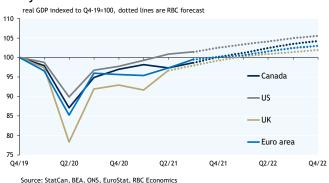


Inflation top concern for 2022, Covid variant casts shadow

December 2, 2021

The recovery in the global economy is proceeding despite ongoing bouts of COVID-19 infection spread. Lingering policy support and low interest rates continue to act as a balm to consumer and business confidence. In the advanced economies we cover, there have been many bumps on the road to recovery. The discovery of the most recent variant of COVID-19, Omicron, cast another shadow on the outlook though it remains unclear whether steps beyond travel restrictions and increasing vaccination rates will be required. Should broad-based curbs on activity result, it would delay when Canada, the US, UK and Euro-area fully recover their pandemic-related losses into 2022.

Pandemic-related output losses to largely be recovered by late 2021



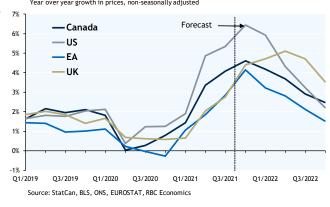
2022 won't necessarily be clear sailing

We are optimistic about the outlook but risks remain elevated given the uncertain path of the virus. Our baseline assumption is that given the high level of vaccinations in the countries we watch closely, future restrictions on activity will be limited. However there are other challenges that have the potential to weigh on growth next year. Supply chains are impaired, input costs have risen, labour shortages are widespread. Demand remains strong backed by improving labour market conditions and elevated savings amassed during the crisis. We expect supply chain bottlenecks and growth in business input costs to gradually ease next year, but labour shortages will remain and keep a cap on near-term GDP growth prospects.

Upside risks to inflation in 2022

While the risks to the growth outlook eased as vaccinations rose, the risks to the inflation outlook increased. Base effects associated with reopening, rising commodity prices, policy stimulus and higher input costs have boosted inflation rates. Some of these factors will ease as time passes however consumer demand is strengthening and additional production capacity is limited. With more purchasing power chasing increasingly scarce supply of goods and services, inflation rates are likely to remain above central banks' targets throughout 2022. Many policymakers view the recent spike in inflation as temporary and are projecting a shift back toward target as 2022 proceeds. Market-based inflation expectations have risen but remain relatively contained as investors anticipate central bankers will begin to pare back stimulus via higher interest rates.

Inflation rates to remain above pre-pandemic levels



Central banks - outcomes not timelines

Bank of Canada Governor Macklem summed it up saying that central banks are setting policy based on outcomes not timelines. This seems to represent the stance of many others with the general view that inflation pressures will prove temporary and that stimulus is still needed to ensure a full recovery. Those outcomes - the absorption of spare capacity and inflation meeting target - have put the central banks we monitor on varying timelines to initiate rate increases. The Bank of England and Bank of Canada are expected to lead with the Fed following in H2-2022 and ECB in 2023.

Canada's economy to maintain momentum in



2022 - back to the future

Canada's recovery hit some speedbumps in 2021 but likely exited on stronger footing supporting our forecast for GDP growth of 4.7% for the year. We expect the momentum to be sustained in 2022 and project the economy will post a 4.3% gain. Our baseline assumption is that the elevated level of vaccinations will mean that any future restrictions on activity will be focused and short. Outside COVID-related risks, supply chain disruptions, labour shortages and rising input costs will act as headwinds to growth early next year. Some of these challenges will fade as the global economy more fully recovers, but labour shortages are expected to persist given long-run demographic headwinds to labour force participation from an aging population.

Labour market recovery underway, workers needed

Job creation picked up pace in second half of 2021 following the lockdown-related drop in the second quarter. By September employment rolls exceeded pre-pandemic levels and the unemployment rate was 1 percentage point higher than its pre-pandemic low. Employment gains have been very strong in sectors like professional and financial services with losses persisting in the high-touch services industries. Job vacancies hit a record in September spread across a variety of industries, including higher-contact service industries like food and accommodation services. The strong demand for workers will support further employment gains and a lower unemployment rate in 2022. The hurdle to hiring will be the supply of workers as lower levels of immigration during the pandemic and growing number of workers reaching retirement age weighs on the labour force. A likely result is upward pressure on wages.

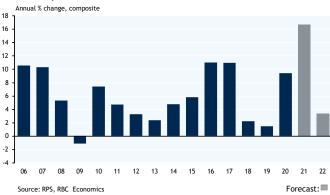
The firming labour market will support consumers in 2022 with spending power enhanced by elevated savings on household balance sheets. By our count household balance sheets have almost \$300 billion in excess savings , which over time will be spent on goods and services, used to repay debt or invest in financial assets and real estate.

The housing market got a second wind in the fall after cooling from

Job vacancies top 1 million



House price increases to moderate in 2022



extremely hot levels over the summer as buyers looked to lock in low mortgage rates. The shortage of homes for sale has been a big part of the Canadian housing story underpinning double-digit price increases. We expect that as the economy returns to more normal conditions, sellers will emerge which combined with higher housing completions, will take some of the heat out of prices. After 2021's record year, homes sales are projected to slow in 2022 to levels that are closer to the 10-year average pace. Prices, which increased by an estimated 17% this year, will also moderate with gains expected to come in at around 3%.

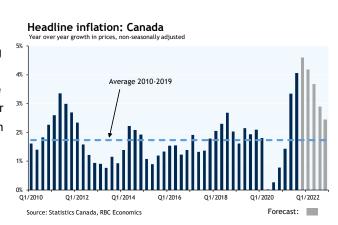
Businesses to invest to meet firmer demand

Business optimism soared as the economy reopened with more than half of companies surveyed saying the outlook for sales continued to improve in the third quarter. Two-thirds of companies cited difficulties meeting demand and intense labour shortages. Businesses are operating with elevated levels of liquidity and a growing number intend to invest in the year ahead. Imports of machinery and equipment firmed in 2021 and are likely to continue to rise. Many firms are looking to invest in technology with labour shortages creating incentive to automate processes and growth in online sales supporting the switch to ecommerce platforms.

Labour shortages and firming wage demands, coupled with supply chain snarls and rising commodity prices have businesses looking for inflation to run hotter than before the pandemic. The latest Bank of Canada surveys showed almost half of firms expect Canada's inflation rate to average more than 3% over the next two years, the highest share in at least 20 years.

Bank of Canada to temper extraordinary support in 2022

Canada's inflation rate hit a 19-year high in October with price gains broadening. The Bank of Canada lifted its inflation forecast and shifted its policy guidance in October opening the door to further reducing policy stimulus in 2022. The bank had already tapered its bond buying program in 2021. The bank expects inflation to moderate over the course of 2022 as base effects and supply constraints ease. However given the high level of uncertainty about the degree of excess slack in the economy and timing of easing in inflation pressures, we look for policymakers to be nimble and raise the overnight rate early in the second quarter to head off any persistent increase in inflation expectations. Further increases will likely follow in the second half of the year and our call is that the bank will raise the policy rate by 75bps next year to 1%.



Canada's dollar – not too hot, too cold but just right

The trade-weighted Canadian dollar is up 7.5% from its pandemic lows helped by rising commodity prices and the Bank of Canada's relatively hawkish stance. Against the US dollar, the loonie is up 9.4%. We expect the currency's run will come to an end in 2022 as interest rate dynamics shift in favour of the USD and energy prices provide less of a tailwind. Neither factor however is likely to exert strong enough pressure to push the Canadian dollar from its 2021 range leaving the currency to trade around 80 US cents in 2022.

Bank of Canada to gradually increase policy rate end of period 7% Forecast 4% 3% 2% BoC overnight rate 1% 10 Year Bond Yield 2000 2002 2004 2006 2010 2012 2014 2016 2018 Source: BoC. RBC Economics

Economic forecast detail — Canada

Real growth in the economy
Quarter-over-quarter annualized % change unless otherwise indicated

				Forecas	it								Forecast		
		20	<u>21</u>			20	<u>22</u>			<u>20</u>	23				
	<u>Q1</u>	<u>Q2</u>	<u>Q3</u>	<u>Q4</u>	<u>Q1</u>	<u>Q2</u>	<u>Q3</u>	<u>Q4</u>	<u>Q1</u>	<u>Q2</u>	<u>Q3</u>	<u>Q4</u>	<u>2021F</u>	<u>2022F</u>	<u>2023F</u>
Household Consumption	2.5	-0.5	17.9	4.1	4.8	5.6	5.1	3.6	2.5	1.9	1.7	1.7	5.4	6.0	2.9
Durables	1.8	-12.6	-5.4	5.0	1.5	1.5	1.8	1.8	1.8	1.8	1.8	1.8	9.1	0.4	1.8
Semi-Durables	8.9	-11.4	68.7	1.8	1.8	2.5	2.0	2.0	1.5	1.5	1.5	1.5	14.6	7.5	1.7
Non-durables	2.4	-5.8	1.3	2.5	1.8	2.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.5	2.0
Services	1.9	7.5	27.8	5.0	7.5	8.5	7.8	5.0	3.0	2.0	1.5	1.5	5.0	9.4	3.8
NPISH consumption	-10.1	2.3	5.4	4.1	4.8	5.6	5.1	3.6	2.5	1.9	1.7	1.7	1.0	4.7	2.9
Government expenditures Government fixed investment	6.5 4.9	2.9 -9.6	-0.7 8.7	1.5 2.5	1.0 3.0	2.0 3.0	1.0 3.0	0.7 3.0	1.5 2.5	1.5 2.5	1.5 2.5	1.5 2.5	5.0 4.3	1.2 2.8	1.3 2.7
Residential investment	43.2	-11.3	-31.3	2.9	-5.5	-6.0	-6.9	-4.1	-3.0	-1.0	0.0	1.5	14.7	-8.4	-2.9
Non-residential investment	-8.4	15.3	-0.9	0.2	9.2	8.3	6.7	6.5	7.9	7.3	10.4	7.1	-1.0	5.9	7.7
Non-residential structures	4.1	3.4	-1.1	2.1	10.5	7.0	6.5	6.5	9.0	7.5	11.0	9.0	-5.2	5.6	8.1
Machinery & equipment	-24.9	38.1	-0.7	-2.8	7.0	10.5	7.0	6.5	6.0	7.0	9.5	4.0	6.2	6.4	7.0
Intellectual property	10.1	3.5	-5.7	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	2.6	2.3	7.0
Final domestic demand	5.8	-0.1	5.4	3.0	3.2	3.8	3.1	2.5	2.3	2.1	2.3	2.2	5.3	3.3	2.5
Exports	2.7	-17.0	8.0	11.6	9.0	9.5	6.2	3.5	4.5	4.2	4.0	0.0	1.5	6.9	4.4
Imports	4.6	2.1	-2.3	10.5	6.0	8.0	3.5	4.2	4.0	3.0	4.5	-0.5	6.9	5.4	3.8
Inventories (change in \$b)	-7.6	6.2	-8.3	8.3	7.5	11.5	14.6	16.0	15.0	12.0	10.0	6.5	-0.4	12.4	10.9
Real gross domestic product	4.9	-3.2	5.5	6.5	4.0	5.0	4.5	2.5	2.2	2.0	1.8	1.8	4.7	4.3	2.6

Other indicators

Year-over-year % change unless otherwise indicated

Business and labour															
Productivity	-1.6	-11.8	-3.2	-0.8	1.4	1.8	3.2	3.1	2.7	1.9	1.3	1.1	-4.6	2.4	1.7
Pre-tax corporate profits	50.7	62.6	12.6	13.9	-3.3	-0.6	8.1	4.1	4.1	3.3	1.4	0.7	31.9	2.0	2.4
Unemployment rate (%)*	8.4	8.0	7.2	6.6	6.4	6.2	6.0	5.7	5.7	5.7	5.7	5.7	7.5	6.1	5.7
Inflation															
Headline CPI	1.4	3.4	4.1	4.6	4.2	3.7	2.9	2.5	2.4	2.3	2.1	2.1	3.4	3.3	2.2
CPI ex. food and energy	1.0	2.1	3.0	3.2	3.1	2.9	2.7	2.8	2.7	2.6	2.6	2.5	2.3	2.9	2.6
External trade															
Current account balance (\$b)*	6.6	5.5	5.5	18.2	20.1	17.9	24.2	26.7	26.9	26.7	22.5	26.0	8.9	22.2	25.6
% of GDP*	0.3	0.2	0.2	0.7	0.8	0.7	0.9	1.0	1.0	1.0	0.8	0.9	0.4	0.9	1.0
Housing starts (000s)*	306	280	262	259	251	246	229	218	218	218	217	217	277	236	218
Motor vehicle sales (mill., saar)*	1.81	1.70	1.64	1.65	1.67	1.70	1.73	1.75	1.76	1.77	1.78	1.79	1.70	1.71	1.77

*Period average Source: Statistics Canada, RBC Economics

Economic forecast detail — United States

Real growth in the economy
Quarter-over-quarter annualized % change unless otherwise indicated

				Foreca	ast								Forecast			
		20	<u>21</u>			<u>20</u>	<u>22</u>			<u>20</u>	<u>23</u>					
	<u>Q1</u>	<u>Q2</u>	<u>Q3</u>	<u>Q4</u>	<u>Q1</u>	<u>Q2</u>	<u>Q3</u>	<u>Q4</u>	<u>Q1</u>	<u>Q2</u>	<u>Q3</u>	<u>Q4</u>	<u>2021F</u>	<u>2022F</u>	<u>2023F</u>	
Consumer spending	11.4	12.0	1.7	2.5	1.5	1.9	2.0	1.6	1.8	2.1	2.8	1.5	7.8	2.5	1.9	
Durables	50.0	11.6	-24.4	3.0	0.2	0.3	0.5	0.5	0.8	0.8	0.7	0.5	18.1	-2.1	0.6	
Non-durables	15.9	13.9	2.6	1.5	0.8	0.9	0.8	0.5	1.5	1.5	1.8	1.8	9.2	1.9	1.2	
Services	3.9	11.5	7.6	2.7	2.0	2.5	2.6	2.2	2.0	2.5	3.5	1.5	5.6	3.6	2.4	
Government spending	4.2	-2.0	0.9	2.0	6.0	6.0	7.0	5.0	4.5	3.5	2.0	2.5	0.8	4.2	4.4	
Residential investment	13.3	-11.7	-8.3	-1.0	-4.0	-6.5	-4.2	-1.5	-2.0	-2.2	-1.5	-1.0	8.9	-4.9	-2.4	
Non-residential investment	12.9	9.2	1.5	1.2	4.8	3.5	4.1	4.0	2.9	2.2	2.1	2.3	7.3	3.6	3.0	
Non-residential structures	5.4	-3.0	-5.0	-2.2	4.5	5.5	7.5	6.0	5.5	4.0	4.5	5.5	-7.7	2.2	5.4	
Equipment & software	14.1	12.2	-2.4	1.9	7.5	4.0	4.5	5.0	2.5	1.5	1.0	1.2	13.0	4.3	2.8	
Intellectual property	15.6	12.5	9.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	9.6	3.5	2.0	
Final domestic demand	10.4	8.0	1.1	2.1	2.6	2.6	3.0	2.5	2.3	2.2	2.4	1.7	6.5	2.6	2.4	
Exports	-2.9	7.6	-3.0	9.0	5.5	7.0	4.0	4.0	3.0	2.5	2.0	1.0	4.1	5.2	3.2	
Imports	9.3	7.1	5.8	2.5	8.0	9.0	2.0	2.5	2.0	2.5	6.0	3.5	13.1	5.7	3.2	
Inventories (change in \$b)	-88.3	-168.5	-73.2	15.0	80.0	120.0	110.0	105.0	85.0	65.0	50.0	55.0	-78.8	103.8	63.8	
Real gross domestic product	6.3	6.7	2.1	4.5	3.5	3.0	3.0	2.5	2.0	1.8	1.7	1.5	5.5	3.5	2.2	

Other indicators

Year-over-year % change unless otherwise indicated

Business and labour															
Productivity	3.9	2.0	-0.6	0.6	-0.3	-0.7	0.9	1.0	1.1	1.0	0.8	0.7	1.4	0.2	0.9
Pre-tax corporate profits	17.6	45.1	20.7	24.9	21.1	11.4	8.4	6.3	4.2	2.3	0.6	-1.0	26.4	11.4	1.5
Unemployment rate (%)*	6.2	5.9	5.1	4.7	4.5	4.2	4.0	3.9	3.8	3.8	3.8	3.8	5.5	4.2	3.8
Inflation															
Headline CPI	1.9	4.8	5.3	6.4	5.9	4.3	3.2	2.2	2.3	2.3	2.1	2.0	4.6	3.9	2.2
CPI ex. food and energy	1.4	3.7	4.1	4.7	5.1	3.9	3.4	3.1	3.1	2.9	2.7	2.5	3.5	3.9	2.8
External trade															
Current account balance (\$b)*	-758	-761	-791	-782	-803	-824	-821	-822	-822	-827	-856	-874	-773	-818	-845
% of GDP*	-3.4	-3.4	-3.4	-3.3	-3.3	-3.4	-3.3	-3.3	-3.3	-3.3	-3.3	-3.4	-3.4	-3.3	-3.3
Housing starts (000s)*	1599	1588	1555	1550	1450	1425	1400	1375	1350	1351	1352	1353	1573	1413	1352
Motor vehicle sales (millions, saar)*	16.8	16.9	13.3	13.5	14.2	14.9	15.6	16.4	16.5	16.6	16.7	16.7	15.1	15.3	16.6

^{*}Period average

Source: Bureau of Economic Analysis, RBC Economics

Financial market forecast detail

Interest rates—North America

%, end of period

	21Q1	21Q2	21Q3	<u>21Q4</u>	22Q1	22Q2	22Q3	22Q4	23Q1	23Q2	23Q3	23Q4	2021F	2022F	2023
Canada															
Overnight	0.25	0.25	0.25	0.25	0.25	0.50	0.75	1.00	1.25	1.50	1.75	1.75	0.25	1.00	1.7
Three-month	0.09	0.15	0.12	0.20	0.25	0.55	0.80	1.05	1.30	1.55	1.75	1.75	0.20	1.05	1.7
Two-year	0.23	0.45	0.53	0.95	1.05	1.20	1.35	1.50	1.60	1.70	1.75	1.75	0.95	1.50	1.7
Five-year	0.99	0.98	1.11	1.25	1.35	1.45	1.55	1.65	1.75	1.85	1.90	1.95	1.25	1.65	1.9
10-year	1.56	1.39	1.51	1.60	1.70	1.80	1.85	1.90	2.00	2.10	2.15	2.20	1.60	1.90	2.2
30-year	1.99	1.84	1.99	2.00	2.05	2.10	2.15	2.20	2.25	2.30	2.30	2.30	2.00	2.20	2.3
Yield curve (10s-2s)	133	94	98	65	65	60	50	40	40	40	40	45	65	40	45.0
United States															
Fed funds*	0.13	0.13	0.13	0.13	0.13	0.13	0.38	0.63	0.88	1.13	1.38	1.63	0.13	0.63	1.6
Three-month	0.03	0.05	0.04	0.05	0.05	0.10	0.40	0.70	0.95	1.20	1.45	1.70	0.05	0.70	1.7
Two-year	0.16	0.25	0.28	0.60	0.75	1.00	1.20	1.35	1.55	1.75	1.90	2.00	0.60	1.35	2.0
Five-year	0.92	0.87	0.98	1.20	1.50	1.80	2.05	2.10	2.20	2.30	2.35	2.40	1.20	2.10	2.4
10-year	1.74	1.45	1.52	1.50	1.85	2.00	2.15	2.20	2.30	2.40	2.45	2.50	1.50	2.20	2.5
30-year	2.41	2.06	2.08	1.85	2.15	2.25	2.30	2.35	2.40	2.50	2.55	2.60	1.85	2.35	2.6
Yield curve (10s-2s)	158	120	124	90	110	100	95	85	75	65	55	50	90	85	50.0
Yield spreads															
Three-month T-bills	0.06	0.10	0.08	0.15	0.20	0.45	0.40	0.35	0.35	0.35	0.30	0.05	0.15	0.35	0.0
Two-year	0.07	0.20	0.25	0.35	0.30	0.20	0.15	0.15	0.05	-0.05	-0.15	-0.25	0.35	0.15	-0.2
Five-year	0.07	0.11	0.13	0.05	-0.15	-0.35	-0.50	-0.45	-0.45	-0.45	-0.45	-0.45	0.05	-0.45	-0.4
10-year	-0.18	-0.06	-0.01	0.10	-0.15	-0.20	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	0.10	-0.30	-0.3
30-year	-0.42	-0.22	-0.09	0.15	-0.10	-0.15	-0.15	-0.15	-0.15	-0.20	-0.25	-0.30	0.15	-0.15	-0.3

Note: Interest Rates are end of period rates. * Midpoint of 25 basis point range

Interest rates—International

%, end of period

	<u>21Q1</u>	<u>21Q2</u>	<u>21Q3</u>	<u>21Q4</u>	<u>22Q1</u>	<u>22Q2</u>	<u>22Q3</u>	<u>22Q4</u>	<u>23Q1</u>	<u>23Q2</u>	<u>23Q3</u>	<u>23Q4</u>	<u>2021F</u>	<u>2022F</u>	<u>2023F</u>
United Kingdom															
Repo	0.10	0.10	0.10	0.25	0.50	0.50	0.75	0.75	0.75	1.00	1.00	1.00	0.25	0.75	1.00
Two-year	0.11	0.07	0.40	0.50	0.70	0.75	0.80	0.85	0.95	1.10	1.10	1.15	0.50	0.85	1.15
Five-year	0.40	0.33	0.62	0.75	0.95	1.10	1.15	1.30	1.40	1.50	1.60	1.70	0.75	1.30	1.70
10-year	0.85	0.72	1.02	1.00	1.25	1.45	1.55	1.70	1.85	2.00	2.10	2.25	1.00	1.70	2.25
30-year	1.40	1.24	1.37	1.20	1.40	1.60	1.70	1.85	1.95	2.00	2.10	2.20	1.20	1.85	2.20
Euro Area															
Deposit rate	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50
Two-year	-0.69	-0.67	-0.69	-0.65	-0.60	-0.60	-0.55	-0.50	-0.50	-0.45	-0.40	-0.35	-0.65	-0.50	-0.35
Five-year	-0.62	-0.59	-0.56	-0.55	-0.50	-0.45	-0.40	-0.30	-0.20	-0.10	0.00	0.10	-0.55	-0.30	0.10
10-year	-0.29	-0.20	-0.21	-0.20	-0.05	0.05	0.15	0.20	0.30	0.40	0.50	0.60	-0.20	0.20	0.60
30-year	0.26	0.30	0.29	0.25	0.50	0.65	0.80	0.85	0.95	1.00	1.05	1.10	0.25	0.85	1.10
Australia															
Cash target rate	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.50	0.75	0.75	0.75	0.10	0.10	0.75
Two-year	0.08	0.06	0.04	0.55	0.60	0.70	0.85	1.10	1.35	1.55	1.65	1.75	0.55	1.10	1.75
10-year	1.74	1.49	1.49	1.65	1.95	2.05	2.20	2.30	2.40	2.55	2.60	2.70	1.65	2.30	2.70
New Zealand															
Cash target rate	0.25	0.25	0.25	0.75	1.25	1.50	1.50	1.50	1.75	2.00	2.25	2.25	0.75	1.50	2.25
Two-year	0.46	0.78	1.39	2.10	2.20	2.30	2.35	2.40	2.55	2.65	2.70	2.80	2.10	2.40	2.80
10-year	1.95	1.87	2.21	2.55	2.55	2.60	2.60	2.65	2.80	2.85	2.95	3.05	2.55	2.65	3.05

Outlook

Growth outlook

% change, quarter-over-quarter in real GDP

	<u>21Q1</u>	<u>21Q2</u>	<u>21Q3</u>	<u>21Q4</u>	<u>22Q1</u>	22Q2	<u>22Q3</u>	<u>22Q4</u>	<u>23Q1</u>	<u>23Q2</u>	<u>23Q3</u>	<u>23Q4</u>	<u>2021F</u>	<u>2022F</u>	2023F
Canada*	4.9	-3.2	5.4	6.5	4.0	5.0	4.5	2.5	2.2	2.0	1.8	1.8	4.7	4.3	2.6
United States*	6.3	6.7	2.1	4.5	3.5	3.0	3.0	2.5	2.0	1.8	1.7	1.5	5.5	3.5	2.2
United Kingdom	-1.4	5.5	1.3	1.3	1.1	0.6	0.5	0.4	0.6	0.4	0.4	0.4	7.0	4.9	2.0
Euro Area	-0.3	2.1	2.2	0.7	0.4	1.0	8.0	0.6	0.4	0.4	0.4	0.4	5.1	3.9	2.1
Australia	1.9	0.7	-1.9	2.8	1.4	1.1	0.9	0.7	0.7	0.4	0.5	0.4	4.5	4.2	2.6

^{*}Seasonally adjusted annualized rates

Inflation outlook

% change, year-over-year

	21Q1	21Q2	21Q3	21Q4	22Q1	22Q2	22Q3	22Q4	23Q1	23Q2	23Q3	23Q4	<u>2021F</u>	2022F	<u>2023F</u>
Canada	1.4	3.3	4.1	4.6	4.2	3.7	2.9	2.5	2.4	2.3	2.1	2.1	3.4	3.3	2.2
United States	1.9	4.8	5.3	6.4	5.9	4.3	3.2	2.2	2.3	2.3	2.1	2.0	4.6	3.9	2.2
United Kingdom	0.6	2.0	2.8	4.4	4.7	5.1	4.7	3.5	3.2	2.2	2.0	2.0	2.5	4.5	2.3
Euro Area	1.1	1.8	2.8	4.1	3.2	2.8	2.1	1.5	0.9	1.1	1.6	1.8	2.5	2.4	1.4
Australia	1.1	3.8	3.0	2.7	2.6	2.3	2.2	2.2	-	-	-	-	2.6	2.4	-

Exchange rates

End of period

	<u>20Q1</u>	<u>20Q2</u>	<u>20Q3</u>	<u>20Q4</u>	<u>21Q1</u>	<u>21Q2</u>	<u>21Q3</u>	<u>21Q4</u>	<u>22Q1</u>	<u>22Q2</u>	<u>22Q3</u>	<u>22Q4</u>	<u>2019</u>	<u>2020</u>	<u>2021F</u>	<u>2022F</u>
AUD/USD	0.61	0.69	0.72	0.77	0.76	0.75	0.75	0.74	0.74	0.73	0.73	0.73	0.70	0.77	0.74	0.73
USD/CAD	1.41	1.36	1.33	1.27	1.26	1.24	1.24	1.25	1.26	1.27	1.27	1.27	1.30	1.27	1.25	1.27
EUR/USD	1.10	1.12	1.17	1.22	1.17	1.19	1.17	1.14	1.13	1.12	1.13	1.14	1.12	1.22	1.14	1.14
USD/JPY	107.5	107.9	105.5	103.3	110.7	111.1	107.0	105.0	107.0	108.0	110.0	112.0	108.6	103.3	105.0	112.00
USD/CHF	0.96	0.95	0.92	0.89	0.94	0.93	0.93	0.95	0.96	0.98	0.98	0.98	0.97	0.89	0.95	0.98
GBP/USD	1.24	1.24	1.29	1.37	1.38	1.38	1.36	1.30	1.26	1.22	1.23	1.23	1.33	1.37	1.30	1.23

Note: Exchange rates are expressed in units per USD, with the exception of the euro, GBP and AUD which are expressed in USD per local currency unit.

Source: Reuters, RBC Economics forecasts