \$44                                       | 0.0%          | \$4                  | 10%                | \$44                | \$4                  |
| 36 Russell Investments | \$43                                       | 0.0%          | -\$1                 | -2%                | \$43                | -\$1                 |
| 37 Arrow Capital       | \$32                                       | 0.0%          | \$0                  | 0%                 | \$32                | \$0                  |
| 38 Starlight           | \$32                                       | 0.0%          | \$1                  | 2%                 | \$32                | \$1                  |
| 39 SmartBe             | \$21                                       | 0.0%          | \$0                  | 0%                 | \$21                | \$0                  |
| 40 Evermore Capital    | \$10                                       | 0.0%          | \$0                  | 0%                 | \$10                | \$0                  |
| 41 NCM Investments     | \$5  | 0.0%          | \$0                  | 0%                 | \$5                 | \$0                  |
| 42 Caldwell            | \$5  | 0.0%          | \$0                  | 0%                 | \$5                 | \$0                  |
| <b>Total</b>           | <b>\$288,876</b>                           | <b>100.0%</b> | <b>\$1,856</b>       | <b>0.6%</b>        | <b>\$312,319</b>    | <b>\$2,032</b>       |

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

**Table 3: Newly launched ETFs - September 2022**

| Name  | Ticker | Mgmt Fee (%) | Focus                 |
|---|--------|--------------|-----------------------|
| 1 CI Global Sustainable Infrastructure Fund             | CGRN*  | 0.70         | Infrastructure        |
| 2 CI Auspice Broad Commodity ETF                        | CCOM   | 0.52         | Broad Commodity       |
| 3 CI Global Green Bond Fund                             | CGRB*  | 0.50         | Green bond            |
| 4 Harvest Esg Equity Income Index ETF                   | HESG   | 0.65         | ESG Income            |
| 5 Evolve Slate Global Real Estate Enhanced Yield Fund   | BILT   | 0.75         | Levered sector        |
| 6 Purpose Cash Management Fund                          | MNY    | 0.20         | Cash                  |
| 7 Purpose Credit Opportunities Fund/ETF                 | CROP/U | 0.85         | Credit                |
| 8 BetaPro Equal Weight Canadian Bank 2x Daily Bull ETF  | HBKU   | 1.15         | Levered sector        |
| 9 BetaPro Equal Weight Canadian Bank-2x Daily Bear ETF  | HBKD   | 1.15         | Inverse sector        |
| 10 Emerge Empwr Sustainable Global Core Equity Etf      | EPZA*  | 0.80         |                       |
| 11 Emerge Empwr Unified Sustainable Equity ETF          | EPWR*  | 0.80         |                       |
| 12 Emerge Empwr Sustainable Dividend Equity ETF         | EPCA*  | 0.80         | Active equity         |
| 13 Emerge Empwr Sustainable Emerging Markets Equity Etf | EPCH*  | 0.80         |                       |
| 14 Emerge Empwr Sustainable Select Growth Equity ETF    | EPGC*  | 0.80         |                       |
| 15 Franklin Bissett Ultra Short Bond Active ETF         | FHIS   | 0.15         | Ultra short term Bond |
| 16 Lysander-Canso Floating Rate                         | LYFR   | 0.35         |                       |
| 17 Lysander-Canso Corporate Treasury ActivETF           | LYCT   | 0.25         | Active bond           |
| 18 Hamilton Enhanced Utilities ETF                      | HUTS   | 0.65         | Levered sector        |
| 19 GuardPath TM Managed Decumulation 2042               | GPMD   | 0.60         | Multi-asset           |
| 20 Dynamic Active Enhanced Yield Covered Options Etf    | DXQ    | 0.65         | Covered call          |
| 21 Fidelity Advantage Ether ETF                         | FETH   | 0.40         | Ethereum              |

\*ETF has USD series. Source: NBF ETF Research, SEDAR, ETF Providers. Data as of September 30, 2022

In this skittish environment, providers with “cash alternative” ETFs on the product shelf received a boost in net inflows.

A whopping 28 products were launched in September. The section below (on ESG ETF flows) covers several of the new launches.

**Canadian ESG ETF Flows (Table 4):** Net inflows to ESG ETFs were muted in September amid equity market turmoil; but despite the pause in interest, last month a wave of ESG ETFs launched in Canada. A total of 15 new ESG ETFs started trading during the month, bringing the year-to-date tally of new ESG launches to 43. This figure just surpassed the record number of ESG ETF launches in a calendar year (set in 2021) by one. In September, Emerge launched 10 sustainable equity ETFs managed by women portfolio managers; CI listed two series of sustainable infrastructure ETFs and two series of green bond ETFs; and Harvest brought the first ESG-screened covered call ETF to the market. Among these new ETFs, CI Global Green Bond Fund (CGRB) received a meaningful sum of \$11 million right out of the gate.

**Table 4: Canada Listed ESG ETFs - September 2022**

| Category               | AUM (\$M)      | AUM (%)     | September 2022 |              | Jan - Sept 2022 |              |
|------------------------|----------------|-------------|----------------|--------------|-----------------|--------------|
|                        |                |             | Flow (\$M)     | Flow/AUM     | Flow (\$M)      | Flow/AUM     |
| Equity                 | \$8,069        | 82%         | -\$12          | -0.1%        | \$1,573         | 19.2%        |
| Broad - Canada         | \$2,025        | 21%         | \$6            | 0.3%         | \$776           | 50.7%        |
| Broad - U.S.           | \$2,068        | 21%         | \$4            | -0.2%        | \$349           | 15.3%        |
| Broad - DM             | \$1,136        | 12%         | \$3            | 0.2%         | \$175           | 13.2%        |
| Broad - EM             | \$296          | 3%          | \$2            | -0.5%        | \$2             | 0.5%         |
| Broad - Global         | \$1,139        | 12%         | \$8            | 0.7%         | \$204           | 17.6%        |
| Environment            | \$886          | 9%          | \$6            | -0.7%        | -\$76           | -6.5%        |
| Clean Energy           | \$310          | 3%          | -\$22          | -6.0%        | \$168           | 98.0%        |
| Social                 | \$144          | 1%          | \$1            | 0.7%         | -\$12           | -6.1%        |
| Infrastructure         | \$66           | 1%          | \$3            | 4.7%         | -\$12           | -117.4%      |
| Commodities            | \$12           | 0%          | \$0            | 0.0%         | \$14            | NA           |
| Multi-Asset            | \$141          | 1%          | \$0            | 0.3%         | \$28            | 19.6%        |
| Fixed Income           | \$1,575        | 16%         | -\$6           | -0.4%        | \$720           | 66.4%        |
| <b>Total Displayed</b> | <b>\$9,797</b> | <b>100%</b> | <b>-\$18</b>   | <b>-0.2%</b> | <b>\$2,335</b>  | <b>24.8%</b> |

Source: NBF ETF Research, Bloomberg. Data as of September 30, 2022

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

**Table 5 - Top Single Long ETF Inflows - Sept 2022**

| Ticker | Name   | Flow (\$M) | Flow/AUM |
|--------|--|------------|----------|
| 1      | CSAV CI High Interest Savings ETF                    | \$458      | 14%      |
| 2      | HISA High Interest Savings Account Fund              | \$453      | 101%     |
| 3      | PSA Purpose High Interest Savings ETF                | \$358      | 16%      |
| 4      | ZFL BMO Long Federal Bond Index ETF                  | \$349      | 21%      |
| 5      | ZST BMO Ultra Short-Term Bond ETF                    | \$292      | 39%      |
| 6      | CASH Horizons High Interest Savings ETF              | \$259      | 86%      |
| 7      | XSP iShares Core S&P 500 Index ETF CAD- Hedged       | \$208      | 3%       |
| 8      | ZUS/U BMO Ultra Short-Term US Bond ETF               | \$181      | 72%      |
| 9      | HSUV/U Horizons USD Cash Maximizer ETF               | \$172      | 25%      |
| 10     | XSB iShares Core Canadian Short Term Bond Index ETF  | \$153      | 5%       |
| 11     | XEG iShares S&P/TSX Capped Energy Index ETF          | \$106      | 5%       |
| 12     | VFV Vanguard S&P 500 Index ETF                       | \$104      | 2%       |
| 13     | ZAG BMO Aggregate Bond Index ETF                     | \$92       | 2%       |
| 14     | PFL Invesco 1-3 Year Laddered Floating Rate Note ETF | \$90       | 94%      |
| 15     | CMR iShares Premium Money Market ETF                 | \$88       | 39%      |
| 16     | VSP Vanguard S&P 500 Index ETF CAD-hedged            | \$80       | 4%       |
| 17     | VAB Vanguard Canadian Aggregate Bond Index ETF       | \$77       | 4%       |
| 18     | ZUE BMO S&P 500 Hedged to CAD Index ETF              | \$75       | 5%       |
| 19     | ZWU BMO Covered Call Utilities ETF                   | \$69       | 4%       |
| 20     | ZMMK BMO Money Market Fund ETF Series                | \$66       | 37%      |

Source: National Bank of Canada, Bloomberg.

**Table 6 - Top Single Long ETF Outflows - Sept 2022**

| Ticker | Name   | Flow (\$M) | Flow/AUM |
|--------|--|------------|----------|
| 1      | XIU iShares S&P/TSX 60 Index ETF                         | -\$737     | -7%      |
| 2      | ZEA BMO MSCI EAFE Index ETF                              | -\$310     | -7%      |
| 3      | ZFS BMO Short Federal Bond Index ETF                     | -\$206     | -30%     |
| 4      | HXS Horizons S&P 500 Index ETF                           | -\$183     | -7%      |
| 5      | ZHY BMO High Yield US Corporate Bond Hedged to CAD       | -\$178     | -25%     |
| 6      | XIC iShares Core S&P/TSX Capped Composite Index          | -\$153     | -2%      |
| 7      | HXT Horizon S&P/TSX 60 Index ETF                         | -\$142     | -4%      |
| 8      | HBB Horizons Cdn Select Universe Bond ETF                | -\$99      | -4%      |
| 9      | ETHQ 3iQ CoinShares Ether ETF                            | -\$91      | -85%     |
| 10     | ZGB BMO Government Bond Index ETF                        | -\$79      | -14%     |
| 11     | DANC Desjardins Alt Long/Short Equity Market Neutral ETF | -\$62      | -8%      |
| 12     | XBB iShares Core Canadian Universe Bond Index ETF        | -\$60      | -1%      |
| 13     | FIG CI Investment Grade Bond ETF                         | -\$58      | -12%     |
| 14     | NXF/B CI Energy Giants Covered Call ETF                  | -\$58      | -21%     |
| 15     | NALT NBI Liquid Alternatives ETF                         | -\$56      | -16%     |
| 16     | ZCS BMO Short Corporate Bond Index ETF                   | -\$53      | -4%      |
| 17     | ZIC BMO Mid-Term US IG Corporate Bond Index ETF          | -\$52      | -45%     |
| 18     | PSU/U Purpose US Cash Fund                               | -\$49      | -14%     |
| 19     | TERM Manulife Smart Short-Term Bond ETF                  | -\$46      | -8%      |
| 20     | ZUT BMO Equal Weight Utilities Index ETF                 | -\$45      | -10%     |

Source: National Bank of Canada, Bloomberg.

| Asset Class       | AUM (\$M)        | Mkt Shr     | Flow (\$M)     | Flow/AUM    |
|-------------------|------------------|-------------|----------------|-------------|
| Equity            | \$180,528        | 62%         | -\$436         | -0.2%       |
| Fixed Income      | \$87,188         | 30%         | \$2,327        | 2.7%        |
| Commodities       | \$1,461          | 1%          | -\$15          | -1.0%       |
| Multi-Asset       | \$15,147         | 5%          | -\$36          | -0.2%       |
| Inverse / Levered | \$2,482          | 1%          | \$98           | 4.0%        |
| Crypto-Asset      | \$2,070          | 1%          | -\$81          | -3.6%       |
| <b>Total</b>      | <b>\$288,876</b> | <b>100%</b> | <b>\$1,856</b> | <b>0.6%</b> |

\*Equity Flows include option strategies; Source: National Bank of Canada, Bloomberg  
\$18,083 \$19,939

| Geography              | AUM (\$M)        | Mkt Shr     | Flow (\$M)    | Flow/AUM     |
|------------------------|------------------|-------------|---------------|--------------|
| Canada                 | \$69,371         | 38%         | -\$837        | -1.1%        |
| United States          | \$62,053         | 34%         | \$506         | 0.8%         |
| DM: Broad              | \$18,080         | 10%         | -\$310        | -1.6%        |
| DM: Regional & Country | \$5,002          | 3%          | \$22          | 0.4%         |
| Emerging Markets       | \$4,750          | 3%          | -\$8          | -0.2%        |
| Global                 | \$21,272         | 12%         | \$191         | 0.9%         |
| <b>Total</b>           | <b>\$180,528</b> | <b>100%</b> | <b>-\$436</b> | <b>-0.2%</b> |

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

| Sector       | AUM (\$M)       | Mkt Shr     | Flow (\$M)   | Flow/AUM    |
|--------------|-----------------|-------------|--------------|-------------|
| Financials   | \$9,346         | 37%         | \$38         | 0.4%        |
| Energy       | \$3,296         | 13%         | \$62         | 1.7%        |
| Real Estate  | \$2,784         | 11%         | -\$30        | -1.0%       |
| Health Care  | \$2,506         | 10%         | \$63         | 2.5%        |
| Technology   | \$2,402         | 10%         | \$11         | 0.4%        |
| Utilities    | \$2,327         | 9%          | \$34         | 1.3%        |
| Materials    | \$1,809         | 7%          | -\$57        | -3.2%       |
| Other        | \$519           | 2%          | -\$1         | -0.1%       |
| <b>Total</b> | <b>\$24,988</b> | <b>100%</b> | <b>\$120</b> | <b>0.5%</b> |

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

| Focus                | AUM (\$M)        | Mkt Shr     | Flow (\$M)    | Flow/AUM     |
|----------------------|------------------|-------------|---------------|--------------|
| Cap-weighted         | \$105,420        | 58%         | -\$753        | -0.7%        |
| Dividend / Income    | \$19,741         | 11%         | \$156         | 0.8%         |
| Factor: Low Vol      | \$7,046          | 4%          | -\$29         | -0.4%        |
| Factor: Multi-factor | \$2,726          | 2%          | -\$5          | -0.2%        |
| Factor: Fundamental  | \$4,502          | 2%          | -\$78         | -1.6%        |
| Sector               | \$24,988         | 14%         | \$120         | 0.5%         |
| Thematic             | \$10,474         | 6%          | \$69          | 0.6%         |
| ESG**                | \$6,757          | 4%          | \$1           | 0.0%         |
| Other                | \$5,631          | 3%          | -\$3          | 1.4%         |
| <b>Total</b>         | <b>\$180,528</b> | <b>100%</b> | <b>-\$436</b> | <b>-0.2%</b> |

\*Equity Flows include option strategies; Source: National Bank of Canada, Bloomberg  
\*\* Only includes ESG ETFs under Thematic category

| Type                  | AUM (\$M)       | Mkt Shr     | Flow (\$M)     | Flow/AUM    |
|-----------------------|-----------------|-------------|----------------|-------------|
| Canada Aggregate      | \$26,900        | 31%         | \$364          | 1.4%        |
| Canada Government     | \$8,888         | 10%         | \$145          | 1.6%        |
| Canada Corporate      | \$12,782        | 15%         | \$222          | 1.8%        |
| U.S. / North America  | \$7,523         | 9%          | \$90           | 1.2%        |
| Foreign               | \$9,824         | 11%         | \$149          | 1.5%        |
| Sub-Investment Grade  | \$3,515         | 4%          | -\$210         | -5.5%       |
| Preferred/Convertible | \$6,719         | 8%          | -\$109         | -1.5%       |
| Cash Alternative      | \$11,037        | 13%         | \$1,676        | 18.0%       |
| <b>Total</b>          | <b>\$87,188</b> | <b>100%</b> | <b>\$2,327</b> | <b>2.7%</b> |

Source: National Bank of Canada, Bloomberg

| Maturity         | AUM (\$M)       | Mkt Shr     | Flow (\$M)     | Flow/AUM    |
|------------------|-----------------|-------------|----------------|-------------|
| Broad/Mixed      | \$43,451        | 50%         | -\$127         | -0.3%       |
| Ultra Short Term | \$4,971         | 6%          | \$697          | 16.2%       |
| Short Term       | \$16,629        | 19%         | -\$278         | -1.6%       |
| Mid Term         | \$4,474         | 5%          | -\$50          | -1.1%       |
| Long Term        | \$4,728         | 5%          | \$354          | 8.0%        |
| Real Return      | \$1,513         | 2%          | -\$23          | -1.4%       |
| Target Maturity  | \$386           | 0%          | \$79           | 25.6%       |
| Cash Alternative | \$11,037        | 13%         | \$1,676        | 18.0%       |
| <b>Total</b>     | <b>\$87,188</b> | <b>100%</b> | <b>\$2,327</b> | <b>2.7%</b> |

Source: National Bank of Canada, Bloomberg

### YTD August 2022 Flow (Table 13 - 21):

Canadian ETFs managed to rake in a net \$21 billion year-to-date. Equity and Fixed Income each took in more than \$9 billion, splitting the total inflows between the two asset classes. Despite widespread inflation fears and headlines, Commodity ETFs in Canada had small outflows of \$312 million, primarily from gold ETFs. Multi-Asset ETFs welcomed \$1.8 billion in flows. Crypto asset ETF flows are almost flat on the year with \$22 million redeemed on a net basis, although this activity can wax and wane depending on the underlying price actions which is famously volatile and risky.

Within Equity, Canada-focused ETFs were leading up until August, and the U.S. has now finally caught up; each region enjoyed inflows around \$3 billion in 2022 so far. Emerging Markets are the only region with outflows at \$352 million YTD. Low Volatility ETFs and Multi-factor ETFs each saw redemptions of over \$900 million; all the other equity factor categories had inflows.

In a year with rapidly rising interest rates and widening credit spreads, cash alternative ETFs have overtaken Canadian aggregate bond ETFs in terms of YTD inflows. Cash alternative ETFs gathered \$4.8 billion, nearly \$1 billion above the inflows accumulated by Canadian aggregate bond ETFs. Categories with higher credit exposure such as sub-investment grade bonds, preferred share, and Canada corporate bond suffered outflows.

Tables continue on the next page

**Table 13 - Top ETF Inflows - YTD Sept 2022**

| Ticker | Name  | Flow (\$M) | Flow/AUM |
|--------|---|------------|----------|
| 1      | <b>CSAV</b> CI High Interest Savings ETF                | \$1,545    | 74%      |
| 2      | <b>VFV</b> Vanguard S&P 500 Index ETF                   | \$1,248    | 19%      |
| 3      | <b>TCLB</b> TD Canadian Long Term Federal Bond ETF      | \$1,156    | 393%     |
| 4      | <b>ESGY</b> BMO MSCI USA ESG Leaders Index ETF          | \$982      | 108%     |
| 5      | <b>HBB</b> Horizons Cdn Select Universe Bond ETF        | \$972      | 62%      |
| 6      | <b>HXT</b> Horizon S&P/TSX 60 Index ETF                 | \$953      | 33%      |
| 7      | <b>PSA</b> Purpose High Interest Savings ETF            | \$906      | 50%      |
| 8      | <b>ZMU</b> BMO Mid-Term US IG Corporate Bond CAD Hedged | \$868      | 47%      |
| 9      | <b>NSCE</b> NBI Sustainable Canadian Equity ETF         | \$737      | 207%     |
| 10     | <b>VEQT</b> Vanguard All-Equity ETF Portfolio           | \$663      | 39%      |
| 11     | <b>HISA</b> High Interest Savings Account Fund          | \$641      | 244%     |
| 12     | <b>XSP</b> iShares Core S&P 500 Index ETF CAD- Hedged   | \$634      | 7%       |
| 13     | <b>VGRO</b> Vanguard Growth ETF Portfolio               | \$589      | 18%      |
| 14     | <b>CASH</b> Horizons High Interest Savings ETF          | \$584      | 3595%    |
| 15     | <b>ZCPB</b> BMO Core Plus Bond Fund ETF                 | \$572      | 44%      |
| 16     | <b>ZWB</b> BMO Covered Call Canadian Banks ETF          | \$564      | 22%      |
| 17     | <b>XEQT</b> iShares Core Equity ETF Portfolio           | \$541      | 62%      |
| 18     | <b>HSUV/U</b> Horizons USD Cash Maximizer ETF           | \$538      | 169%     |
| 19     | <b>HSAV</b> Horizons Cash Maximizer ETF                 | \$530      | 35%      |
| 20     | <b>ZEA</b> BMO MSCI EAFE Index ETF                      | \$515      | 10%      |

Source: National Bank of Canada, Bloomberg;

**Table 14 - Top ETF Outflows - YTD Sept 2022**

| Ticker | Name   | Flow (\$M) | Flow/AUM |
|--------|--|------------|----------|
| 1      | <b>ESGYF</b> BMO MSCI USA ESG Leaders Index ETF            | -\$766     | -93%     |
| 2      | <b>XIC</b> iShares Core S&P/TSX Capped Composite Index     | -\$707     | -7%      |
| 3      | <b>TTP</b> TD Canadian Equity Index ETF                    | -\$637     | -37%     |
| 4      | <b>HXS</b> Horizons S&P 500 Index ETF                      | -\$530     | -16%     |
| 5      | <b>ZEM</b> BMO MSCI Emerging Markets Index ETF             | -\$516     | -25%     |
| 6      | <b>ZLU</b> BMO Low Volatility US Equity ETF                | -\$499     | -27%     |
| 7      | <b>TEC</b> TD Global Technology Leaders Index ETF          | -\$409     | -19%     |
| 8      | <b>XSH</b> iShares Core Canadian Short Term Corporate Bond | -\$402     | -21%     |
| 9      | <b>ZCM</b> BMO Mid Corporate Bond Index ETF                | -\$379     | -37%     |
| 10     | <b>ZMP</b> BMO Mid Provincial Bond Index ETF               | -\$342     | -46%     |
| 11     | <b>CMUE</b> CIBC Multifactor US Equity ETF                 | -\$342     | -93%     |
| 12     | <b>CMCE</b> CIBC Multifactor Canadian Equity ETF           | -\$337     | -103%    |
| 13     | <b>VALT/U</b> CI Gold Bullion Fund                         | -\$318     | -91%     |
| 14     | <b>ZGB</b> BMO Government Bond Index ETF                   | -\$302     | -33%     |
| 15     | <b>ZPR</b> BMO Laddered Preferred Share Index ETF          | -\$298     | -12%     |
| 16     | <b>CGXF</b> CI Gold+ Giants Covered Call ETF               | -\$281     | -59%     |
| 17     | <b>HPR</b> Horizons Active Preferred Share ETF             | -\$278     | -15%     |
| 18     | <b>FLGA</b> Franklin Global Aggregate Bond Active ETF      | -\$258     | -38%     |
| 19     | <b>FSF</b> CI Global Financial Sector ETF                  | -\$253     | -21%     |
| 20     | <b>CPD</b> iShares S&P/TSX Canadian Preferred Share Index  | -\$241     | -16%     |

Source: National Bank of Canada, Bloomberg;

**Table 15 - ETF Flows by Category - YTD Sept 2022**

| Asset Class         | AUM (\$M)        | Mkt Shr     | Flow (\$M)      | Flow/AUM    |
|---------------------|------------------|-------------|-----------------|-------------|
| Equity              | \$180,528        | 62%         | \$9,552         | 4%          |
| Fixed Income        | \$87,188         | 30%         | \$9,064         | 9%          |
| Commodities         | \$1,461          | 1%          | -\$312          | -16%        |
| Multi-Asset         | \$15,147         | 5%          | \$1,761         | 11%         |
| Inverse / Leveraged | \$2,482          | 1%          | \$1,146         | 65%         |
| Crypto-Asset        | \$2,070          | 1%          | -\$22           | 0%          |
| <b>Total</b>        | <b>\$288,876</b> | <b>100%</b> | <b>\$21,188</b> | <b>6.1%</b> |

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

**Table 18 - Equity ETF Flows by Focus - YTD Sept 2022**

| Focus                | AUM (\$M)        | Mkt Shr     | Flow (\$M)     | Flow/AUM    |
|----------------------|------------------|-------------|----------------|-------------|
| Cap-weighted         | \$105,420        | 58%         | \$4,546        | 3%          |
| Dividend / Income    | \$19,741         | 11%         | \$1,746        | 8%          |
| Factor: Low Vol      | \$7,046          | 4%          | -\$904         | -10%        |
| Factor: Multi-factor | \$2,726          | 2%          | -\$952         | -22%        |
| Factor: Fundamental  | \$4,502          | 2%          | \$415          | 8%          |
| Sector               | \$24,988         | 14%         | \$1,268        | 4%          |
| Thematic             | \$10,474         | 6%          | \$2,080        | 19%         |
| ESG**                | \$6,757          | 4%          | \$1,669        | 26%         |
| Other                | \$5,631          | 3%          | \$1,353        | 25%         |
| <b>Total</b>         | <b>\$180,528</b> | <b>100%</b> | <b>\$9,552</b> | <b>4.2%</b> |

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

\*\* Only includes ESG ETFs under Thematic category

**Table 16 - Equity ETF Flows by Geography - YTD Sept 2022**

| Geography              | AUM (\$M)        | Mkt Shr     | Flow (\$M)     | Flow/AUM    |
|------------------------|------------------|-------------|----------------|-------------|
| Canada                 | \$69,371         | 38%         | \$3,163        | 4%          |
| United States          | \$62,053         | 34%         | \$2,938        | 4%          |
| DM: Broad              | \$18,080         | 10%         | \$808          | 3%          |
| DM: Regional & Country | \$5,002          | 3%          | \$839          | 12%         |
| Emerging Markets       | \$4,750          | 3%          | -\$351         | -5%         |
| Global                 | \$21,272         | 12%         | \$2,154        | 9%          |
| <b>Total</b>           | <b>\$180,528</b> | <b>100%</b> | <b>\$9,552</b> | <b>4.2%</b> |

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

**Table 19 - Fixed Income ETF Flows by Type - YTD Sept 2022**

| Type                  | AUM (\$M)       | Mkt Shr     | Flow (\$M)     | Flow/AUM    |
|-----------------------|-----------------|-------------|----------------|-------------|
| Canada Aggregate      | \$26,900        | 31%         | \$3,848        | 14%         |
| Canada Government     | \$8,888         | 10%         | \$729          | 7%          |
| Canada Corporate      | \$12,782        | 15%         | -\$406         | -3%         |
| U.S. / North America  | \$7,523         | 9%          | \$1,261        | 13%         |
| Foreign               | \$9,824         | 11%         | \$249          | 2%          |
| Sub-Investment Grade  | \$3,515         | 4%          | -\$458         | -8%         |
| Preferred/Convertible | \$6,719         | 8%          | -\$974         | -10%        |
| Cash Alternative      | \$11,037        | 13%         | \$4,814        | 77%         |
| <b>Total</b>          | <b>\$87,188</b> | <b>100%</b> | <b>\$9,064</b> | <b>9.4%</b> |

Source: National Bank of Canada, Bloomberg

**Table 17 - Equity ETF Flows by Sector\* - YTD Sept 2022**

| Sector       | AUM (\$M)       | Mkt Shr     | Flow (\$M)     | Flow/AUM  |
|--------------|-----------------|-------------|----------------|-----------|
| Financials   | \$9,346         | 37%         | \$651          | 5%        |
| Energy       | \$3,301         | 13%         | \$521          | 24%       |
| Real Estate  | \$2,784         | 11%         | -\$239         | -6%       |
| Health Care  | \$2,506         | 10%         | \$431          | 17%       |
| Technology   | \$2,402         | 10%         | -\$46          | -1%       |
| Utilities    | \$2,327         | 9%          | \$354          | 15%       |
| Materials    | \$1,809         | 7%          | -\$329         | -13%      |
| Other        | \$514           | 2%          | -\$75          | -11%      |
| <b>Total</b> | <b>\$24,988</b> | <b>100%</b> | <b>\$1,268</b> | <b>4%</b> |

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

**Table 20 - Fixed Income ETF Flows by Maturity - YTD Sept 2022**

| Maturity         | AUM (\$M)       | Mkt Shr     | Flow (\$M)     | Flow/AUM    |
|------------------|-----------------|-------------|----------------|-------------|
| Broad/Mixed      | \$43,451        | 50%         | \$2,661        | 5%          |
| Ultra Short Term | \$4,971         | 6%          | \$905          | 21%         |
| Short Term       | \$16,629        | 19%         | -\$1,309       | -7%         |
| Mid Term         | \$4,474         | 5%          | \$161          | 2%          |
| Long Term        | \$4,728         | 5%          | \$1,484        | 34%         |
| Real Return      | \$1,513         | 2%          | \$35           | 2%          |
| Target Maturity  | \$386           | 0%          | \$312          | 96%         |
| Cash Alternative | \$11,037        | 13%         | \$4,814        | 77%         |
| <b>Total</b>     | <b>\$87,188</b> | <b>100%</b> | <b>\$9,064</b> | <b>9.4%</b> |

Source: National Bank of Canada, Bloomberg

**Table 21 - ETF Flows by Provider - YTD Sept 2022**

| Provider               | New Methodology (adjusted for ETF-of-ETFs) |                |                 |             | Unadjusted       |                 |
|------------------------|--|----------------|-----------------|-------------|------------------|-----------------|
|                        | AUM<br>(\$M)                               | Mkt Shr<br>(%) | YTD Sept 2022   |             | YTD Sept 2022    |                 |
|                        |  |                | Flow (\$M)      | Flow/AUM    | AUM (\$M)        | Flow (\$M)      |
| 1 RBC iShares          | \$84,668                                   | 29.3%          | \$2,638         | 3%          | \$89,767         | \$3,074         |
| 2 BMO                  | \$73,356                                   | 25.4%          | \$3,525         | 4%          | \$80,915         | \$4,592         |
| 3 Vanguard             | \$37,150                                   | 12.9%          | \$4,380         | 9%          | \$45,737         | \$5,855         |
| 4 Horizons             | \$20,557                                   | 7.1%           | \$3,237         | 16%         | \$21,084         | \$3,335         |
| 5 CI First Asset       | \$13,259                                   | 4.6%           | -\$13           | 0%          | \$13,399         | \$75            |
| 6 Mackenzie*           | \$11,242                                   | 3.9%           | \$921           | 7%          | \$11,466         | \$945           |
| 7 TDAM                 | \$7,467                                    | 2.6%           | \$881           | 11%         | \$7,549          | \$898           |
| 8 NBI                  | \$5,898                                    | 2.0%           | \$1,845         | 38%         | \$5,898          | \$1,845         |
| 9 Purpose              | \$5,502                                    | 1.9%           | \$1,424         | 23%         | \$5,750          | \$1,446         |
| 10 Invesco             | \$4,190                                    | 1.5%           | \$404           | 9%          | \$4,210          | \$404           |
| 11 Fidelity            | \$2,670                                    | 0.9%           | \$456           | 16%         | \$2,847          | \$526           |
| 12 CIBC                | \$2,534                                    | 0.9%           | -\$180          | -6%         | \$2,546          | -\$180          |
| 13 Manulife            | \$2,260                                    | 0.8%           | \$140           | 6%          | \$2,260          | \$140           |
| 14 Harvest             | \$2,185                                    | 0.8%           | \$789           | 40%         | \$2,466          | \$1,087         |
| 15 Dynamic             | \$2,040                                    | 0.7%           | -\$273          | -10%        | \$2,040          | -\$273          |
| 16 PIMCO               | \$1,951                                    | 0.7%           | \$70            | 3%          | \$1,951          | \$70            |
| 17 Evolve Funds        | \$1,930                                    | 0.7%           | \$702           | 38%         | \$1,985          | \$693           |
| 18 Desjardins          | \$1,640                                    | 0.6%           | -\$240          | -12%        | \$1,640          | -\$240          |
| 19 Franklin Templeton  | \$1,226                                    | 0.4%           | -\$673          | -31%        | \$1,226          | -\$673          |
| 20 Hamilton            | \$1,209                                    | 0.4%           | \$618           | 54%         | \$1,568          | \$767           |
| 21 AGF                 | \$1,122                                    | 0.4%           | -\$120          | -9%         | \$1,122          | -\$120          |
| 22 Scotia Bank         | \$1,019                                    | 0.4%           | \$342           | 39%         | \$1,019          | \$342           |
| 23 Ninepoint Partners  | \$606                                      | 0.2%           | \$280           | 87%         | \$606            | \$280           |
| 24 Picton Mahoney      | \$589                                      | 0.2%           | \$133           | 27%         | \$589            | \$133           |
| 25 Brompton Funds      | \$409                                      | 0.1%           | \$20            | 3%          | \$471            | \$31            |
| 26 Middlefield         | \$399                                      | 0.1%           | -\$1            | 0%          | \$399            | -\$1            |
| 27 First Trust         | \$379                                      | 0.1%           | \$28            | 6%          | \$383            | \$28            |
| 28 3iQ                 | \$345                                      | 0.1%           | -\$337          | -21%        | \$345            | -\$337          |
| 29 Bristol Gate        | \$282                                      | 0.1%           | -\$7            | -2%         | \$282            | -\$7            |
| 30 Guardian Capital    | \$215                                      | 0.1%           | \$113           | 77%         | \$215            | \$113           |
| 31 Emerge              | \$122                                      | 0.0%           | \$17            | 8%          | \$122            | \$17            |
| 32 IA Clarington       | \$114                                      | 0.0%           | -\$11           | -8%         | \$114            | -\$11           |
| 33 Lysander            | \$88                                       | 0.0%           | \$0             | 0%          | \$88             | \$0             |
| 34 Accelerate          | \$62                                       | 0.0%           | \$9             | 13%         | \$68             | \$7             |
| 35 Mulvihill           | \$44                                       | 0.0%           | \$50            | NA          | \$44             | \$50            |
| 36 Russell Investments | \$43                                       | 0.0%           | -\$3            | -6%         | \$43             | -\$3            |
| 37 Arrow Capital       | \$32                                       | 0.0%           | \$12            | 49%         | \$32             | \$12            |
| 38 Starlight           | \$32                                       | 0.0%           | -\$1            | -3%         | \$32             | -\$1            |
| 39 SmartBe             | \$21                                       | 0.0%           | -\$6            | -19%        | \$21             | -\$6            |
| 40 Evermore Capital    | \$10                                       | 0.0%           | \$11            | NA          | \$10             | \$11            |
| 41 NCM Investments     | \$5  | 0.0%           | \$0             | 0%          | \$5              | \$0             |
| 42 Caldwell            | \$5  | 0.0%           | \$5             | NA          | \$5              | \$5             |
| <b>Total</b>           | <b>\$288,876</b>                           | <b>100.0%</b>  | <b>\$21,188</b> | <b>6.1%</b> | <b>\$312,319</b> | <b>\$24,932</b> |

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

#### Appendix 1 - Glossary

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

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

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

**Market Share (%):** category's AUM as % of the total AUM.

**MER (Management Expense Ratio):** Manager's 2021 annual fee for managing and administering the fund, expressed as a percentage of total fund value. In most cases this includes fees from investing in other ETFs. Where audited MER is unavailable or if the fee has been significantly reduced recently, the MER is estimated using the Stated Management Fee and sales tax.

Canadian MER does not include trading commissions incurred by the ETF, nor does it include trading expenses (such as swap or forward fees). An asterisk (\*) indicates that the fund pays additional expenses such as swap or forward fees, which are normally reported under trading expenses. The asterisk can also indicate that the fund charges a performance fee. Data are sourced from annual filings.

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

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

#### Appendix 2 - Equity ETF Categories

We group Equity ETFs into the categories below. These groupings follow NBF's discretion and can differ from the ETF Provider's definition and classification from other sources.

**Cap-Weighted:** A fund that weights securities based on the total or float-adjusted market capitalization of each security.

**Dividend/Income:** A fund with primary goal of providing income. We classify a fund as belonging to the Income category when its strategy focuses on providing income, or the fund self-identifies as using an income strategy even though it may incorporate other factors in addition to income.

**Fundamental:** A fund that selects and/or weights securities based on fundamental metrics from a company's financial statements such as balance sheet. Strategies include Value, Growth, Quality, RAFI Fundamental, Earnings, etc.

**Low Vol or Risk:** A fund that aims to achieve reduced portfolio volatility, either by screening for low volatility stocks, low beta stocks and/or minimizing the portfolio volatility.

**Multi-Factor:** ETFs that consider more than one NBF-defined factor including Income, Fundamental and Risk.

**Sector:** ETFs that provide exposure to broad industry sectors classified by the Global Industry Classification Standard (GICS) or other similar classifications. This category contains all sector funds, including ones that screen and/or weight the portfolio using factors.

**Thematic:** ETFs that provide niche exposures such as blockchain technology, infrastructure, Marijuana companies, Socially Responsible Investing, technology sub-sectors, agriculture, water, sentiment & behaviour, etc. This category contains all thematic funds, including ones that screen and/or weight the portfolio using factors.

**Other:** Any non-cap weighted strategy that is not covered by otherwise defined categories. This includes momentum, equal-weight, share buyback, high beta, proprietary, actively managed, tactical rotation, price-weighted, etc.



## DISCLOSURES

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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