

GLOBAL ECONOMICS GLOBAL AUTO REPORT

November 22, 2018

Weak Sales Activity in China Drives Global Auto Purchases Lower in October

- Global auto sales were again dragged down in year-on-year terms in October with a 5.2% decline owing to falling purchases in China and soft activity in the European Union that offset an earlier surge from inventory clear-outs ahead of new emission rules.
- The sharp year-on-year contraction in October paints a significantly more negative picture than the overall trend in vehicle sales worldwide, which, albeit slowing, is still tracking a mild increase for the year.
- World vehicle sales ticked up by 4.4% m/m in seasonally-adjusted terms compared to September's steep 11.8% m/m decline, which for the most part reflected one-off or temporary factors.

CANADIAN AUTO SALES STABLE AT MARKET PLATEAU; FLEET GAINS OFFSET RETAIL LOSSES

Purchases contracted by 1.9% y/y in Canada for an eighth consecutive month of annual declines but ticked up by 3.1% from September in seasonally-adjusted terms. Relative to the same period last year, January–October sales declined by 1.7% y/y in line with softer economic growth in net oil-producing regions after 2017's recovery, and cooler household spending across Canada. Year-to-date auto sales have been buoyed by a strong 4.5% y/y ytd expansion in fleet purchases compared to weak retail auto sales which have fallen by around 2.5% y/y ytd.

We continue to forecast Canadian vehicle sales to close the year at 2.00 mn units sold, down from 2017's all-time high of 2.04 mn deliveries. Although weakening as of late, overall sales remain particularly resilient in Ontario, with a 0.8% y/y ytd expansion off a strong start to the year. On the flipside, purchases in Alberta and BC have each posted a near-5% y/y ytd contraction. Sales in Quebec are down so far this year by 1.8% y/y ytd.

US SALES STRONGER THAN EXPECTED

US vehicle sales advanced slightly by 0.5% in both m/m and y/y seasonally-adjusted terms in October. The ten-month year-to-date sales total marks a small 0.3% y/y ytd advance which, alongside stronger-than-expected economic growth, so far beats expectations for a slight decline in sales in 2018 to 17.0 mn units from 2017's total of 17.1 mn units.

Ninety-days-and-over auto delinquency rates have risen steadily in the US to 4.3% in Q3-2018 from a post-financial-crisis low of 3.1% in Q3-2014, which may reflect a deterioration of credit quality in the sector. Yet, this increase is mostly driven by subprime borrowers—who represent only around a fifth of new auto loans—while default rates amongst creditworthy borrowers have ticked up only slightly. In fact, credit scores at origination have firmed up since early-2016 and now sit significantly above their pre-financial-crisis average.

HIGH INTEREST RATES DEPRESS PURCHASES IN MEXICO

Auto purchases in Mexico have contracted in year-on-year terms for seventeen consecutive months after October's 4.9% y/y decline, resulting in

CONTACTS

Juan Manuel Herrera, Economist 416.866.6781 Scotiabank Economics juanmanuel.herrera@scotiabank.com

Motor Vehicle Sales					
	Oct '18	Jan-Oct '18			
	(y/y % change)				
World	-5.2	3.8			
North America					
Canada	-1.9	-1.7			
US	0.5	0.4			
Mexico	-4.9	-6.9			
South America					
Argentina	-50.0	-16.0			
Brazil	24.5	14.4			
Chile	23.3	19.5			
Colombia	9.9	4.3			
Peru	-8.3	-6.1			
Western Europe					
France	-1.5	5.7			
Germany	-7.4	1.4			
Italy	-7.4	-3.3			
Spain	-6.6	8.6			
UK	-2.9	-7.2			
Eastern Europe					
Russia	8.0	14.1			
Turkey	-68.3	-32.5			
Asia Pacific					
Australia	-26.7	-7.9			
China	-12.0	-0.2			
India	5.2	9.9			
Japan	12.5	0.2			
Korea	2.2	-0.6			



a year-to-date decrease in sales of 6.9% y/y. Buyers have been kept at bay amidst Banco de Mexico's tightening cycle; during which the central bank's policy interest rate has increased rapidly from 3.00% in late-2015 to 8.00% currently. In seasonally adjusted terms, vehicle sales totalled 117k units in October 2018, down roughly 14% from the 137k units sold 24 months prior. Although the deceleration in auto sales appears to have leveled off, a robust pick-up in household purchases of autos remains elusive at current interest rate levels: Banxico's real policy rate sits close to 3%, its highest point since early-2008. We project vehicle sales in Mexico to total around 1.45 mn units in 2018, down from 1.53 mn in 2017 and 1.60 mn in 2016.

CHINESE DELEVERAGING EFFORTS PUSH SALES TOWARD AN ANNUAL CONTRACTION

After a strong showing in the first half of the year, auto sales in China have felt the impact of tighter lending controls deployed by Beijing in late-2017 and are now on track to contract in 2018 after posting a 12% y/y drop in purchases in October. With steeper US tariffs on Chinese imports on the horizon—expected to rise from 10% at present to 25% in January on USD 200 bn in Chinese exports to the US—we expect the Chinese government to allow for a freer flow of credit, which may support higher auto deliveries. Nevertheless, the impact of the US-initiated trade war may still dent expectations for auto sales growth in China in 2019. We await word from Washington on progress in so-far-informal trade talks with China. If these develop positively toward year-end, there is a chance that the US will not go ahead with its planned increase in duty rates at the turn of the year. On the other hand, a breakdown in trade discussions could motivate President Trump to deploy extraordinary duties on all US imports from China, thus marginally worsening the outlook.

PRE-EMISSION STANDARDS SALES BOOST UNWINDS IN EUROPE, BUT UNDERLYING TREND REMAINS HEALTHY

October's sales decline of -7.5% y/y in Western Europe continued to unwind the August surge in purchases in the European Union ahead of the arrival of new emission standards in September. But on a month-on-month seasonally adjusted basis, sales returned to trend with a 24% surge after September's 41% m/m slump. Overall economic conditions in Western Europe remain supportive of a mild expansion in auto sales, with vehicle purchases in the region rising by 2.1% y/y ytd exclusive of the UK, where sales have fallen by 7.2% y/y ytd. Alongside the softening economic expansion on the Continent, sales are expected to stabilise in Western Europe in 2019 around current levels of 14.50 mn units annually.

BRAZIL POISED FOR DOUBLE-DIGIT SALES EXPANSION IN 2018

Vehicle sales in Brazil continue to recover from their late-2016 trough with a 24.5% y/y jump in October, putting them on track for a strong 12% increase in 2018. Auto purchases in Brazil have been aided by a relaxation of the central bank's policy rate and a pick-up in economic activity. Gross domestic product and auto sales volumes in Brazil nevertheless still sit significantly below levels recorded prior to the commodities downturn, with the economic recovery undermined by an unstable political environment. Political uncertainty has, for now, been put at ease as President-elect Jair Bolsonaro prepares to begin his term on January 1 after being declared the winner in October's elections.

(millions of units)									
	1990–99	2000–14	2015	2016	2017	2018			
TOTAL SALES	39.20	54.89	72.61	77.25	79.02	80.01			
North America*	16.36	17.85	20.64	21.01	20.70	20.44			
Canada	1.27	1.62	1.90	1.95	2.04	2.00			
United States	14.55	15.24	17.39	17.46	17.13	17.00			
Mexico	0.54	0.99	1.35	1.60	1.53	1.44			
Western Europe	13.11	13.67	13.20	13.97	14.32	14.47			
Germany	3.57	3.23	3.21	3.35	3.44	3.49			
Eastern Europe	1.18	3.08	3.15	3.14	3.41	3.5			
Russia	0.78	1.87	1.60	1.43	1.60	1.78			
Asia	6.91	17.12	32.29	36.06	37.10	37.80			
China**	0.43	7.31	20.01	23.57	24.20	24.20			
India	0.31	1.23	2.06	2.09	2.19	2.40			
South America	1.64	3.17	3.33	3.07	3.49	3.75			
Brazil	0.94	1.94	1.82	1.39	1.50	1.68			

^{*}Includes light trucks. **Includes crossover utility vehicles from 2005. Sources: Scotiabank Economics, Ward's Automotive Reports, Bloomberg.



	CANADA/US MOTO	R VEHICLE SAI	LES OUTLOC	K						
	<u>1991–05</u>									
	Average				Jan-Oct**	Annual f				
		(thousands of un	its, annualized)						
CANADA	1,398	1,668	1,949	2,041	2,015	2,000				
Cars	797	776	662	644	588	550				
Domestic	583	490	439	438	384	370				
Imports	214	286	223	206	204	180				
Light Trucks	601	892	1,287	1,397	1,427	1,450				
		(millions of unit	s, annualized)							
UNITED STATES	15.5	14.4	17.5	17.1	17.1	17.0				
Cars	8.3	6.9	6.9	6.1	5.3	5.0				
Light Trucks	7.2	7.5	10.6	11.0	11.8	12.0				
NORTH AMERICAN		(millions of unit	s, annualized)							
PRODUCTION*	15.58	14.63	18.15	17.48	17.33	17.45				
CANADA	2.50	2.24	2.37	2.19	2.02	2.03				
UNITED STATES	11.67	9.80	12.18	11.23	11.21	11.32				
MEXICO	1.41	2.59	3.60	4.06	4.10	4.10				

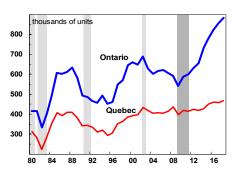
$^* Includes \ light, medium \ and \ heavy \ trucks. \ ^** Canadian \ sales \ are \ Scotiabank \ estimates. \ Sources: Ward's \ Automotive \ Reports, \ Statistics \ Canada.$

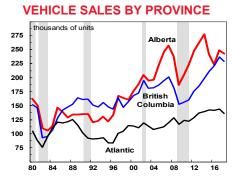
VEHICLE SALES OUTLOOK BY PROVINCE*

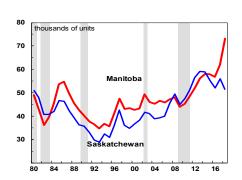
(thousands of units, annual rates)

	1994-05	2006-15	2016	2017	20	18
	Average				Jan-Sep**	Annual f
CANADA	1,446	1,668	1,949	2,041	2,032	2,000
ATLANTIC	102	125	140	143	133	130
CENTRAL	936	1,034	1,265	1,300	1,307	1,305
Quebec	366	411	458	453	455	450
Ontario	570	623	807	847	848	855
WEST	408	509	544	598	593	565
Manitoba	42	49	55	62	69	68
Saskatchewan	36	49	51	56	50	48
Alberta	166	232	220	245	234	230
British Columbia	164	179	218	235	223	219

^{*}Includes cars and light trucks. **Scotiabank estimates. Sources: Statistics Canada, Canadian Vehicle Manufacturers' Association.







Includes cars and trucks (light, medium and heavy).
Shaded bars indicate U.S. recession periods. Source: Statistics Canada.



AUTO MARKET SHARE BY MANUFACTURER — CANADA*

(thousands of units, not seasonally adjusted)

	2	2017	2	2018	<u>201</u>	7	201	8
	Jan to Oct		Jai	Jan to Oct		Oct		ct
	Units	% of Total	Units	% of Total	Units	% of Total	Units	% of Total
TOTAL	561.2	100.0	508.0	100.0	48.4	100.0	45.3	100.0
Big Three	105.8	18.9	92.1	18.1	7.6	15.7	6.2	13.7
General Motors	55.4	9.9	52.8	10.4	4.5	8.1	4.1	9.1
Ford	33.9	6.0	28.0	5.5	2.2	4.5	1.3	2.9
Chrysler	16.5	2.9	11.3	2.2	0.9	1.9	8.0	1.7
Japanese	255.0	45.4	239.0	47.1	22.8	47.1	22.7	50.2
Honda	84.4	15.0	82.8	16.3	7.7	16.0	7.9	17.5
Toyota	77.8	13.9	74.8	14.7	7.2	14.9	7.9	17.5
Nissan	40.0	7.1	36.4	7.2	3.2	6.7	3.0	6.6
Mazda	29.5	5.3	26.9	5.3	2.5	5.1	2.4	5.3
Mitsubishi	7.2	1.3	4.0	0.8	0.6	1.3	0.2	0.4
Subaru	16.0	2.9	14.1	2.8	1.5	3.2	1.3	2.9
Hyundai	62.7	11.2	53.9	10.6	5.6	11.5	5.0	11.1
Volkswagen	43.3	7.7	36.2	7.1	3.9	8.1	3.5	7.7
Kia	35.0	6.2	32.2	6.3	3.2	6.5	2.9	6.5
BMW	18.9	3.4	17.5	3.4	1.6	3.4	1.6	3.6
Mercedes-Benz	19.9	3.5	17.3	3.4	1.9	3.9	1.5	3.4
Other	20.7	3.7	19.7	3.9	1.8	3.7	1.7	3.7

^{*}Source: Dealer sales from the Global Automakers of Canada.

TRUCK MARKET SHARE BY MANUFACTURER — CANADA*

(thousands of units, not seasonally adjusted)

	_	2017	_	2018	<u>201</u>		<u>201</u>	
		to Oct		n to Oct		ct		ct
	Units	% of Total	Units	% of Total	Units	% ot Total	Units	% of Total
TOTAL	1,163.6	100.0	1,148.6	100.0	61.1	100.0	121.6	100.0
Big Three	651.5	56.0	624.3	54.3	57.5	94.2	53.3	43.8
General Motors	204.2	17.6	202.7	17.6	22.3	36.6	19.3	15.8
Ford	233.4	20.1	232.3	20.2	18.9	30.9	20.1	16.5
Chrysler	213.9	18.4	189.3	16.5	16.3	26.7	13.9	11.4
Other Domestic	27.3	2.3	39.5	3.4	3.5	5.8	5.7	4.7
Japanese	366.9	31.5	393.1	34.2	39.4	64.5	40.8	33.6
Honda	87.8	7.5	88.4	7.7	9.9	16.2	8.5	7.0
Toyota	117.2	10.1	122.3	10.6	12.4	20.4	13.7	11.3
Nissan	85.9	7.4	91.8	8.0	8.3	13.7	9.2	7.6
Mazda	33.8	2.9	37.9	3.3	3.9	6.4	3.6	3.0
Mitsubishi	12.3	1.1	17.8	1.6	1.4	2.3	1.6	1.3
Subaru	29.9	2.6	34.9	3.0	3.4	5.6	4.2	3.4
Hyundai	51.0	4.4	58.1	5.1	4.7	7.6	6.5	5.3
Kia	30.7	2.6	31.3	2.7	2.7	4.4	2.7	2.2
Other Imports	36.2	3.1	2.4	0.2	-46.7	-76.5	12.6	10.4
LIGHT TRUCKS	1,193.9	102.6	1,218.2	106.1	115.8	189.5	115.8	95.3

^{*}Source: Dealer sales from the Global Automakers of Canada.



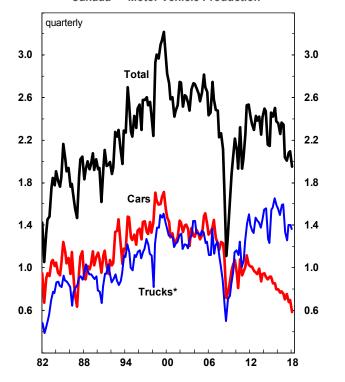
(thousands of units, not seasonally adjusted)								
	<u>2017</u>	<u>2018</u>	<u>2017</u>	2018				
	Jan to Sep	Jan to Sep	Sep	Sep				
CANADA	517.1	464.8	58.8	48.9				
ATLANTIC	37.6	31.5	4.3	3.1				
Newfoundland	7.4	6.3	8.0	0.6				
Prince Edward Island	2.3	2.0	0.3	0.2				
Nova Scotia	17.1	14.4	2.0	1.3				
New Brunswick	10.8	8.8	1.2	1.0				
CENTRAL	367.6	334.7	42.5	35.3				
Quebec	150.0	132.6	17.3	14.2				
Ontario	217.6	202.1	25.3	21.2				
WEST	111.9	98.5	12.0	10.5				
Manitoba	10.8	12.3	1.2	1.7				
Saskatchewan	7.0	5.7	8.0	0.6				
Alberta	37.3	30.7	3.9	3.2				
British Columbia	56.8	49.9	6.2	5.0				

(thousands of units, not seasonally adjusted)								
	2017 Jan to Sep	2018 Jan to Sep	2017 Sep	201 8				
CANADA	1,102.4	1,136.8	126.6	128.9				
ATLANTIC	78.7	75.1	4.3	8.				
Newfoundland	19.4	18.2	0.8	2.5				
Prince Edward Island	4.5	4.3	0.3	0.				
Nova Scotia	30.2	28.4	2.0	3.3				
New Brunswick	24.5	24.3	1.2	2.				
CENTRAL	666.9	705.4	78.9	79.				
Quebec	217.9	230.1	25.5	25.				
Ontario	449.0	475.3	53.4	53.				
WEST	356.7	356.2	43.4	40.				
Manitoba	37.2	42.9	4.7	4.				
Saskatchewan	36.6	33.2	4.4	4.				
Alberta	155.8	154.6	18.9	18.				
British Columbia	127.1	125.5	15.3	14.				



(thousands of units, not seasonally adjusted)								
	<u>2017</u>	<u>2018</u>	<u>2017</u>	2018				
	Jan to Oct	Jan to Oct	Oct	Oc				
TOTAL	1,842.1	1,707.5	152.5	178.0				
CAR	626.2	545.1	65.2	53.8				
Chrysler	189.3	158.9	20.9	14.2				
GM	80.3	47.5	9.5	5.3				
Honda	175.7	176.7	18.4	18.5				
Toyota	180.9	162.0	16.4	15.9				
TRUCKS*	1,215.9	1,162.4	87.3	124.2				
Chrysler	241.4	263.3	2.3	27.1				
Ford	214.2	192.1	22.2	17.1				
GM	253.7	225.7	10.9	27.8				
Honda	185.8	188.2	19.1	20.4				
Toyota	305.3	275.5	31.2	29.8				
Others	15.5	17.6	1.6	2.0				

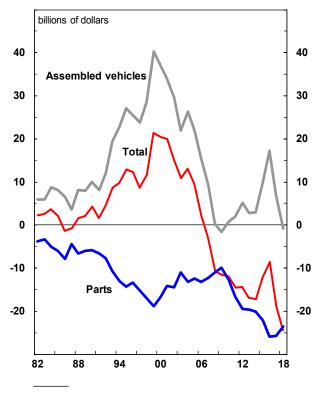




Millions of units, seasonally adjusted annual rates. *Light, medium and heavy trucks.

Source: Ward's Automotive Reports.

Canada — World Auto Trade Balances

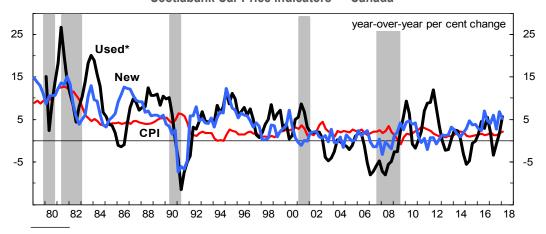


2018 data are January-September annualized. Source: Statistics Canada.



New & Used Car Prices

Scotiabank Car Price Indicators — Canada

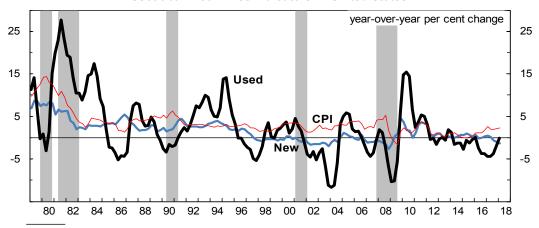


^{*}Scotiabank estimate from Canadian Black Book data. Sources: Canadian Black Book, Statistics Canada.

Scotiabank Car Price Indicators — Canada



Scotiabank Car Price Indicators — United States



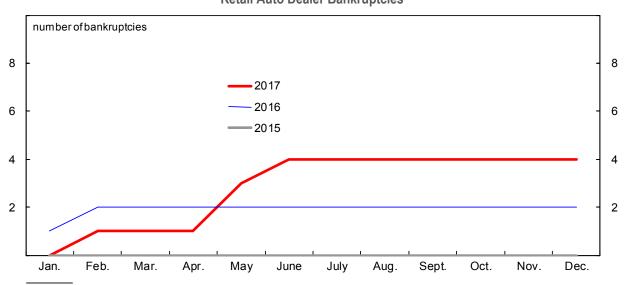
Consumer price indices for new and used cars. Shaded areas indicate recession periods. Source: U.S Bureau of Labor Statistics.



Source: Statistics Canada.

		MOTOR	VEHICLE DEALE	RS AND REP	AIR SHOPS		
		Net Income	Pre-Tax	Inventory	Interest	Debt/	Return on
		After Tax	Profit	Turnover	Coverage	Equity	Shareholders
		(\$ mil)	Margin (%)	Ratio	Ratio	Ratio	Equity (%)
Annual	2005	799	0.93	5.35	2.55	2.74	12.90
	2006	942	1.20	5.16	2.64	2.75	14.37
	2007	1089	1.41	5.05	3.36	2.56	15.13
	2008	1142	1.43	5.04	3.51	2.44	14.66
	2009	1392	1.84	5.34	4.85	2.07	16.99
	2010	1649	2.06	4.91	5.34	2.11	18.09
	2011	1664	1.99	5.17	5.19	2.02	17.44
	2012	1748	1.97	4.86	5.32	2.03	16.71
	2013	2215	2.32	5.08	6.64	2.02	20.08
	2014	2714	2.60	5.09	7.41	1.90	21.03
	2015	2930	2.65	5.19	7.47	1.94	21.06
	2016	2940	2.46	5.06	7.54	1.87	18.84
	2017	3660	2.73	4.89	8.02	1.89	21.39
Quarterly at ar	nnual rates						
	2017Q2	4232	2.51	5.01	9.43	1.94	23.48
	Q3	4204	2.56	5.00	8.54	1.85	22.12
	Q4	3844	2.54	4.92	7.53	1.79	21.16
	2018Q1	2260	2.20	4.69	5.76	1.90	15.94
	Q2	3644	2.25	4.69	6.88	1.88	17.44
Average (89–1	17)	1094	1.40	5.96	3.68	2.30	12.63
Low (89–17)		-68	0.10	4.32	1.10	3.57	-1.20

Retail Auto Dealer Bankruptcies



New car dealers only; cumulative total during the year. Source: Office of the Superintendent of Bankruptcy.



GLOBAL ECONOMICS | GLOBAL AUTO REPORT

November 22, 2018

This report has been prepared by Scotiabank Economics as a resource for the clients of Scotiabank. Opinions, estimates and projections contained herein are our own as of the date hereof and are subject to change without notice. The information and opinions contained herein have been compiled or arrived at from sources believed reliable but no representation or warranty, express or implied, is made as to their accuracy or completeness. Neither Scotiabank nor any of its officers, directors, partners, employees or affiliates accepts any liability whatsoever for any direct or consequential loss arising from any use of this report or its contents.

These reports are provided to you for informational purposes only. This report is not, and is not constructed as, an offer to sell or solicitation of any offer to buy any financial instrument, nor shall this report be construed as an opinion as to whether you should enter into any swap or trading strategy involving a swap or any other transaction. The information contained in this report is not intended to be, and does not constitute, a recommendation of a swap or trading strategy involving a swap within the meaning of U.S. Commodity Futures Trading Commission Regulation 23.434 and Appendix A thereto. This material is not intended to be individually tailored to your needs or characteristics and should not be viewed as a "call to action" or suggestion that you enter into a swap or trading strategy involving a swap or any other transaction. Scotiabank may engage in transactions in a manner inconsistent with the views discussed this report and may have positions, or be in the process of acquiring or disposing of positions, referred to in this report.

Scotiabank, its affiliates and any of their respective officers, directors and employees may from time to time take positions in currencies, act as managers, co-managers or underwriters of a public offering or act as principals or agents, deal in, own or act as market makers or advisors, brokers or commercial and/or investment bankers in relation to securities or related derivatives. As a result of these actions, Scotiabank may receive remuneration. All Scotiabank products and services are subject to the terms of applicable agreements and local regulations. Officers, directors and employees of Scotiabank and its affiliates may serve as directors of corporations.

Any securities discussed in this report may not be suitable for all investors. Scotiabank recommends that investors independently evaluate any issuer and security discussed in this report, and consult with any advisors they deem necessary prior to making any investment.

This report and all information, opinions and conclusions contained in it are protected by copyright. This information may not be reproduced without the prior express written consent of Scotiabank.

™ 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 certain of its affiliates in the countries where they operate, including, Scotiabanc Inc.; Citadel Hill Advisors L.L.C.; The Bank of Nova Scotia Trust Company of New York; Scotiabank Europe plc; Scotiabank (Ireland) Limited; Scotiabank Inverlat S.A., Institución de Banca Múltiple, Scotia Inverlat Casa de Bolsa S.A. de C.V., Scotia Inverlat Derivados S.A. de C.V. – all members of the Scotiabank group and authorized users of the Scotiabank mark. The Bank of Nova Scotia is incorporated in Canada with limited liability and is authorised and regulated by the Office of the Superintendent of Financial Institutions Canada. The Bank of Nova Scotia is authorised by the UK Prudential Regulation Authority and is subject to regulation by the UK Financial Conduct Authority and Imited regulation by the UK Prudential Regulation Authority. Details about the extent of The Bank of Nova Scotia's regulation by the UK Prudential Regulation Authority and regulated by the UK Financial Conduct Authority and regulated by the UK Financial Conduct Authority and regulated by the UK Financial Conduct Authority and the UK Prudential Regulation Authority.

Scotiabank Inverlat, S.A., Scotia 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.

Not all products and services are offered in all jurisdictions. Services described are available in jurisdictions where permitted by law.