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Cereal/Serial Upside Surprises to Inflation Require More Aggressive Response

- Recent US and Canadian economic data suggest once again that we have been underestimating the momentum in these economies.
- The Russian aggression is clouding the outlook, however. For commodity importers this is a stagflationary shock. For exporters like Canada, the rise in commodity prices provides a powerful offset to the uncertainty and trade impacts of the conflict.
- The conflict is the most recent among a now long list of serial upside shocks to inflation.
- Though this is clearly a supply shock, inflation starting points in Canada and the US provide limited flexibility for central banks to look through this most recent development. Modest upward revisions to rate forecasts are necessary to ensure that second round impacts of the conflict don't add further fuel to rising inflation expectations.
- In Canada, we now expect the policy rate to rise to 2.5% by the end of this year with a terminal rate of 3% in 2023. In the US, we forecast the Fed will raise its target rate to 2.25% by the end of the year and raise rates by another 25bps in early 2023.

Russian aggression in Ukraine is complicating the task of central bankers. The uncertainty emanating from developments there, how these developments propagate around the world, and their effect on financial markets and commodities is likely to have vastly differing impacts on economies. Those that are closer to the conflict and more reliant on commodity imports are going to be quite negatively impacted. This is the case for much of Europe. For others, such as Canada, that produce many of the commodities being affected by the conflict, the rising value of exports is a powerful offset to the uncertainty and reduced growth prospects in Europe. For all countries, there is no question that developments in Russia and Ukraine are inflationary.

In Canada and the US, recent economic indicators point to a stronger expansion expected in late 2021 and early 2022. This momentum is leading to an upward revision to growth in Canada for instance, despite the situation in Ukraine. This alone warrants an upward revision to our rate calls. The impact of much higher commodity prices across a broad range of raw materials coming from the Russian aggression should provide a powerful economic boost to Canada. We are, however, offsetting much of that positive impact to take into account heightened uncertainty. This results in forecasted growth in real GDP of 4.3% in 2022 and 3.2% in 2023. That forecast remains below what the BoC had forecast in its January Monetary Policy Report, which Governor Macklem has indicated would likely be revised upwards in its April Monetary Policy Report. So, we are by no means on the optimistic side of forecasters. If we, or the BoC, are correct, the growth to come over the next couple of years will be the strongest 2-year growth period since 1999 if we exclude 2021 given that it was boosted by a COVID rebound.

This exceptionally strong growth environment will add to inflationary pressures, but so will the impact of Russian aggression on commodity prices and associated supply chain disruptions. Assumptions about the conflict and the duration of its effect on commodity prices are of critical importance to the inflation outlook. For the moment, we assume that sanctions peak over the next 12 months and that commodities remain elevated relative to pre-conflict levels for that time. We have no crystal ball, and the disruption could well last much longer, or less long than that. We will adjust our forecasts in time once we have more clarity on the realism of that assumption. An early point of reference is Russia's statement that it would limit or cease exports of raw materials until at least December 31.

March 11, 2022

The combined impact of greater economic strength in Canada along with the implications of our commodity price assumptions is leading us to significantly raise our inflation forecast. We see year-over-year inflation rising from the 5.1% seen in January to 6.2% in 2022-Q3. For the year, we see total inflation averaging 5.9% in 2022, falling to 3.1% in 2023. Both are clearly quite some distance from the BoC's 2% target.

There is a debate on how central banks should best respond to current inflationary dynamics. In principle, central bankers should look through supply shocks. The impact of the conflict is clearly a supply shock, so by that logic the Bank of Canada and other central banks should largely look through these developments. That would be correct so long as there was no evidence of these shocks leading to second round impacts or rising inflation expectations. With inflation well outside the BoC's 1 to 3 per cent inflation control range, and businesses expecting to increase prices by 4.5% over the next twelve months (according to the CFIB's February Business Barometer, which does not capture the impacts of the Russian aggression), we believe Governor Macklem does not have much flexibility in dealing with additional shocks to inflation. We think the BoC is falling farther and farther behind the curve. As a result, we now predict that it will raise its policy rate by an additional 2 percentage points this year, ending the year at 2.5%. Another 50bps of tightening is forecast for next year, leaving the terminal rate at 3%. This is 50bps higher than our last forecast.

There is no doubt that this is an aggressive call in relation to the views held by others, but we believe the inflation outlook requires such a response. Given the serial upside surprises to inflation in recent months, the balance of risks to inflation and its consequences has shifted up and we consider that a more aggressive policy response would better guard against downside risks associated with higher inflation than a more gradual approach.

A very similar dynamic is in play in the United States, as inflation continues its upward path. As elsewhere in the world, we expect a shift from expenditure on goods to services will relieve some of the upward pressure on inflation, but service price inflation is also trending up now. Much like in Canada, the Fed must weigh current and future inflationary dynamics in the context of rising concern about the consequences of inflation and a potential reduction in the Fed's credibility. For these reasons, we have added 25bps of tightening to our US Fed Funds target rate forecast. We now forecast a 2022 year-end rate of 2.25, followed by an additional 25bps move in early 2023.

International												
	2010–19	2019	2020	2021e	2022f	2023f	2010–19	2019	2020	2021e	2022f	2023f
	Real GDP (annual % change)						Consumer Prices (y/y % change, year-end)					
World (based on purchasing power parity)	3.7	2.8	-3.1	6.2	4.1	3.7						
Canada	2.3	1.9	-5.2	4.6	4.3	3.2	1.7	2.1	0.8	4.7	5.8	2.1
United States	2.3	2.3	-3.4	5.7	3.9	3.3	1.7	2.0	1.2	6.7	6.8	3.2
Mexico	2.7	-0.2	-8.2	4.8	1.9	1.7	4.0	2.8	3.2	7.4	4.8	3.7
United Kingdom	2.0	1.7	-9.4	7.5	3.1	1.2	2.1	1.3	0.6	4.8	6.6	2.7
Eurozone	1.4	1.6	-6.5	5.6	3.1	2.2	1.3	1.3	-0.3	4.7	4.6	1.8
Germany	2.0	1.1	-5.0	3.1	2.9	1.9	1.3	1.5	-0.3	5.4	4.9	2.0
France	1.4	1.8	-8.0	7.4	3.0	2.0	1.2	1.5	0.0	3.3	3.4	1.7
China	7.7	6.0	2.3	8.1	5.1	5.3	2.7	4.5	0.2	1.5	2.5	2.2
India	7.0	4.7	-7.1	8.9	7.0	7.0	6.8	7.4	4.6	5.7	5.7	5.4
Japan	1.2	0.0	-4.7	1.9	2.4	1.8	0.6	0.8	-1.2	0.8	1.7	1.0
South Korea	3.3	2.2	-0.9	4.0	3.0	2.6	1.7	0.7	0.5	3.7	2.9	2.3
Australia	2.6	1.9	-2.3	4.8	4.1	2.7	2.1	1.8	0.9	3.5	3.0	2.7
Thailand	3.6	2.3	-6.1	1.6	4.0	4.0	1.5	0.9	-0.3	2.2	4.2	2.4
Brazil	1.4	1.2	-3.9	4.8	1.0	2.4	5.9	4.3	4.5	10.1	5.8	3.5
Colombia	3.7	3.2	-7.0	10.8	4.5	3.7	3.9	3.8	1.6	5.6	5.3	3.3
Peru	4.5	2.2	-11.0	13.3	2.6	2.8	2.9	1.9	2.0	6.4	4.2	3.0
Chile	3.3	1.0	-5.8	12.0	3.5	2.0	3.2	3.0	3.0	7.2	5.4	3.0
Argentina	1.4	-2.0	-9.9	9.6	1.8	2.6	26.1	53.8	36.1	50.9	38.3	30.6
Commodities												
	(annual average)											
WTI Oil (USD/bbl)	74	57	39	68	98	82						
Brent Oil (USD/bbl)	82	64	43	70	102	85						
WCS - WTI Discount (USD/bbl)	-18	-14	-12	-13	-13	-15						
Nymex Natural Gas (USD/mmbtu)	3.39	2.53	2.02	3.84	4.01	3.28						
Copper (USD/lb)	3.10	2.73	2.80	4.23	4.25	4.25						
Zinc (USD/lb)	1.02	1.16	1.03	1.36	1.50	1.40						
Nickel (USD/lb)	7.00	6.31	6.25	8.37	8.50	8.00						
Iron Ore (USD/tonne)	101	93	109	160	115	100						
Metallurgical Coal (USD/tonne)	179	185	127	204	250	175						
Gold, (USD/oz)	1,342	1,393	1,771	1,799	1,800	1,700						
Silver, (USD/oz)	21.64	16.21	20.48	25.15	24.50	23.00						

Sources: Scotiabank Economics, Statistics Canada, BEA, BLS, IMF, Bloomberg.

North America												
	2010-19	2019	2020	2021e	2022f	2023f	2010-19	2019	2020	2021e	2022f	2023f
	Canada (annual % change, unless noted)						United States (annual % change, unless noted)					
Real GDP	2.3	1.9	-5.2	4.6	4.3	3.2	2.3	2.3	-3.4	5.7	3.9	3.3
Consumer spending	2.5	1.4	-6.1	5.1	7.7	3.9	2.2	2.2	-3.8	7.9	4.3	3.5
Residential investment	2.5	-0.3	4.3	15.2	-6.5	-1.1	4.5	-0.9	6.8	9.1	0.3	3.0
Business investment*	2.9	1.6	-10.5	1.9	5.7	7.9	5.2	4.3	-5.3	7.4	3.7	3.0
Government	1.1	0.8	0.9	4.8	2.0	2.0	-0.1	2.2	2.5	0.5	2.2	3.1
Exports	3.5	2.3	-9.7	1.4	7.0	4.5	3.8	-0.1	-13.6	3.5	4.2	4.8
Imports	3.7	0.4	-10.8	7.4	9.8	6.2	4.3	1.1	-8.9	13.3	5.4	4.2
Inventories, contribution to annual GDP growth	0.1	0.1	-1.8	0.9	0.4	0.3	0.2	0.1	-0.6	0.0	0.3	0.0
Nominal GDP	4.0	3.4	-4.5	13.1	9.5	6.0	4.0	4.1	-2.2	10.1	10.8	6.9
GDP deflator	1.7	1.5	0.7	8.2	5.0	2.8	1.7	1.8	1.2	4.1	6.7	3.5
Consumer price index (CPI)	1.7	1.9	0.7	3.4	5.9	3.1	1.8	1.8	1.3	4.7	7.7	4.3
Core inflation rate**	1.7	1.9	1.7	2.4	3.7	2.8	1.6	1.7	1.4	3.3	4.7	2.7
Pre-tax corporate profits	6.3	-0.6	-1.9	32.7	2.5	5.2	5.7	2.7	-5.2	25.4	7.5	4.1
Employment	1.3	2.2	-5.1	4.8	4.1	1.3	1.5	1.3	-5.8	2.8	3.3	1.3
Unemployment rate (%)	6.9	5.8	9.6	7.4	5.2	5.1	6.2	3.7	8.1	5.4	3.8	3.8
Current account balance (CAD, USD bn)	-57.0	-47.0	-39.4	1.6	-14.2	-29.3	-409	-472	-616	-824	-867	-869
Merchandise trade balance (CAD, USD bn)	-13.6	-18.4	-39.8	5.2	9.3	5.8	-763	-862	-922	-1096	-1139	-1176
Federal budget balance (FY, CAD, USD bn) ***	-18.7	-39.4	-327.7	-144.5	-58.4	-43.9	-829	-984	-3,129	-2,800	-1,099	-747
percent of GDP	-1.0	-1.8	-14.9	-5.8	-2.1	-1.5	-4.8	-4.6	-15.0	-12.2	-4.3	-2.7
Housing starts (000s, mn)	201	209	218	271	238	227	0.99	1.29	1.40	1.60	1.63	1.60
Motor vehicle sales (000s, mn)	1,816	1,914	1,567	1,669	1,745	1,922	15.7	16.9	14.5	15.0	15.6	17.7
Industrial production	2.4	-0.2	-8.1	5.0	4.3	3.8	1.7	-0.8	-7.2	5.5	3.3	2.4
	Mexico (annual % change)											
Real GDP	2.7	-0.2	-8.2	4.8	1.9	1.7						
Consumer price index (year-end)	4.0	2.8	3.2	7.4	4.8	3.7						
Current account balance (USD bn)	-19.4	-4.0	26.2	-2.3	-7.5	-9.1						
Merchandise trade balance (USD bn)	-5.6	5.4	34.0	-11.5	-11.2	-12.4						

Sources: Scotiabank Economics, Statistics Canada, CMHC, BEA, BLS, Bloomberg. *For Canada it includes capital expenditures by businesses and non-profit institutions.
 ** US: core PCE deflator; Canada: average of 3 core measures published by the BoC. *** In order to align with US reporting, as of the August 2020 issue of Scotiabank's Forecast Tables, Canadian Federal and Provincial Budget Balances for FY2020/21 are noted in calendar year 2020, FY2021/22 in calendar year 2021.

Quarterly Forecasts																
	2020				2021				2022				2023			
	Q4	Q1	Q2	Q3	Q4	Q1f	Q2f	Q3f	Q4f	Q1f	Q2f	Q3f	Q4f			
Canada																
Real GDP (q/q ann. % change)	9.1	4.8	-3.6	5.5	6.7	3.5	5.4	4.6	3.0	3.6	2.7	1.9	1.4			
Real GDP (y/y % change)	-3.1	0.2	11.7	3.8	3.3	3.0	5.3	5.0	4.1	4.1	3.4	2.8	2.4			
Consumer prices (y/y % change)	0.8	1.4	3.3	4.1	4.7	5.5	5.9	6.2	5.8	4.6	3.3	2.5	2.1			
CPI-common (y/y % change)*	1.4	1.4	1.8	1.9	2.0	2.5	3.0	3.4	3.4	3.3	3.1	2.9	2.8			
Average of new core CPIs (y/y % change)	1.7	1.8	2.2	2.6	2.8	3.5	3.7	3.9	3.6	3.2	2.9	2.7	2.5			
CPIXFET (y/y % change)	1.1	1.0	2.1	3.0	3.2	4.1	4.4	4.7	4.2	3.6	3.2	2.9	2.6			
Unemployment Rate (%)	8.9	8.4	7.9	7.2	6.3	5.8	5.3	5.0	4.9	4.9	5.0	5.2	5.4			
United States																
Real GDP (q/q ann. % change)	4.5	6.3	6.7	2.3	7.0	1.0	5.4	3.2	4.0	3.6	2.9	2.3	2.0			
Real GDP (y/y % change)	-2.3	0.5	12.2	4.9	5.6	4.2	3.9	4.1	3.4	4.0	3.4	3.2	2.7			
Consumer prices (y/y % change)	1.2	1.9	4.8	5.3	6.7	8.0	8.1	7.8	6.8	5.6	4.4	3.7	3.2			
Total PCE deflator (y/y % change)	1.2	1.8	3.9	4.3	5.5	6.5	6.6	6.3	5.4	4.4	3.4	2.9	2.6			
Core PCE deflator (y/y % change)	1.4	1.7	3.4	3.6	4.6	5.6	5.0	4.6	3.7	3.1	2.8	2.6	2.5			
Unemployment Rate (%)	6.8	6.2	5.9	5.1	4.2	3.9	3.7	3.7	3.8	3.8	3.8	3.8	3.7			

* Refers to BoC's common component of CPI inflation, average of 3 core measures published by the BoC, CPI ex. food, energy and indirect taxes. Sources: Scotiabank Economics, Statistics Canada, BEA, BLS, Bloomberg.

Central Bank Rates													
	2020		2021			2022				2023			
	Q4	Q1	Q2	Q3	Q4	Q1f	Q2f	Q3f	Q4f	Q1f	Q2f	Q3f	Q4f
Americas													
(% end of period)													
Bank of Canada	0.25	0.25	0.25	0.25	0.25	0.50	1.25	2.00	2.50	3.00	3.00	3.00	3.00
US Federal Reserve (upper bound)	0.25	0.25	0.25	0.25	0.25	0.50	1.00	1.75	2.25	2.50	2.50	2.50	2.50
Bank of Mexico	4.25	4.00	4.25	4.75	5.50	6.50	7.00	7.25	7.50	7.50	7.50	7.50	7.25
Central Bank of Brazil	2.00	2.75	4.25	6.25	9.25	11.50	12.25	12.25	12.25	12.25	11.25	10.50	9.50
Bank of the Republic of Colombia	1.75	1.75	1.75	1.75	3.00	5.25	6.50	6.50	6.50	6.00	5.50	5.00	5.00
Central Reserve Bank of Peru	0.25	0.25	0.25	1.00	2.50	4.00	4.25	4.50	4.50	4.50	4.50	4.50	4.50
Central Bank of Chile	0.50	0.50	0.50	1.50	4.00	7.00	7.50	7.50	7.50	7.00	6.25	5.50	4.50
Central Bank of Argentina	38.00	38.00	38.00	38.00	38.00	44.00	44.00	46.00	42.00	40.00	38.00	37.00	36.00
Europe													
European Central Bank MRO Rate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.25	0.50	0.50
European Central Bank Deposit Rate	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.25	-0.25	0.00	0.00
Bank of England	0.10	0.10	0.10	0.10	0.25	0.75	1.00	1.25	1.25	1.50	1.50	1.50	1.50
Asia/Oceania													
Reserve Bank of Australia	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.25	0.50	0.75	1.00	1.25
Bank of Japan	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10
People's Bank of China	3.85	3.85	3.85	3.85	3.80	3.60	3.60	3.60	3.60	3.60	3.60	3.60	3.60
Reserve Bank of India	4.00	4.00	4.00	4.00	4.00	4.00	4.25	4.50	4.75	5.00	5.25	5.25	5.25
Bank of Korea	0.50	0.50	0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.50	2.50
Bank of Thailand	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.75	1.00	1.25	1.50	1.75
Currencies and Interest Rates													
(end of period)													
Americas													
Canadian dollar (USDCAD)	1.27	1.26	1.24	1.27	1.26	1.27	1.21	1.20	1.20	1.22	1.22	1.23	1.23
Canadian dollar (CADUSD)	0.79	0.80	0.81	0.79	0.79	0.79	0.83	0.83	0.83	0.82	0.82	0.81	0.81
Mexican peso (USDMXN)	19.91	20.43	19.94	20.64	20.53	20.13	20.82	21.21	21.52	21.69	21.87	21.84	22.21
Brazilian real (USDBRL)	5.19	5.63	4.97	5.44	5.57	5.68	5.71	5.72	5.68	5.65	5.57	5.48	5.27
Colombian peso (USDCOP)	3,428	3,663	3,755	3,809	4,065	4,054	3,933	3,770	3,755	3,750	3,690	3,650	3,600
Peruvian sol (USDPEN)	3.62	3.74	3.87	4.13	4.00	3.80	3.75	3.85	3.80	3.75	3.80	3.75	3.70
Chilean peso (USDCLP)	711	719	734	810	852	800	800	790	780	770	760	750	750
Argentine Peso (USDARS)	84.15	91.99	95.72	98.74	102.74	114.80	125.90	143.50	140.10	138.00	135.00	132.00	131.00
Europe													
Euro (EURUSD)	1.22	1.17	1.19	1.16	1.14	1.09	1.12	1.10	1.10	1.10	1.10	1.12	1.12
UK pound (GBPUSD)	1.37	1.38	1.38	1.35	1.35	1.32	1.36	1.38	1.38	1.38	1.38	1.40	1.40
Asia/Oceania													
Japanese yen (USDJPY)	103	111	111	111	115	115	115	116	118	118	118	120	120
Australian dollar (AUDUSD)	0.77	0.76	0.75	0.72	0.73	0.73	0.72	0.72	0.74	0.74	0.74	0.76	0.76
Chinese yuan (USDCNY)	6.53	6.55	6.46	6.44	6.36	6.30	6.40	6.40	6.30	6.20	6.20	6.10	6.10
Indian rupee (USDINR)	73.1	73.1	74.3	74.2	74.3	75.0	76.0	76.0	75.0	74.0	74.0	73.0	73.0
South Korean won (USDKRW)	1,087	1,132	1,126	1,184	1,189	1,200	1,220	1,220	1,200	1,180	1,180	1,160	1,160
Thai baht (USDTHB)	30.0	31.2	32.1	33.8	33.4	32.0	33.0	33.0	32.0	31.0	31.0	30.0	30.0
Canada (Yields, %)													
3-month T-bill	0.07	0.09	0.14	0.12	0.19	0.60	1.40	2.20	2.70	3.00	3.00	3.00	3.00
2-year Canada	0.20	0.22	0.45	0.40	0.95	1.55	1.90	2.50	2.90	3.05	3.05	3.05	3.05
5-year Canada	0.39	0.99	0.98	1.10	1.26	1.70	2.10	2.75	3.00	3.10	3.10	3.10	3.10
10-year Canada	0.68	1.56	1.39	1.51	1.42	1.90	2.30	2.95	3.10	3.20	3.20	3.20	3.20
30-year Canada	1.21	1.98	1.84	1.99	1.68	2.20	2.55	3.15	3.20	3.30	3.30	3.30	3.30
United States (Yields, %)													
3-month T-bill	0.08	0.01	0.04	0.03	0.06	0.40	1.20	1.90	2.20	2.30	2.30	2.30	2.30
2-year Treasury	0.12	0.16	0.25	0.53	0.73	1.70	1.90	2.30	2.50	2.60	2.60	2.60	2.60
5-year Treasury	0.36	0.94	0.89	0.96	1.26	1.90	2.25	2.40	2.55	2.65	2.70	2.70	2.70
10-year Treasury	0.91	1.74	1.47	1.49	1.51	1.95	2.35	2.50	2.65	2.75	2.75	2.80	2.80
30-year Treasury	1.64	2.41	2.09	2.04	1.90	2.35	2.50	2.75	2.90	3.00	3.00	3.05	3.05

Sources: Scotiabank Economics, Bloomberg.

The Provinces											
	(annual % change except where noted)										
	CA	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC
Real GDP											
2010–19	2.3	1.0	2.2	1.2	0.7	1.9	2.3	2.1	2.2	2.6	2.9
2019	1.9	3.3	4.7	3.0	1.3	2.8	2.0	0.4	-1.1	-0.1	3.1
2020	-5.2	-5.4	-1.7	-2.5	-3.2	-5.5	-5.1	-4.6	-4.9	-7.9	-3.4
2021e	4.6	2.7	3.2	3.5	3.4	6.1	4.1	3.8	4.0	5.5	4.4
2022f	4.3	2.4	2.8	2.6	2.5	3.5	4.1	3.5	5.0	5.5	4.8
2023f	3.2	2.8	2.5	2.1	1.9	2.7	3.2	3.3	3.6	4.0	3.6
Nominal GDP											
2010–19	4.0	3.5	4.2	2.9	2.8	3.8	4.1	3.8	3.3	3.6	4.6
2019	3.4	2.3	6.6	3.7	2.4	4.7	3.7	0.7	-0.4	1.5	4.6
2020	-4.5	-10.7	0.9	0.7	-1.3	-2.4	-2.8	-1.4	-6.6	-16.1	-0.5
2021e	13.1	17.0	8.3	8.8	9.1	11.4	11.3	8.9	18.5	23.1	12.1
2022f	9.5	12.1	6.9	5.5	5.5	7.1	8.1	8.6	14.5	15.6	10.0
2023f	6.0	4.9	4.9	4.3	4.0	5.6	6.2	5.7	5.9	6.4	6.7
Employment											
2010–19	1.3	0.6	1.5	0.3	0.0	1.2	1.4	0.9	0.8	1.2	2.0
2019	2.2	1.1	3.3	2.3	0.8	2.0	2.8	1.0	1.9	0.7	3.0
2020	-5.1	-5.7	-3.2	-4.7	-2.6	-4.8	-4.8	-3.7	-4.7	-6.6	-6.6
2021	4.8	2.8	3.6	5.4	2.5	4.1	4.9	3.5	2.6	5.1	6.6
2022f	4.1	2.9	4.0	3.0	2.6	3.6	4.5	3.5	4.1	4.5	3.8
2023f	1.3	0.7	1.2	1.2	1.1	1.2	1.4	1.2	1.5	1.6	1.5
Unemployment Rate (%)											
2010–19	6.9	13.3	10.6	8.7	9.4	7.1	7.0	5.6	5.3	6.2	6.1
2019	5.8	12.3	8.7	7.4	8.1	5.1	5.6	5.3	5.6	7.0	4.7
2020	9.6	14.1	10.4	9.8	10.0	8.9	9.6	8.0	8.4	11.4	8.9
2021	7.4	12.9	9.2	8.4	9.0	6.1	8.0	6.4	6.5	8.7	6.5
2022f	5.2	11.4	7.9	6.9	7.5	4.3	5.5	4.4	4.5	6.1	4.6
2023f	5.1	11.0	7.7	6.7	7.3	4.2	5.3	4.2	4.3	5.8	4.4
Total CPI, annual average											
2010–19	1.7	2.0	1.6	1.7	1.8	1.5	1.9	1.8	1.8	1.7	1.6
2019	1.9	1.0	1.2	1.6	1.7	2.1	1.9	2.3	1.7	1.7	2.3
2020	0.7	0.2	0.0	0.3	0.2	0.8	0.6	0.5	0.6	1.1	0.8
2021	3.4	3.7	5.1	4.1	3.8	3.8	3.5	3.2	2.6	3.2	2.8
2022f	5.9	5.4	7.2	5.7	6.1	5.5	6.3	6.1	5.3	5.6	5.3
2023f	3.1	2.8	3.7	2.8	3.2	2.9	3.3	3.2	2.8	2.9	2.8
Housing Starts (units, 000s)											
2010–19	201	2.2	0.8	4.2	2.7	44	70	6.6	6.0	31	34
2019	209	0.9	1.5	4.7	2.9	48	69	6.9	2.4	27	45
2020	218	0.8	1.2	4.8	3.5	53	81	7.3	3.1	24	38
2021e	271	1.0	1.3	6.0	3.8	68	100	8.0	4.2	32	48
2022f	238	1.2	1.2	4.8	3.7	59	81	6.4	4.5	35	42
2023f	227	1.0	1.0	4.5	3.6	57	76	6.0	4.4	34	39
Motor Vehicle Sales (units, 000s)											
2010–19	1,816	33	7	51	41	432	715	55	53	237	194
2019	1,914	31	8	51	41	455	848	58	49	223	216
2020	1,567	27	7	40	35	376	652	47	42	184	178
2021e	1,669	29	8	45	38	407	664	49	43	196	199
2022f	1,745	29	8	46	39	422	693	51	44	205	208
2023f	1,922	30	9	49	41	466	769	55	47	227	229
Budget Balances, (CAD mn)											
2019*	-39,392	-1,383	22	3	49	-523	-8,672	5	-319	-12,152	-321
2020	-327,729	-1,492	-6	-342	409	-7,539	-16,404	-2,117	-1,127	-16,962	-5,468
2021f	-144,500	-595	-27	108	38	-6,847	-21,499	-1,123	-2,708	-3,207	-483
2022f	-58,400	-587	-93	-218	-296	-5,547	-19,600	-374	-1,685	511	-5,461

* NL budget balance in 2019 is net of one-time revenue boost via *Atlantic Accord*.

Sources: Scotiabank Economics, Statistics Canada, CMHC, Budget documents; Quebec budget balance figures are after Generations Fund and before Stabilization Reserve transfers.

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