

Growth opportunities narrow amid searing inflation and a scarcity of workers

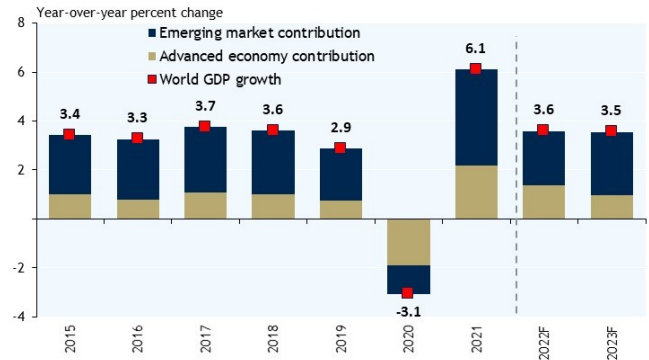
June 7, 2022

The global surge in inflation—and how high interest rates will have to rise to tame it—continues to dominate concerns about the economic outlook. Adding to the risks posed by sky-high prices are supply chain disruptions from the war in Ukraine and pandemic lockdowns in China. As central banks scramble to rein in demand, interest rates are jumping. And already, the economic recovery in advanced economies is slowing as labour shortages make any ramp up in production difficult.

Concerns about the economic outlook are growing. GDP declined outright in Q1 2022 in the U.S., Italy, and France, in part due to the winter virus wave and ongoing supply chain disruptions. But even without those challenges, a lack of available workers would be limiting growth as unemployment remains extremely low across the regions we cover.

Travel and tourism industries have yet to fully recover from pandemic weakness and commodity producing regions are getting a boost from higher prices. But beyond that, the scope for any growth above trend is limited—and downside risks are building.

Global GDP growth slowing



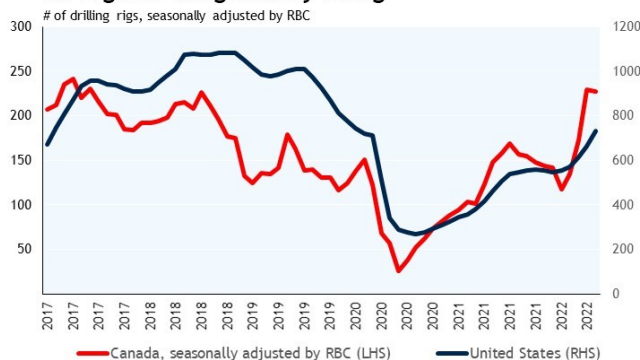
Source: International Monetary Fund, RBC Economics Research

Travel recovery and booming global commodity prices are boosting Canada's GDP

With most restrictions lifted, the hard hit travel industry is poised for better than average growth. In Canada, air travel passenger counts are still well below pre-pandemic levels. But our own tracking of debit and credit card transactions suggests bookings for travel and leisure activity are back above pre-crisis levels, suggesting travel is set to surge into the summer.

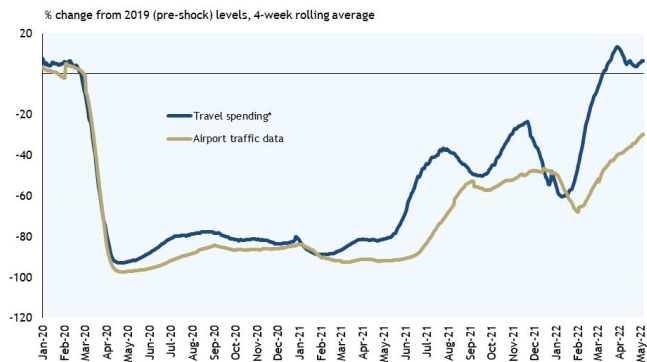
The explosion in global commodity prices is pushing up costs for consumers globally—and increasing economy-wide revenues among producers like Canada. The price of Canadian exports surged 21% from a year ago in Q1 2022 compared to an 11% jump in the cost of imports. Larger increases in export than import prices represent a net increase in purchasing power for the domestic

Oil & gas drilling activity rising



Source: Baker Hughes, RBC Economics Research

Canada's travel recovery continues as bookings surge



Source: RBC Economics, RBC Data & Analytics, CATSA | *Travel spending includes: airlines, car rentals, travel agencies

economy because export sales fund a larger amount of import purchases. When that positive 'terms-of-trade' shock is taken into account, national Canadian purchasing power (real gross domestic income) increased almost twice as quickly as GDP over the last year at 5.6% versus 2.9%. Oil and gas drilling rig counts are also set to surge following the normal seasonal spring slowdown in western Canada.

Inflation is far too strong for central banks to ignore

The 6.8% rate of year-over-year consumer price growth in April is the highest since the Bank of Canada adopted an explicit inflation target in 1991. And it almost certainly climbed again in May on higher gasoline prices. Much of the inflation pressure is reflective of global factors that the Bank of Canada can do little about. Inflation is also soaring in the U.K., Euro area, and the U.S. Oil and agricultural prices have been boosted by supply-related concerns due to the conflict in Ukraine. And those higher agricultural commodity prices will continue to push food prices higher.

But global consumer demand for purchases of goods has also been exceptionally strong, propped up during the pandemic by unusually large government income supports. That's particularly true in the U.S. (the world's largest consumer market) where retail merchandise sale volumes have been running more than 15% above pre-pandemic levels. Global container shipping volumes are up—running ~7% above pre-pandemic levels as of April—but the increase still hasn't been enough to keep up with demand.

Inflation pressures are global, but so is the central bank interest rate response

Interest rates are still too low. The Bank of Canada hiked the overnight rate by another 50 bps on June 1st—building on the 50 bp increase in April and 25 bp rise in March. But that still leaves the rate at just 1.5%. With inflation running hot and labour markets looking extremely tight, the path to a more neutral rate (which the central bank believes is in the 2% to 3% range) is one of little resistance. We look for further hikes to come to leave the policy rate at 2.75% by October.

The looming question is whether that will be enough to tame consumer demand and inflation pressure. The longer inflation remains elevated, the more risk that higher inflation expectations become entrenched – and that would make it much more difficult job for central banks to return price growth to target. Bank of Canada officials have been clear that getting inflation back under control is taking precedence over economic growth concerns – signaling clearly that the central bank is willing to hike rates higher if necessary, even if that risks pushing the economy into recession. That suggests upside risk to our forecast for the BoC to pause its tightening cycle at 2.75%.

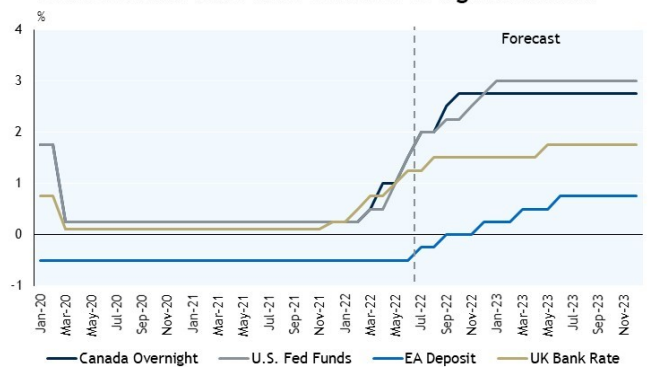
Still, the Bank of Canada is not alone in its inflation fight. The U.S. Federal Reserve and Bank of England are also expected to hike interest rates further going forward, and we expect the ECB to begin moving rates in Europe out of negative territory over the summer. There are limits to how much of an impact higher interest rates will have on key consumer purchases like gasoline and food (which are being pushed up by supply concerns as much as strong household demand). But demand for items in the consumer basket outside of these can be expected to drop as global interest rates rise.

Inflation continues to surge



Source: Haver, RBC Economics Research

Central banks hike interest rates to fight inflation



Source: Haver, RBC Economics

Cooling housing market the first sign that rate hikes are doing their job

In Canada, roughly one-fifth of consumer price inflation has come from higher home-buying costs as high incomes and low interest rates sent housing markets roaring through the pandemic. There are already signs that at least that pocket of inflation pressure is easing, with home resale prices shifting from record monthly price increases earlier this year to a 0.6% decline in April. That cooling is not enough to warrant a pause in the Bank of Canada's rate-hiking cycle (home resale prices were still up 24% from a year ago in April.) But it's a sign that interest rate hikes are already having an impact. We look for home resales to decline by 13% in 2022, and for benchmark prices nationally to decline in the 5% to 10% range from peak-to-trough.

China's pandemic lockdowns will keep pressure on global supply chains

There have been some recent signs of improvement in key transportation metrics. The cost of container shipping globally is down more than 20% from the end of last year, and as much as 30% on routes from China to the U.S. Shipping times on key routes have also plateaued year-to-date, with some signs of easing in recent weeks. The concern now is those improvements will be short-lived given the most stringent lockdowns in parts of China since the initial COVID-19 wave in 2020. Lockdowns in Shanghai have now largely ended after two months but shipments out of the Shanghai port (one of the world's busiest) fell to their lowest level since that initial virus wave in April.

Labour shortages still acute

Even if global supply chain disruptions were to ease significantly, exceptionally tight labour markets will keep a lid on future GDP growth. In Canada, there were 70% more job postings than prior to the pandemic. But at 5.2%, the unemployment rate (the available workforce) was at its lowest level since at least 1976 in April. Unemployment is also exceptionally low in the U.S. and in Europe.

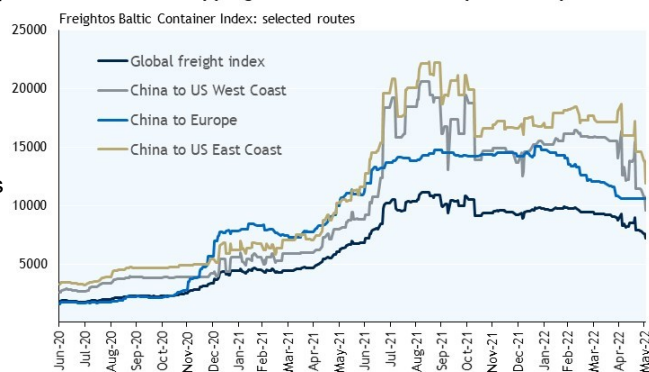
Wages have begun to drift higher as a result, particularly in the U.S. where average hourly earnings are up and a large number of workers (especially those with post-secondary education) have been able to take advantage of strong hiring demand to make the switch to higher-wage and higher productivity positions. But that means virtually all industries are now finding it more difficult to increase staff counts, including industries like accommodation and food services that are still staffed well-below pre-pandemic levels.

Recession risks have grown

We are now just two years past the most rapid, and one of the largest, economic downturns in history. And exceptionally tight labour markets and surging inflation are a key signal that a lot of advanced economies—including Canada's—are already bumping up against long-run production capacity limits. That is not all bad. Scarce availability of labour is pushing Canadian businesses to spend more on productivity-enhancing investments, for example—an area where Canada has long lagged international peers.

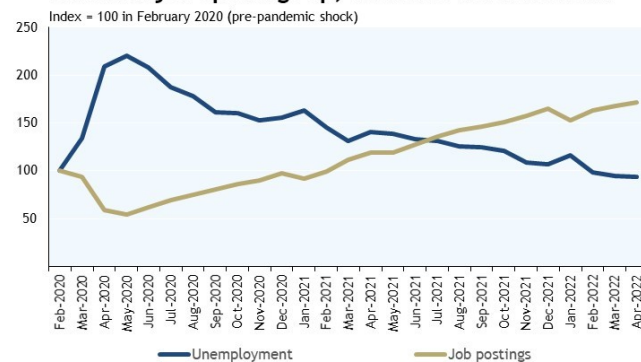
But at this point in the economic cycle, there's limited room for further near-term growth. That means the next surprise in terms of the economic outlook is more likely to be downside than upside. And the most obvious downside risk is that central banks will need to hike interest rates more aggressively than we expect to tame inflation. Even an expected return to the Bank of Canada's more

Global container shipping costs have fallen from pandemic peaks



Source: Refinitiv, RBC Economics Research

Canadian job openings up, available workers down



Source: Statistics Canada, Indeed.com, RBC Economics Research

'neutral' interest rates will push the ratio of household debt payments to incomes back above pre-pandemic levels and slow GDP growth to ~1% per-quarter in the latter half of next year.

Amid these conditions, it would not take a large downside growth surprise or further increase in interest rates to tip the economy into recession.

Economic forecast detail — Canada

Real growth in the economy

Quarter-over-quarter annualized % change unless otherwise indicated

	Forecast												Forecast		
	2021				2022				2023				2021	2022F	2023F
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Household Consumption	0.9	-0.8	20.1	1.8	3.4	9.1	4.9	3.8	1.4	1.5	1.0	1.0	5.0	6.0	2.7
Durables	-9.2	-7.9	-1.9	1.2	10.8	5.5	1.8	1.8	1.8	1.8	1.0	1.0	7.3	3.4	1.9
Semi-Durables	8.0	-13.9	72.7	-0.1	-3.0	4.0	2.0	2.0	1.5	1.5	0.8	0.5	13.9	6.2	1.7
Non-durables	1.7	-6.9	2.8	-1.7	2.3	4.2	3.0	2.0	1.0	2.0	1.0	1.0	1.5	1.4	1.8
Services	2.4	6.4	29.8	3.9	3.0	13.2	7.0	5.5	1.5	1.2	1.0	1.0	5.0	8.9	3.4
NPISH consumption	-9.1	1.2	7.4	7.6	0.5	9.1	4.9	3.8	1.4	1.5	1.0	1.0	5.0	5.0	2.7
Government expenditures	8.2	3.2	1.7	2.3	1.8	3.0	1.0	0.7	1.5	1.5	1.5	1.5	5.8	2.0	1.4
Government fixed investment	4.7	-9.8	8.3	6.6	5.0	5.0	3.0	3.0	2.5	2.5	2.5	2.5	4.4	4.3	2.8
Residential investment	43.9	-12.7	-30.3	12.4	18.1	-17.5	-8.1	-3.5	-1.5	-2.0	-5.0	-2.5	15.3	-3.9	-4.4
Non-residential investment	-0.6	16.8	2.3	10.2	9.0	8.5	10.6	2.3	2.8	2.9	2.7	1.7	2.3	8.5	3.9
Non-residential structures	15.7	9.4	4.0	13.9	12.0	3.9	12.5	2.5	3.0	2.0	2.5	2.0	-0.3	9.0	3.8
Machinery & equipment	-21.6	30.5	-0.5	3.8	3.8	17.5	7.0	2.0	2.5	4.5	3.0	1.0	6.6	7.5	4.2
Intellectual property	6.3	0.5	-7.8	-2.2	-2.3	4.0	5.0	2.5	1.0	1.0	2.5	1.0	0.6	-0.5	2.1
Final domestic demand	6.0	-0.3	7.3	3.7	4.8	4.6	3.1	2.2	1.3	1.3	0.7	0.8	5.6	4.2	1.8
Exports	2.5	-17.1	6.6	13.6	-9.4	8.5	7.5	4.7	3.0	4.0	4.0	2.8	1.4	2.3	4.5
Imports	5.6	2.4	-1.2	16.9	-2.8	5.5	5.0	5.2	2.0	3.0	3.0	3.0	7.7	4.2	3.6
Inventories (change in \$b)	-10.4	8.6	-12.9	5.3	7.7	12.8	10.7	8.5	8.0	6.0	6.0	6.0	-2.4	9.9	6.5
Real gross domestic product	4.4	-3.1	5.3	6.6	3.1	6.5	3.5	1.7	1.5	1.3	1.0	0.8	4.5	4.2	1.9

Other indicators

Year-over-year % change unless otherwise indicated

Business and labour															
Productivity	-1.7	-12.7	-4.9	-3.8	-1.8	-0.8	0.9	1.5	1.8	1.4	0.8	0.5	-6.0	0.0	1.1
Pre-tax corporate profits	49.0	62.9	13.4	15.7	6.6	12.3	20.6	12.9	4.7	0.6	0.2	0.8	32.3	13.0	1.5
Unemployment rate (%)*	8.4	7.9	7.2	6.3	5.8	5.3	5.4	5.6	5.7	5.8	5.9	6.0	7.4	5.5	5.9
Inflation															
Headline CPI	1.4	3.3	4.1	4.7	5.8	7.2	6.6	5.5	4.0	2.4	2.1	2.2	3.4	6.3	2.7
CPI ex. food and energy	1.0	2.1	3.0	3.2	4.0	4.7	4.4	4.4	3.9	3.1	2.8	2.7	2.4	4.4	3.1
External trade															
Current account balance (\$b)*	1.3	-1.5	5.0	-0.5	20.1	30.5	34.3	30.5	30.3	31.0	34.3	35.2	1.1	28.8	32.7
% of GDP*	0.1	-0.1	0.2	0.0	0.7	1.1	1.2	1.1	1.1	1.1	1.2	1.2	0.0	1.2	1.2
Housing starts (000s)*	304	279	262	261	245	265	259	250	242	237	233	232	271	255	236
Motor vehicle sales (mill., saar)*	1.79	1.73	1.64	1.55	1.62	1.55	1.68	1.68	1.69	1.70	1.70	1.71	1.68	1.63	1.70

*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

	Forecast												Forecast		
	2021				2022				2023				2021	2022F	2023F
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Consumer spending	11.4	12.0	2.0	2.5	3.1	3.9	2.5	2.1	1.8	1.2	1.8	1.5	7.9	3.4	1.9
Durables	50.0	11.6	-24.6	2.5	6.8	1.5	2.0	1.0	0.8	0.8	0.7	0.5	18.1	-0.2	1.0
Non-durables	15.9	13.9	2.0	0.4	-3.7	2.0	1.2	1.5	1.5	1.5	1.8	1.8	9.1	0.8	1.6
Services	3.9	11.5	8.2	3.3	4.8	5.0	3.0	2.5	2.0	1.2	2.0	1.5	5.8	5.0	2.2
Government spending	4.2	-2.0	0.9	-2.6	-2.7	1.5	2.0	3.0	4.5	3.5	2.0	2.5	0.5	-0.5	3.1
Residential investment	13.3	-11.7	-7.7	2.1	0.4	-2.0	-2.0	-1.5	-3.5	-2.2	-1.5	-2.0	9.2	-2.0	-2.3
Non-residential investment	12.9	9.2	1.6	2.9	9.2	4.8	4.1	1.7	2.0	2.2	2.4	1.3	7.4	5.1	2.4
Non-residential structures	5.4	-3.0	-4.1	-8.3	-3.6	5.5	7.5	2.5	3.0	4.0	3.0	0.0	-8.0	-1.2	3.6
Equipment & software	14.1	12.2	-2.4	2.8	13.2	7.1	4.5	1.0	1.5	1.5	2.5	1.2	13.1	6.1	2.2
Intellectual property	15.6	12.5	9.1	8.9	11.6	2.0	2.0	2.0	2.0	2.0	2.0	2.0	10.0	7.1	2.0
Final domestic demand	10.4	8.0	1.3	1.7	2.7	3.3	2.4	2.1	2.1	1.7	1.8	1.5	6.5	2.7	2.1
Exports	-2.9	7.6	-5.3	22.4	-5.4	6.5	5.2	4.5	4.5	2.5	2.0	1.0	4.5	4.3	3.8
Imports	9.3	7.1	4.7	17.9	18.3	6.0	1.8	3.0	2.0	2.5	6.0	3.5	14.0	10.3	3.1
Inventories (change in \$b)	-88.3	-168.5	-66.8	193.2	149.6	132.0	115.0	115.0	85.0	65.0	45.0	25.0	-32.6	127.9	55.0
Real gross domestic product	6.3	6.7	2.3	6.9	-1.5	3.0	2.5	2.2	1.8	1.3	0.9	0.8	5.7	2.6	1.8

Other indicators

Year-over-year % change unless otherwise indicated

Business and labour															
Productivity	3.7	2.3	-0.5	2.0	-0.6	-1.3	0.0	-1.1	1.1	1.2	0.9	0.7	1.9	-0.7	1.0
Pre-tax corporate profits	17.6	45.1	19.7	21.0	12.5	4.9	3.0	3.3	6.4	3.9	2.5	1.8	25.0	5.7	3.6
Unemployment rate (%)*	6.2	5.9	5.1	4.2	3.8	3.6	3.7	3.8	3.8	3.9	4.0	4.1	5.4	3.7	4.0
Inflation															
Headline CPI	1.9	4.8	5.3	6.7	8.0	8.0	7.0	5.3	3.5	1.9	1.9	2.0	4.7	7.0	2.3
CPI ex. food and energy	1.4	3.7	4.1	5.0	6.3	5.7	5.3	4.6	3.8	3.1	2.8	2.6	3.6	5.5	3.1
External trade															
Current account balance (\$b)*	-750	-785	-879	-872	-988	-979	-968	-967	-959	-963	-993	-1013	-822	-975	-982
% of GDP*	-3.4	-3.5	-3.8	-3.6	-4.1	-3.9	-3.8	-3.8	-3.7	-3.7	-3.8	-3.8	-3.6	-3.9	-3.8
Housing starts (000s)*	1581	1591	1569	1679	1724	1425	1400	1375	1350	1351	1352	1353	1605	1481	1352
Motor vehicle sales (millions, saar)*	16.8	16.9	13.3	12.9	14.1	14.3	14.7	15.1	15.5	15.6	15.7	15.8	15.0	14.5	15.6

*Period average

Source: Bureau of Economic Analysis, RBC Economics

Financial market forecast detail

Interest rates—North America

% , 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>
Canada												
Overnight	0.25	0.25	0.25	0.25	0.50	1.50	2.50	2.75	2.75	2.75	2.75	2.75
Three-month	0.09	0.15	0.12	0.16	0.60	1.85	2.60	2.70	2.70	2.70	2.70	2.70
Two-year	0.23	0.45	0.53	0.95	2.29	2.85	2.80	2.75	2.70	2.70	2.60	2.55
Five-year	0.99	0.98	1.11	1.26	2.41	2.90	2.80	2.70	2.65	2.60	2.50	2.40
10-year	1.56	1.39	1.51	1.43	2.40	2.95	2.80	2.65	2.60	2.60	2.50	2.45
30-year	1.99	1.84	1.99	1.68	2.38	2.85	2.75	2.65	2.65	2.65	2.60	2.55
Yield curve (10s-2s)	133	94	98	48	11	10	0	-10	-10	-10	-10	-10
United States												
Fed funds*	0.13	0.13	0.13	0.13	0.38	1.38	2.13	2.63	2.88	2.88	2.88	2.88
Three-month	0.03	0.05	0.04	0.06	0.52	1.65	2.30	2.75	2.80	2.80	2.80	2.80
Two-year	0.16	0.25	0.28	0.73	2.28	2.65	2.80	2.90	2.95	2.90	2.80	2.60
Five-year	0.92	0.87	0.98	1.26	2.42	2.75	2.85	2.90	2.95	2.85	2.75	2.50
10-year	1.74	1.45	1.52	1.52	2.32	2.80	2.85	2.90	2.90	2.85	2.70	2.50
30-year	2.41	2.06	2.08	1.90	2.44	2.90	2.95	3.00	3.00	2.90	2.70	2.55
Yield curve (10s-2s)	158	120	124	79	4	15	5	0	-5	-5	-10	-10
Yield spreads												
Three-month T-bills	0.06	0.10	0.08	0.10	0.08	0.20	0.30	-0.05	-0.10	-0.10	-0.10	-0.10
Two-year	0.07	0.20	0.25	0.22	0.01	0.20	0.00	-0.15	-0.25	-0.20	-0.20	-0.05
Five-year	0.07	0.11	0.13	0.00	-0.01	0.15	-0.05	-0.20	-0.30	-0.25	-0.25	-0.10
10-year	-0.18	-0.06	-0.01	-0.09	0.08	0.15	-0.05	-0.25	-0.30	-0.25	-0.20	-0.05
30-year	-0.42	-0.22	-0.09	-0.22	-0.06	-0.05	-0.20	-0.35	-0.35	-0.25	-0.10	0.00

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>
United Kingdom												
Repo	0.10	0.10	0.10	0.25	0.75	1.25	1.50	1.50	1.50	1.75	1.75	1.75
Two-year	0.11	0.07	0.40	0.68	1.36	1.80	1.90	2.00	2.00	2.00	1.90	1.90
Five-year	0.40	0.33	0.62	0.82	1.40	1.75	1.80	1.90	1.90	1.80	1.75	1.75
10-year	0.85	0.72	1.02	0.97	1.60	2.25	2.40	2.50	2.50	2.35	2.25	2.20
30-year	1.40	1.24	1.37	1.12	1.77	2.50	2.60	2.75	2.75	2.60	2.50	2.40
Euro Area												
Deposit rate	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	0.00	0.25	0.50	0.75	0.75	0.75
Two-year	-0.69	-0.67	-0.69	-0.64	-0.08	0.75	1.00	1.00	1.10	1.15	1.00	1.00
Five-year	-0.62	-0.59	-0.56	-0.45	0.37	1.10	1.15	1.20	1.25	1.25	1.10	1.05
10-year	-0.29	-0.20	-0.21	-0.18	0.55	1.35	1.50	1.65	1.75	1.75	1.60	1.50
30-year	0.26	0.30	0.29	0.20	0.67	1.50	1.75	1.90	2.00	2.00	1.90	1.75
Australia												
Cash target rate	0.10	0.10	0.10	0.10	0.10	0.60	1.35	1.85	1.85	1.85	1.85	1.85
Two-year	0.08	0.06	0.04	0.54	1.78	2.55	2.65	2.55	2.40	2.35	2.30	2.30
10-year	1.74	1.49	1.49	1.67	2.84	3.20	3.20	3.15	3.10	3.05	2.85	2.65
New Zealand												
Cash target rate	0.25	0.25	0.25	0.75	1.00	2.00	2.50	2.75	2.75	2.75	2.75	2.75
Two-year	0.46	0.78	1.39	2.16	3.27	3.70	3.60	3.50	3.40	3.30	3.20	3.10
10-year	1.95	1.87	2.21	2.62	3.38	3.90	3.80	3.70	3.60	3.55	3.40	3.20

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>	<u>22Q2</u>	<u>22Q3</u>	<u>22Q4</u>	<u>23Q1</u>	<u>23Q2</u>	<u>23Q3</u>	<u>23Q4</u>
Canada*	4.4	-3.1	5.3	6.6	3.1	6.5	3.5	1.7	1.5	1.3	1.0	0.8
United States*	6.3	6.7	2.3	6.9	-1.5	3.0	2.5	2.2	1.8	1.3	0.9	0.8
United Kingdom	-1.2	5.6	0.9	1.3	0.8	0.0	0.2	0.2	0.5	0.4	0.4	0.4
Euro Area	-0.1	2.2	2.2	0.3	0.3	0.2	0.3	0.6	0.4	0.4	0.4	0.4
Australia	1.8	0.8	-1.8	3.6	0.8	-	-	-	-	-	-	-

*Seasonally adjusted annualized rates

Inflation outlook

% change, year-over-year

	<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>
Canada	1.4	3.3	4.1	4.7	5.8	7.2	6.6	5.5	4.0	2.4	2.1	2.2
United States	1.9	4.8	5.3	6.7	8.0	8.0	7.0	5.3	3.5	1.9	1.9	2.0
United Kingdom	0.6	2.0	2.8	4.9	6.2	8.1	7.4	6.3	4.6	2.5	2.2	2.2
Euro Area	1.1	1.8	2.8	4.6	6.1	7.9	8.5	8.6	7.1	4.3	3.8	3.3
Australia	1.1	3.8	3.0	3.5	5.1	5.6	5.9	5.8	4.6	4.1	3.9	3.4

Exchange rates

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>
AUD/USD	0.76	0.75	0.72	0.73	0.75	0.71	0.70	0.69	0.69	0.70	0.70	0.71
USD/CAD	1.26	1.24	1.27	1.26	1.25	1.28	1.29	1.31	1.32	1.33	1.34	1.34
EUR/USD	1.17	1.19	1.16	1.14	1.11	1.06	1.03	1.00	1.02	1.04	1.07	1.09
USD/JPY	110.7	111.1	111.3	115.1	121.7	130.0	133.0	135.0	135.0	135.0	135.0	135.0
USD/CHF	0.94	0.93	0.93	0.91	0.92	0.98	0.99	1.04	1.04	1.04	1.03	1.04
GBP/USD	1.38	1.38	1.35	1.35	1.31	1.23	1.14	1.10	1.12	1.14	1.19	1.21

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

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