

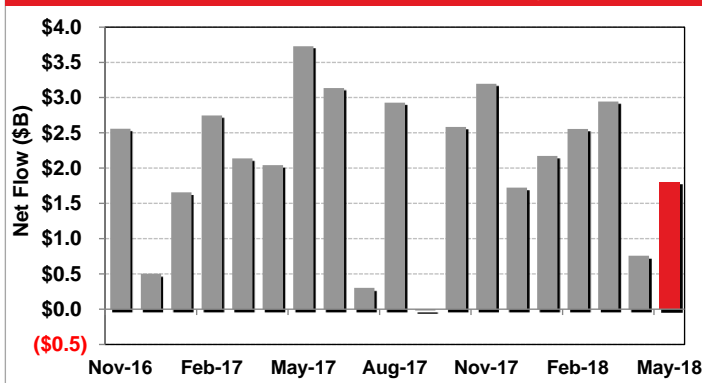
May 2018 – An Active Month for Active ETF Launches

- Canadian ETFs attracted \$1.8 billion in flows in May, bringing total assets to a new high of \$157 billion
- The Fixed Income product category boomed with new launches that are actively managed
- Investors dialed down their enthusiasm for International and Emerging Market Equity ETFs
- Twenty new ETFs launched in May, including four active ETF-of-ETFs from new provider Scotia

Flows by Category: (Table 1) Canadian ETFs had inflows of \$1.8 billion in May 2018, bringing total assets to \$157 billion. Canadian Equity had an inflow of \$262 million due to the \$762 million inflow into XIU, without which the category would have suffered redemptions of \$502 million. U.S. equity continued to lead the group with inflows of \$408 million, dominated by broad-based, low cost, index-tracking products. Percentage-wise however, some actively-managed mandates and factor-based ETFs (such as U.S. quality dividend and momentum factor ETFs) also attracted some inflows. Investor optimism towards developed EAFE and Emerging Market equities, while still positive, seems to have waned a bit in May. Even though the two

Chart 1: Canadian ETF Flows by Month

Source: National Bank Financial, Bloomberg



regions still managed to attract positive net flows, it was global equity ETFs (which include Canada and the U.S. exposures) that did the heavy lifting in terms of inflows. Within the fixed income asset class, investors tried to stay away from credit in favour of aggregate bond and preferred shares. Multi-asset ETFs had inflows of \$337 million, though some of that demand came from mutual funds merging into ETFs.

Flows by Provider: See Table 2

May 2018 saw 20 new product launches, including four from new ETF provider Scotia.

- Invesco launched S&P 500 Equal Weighted Index ETFs in currency non-hedged (EQL), currency-hedged (EQL/F) and U.S. dollar (EQL/U) units.
- RBC launched U.S. Bank Yield ETFs in currency non-hedged (RUBY), currency-hedged (RUBY/F) and U.S. dollar (RUBY/U) units, tracking Solactive indices.
- BMO launched four actively managed ETFs and one index-tracking ETF. Three of the new active ETFs are in the Fixed Income space: Global Strategic Bond Fund (ZGSB), Core Plus Bond Fund (ZCPB) and Global Multi-sector Bond Fund (ZMSB), along with an Women in Leadership Equity Fund (WOMN). BMO also launched Global Communications

Table 1 - ETF Flows by Category - May 2018

Category	AUM (\$M)	AUM (%)	Flow (\$M)	% Flow
Equity	\$94,377		\$1,058	1.1%
Canadian Equity	\$39,300	25.0%	\$262	0.7%
U.S. Equity	\$30,001	19.1%	\$408	1.4%
Int'l Equity	\$25,076	16.0%	\$388	1.6%
Fixed Income	\$50,507	32.2%	\$437	0.9%
Commodity	\$638	0.4%	\$0	0.1%
Multi-Asset	\$10,490	6.7%	\$337	3.3%
Levered Long	\$593	0.4%	-\$22	-3.7%
Inverse	\$333	0.2%	-\$10	-2.8%
Total	\$156,939		\$1,800	1.2%

Source: National Bank Financial, Bloomberg

Table 2 - ETF Flows by Provider - May 2018

Provider	AUM (\$M)	AUM (%)	Flow (\$M)	% Flow
1 iShares	\$60,505	38.6%	\$565	1.0%
2 BMO	\$48,755	31.1%	-\$104	-0.2%
3 Vanguard	\$16,056	10.2%	\$228	1.5%
4 Horizons	\$9,833	6.3%	\$184	1.9%
5 RBC	\$5,166	3.3%	-\$2	0.0%
6 First Asset	\$4,249	2.7%	\$55	1.3%
7 Invesco	\$3,384	2.2%	-\$45	-1.3%
8 Mackenzie	\$2,431	1.5%	\$155	6.9%
9 Purpose	\$2,136	1.4%	\$310	17.0%
10 PIMCO	\$633	0.4%	\$80	14.4%
11 AGF	\$545	0.3%	\$194	55.7%
12 WisdomTree	\$540	0.3%	\$37	7.5%
13 Harvest	\$531	0.3%	\$13	2.5%
14 First Trust	\$417	0.3%	-\$1	-0.3%
15 Franklin Templeton	\$362	0.2%	\$66	22.7%
16 Desjardins	\$351	0.2%	-\$2	-0.6%
17 Manulife	\$291	0.2%	\$6	2.0%
18 Hamilton Capital	\$225	0.1%	\$18	8.6%
19 Evolve Funds	\$203	0.1%	\$30	17.4%
20 Lysander	\$108	0.1%	\$3	3.0%
21 Brompton Group	\$83	0.1%	\$0	0.0%
22 TDAM	\$78	0.0%	\$2	2.5%
23 Auspice	\$20	0.0%	\$1	2.6%
24 Bristol Gate	\$10	0.0%	\$2	25.2%
25 Equium Capital	\$9	0.0%	\$0	0.0%
26 Scotia	\$8	0.0%	\$8	N.A.
27 Galileo	\$5	0.0%	\$0	0.0%
28 Arrow Capital	\$5	0.0%	\$0	0.0%
Total	\$156,939		\$1,802	1.2%

* Excel Funds delisted two ETFs (\$2 mln in AUM) in May 2018;
Source: NBF, Bloomberg

Index ETF (COMM).

- **Franklin Templeton** launched three actively managed Fixed Income ETFs: U.S. Investment Grade Corporate CAD-hedged ETF (FLUI), Senior Loan CAD-hedged ETF (FLSL) and Global Aggregate Bond CAD-hedged ETF (FLGA).
- **Evolve Funds** launched Innovation Index ETF (EDGE), tracking the Solactive Global Innovation Index.
- **First Trust** expanded its suite of actively managed “capital strength” ETFs to include the International region and launched International Capital Strength ETF (FINT).
- **Scotia** made its debut on the Canadian ETF scene with four actively managed ETFs: Strategic Fixed Income ETF Portfolio (SFI), Strategic Canadian Equity ETF Portfolio (SCAD), Strategic International Equity ETF Portfolio (SINT) and Strategic U.S. Equity ETF Portfolio (SUSA).

Flows by Product: (Tables 3 and 4) Apart from the usual inflow into low-cost broad-market products, a few actively managed ETFs also showed up on the leaderboard: an AGF ETF that invests in global infrastructure companies (QIF) and PIMCO Monthly Income Fund (PMIF). Purpose Multi-asset ETF (PINC) had large inflows in May due to assets merging from a Redwood mutual fund. (Redwood was a wholly-owned subsidiary of Purpose Investments which has been merged into the Purpose brand.) Top outflows were spread among Equity and Fixed Income asset classes. On the Equity side, contrary to XIU’s inflow, XIC (iShares S&P/TSX composite ETF) suffered \$492 million in redemptions, and BMO’s Canadian dividend ETF (ZDV) had similarly high outflows. Developed foreign equity ETFs such as ZDM and ZLI saw outflows amid the political tensions arising from the Italian election. On the Fixed Income side, Canadian government bond ETFs saw redemptions in May, with outflows from both long-term government ETF (PGL) and short-term government ETF (CLF). International Sovereign bond flows saw a surge of interest in May due to the \$50 million inflow into iShares JP Morgan Emerging Market Bond Index ETF (XEB).

Ticker	Name	Flow (\$M)	% Flow
1	XIU iShares S&P/TSX 60 Index ETF	\$762	8%
2	ZCN BMO S&P/TSX Capped Composite Index ETF	\$429	13%
3	XBB iShares Core Canadian Universe Bond Index ETF	\$348	17%
4	PINC Purpose Multi-Asset Income Fund	\$164	NA
5	QIF AGFIQ Enhanced Global Infrastructure ETF	\$149	NA
6	ZUE BMO S&P 500 Hedged to CAD Index ETF	\$140	14%
7	ZEM BMO MSCI Emerging Markets Index ETF	\$103	23%
8	XEF iShares Core MSCI EAFE IMI Index ETF	\$95	5%
9	PMIF PIMCO Monthly Income Fund	\$78	15%
10	HXS Horizons S&P 500 Index ETF	\$72	12%

Source: National Bank Financial, Bloomberg

Ticker	Name	Flow (\$M)	% Flow
1	XIC iShares Core S&P/TSX Capped Composite Index	-\$492	-11%
2	ZDV BMO Canadian Dividend ETF	-\$418	-48%
3	PGL PowerShares Ultra Liquid Long Term Government	-\$128	-26%
4	XFN iShares S&P/TSX Capped Financials Index ETF	-\$113	-10%
5	ZSP/U BMO S&P 500 Index ETF	-\$96	-23%
6	VAB Vanguard Canadian Aggregate Bond Index ETF	-\$84	-5%
7	ZDM BMO MSCI EAFE Hedged to CAD Index ETF	-\$55	-8%
8	ZLI BMO Low Volatility International Equity ETF	-\$46	-15%
9	CLF iShares 1-5 Year Laddered Government Bond	-\$44	-6%
10	XRE iShares S&P/TSX Capped REIT Index ETF	-\$44	-4%

Source: National Bank Financial, Bloomberg

Flows YTD: Tables 5 - 8 (Table continued on Next Page)

Canadian ETFs attracted \$10 billion in flows in the first five months of 2018. Equity took up the lion’s share of total inflows with International Equity leading the pack. This was especially true in Q1 2018, when volatility returned to the U.S. equity market, spooking investors to look for opportunities overseas. Fixed Income and Multi-Asset flows are neck-and-neck year-to-date; both categories have been bustling with new launches, some of which have drawn investor attention due to low fees or unique mandate. On the other hand, commodity ETFs had flat net flows in May and negative flows YTD.

Category	AUM (\$M)	AUM (%)	Flow (\$M)	% Flow
Equity	\$94,377		\$5,848	6.6%
Canadian Equity	\$39,300	25.0%	\$804	2.1%
U.S. Equity	\$30,001	19.1%	\$1,869	6.9%
Int'l Equity	\$25,076	16.0%	\$3,176	14.5%
Fixed Income	\$50,507	32.2%	\$2,006	4.1%
Commodity	\$638	0.4%	-\$5	-0.8%
Multi-Asset	\$10,490	6.7%	\$2,516	30.6%
Levered Long	\$593	0.4%	-\$240	-30.4%
Inverse	\$333	0.2%	\$88	29.0%
Total	\$156,939		\$10,213	6.9%

Source: National Bank Financial, Bloomberg

Provider	AUM (\$M)	AUM (%)	Flow (\$M)	% Flow
1 iShares	\$60,505	38.6%	\$1,032	1.7%
2 BMO	\$48,755	31.1%	\$2,374	5.1%
3 Vanguard	\$16,056	10.2%	\$2,214	16.2%
4 Horizons	\$9,833	6.3%	\$846	9.3%
5 RBC	\$5,166	3.3%	\$444	9.4%
6 First Asset	\$4,249	2.7%	\$385	10.0%
7 Invesco	\$3,384	2.2%	-\$66	-1.9%
8 Mackenzie	\$2,431	1.5%	\$1,114	85.9%
9 Purpose	\$2,136	1.4%	\$439	25.5%
10 PIMCO	\$633	0.4%	\$344	115.3%
11 AGF	\$545	0.3%	\$198	58.3%
12 WisdomTree	\$540	0.3%	\$157	41.0%
13 Harvest	\$531	0.3%	\$96	21.6%
14 First Trust	\$417	0.3%	-\$26	-6.0%
15 Franklin Templeton	\$362	0.2%	\$110	45.2%
16 Desjardins	\$351	0.2%	\$227	174.5%
17 Manulife	\$291	0.2%	\$29	11.5%
18 Hamilton Capital	\$225	0.1%	\$126	129.7%
19 Evolve Funds	\$203	0.1%	\$116	130.3%
20 Lysander	\$108	0.1%	\$18	20.3%
21 Brompton Group	\$83	0.1%	\$80	N.A.
22 TDAM	\$78	0.0%	-\$56	-41.9%
23 Auspice	\$20	0.0%	-\$4	-16.9%
24 Bristol Gate	\$10	0.0%	\$10	N.A.
25 Equium Capital	\$9	0.0%	\$2	28.7%
26 Scotia	\$8	0.0%	\$8	N.A.
27 Galileo	\$5	0.0%	\$0	0.0%
28 Arrow Capital	\$5	0.0%	\$0	N.A.
Total	\$156,939		\$10,217	6.9%

*Excel Funds delisted two ETFs (\$4 mln in AUM beginning of 2018) in May 2018

Source: National Bank Financial, Bloomberg

Turning to Canadian sector equity flows, it's interesting to see Financial sector outflows for the second month in a row (Table 9). It seems that strong earning season results are still overshadowed by the Canadian household indebtedness and NAFTA concerns. Technology is the only sector that had four straight months of inflows, while Materials and Energy have suffered redemptions most months.

Ticker	Name	Flow (\$M)	% Flow
1	ZWP BMO Europe High Dividend Covered Call ETF	\$1,044	NA
2	ZCN BMO S&P/TSX Capped Composite Index ETF	\$599	19%
3	XEF iShares Core MSCI EAFE IMI Index ETF	\$415	26%
4	ZSP BMO S&P 500 Index ETF	\$398	10%
5	HMMJ Horizons Marijuana Life Sciences Index ETF	\$351	70%
6	PMIF PIMCO Monthly Income Fund	\$321	116%
7	VAB Vanguard Canadian Aggregate Bond Index ETF	\$275	21%
8	VCN Vanguard FTSE Canada All Cap Index ETF	\$272	24%
9	ZWE BMO Europe High Dividend Covered Call CAD-H	\$252	32%
10	HFR Horizons Active Floating Rate Bond ETF	\$245	58%

Ticker	Name	Flow (\$M)	% Flow
1	ZDV BMO Canadian Dividend ETF	-\$371	-42%
2	ZCS BMO Short Corporate Bond Index ETF	-\$235	-14%
3	CBO iShares 1-5 Year Laddered Corporate Bond	-\$205	-13%
4	XRE BetaPro Natural Gas 2x Daily B	-\$184	-14%
5	XCB iShares S&P/TSX Capped REIT Index ETF	-\$174	-10%
6	ZMU iShares Canadian Corporate Bond Index ETF	-\$168	-32%
7	ZEQ BMO Mid-Term US IG Corporate Bond CAD-H	-\$162	-36%
8	ZCM BMO MSCI Europe High Quality CAD-H	-\$124	-9%
9	ZUD BMO Mid Corporate Bond Index ETF	-\$118	-44%
10	XHY BMO US Dividend Hedged to CAD ETF	-\$115	-21%

Source: National Bank Financial, Bloomberg

	January	February	March	April	May
Industrials	-3%	3%	-3%	0%	6%
Technology	-2%	15%	2%	7%	2%
Utilities	0%	0%	1%	-1%	2%
Energy	-5%	-4%	-1%	5%	0%
Basic Materials	-1%	3%	-2%	-2%	0%
Real Estate	-3%	-3%	0%	1%	-2%
Financials	-4%	5%	9%	-9%	-4%
Cons, non-cyclicals	-5%	0%	6%	5%	-5%
Composite (XIC)	1%	3%	7%	1%	-11%

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.

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 Canadian dollar for the purpose of this report.

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

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

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

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.

Unless otherwise agreed in writing, National Bank of Canada and its affiliates act solely in the capacity of an arm's length contractual counterparty and not as an adviser or fiduciary. Accordingly you should not regard transaction proposals or other written or oral communications from us as a recommendation or advice that a transaction is appropriate for you or meets your financial objectives. Any financial transaction involves a variety of potentially significant risks and issues. Before entering into any financial transaction, you should ensure that you fully understand the terms, have evaluated the risks and have determined that the transaction is appropriate for you in all respects. If you believe that you need assistance, you should consult appropriate advisers before entering into the transaction. The attached material does not constitute an offer to enter into any transaction. Such material is believed by us to be reliable, but we make no representation as to its accuracy or completeness. This brief statement does not purport to describe all of the risks associated with financial transactions and should not be construed as advice to you.

General – National Bank Financial (NBF) is an indirect wholly owned subsidiary of National Bank of Canada. National Bank of Canada is a public company listed on Canadian stock exchanges.

The particulars contained herein were obtained from sources which we believe to be reliable but are not guaranteed by us and may be incomplete. The opinions expressed are based upon our analysis and interpretation of these particulars and are not to be construed as a solicitation or offer to buy or sell the securities mentioned herein.

Research Analysts – The Research Analyst(s) who prepare these reports certify that their respective report accurately reflects his or her personal opinion and that no part of his/her compensation was, is, or will be directly or indirectly related to the specific recommendations or views as to the securities or companies.

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.

Canadian Residents – In respect of the distribution of this report in Canada, NBF accepts responsibility for its contents. To make further inquiry related to this report, Canadian residents should contact their NBF professional representative. To effect any transaction, Canadian residents should contact their NBF Investment advisor.

U.S. Residents – With respect to the distribution of this report in the United States, National Bank of Canada Financial Inc. (NBCFI) is regulated by the Financial Industry Regulatory Authority (FINRA) and a member of the Securities Investor Protection Corporation (SIPC). This report has been prepared in whole or in part by, research analysts employed by non-US affiliates of NBCFI that are not registered as broker/dealers in the US. These non-US research analysts are not registered as associated persons of NBCFI and are not licensed or qualified as research analysts with FINRA or any other US 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 a research analyst account.

All of the views expressed in this research report accurately reflect the research analysts' personal views regarding any and all of the subject securities or issuers. No part of the analysts' 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. Because the views of analysts may differ, members of the National Bank Financial 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, United States residents should contact their NBCFI registered representative.

UK Residents – In respect of the distribution of this report to UK residents, National Bank Financial Inc. has approved the contents (including, where necessary, for the purposes of Section 21(1) of the Financial Services and Markets Act 2000). National Bank Financial Inc. and/or its parent and/or any companies within or affiliates of the National Bank of Canada group and/or any of their directors, officers and employees may have or may have had interests or long or short positions in, and may at any time make purchases and/or sales as principal or agent, or may act or may have acted as market maker in the relevant investments or related investments discussed in this report, or may act or have acted as investment and/or commercial banker with respect thereto. The value of investments can go down as well as up. Past performance will not necessarily be repeated in the future. The investments contained in this report are not available to retail customers. This report does not constitute or form part of any offer for sale or subscription of or solicitation of any offer to buy or subscribe for the securities described herein nor shall it or any part of it form the basis of or be relied on in connection with any contract or commitment whatsoever.

This information 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. National Bank Financial Inc. is authorised and regulated by the Financial Conduct Authority and has its registered office at 71 Fenchurch Street, London, EC3M 4HD.. National Bank Financial Inc. is not authorised by the Prudential Regulation Authority and the Financial Conduct Authority to accept deposits in the United Kingdom.

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) regulated activity, 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.

DISCLOSURES

No other entity within the National Bank of Canada group, including NBF, 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.

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 National Bank Financial.

NBF is a member of the Canadian Investor Protection Fund.

The NBF Research Dissemination Policy is available on our website under Legal/Research Policy (link attached) <http://www.nbin.ca/cmst/site/index.jhtml?navid=712&templateid=243>

Click on the following link to see the company specific disclosures <http://www.nbin.ca/contactus/disclosures.html>

Click on the following link to see National Bank Financial Markets Statement of Policies <http://nbfm.ca/en/statement-of-policies/>

If a company specific disclosure is not found herein for a listed company, NBF at this time does not provide research coverage or stock rating for the company in question.