SEPTEMBER 9, 2024

FOR THE WEEK ENDING SEPTEMBER 6, 2024

41

ETF Providers

1459 **ETFs**

(+18%YoY)

\$504B **CAD AUM** (+30%YoY) \$13.1

Traded (Last Week)

WEEKLY CREATIONS/REDEMPTIONS BY ASSET CLASSES

Fixed income (+C\$520M) and Equity (+C\$204M) led inflows last week

	\$ Traded	Short Int	AUM	Net	t C/R	Net C/R (% AUM)		
	(CAD M)	(% of SO)	(CAD M)		D M)	1-Week	1-Month	1-Year
Fixed Income	2,230.6	0.3%	122,468		520.9	0.4%	1.2%	24.0%
Equity	8,646.9	0.7%	322,935		203.8	0.1%	0.4%	15.6%
Cash	835.1	0.8%	21,248		171.6	0.8%	-0.8%	-1.3%
Mixed Allocation	244.3	0.0%	18,865		74.6	0.4%	2.5%	35.0%
Specialty/Alternative	174.5	13.0%	3,260		56.0	1.8%	2.4%	3.5%
Commodity	550.5	0.5%	3,713		0.7	0.0%	19.3%	23.1%
Preferreds	104.3	1.1%	6,452		-4.4	-0.1%	0.2%	-8.2%
Cryptocurrency	299.7	0.2%	5,145		-43.2	-0.8%	0.5%	25.1%
Total	13,085.9	0.5%	504,087		980.0	0.2%	0.7%	17.0%

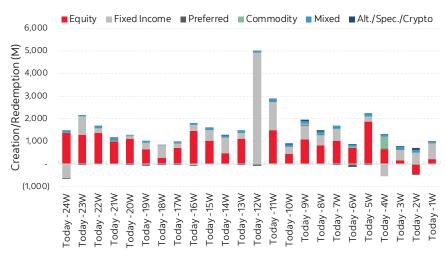
WEEKLY LARGEST CREATIONS/REDEMPTIONS

Investors poured into cash, US equities (ZSP, CASH); US banks, Cdn equities were sold (ZUB, ZBK, XIU). Japan Switch: exited Cad-hedged JAPN.B, for unhedged JAPN

Ticker	Name	Returns (1-Week)	Short Int (% of SO)	\$ Traded (CAD M)	Net C/R (CAD M)	Net C/R (% of AUM)
ZSP	BMO S&P 500 Index ETF	-3.5%	0.4%	353.1	118.7	0.7%
CASH	Global X High Interest Savings ETF	0.0%	0.9%	247.8	98.8	1.9%
JAPN	CI Japan Equity Index ETF	-7.5%	1.5%	87.7	84.5	271.0%
VFV	Vanguard S&P 500 Index ETF	-3.5%	0.0%	555.0	84.4	0.5%
ZIC	BMO Mid-Term US IG Corporate Bon	1.8%	0.0%	66.5	80.8	2.7%
ZST	BMO Ultra Short-Term Bond ETF	0.1%	0.1%	89.1	68.2	2.6%
XIGS	iShares 1-5 Year US IG Corporate Bon	0.6%	0.0%	62.3	62.1	72.8%
ZUB	BMO Equal Weight US Banks Hedged	-5.5%	0.0%	182.2	-131.7	-30.0%
ZBK	BMO Equal Weight US Banks Index E	-4.8%	0.8%	25.8	-121.3	-14.4%
XIU	iShares S&P/TSX 60 Index ETF	-1.9%	5.3%	715.0	-115.5	-0.9%
JAPN/B	CI Japan Equity Index ETF	-4.7%	0.2%	89.1	-86.0	-9.1%
EBIT	Evolve Bitcoin ETF	-8.1%	1.4%	54.2	-46.5	-24.6%
ZCN	BMO S&P/TSX Capped Composite In-	-2.3%	0.2%	116.4	-30.9	-0.4%
ZWB	BMO Covered Call Canadian Banks E	0.6%	0.0%	44.8	-26.1	-0.9%

HISTORICAL CREATIONS/REDEMPTIONS BY ASSET CLASS

Weekly flows approach \$1B after a 4-week "slowdown" – equity ETFs remain overlooked, \$100M cumul. outflows in past 3 weeks



LAST WEEK'S MOST ACTIVE ETFS

Investors traded C\$13.1B last week, led by Cdn banks, and US & Cdn equities (ZEB, XIU, VFV)

		Returns	Short Int	B/A Spread	\$ Traded	\$ Traded
Ticker	Name	(1-Week)	(% of SO)	(bps)	(CAD M)	vs CR/RD
ZEB	BMO Equal Weight Banks Index ETF	0.9%	14.5%	1.6	849.9	83.5 x
XIU	iShares S&P/TSX 60 Index ETF	-1.9%	5.3%	1.4	715.0	6.2 x
VFV	Vanguard S&P 500 Index ETF	-3.5%	0.0%	3.4	555.0	6.6 x
XIC	iShares Core S&P/TSX Capped Comp	-2.3%	4.8%	1.9	449.9	370,923.4 x
ZSP	BMO S&P 500 Index ETF	-3.5%	0.4%	2.0	353.1	3.0 x
XEG	iShares S&P/TSX Capped Energy Inde	-7.3%	8.2%	1.5	254.0	6.7 x
XUS	iShares Core S&P 500 Index ETF	-3.5%	0.0%	1.8	253.1	4.6 x
CASH	Global X High Interest Savings ETF	0.0%	0.9%	1.1	247.8	2.5 x
XSP	iShares Core S&P 500 Index ETF CAD	-4.2%	0.2%	1.7	235.7	17 x
HQU	BetaPro NASDAQ-100 2x Daily Bull E1	-11.7%	0.1%	1.6	192.6	887.0 x
ZUB	BMO Equal Weight US Banks Hedged	-5.5%	0.0%	3.5	182.2	1.4 x
HOU	BetaPro Crude Oil 2x Daily Bull ETF	-14.1%	5.1%	1.8	165.4	6.2 x
XFN	iShares S&P/TSX Capped Financials I	-0.3%	1.6%	2.2	154.4	1,948.2 x
HND	BetaPro Natural Gas Inverse Le	-14.2%	13.4%	33.1	142.3	14.9 x

EQUITY FUND FLOWS

Last Week's Net Creations/Redemptions by Strategy & Sector Investors sold Growth (-C\$147M/-0.3%) and Financials (again!) (-C\$306M/-1.9%)

	\$ Traded	Short Int	AUM	1-Week C/R		Net C/R (% AUM)		
	(CAD M)	(% of SO)	(CAD M)	(CAD M)	1-W	/eek	1-Month	1-Year
Low Volatility	132.6	0.0%	7,052	46.5		0.7%	0.5%	10.2%
Dividend/Income	398.2	0.1%	21,482	86.9		0.4%	1.3%	24.1%
ESG/SRI	30.0	0.0%	5,868	5.9		0.1%	-3.8%	-25.0%
Blend	6,579.7	1.0%	232,017	208.4		0.1%	0.5%	19.5%
Value	396.2	0.1%	12,534	9.9		0.1%	1.0%	11.6%
Momentum	0.6	0.0%	76	-		-	0.6%	21.7%
Multi-Factor	32.2	0.0%	2,133	-1.9		-0.1%	-10.2%	-2.6%
Growth	687.2	0.1%	41,042	-147.1		-0.3%	0.2%	4.1%
Leverage/Inverse	415.8	0.0%	730	-4.8		-0.6%	3.8%	-22.1%
Total	8,672.7	0.7%	322,935	203.8		0.1%	0.4%	15.6%
Preferreds	104.3	1.1%	6,452	-4.4		-0.1%	0.2%	-8.2%

	\$ Traded	Short Int	AUM	1-Week C/R	Net C/R (% AUM)		
	(CAD M)	(% of SO)	(CAD M)	(CAD M)	1-Week	1-Month	1-Year
Energy	350.7	3.2%	3,700	48.6	1.2%	-0.5%	-3.8%
Industrials	1.8	0.3%	186	0.6	0.3%	1.0%	4.1%
Communications	1.4	0.0%	49	0.0	0.1%	-0.3%	41.1%
Utilities	171.1	0.3%	5,102	2.1	0.0%	1.9%	12.3%
Materials	148.7	0.5%	2,776	-0.7	-0.0%	0.0%	19.3%
Info Tech	174.0	0.1%	6,618	-4.4	-0.1%	4.0%	31.7%
Thematic	102.2	0.2%	12,338	-8.8	0.1%	0.5%	-7.0%
Real Estate	155.1	0.9%	3,379	-5.3	0.2%	0.3%	7.1%
Health Care	40.1	0.0%	3,790	-17.1	-0.4%	-0.1%	7.1%
Consumer Staples	7.5	0.7%	265	-1.3	-0.5%	0.9%	-12.1%
Cons. Discretionary	-	0.1%	420	-4.6	-1.0%	2.3%	18.0%
Financials	1,385.3	1.4%	15,529	-306.4	-1.9%	-9.8%	-8.1%
Sector Subtotal	2,537.8	0.8%	54,152	-297.2	-0.1%	-0.6%	10.2%

Last Week's Net Creations/Redemptions by Geography

Investors bought US equities, while exiting Canada & DM stocks

	\$ Traded	\$ Traded Short Int	AUM 1-W	1-Week C/R	Net C/R (% AUM)			
	(CAD M)	(% of SO)	(CAD M)	(CAD M)	1-Week	1-Month	1-Year	
United States	3,382.5	0.2%	120,214	245.2	0.2%	1.2%	22.3%	
Global/International	1,163.7	0.2%	80,889	74.3	0.1%	1.1%	20.6%	
EM Regional/Country	31.2	0.0%	4,471	1.7	0.0%	0.4%	19.5%	
Canada	3,681.5	1.7%	99,929	-93.8	-0.1%	-1.0%	6.3%	
DM Regional/Country	388.1	0.0%	17,433	-23.5	-0.1%	0.5%	8.2%	
Total	8,646.9	0.7%	322,935	203.8	0.1%	0.4%	15.6%	

FIXED INCOME, CURRENCIES AND COMMODITIES FUND FLOWS

Last Week's Net Creations/Redemptions by Strategy & Term/Rating

Investors bought universe, credit, IG-rated, cash, belly and ultra-short

	\$ Traded	Short Int	AUM	1-Week C/R	Net C/R (% AUM)		
	(CAD M)	(% of SO)	(CAD M)	(CAD M)	1-Week	1-Month	1-Year
Target Date	62.8	0.2%	4,010	27.4	0.7%	4.3%	131.4%
Corporate	463.0	0.6%	27,889	177.7	0.6%	1.4%	14.4%
Aggregate	1931.1	0.2%	69,125	343.2	0.5%	1.8%	24.2%
Inflation Protected	11.4	0.3%	1,023	3.9	0.4%	0.7%	-26.8%
Convertible	1.4	0.0%	145	-	-	-0.3%	-10.3%
Bank Loans	9.2	0.1%	990	-0.9	-0.1%	-0.4%	0.8%
Government	494.8	0.2%	19,285	-30.4	-0.2%	-5.1%	0.2%
FI Subtotal	2,973.8	0.3%	122,468	520.9	0.4%	1.2%	24.0%
Cash/Currency	835.1	0.8%	21,248	171.6	0.8%	-0.8%	-1.3%
Commodity	550.5	0.5%	3,713	0.7	0.0%	19.3%	23.1%
FICC Total	4,359,4		147.430	693.2	0.5%		

	\$ Traded	Fraded Short Int	AUM	1-Week C/R	Ne	t C/R (% AUM)	
	(CAD M)	(% of SO)	(CAD M)	(CAD M)	1-Week	1-Month	1-Year
IG BBB or higher	871.3	0.5%	50,533	461.2	0.9%	2.9%	30.6%
High Yield	95.7	0.0%	9,065	12.1	0.1%	0.2%	17.3%
IG A or Higher	1263.6	0.1%	62,870	47.6	0.1%	-0.1%	20.1%
FI Total	2,230.6	0.3%	122,468	520.9	0.4%	1.2%	24.0%

	\$ Traded	Short Int	AUM	1-Week C/R	Net C/R (% AUM)		
	(CAD M)	(% of SO)	(CAD M)	(CAD M)	1-Week	1-Month	1-Year
Ultra Short	510.5	0.3%	10,715	178.9	1.7%	6.5%	101.2%
Intermediate	346.7	0.1%	17,965	151.6	0.9%	1.5%	7.4%
Short-Term	302.8	0.2%	16,834	43.8	0.3%	1.7%	10.0%
Mixed	738.6	0.4%	64,722	144.4	0.2%	0.6%	23.8%
Long-Term	331.9	0.1%	12,232	2.3	0.0%	-1.7%	31.8%
FI Total	2,230.6	0.3%	122,468	520.9	0.4%	1.2%	24.0%

Last Week's Net Commodity-Linked Creations/RedemptionsOutflows in Nat Gas were offset by Crude Oil & Gold ETF buying

	\$ Traded	Short Int	AUM	1-Week C/R		Net C/R (% AUM)		
	(CAD M)	(% of SO)	(CAD M)	(CAD M)	1-W	eek	1-Month	1-Year
Crude Oil	223.1	3.1%	170	15.6		9.6%	7.0%	-21.2%
Natural Gas	252.2	0.3%	249	-16.0		-6.6%	4.2%	74.5%
Energy Subtotal	475.2	0.8%	418	-0.4		-0.1%	5.4%	23.2%
Silver	37.3	0.3%	375	2.5		0.7%	1.9%	-1.3%
Gold	35.7	0.2%	2,776	-0.0		-0.0%	26.5%	26.8%
Broad Based	2.3	0.0%	144	-1.4		-1.0%	-4.4%	30.5%
Commodity Total	550.5	0.5%	3,713	0.7		0.0%	19.3%	23.1%

CRYPTOCURRENCY FUND FLOWS

Last Week's Net Creations/Redemptions by Strategy

After a long streak of inflows, Bitcoin ETFs saw steep outflows last week

	\$ Traded	Short Int	AUM	1-Week C/R	Ne	C/R (% AUM)	
	(CAD M)	(% of SO)	(CAD M)	(CAD M)	1-Week	1-Month	1-Year
Multi-Crypto	0.5	0.2%	49	0.1	0.2%	2.7%	-7.7%
Ether	71.7	0.2%	1,135	1.2	0.1%	-1.2%	1.4%
Bitcoin	227.5	0.1%	3,960	-44.6	-1.0%	0.9%	37.1%
Total	299.7	0.2%	5,145	-43.2	-0.8%	0.5%	25.1%

Last Week's Net Creations/Redemptions by Provider

Crypto ETFs from Evolve saw the largest outflows (as % of AuM)

	# of Crypto	AUM	Market	Net C/R	Net C/R (% AUM)		
	ETFs	(CAD M)	Share	(CAD M)	1-Week	1-Month	1-Year
Purpose	14	2,514	48.9%	2.6	0.1%	-0.4%	-5.3%
CIETFs	6	1,587	30.9%	4.1	0.2%	2.9%	29.1%
Fidelity	3	467	9.1%	2.5	0.5%	4.8%	430.6%
3iQ	2	321	6.2%	-	-	5.6%	123.8%
Evolve	6	237	4.6%	-52.5	-17.0%	-16.7%	-25.3%
Global X	1	19	0.4%	-	-	-5.4%	15.3%
Total	32	5,145	100.0%	-43.2	-0.8%	0.5%	25.1%

ACTIVE STRATEGIES FUND FLOWS

Last Week's Net Creations/Redemptions by Strategy

Dividend/income quasi-active strategies suffered rare outflows

	\$ Traded	Traded Short Int AUM 1-Wee		1-Week C/R	Net C/R (% AUM)		
	(CAD M)	(% of SO)	(CAD M)	(CAD M)	1-Week	1-Month	1-Year
Proprietary	44.2	0.1%	2,540	26.3	1.0%	-9.6%	-25.2%
True Active	1,743.9	0.1%	95,087	458.1	0.5%	0.9%	25.6%
Factor/Multi-Factor	149.3	0.1%	9,306	35.4	0.4%	2.1%	36.5%
Mixed Allocation	273.1	0.1%	18,356	69.0	0.4%	2.3%	32.4%
Dividend/Income	395.0	0.1%	13,225	-62.0	-0.5%	1.6%	30.4%
Smart Beta	3.3	0.0%	400	-2.3	-0.5%	-33.8%	-55.3%
Total	2,608.7	0.1%	138,913	524.5	0.4%	0.5%	23.4%

Last Week's Net Creations/Redemptions by Asset Class

Within active, fixed income and equity ETFs were broadly bought

	\$ Traded (CAD M)	Short Int (% of SO)	AUM (CAD M)	Net C/R (CAD M)	Ne 1-Week	t C/R (% AUM) 1-Month) 1-Year
Fixed Income	889.9	0.2%	43,923	315.1	0.7%	0.1%	31.5%
Mixed Allocation	244.3	0.0%	18,849	74.6	0.4%	2.5%	35.2%
Specialty/Alternative	172.6	0.3%	4,006	9.0	0.2%	1.4%	12.0%
Equity	1,298.6	0.1%	71,923	126.8	0.2%	0.9%	20.6%
Commodity	3.4	0.0%	212	-1.1	-0.5%	-2.2%	17.6%
Total	2,608.7	0.1%	138,913	524.5	0.4%	0.5%	23.4%

ESG-FOCUSED FUND FLOWS

Last Week's Net Creations/Redemptions by ESG Attribute

ESG activity remains tame, retail-sized trades dominate flows

	\$ Traded	Short Int	AUM	1-Week C/R	Net C/R (% AUM)		
	(CAD M)	(% of SO)	(CAD M)	(CAD M)	1-Week	1-Month	1-Year
Socially Responsible	12.2	0.0%	1,590	7.2	0.4%	1.4%	15.1%
Env. Friendly	5.1	0.0%	1,504	4.3	0.3%	-3.9%	-3.1%
Clean Energy	0.8	0.0%	122	0.1	0.1%	-0.6%	5.3%
Broad ESG	63.5	0.0%	13,706	10.2	0.1%	0.2%	0.3%
Climate Change	0.8	0.0%	140	0.0	0.0%	1.1%	9.3%
Total	82.5	0.0%	17,063	21.9	0.1%	-0.4%	5.4%

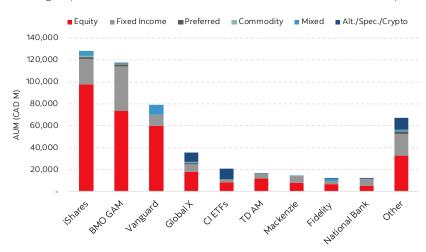
PROVIDER MARKET SHARE

41 Providers have total AuM of C\$504B (+30% YoY)

	# of	ALIM	AUM Market		Net C/R (% AUM)		
Providers	ETFs	(CAD M)	Share	1-Week	1-Month	1-Year	
iShares	164	128,127	25.4%	0.1%	1.1%	12.9%	
BMO GAM	194	117,257	23.3%	0.0%	0.2%	12.1%	
Vanguard	37	79,255	15.7%	0.3%	1.6%	21.9%	
Global X	132	35,395	7.0%	0.1%	0.0%	17.4%	
CIETFs	131	20,801	4.1%	0.0%	-0.4%	-2.1%	
TD AM	48	16,721	3.3%	0.5%	1.1%	39.1%	
Mackenzie	55	14,459	2.9%	0.3%	-1.5%	0.7%	
Fidelity	50	12,495	2.5%	1.0%	4.8%	153.3%	
National Bank	16	12,383	2.5%	0.1%	0.4%	11.4%	
Purpose	71	10,131	2.0%	0.4%	1.9%	4.7%	
RBC GAM	66	7,832	1.6%	1.1%	3.1%	49.1%	
Invesco	63	6,371	1.3%	-0.5%	-0.8%	9.8%	
1832 Asset Management	33	6,012	1.2%	0.1%	-0.3%	39.1%	
Hamilton Capital	22	5,549	1.1%	0.6%	2.9%	83.6%	
Other (27)	377	31,298	6.2%	0.3%	-0.5%	20.2%	
Total	1,459	504,087	100.0%	0.2%	0.7%	17.0%	

ASSET MIX BY PROVIDER

The five largest providers now account for ~75% of the ETF Canadian landscape



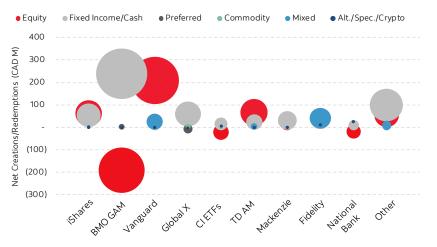
LAST WEEK'S LARGEST NET CREATIONS/REDEMPTIONS BY PROVIDER

Quadravest and AGF Investments gathered the most assets (as % AUM) last week

	Average Fund Size AUM		Net C/R	Net C/R (% AUM)		
Providers	(CAD M)	(CAD M)	(CAD M)	1-Week	1-Month	1-Year
Quadravest	8.6	8.6	0.5	6.4%	23.6%	N/A
AGF Investments	80.6	967.1	25.2	2.7%	0.4%	-19.4%
Tralucent ETFs	11.4	11.4	0.2	1.8%	2.9%	N/A
Brompton	52.1	990.4	15.2	1.5%	6.2%	49.5%
RBC GAM	118.7	7,832.0	83.6	1.1%	3.1%	49.1%
Fidelity	249.9	12,495.2	122.6	1.0%	4.8%	153.3%
Russell Investments	16.3	65.1	0.5	0.8%	1.5%	-12.0%
PIMCO	361.1	2,888.8	22.2	0.8%	-25.4%	-8.1%
Mulvihill	44.5	133.6	-1.2	-0.9%	0.5%	63.0%
Invesco	101.1	6,371.5	-29.5	-0.5%	-0.8%	9.8%
Evolve	70.2	3,789.4	-11.8	-0.2%	2.9%	7.9%
Middlefield	86.1	516.8	-1.0	-0.2%	-0.7%	-8.6%
Franklin Liberty	61.6	1,663.6	-2.3	-0.1%	2.3%	26.2%
Picton Mahoney	107.9	863.2	-0.2	-0.0%	1.6%	19.2%
CIETFs	158.8	20,800.9	-1.9	-0.0%	-0.4%	-2.1%
			-			

WEEKLY CREATIONS/REDEMPTIONS BY ASSET CLASS

Once again, BMO's deep equity outflows are offset by strong CR on fixed income ETFs



Contacts

Daniela Fajardo, MBA

Associate Director, ETF Services 416.860.1023 Scotia Capital Inc. Canada daniela.fajardogarcia@scotiabank.com

Morley Conn, CFA

Director, ETF Services 416.863.7882 Scotia Capital Inc. Canada morley.conn@scotiabank.com

Alex Perel, CFA

MD & Head of ETF services 416.862.3158 Scotia Capital Inc. Canada alex.perel@scotiabank.com

Winnie Jiang, CFA

Associate Director, ETF Services 416.863.7295 Scotia Capital Inc. Canada winnie.jiang@scotiabank.com

Danielle Tygesen

Analyst, ETF Services 416.863.5902 Scotia Capital Inc. Canada danielle.tygesen@scotiabank.com

© The Bank of Nova Scotia 2023

To unsubscribe from this specific note/publication, email etfcommentary@scotiabank.com

TM Trademark of The Bank of Nova Scotia Used under license, where applicable. Scotiabank, together with "Global Banking and Markets", is a marketing name for the global corporate and investment banking and capital markets businesses of The Bank of Nova Scotia and capital (USA) Inc., Scotia Advisor, Scotia Capital (USA) Inc., Scotia Advisor, Scotia Capital Inc., Scotia Capital (USA) Inc., Scotia Capital (USA) Inc., Scotia Capital Inc., Scotia Capital Inc., Scotia Inverlat Casa de Bolsa S.A. de C.V., and Experimental (USA) Inc. is a registered broker-dealer with the SEC and is a member of the NASD and SIPC. The Bank of Nova Scotia is authorised and regulated by the Office of the Superintendent of Financial Institutions of Canada. Scotia Capital Inc. is authorised and regulated by the Investment Industry Regulatory Organization of Canada. The Bank of Nova Scotia Inverlat Casa de Inverlat Capital Inc. is authorised and regulation Authority, Scotiabank Europe pile is regulated by the UK Financial Conduct Authority and the UK Prudential Regulation Authority, Scotiabank Europe pile is regulated by the UK Fundential Regulation Authority, Scotiabank Inverlat Casa de Bolsa, S.A. de C.V., and Scotia Derivados, S.A. de C.V., are each authorized and regulated by the Mexican financial authorities.

This publication is not a research report and is considered a marketing communication only. Consequently this commentary is not governed by rules applicable to the publication and distribution of research reports, including relevant restrictions or disclosures required to be included in research reports and has not been prepared in accordance with EU legal requirements designed to promote the independence of investment research. This publication is not meant to provide information sufficient upon to base an investment decision, or to replace any due to the replace any due to analytical work required by you in making investment decisions. The information contained in this publication is not subject to any prohibition in the EU on dealing a head of the dissemination of investment decisions. The information has been prepared and distribution in the Subject of the support of investment decisions. The information has been prepared and distribution in the Subject of the support of investment performance is not a reliable indicator of future performance. The opinions and statements contained herein are intended for information purposes only and are subject to change without notice. In addition, the opinions and statements contained herein are based on information purposes only and are subject to change without notice. In addition, the opinions and statements contained herein are based on information purposes only and are subject to change without notice. In addition, the opinions and statements contained herein are based on information as a subject to change without notice. In addition, the opinions and statements contained herein are based on information as a subject to change without notice. In addition, the opinions and statements contained herein are based on information purposes only and are subject to change without notice. In addition, the opinions and statements contained herein are based on information as a subject to change without notice. In addition, the opinions and statements contained herein are based o

Scotia Capital Inc., its directors, officers, employees, affiliates or clients may currently or from time to time own or hold interests in long or short positions in the securities referred to herein, and may at any time make purchases or sales of these securities as principal or agent. Scotia Capital Inc. or its affiliates may have provided or may provide investment banking, capital markets advice or other resvices to the companies referred to in this communication. This email should not be construed as investment advice or as an offer to sell or a solicitation of an offer to buy any securities or other financial instruments. Neither Scotia Capital Inc. nor any of its officers, directors, partners, employees or affiliates accepts any liability for any direct or consequential loss arising from this publication or its contents. Scotia Capital Inc. recommends that investors independently evaluate each issuer and security discussed in this publication, and consult with any advisors they deem necessary prior to making any investment.

If you are subject to the prohibition on third-party benefits in relation to portfolio management and independent investment advice under MiFID II (Directive 2014/65/EU and the accompanying Regulation (EU) No 600/2014) or the UK Markets in Financial Instruments (Amendment) (EU Exit) Regulations 2018, each as amended from time to time, and should not have received this communication, please advise us in writing at trade.supervision@scotiabank.com

Redistribution or onward forwarding of this email is strictly prohibited. If you believe that this email was sent to you in error, please forward a message to that effect as soon as practicable to trade supervision@scotiabank.com

The information is not advice, a recommendation, or an offer. The information provided herein is intended for general circulation and does not take into account specific investment objectives, financial circumstances or the particular needs of any recipient. It does not construe an offer or solicitation to buy or sell or subscribe for any security or financial instrument or investment product, or to enter into a transaction or participate in any particular trading or investment strategy.

The information is not for Retail1; no assurances as to results. Trading in securities involves risks, including the risk of loss. This document and the products and strategies described herein (collectively, the "Products") are intended for use only by sophisticated professional and institutional investors as may be defined in the respective jurisdictions. Investors should consult their financial, legal and tax advisors and determine that the Products are suitable for their risk tolerance and investment objectives prior to engaging in any activity related to the Products. Scotiabank cannot provide any assurances that the Products will achieve their intended results or that the Products will outperform other similar products or strategies. While this document describes how the Products are intended to work under normal market conditions, the actual performance of the Products may not achieve their intended results, particularly during periods of unusually high volatility, unusually low liquidity and/or other extraordinary market conditions. Nothing in this document should be construed as tax or investment advice and no description of the Products-related transactions. If there are any matters arising from, or in connection with the materials, investors should contact their Scotiabank representative to seek further clarification.

1GBM&T does not deal with retail clients.

