REFERENCE:

MFR 18

PREAMBLE TO IR (IF ANY):

QUESTION:

Please explain why MB CPI for 2022/23 is 3.3%

RESPONSE:

Manitoba Hydro uses up to eight financial sources and up to three private sector sources to determine a consensus forecast of Manitoba CPI. The most recent available forecast from each source, between December 2021 and February 2022, was used at the time of the 2022 Spring forecast. Where available, they include:

Public Financial Institutions	Private Sector Sources
BMO	IHS Markit
CIBC	Conference Board of Canada
National Bank	Stokes Economics
Royal Bank of Canada (RBC)	
Scotiabank	
TD Bank	
Desjardins	
Laurentian	

Table 1 depicts the sources used to derive the forecast of Manitoba CPI for the 2022 and 2023 calendar year period, as utilized in the Amended Financial Forecast Scenario.

Calculations of the rates are as follows:

- The 2022 calendar year forecast was calculated as the average of all data points within 2022.
- The 2023 calendar year forecast was calculated as the average of all data points within 2023.
- The 2022/23 fiscal year forecast was calculated by adding 75% of 2022 (representing three quarters of the fiscal year) to 25% of 2023 (representing one quarter of the fiscal year) to arrive at 3.3%.

Copies of the publicly available source forecasts used to calculate the Manitoba CPI of 3.3% in 2022/23 are provided as Attachment 1 to this response.

Table 1: Manitoba CPI, % - Spring 2022

Forecaster	Forecast Date	2022	2023	Fiscal 2022/23
RBC	December 2, 2021	3.5	2.4	
Conference Board of Canada	January 4, 2022	2.6	2.0	
IHS Markit	January 14, 2022	2.5	1.9	
Scotiabank	January 24, 2022	4.1	3.1	
Stokes Economics	January 31, 2022	3.3	2.3	
National Bank	February 1, 2022	4.0	2.5	
Desjardins	February 17, 2022	4.2	2.0	
BMO	February 18, 2022	4.6	2.7	
	Average	**3.6**	**2.4**	
	Fiscal Year Adjustment	**75%**	**25%**	
		2.7	**0.6**	**3.3**

The Spring 2022 forecast filed in MFR 65 (Amended) is Manitoba Hydro's current forecast of CPI and will be updated this coming Spring 2023. Tables 2 and 3 on the following page depicts the sources used to derive a forecast of Manitoba and Canada CPI for the 2022/23 to 2024/25 period, updated to reflect a consensus view between October 2022 and December 2022. The full suite of source forecasts that are typically used in the spring outlook are not all available on a quarterly basis as some sources do not prepare regular updates.

Table 2: Manitoba CPI, % - based on October 2022 to December 2022 source forecasts

Forecaster	Forecast Date	2022*	2023	2024	2025
BMO	December 16, 2022		4.0	2.5	
Desjardins	December 12, 2022		3.7	2.1	
National Bank	Dec 2022 / Jan 2023		2.9	2.2	
RBC	December 2022		3.7	2.3	
Scotiabank	December 19, 2022		4.2	1.9	
Conference Board of Canada	November 2, 2022		3.8	2.1	2.0
	Average	**7.9**	**3.7**	**2.2**	**2.0**
			2022/23	**2023/24**	**2024/25**
	Fiscal		**6.9**	**3.3**	**2.2**
	Spring 2022 - Fiscal		**3.3**	**2.3**	**2.1**

*denotes historical data

Table 3: Canada CPI, % - based on October 2022 to December 2022 source forecasts

Forecaster	Forecast Date	2022*	2023	2024	2025
BMO	December 16, 2022		4.0	2.6	
CIBC	November 25, 2022		3.5	1.9	
Desjardins	December 12, 2022		3.2	2.0	2.0
Laurentian	October 24, 2022		2.6	2.1	
National Bank	Dec 2022 / Jan 2023		2.8	2.2	
RBC	December 12, 2022		3.2	2.2	
Scotiabank	December 19, 2022		4.1	1.9	
TD Bank	December 14, 2022		3.8	2.1	2.0
IHS Markit	December 8, 2022		2.8	1.6	2.0
Conference Board of Canada	December 19, 2022		3.8	2.4	2.0
	Average	**6.8**	**3.4**	**2.1**	**2.0**
			2022/23	**2023/24**	**2024/25**
	Fiscal		**6.0**	**3.1**	**2.1**
	Spring 2022 - Fiscal		**3.5**	**2.3**	**2.1**

* denotes historical data

Copies of the publicly available and private sector forecasts are provided as Attachment 2 to this response.

Provincial Economic Outlook | Our key forecasts for the Canadian provinces **February 18, 2022**

Provincial Economic Outlook for Feb. 18, 2022

A Publication of BMO Capital Markets Economic Research • Douglas Porter, CFA, Chief Economist, BMO Financial Group

	Canada	British Columbia	Alberta	Saskat-chewan	Manitoba	Ontario	Quebec	New Brunswick	Nova Scotia	P.E.I.	Nfld & Labrador
Real GDP Growth (y/y % chng)											
2020	-5.2	-3.4	-7.9	-4.9	-4.6	-5.1	-5.5	-3.2	-2.5	-1.7	-5.4
2021	**4.7**	**4.8**	**6.0**	**2.8**	**3.0**	**4.3**	**6.4**	**2.6**	**3.2**	**2.3**	**3.3**
2022	**4.0**	**4.6**	**4.4**	**3.4**	**3.5**	**4.1**	**3.4**	**2.3**	**2.5**	**2.5**	**2.0**
2023	**3.5**	**3.7**	**3.8**	**2.9**	**3.0**	**3.7**	**3.2**	**1.5**	**1.8**	**2.0**	**1.5**
Employment Growth (y/y % chng)											
2020	-5.1	-6.5	-6.5	-4.6	-3.7	-4.7	-4.8	-2.6	-4.7	-3.2	-5.9
2021	5.1	6.6	5.2	2.6	3.5	4.9	4.2	2.6	5.4	3.7	3.0
2022	**3.2**	**3.0**	**3.3**	**1.6**	**2.1**	**4.1**	**2.5**	**2.0**	**1.8**	**3.5**	**1.2**
2023	**2.0**	**2.0**	**1.9**	**1.0**	**1.2**	**2.4**	**1.9**	**0.9**	**0.9**	**0.4**	**0.0**
Unemployment Rate (percent)											
2020	9.6	9.0	11.6	8.4	8.0	9.6	8.9	10.1	9.8	10.6	14.2
2021	7.4	6.5	8.6	6.5	6.4	8.0	6.1	9.0	8.4	9.4	12.9
2022	**5.7**	**4.9**	**6.6**	**5.5**	**5.4**	**5.9**	**4.7**	**8.0**	**8.1**	**8.5**	**12.0**
2023	**5.5**	**4.7**	**5.9**	**5.0**	**5.4**	**5.6**	**4.6**	**7.8**	**7.9**	**8.4**	**12.0**
Housing Starts (thousands)											
2020	218	38.0	24.1	3.1	7.3	81.3	54.2	3.6	4.9	1.1	0.8
2021	277	47.7	31.9	4.3	8.0	101.2	71.1	4.0	6.3	1.2	1.3
2022	**250**	**45.0**	**31.0**	**3.0**	**6.7**	**95.0**	**60.0**	**3.0**	**4.0**	**1.3**	**0.6**
2023	**230**	**42.0**	**31.0**	**3.0**	**6.5**	**84.0**	**55.0**	**2.8**	**4.0**	**1.2**	**0.6**
Consumer Price Index (y/y % chng)											
2020	0.7	0.8	1.1	0.6	0.5	0.6	0.8	0.2	0.3	0.0	0.2
2021	3.4	2.8	3.2	2.6	3.2	3.5	3.8	3.8	4.1	5.1	3.7
2022	**4.7**	**4.5**	**4.4**	**4.2**	**4.6**	**4.9**	**4.5**	**4.5**	**4.5**	**5.0**	**4.2**
2023	**3.0**	**3.0**	**3.3**	**2.9**	**2.7**	**3.0**	**2.8**	**2.6**	**2.7**	**2.5**	**2.5**
Budget Balance ($ mlns)											
FY20/21 e	-327,700	-5,468	-16,962	-1,127	-2,117	-16,400	-4,226	409	-342	-6	-1,491
% of GDP	-14.8	-1.8	-5.8	-1.4	-2.9	-1.9	-0.9	1.1	-0.7	-0.1	-4.7
FY21/22	**-144,500**	**-1,732**	**-5,822**	**-2,708**	**-1,123**	**-13,105**	**-3,559**	**89**	**108**	**-112**	**-595**
% of GDP	**-6.0**	**-0.5**	**-1.7**	**-3.1**	**-1.5**	**-1.4**	**-0.7**	**0.2**	**0.2**	**-1.4**	**-1.6**
Net Debt[1] ($ mlns)											
FY21/22	**1,233,800**	**59,897**	**66,791**	**16,714**	**29,102**	**402,432**	**198,564**	**13,431**	**17,976**	**2,634**	**16,700**
% of GDP	**48.0**	**17.4**	**19.2**	**19.3**	**37.9**	**42.6**	**39.9**	**34.1**	**35.9**	**33.1**	**45.5**

Bolded values represent forecasts; [1] federal = accumulated deficit

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IHS Markit - January 14, 2022

Manitoba					
	2022	**2023**	**2024**	**2025**	**2026**
CPI 2002 = 100	145.6	148.4	151.6	154.6	157.7
Total motor vehicle sales	50,664	56,824	59,810	60,701	59,524
GDP at market prices (millions of dollars)	85,639	89,138	92,853	96,829	100,357
GDP price index (2012 = 1.00)	1.224	1.239	1.258	1.284	1.306
GDP at market prices (millions of chained 2012 dollars)	69,950	71,929	73,805	75,406	76,820
Housing starts	7,455	6,621	6,212	5,420	4,928
Population (thousands)	1,396	1,411	1,425	1,439	1,455
Births (thousands)	15	15	15	15	15
Deaths (thousands)	13	13	13	13	13
Net migration (thousands)	10	12	12	12	14
Crude birth rate (%)	10.71	10.67	10.58	10.54	10.49
Crude death rate (%)	9.08	9.08	9.07	9.06	9.10
Households (thousands)	527	533	539	546	552
Source: IHS Markit					© 2022 IHS Markit

Conference Board of Canada - January 4, 2022

Description:	(Average Aggregation) Gross domestic product at market prices, Manitoba (Millions, Chained $ 2012)	(Average Aggregation) Total Population, Manitoba (Thousands ('000s))	(Average Aggregation) Current accounts - Households, Household disposable income; Manitoba (Millions $)	(Average Aggregation) Provincial Consumer Price Index, Manitoba (2002=1.0)
Mnemonic:	RYGDPKM	RHM	RYHDIM	RPCPIM
2022	70599.52933	1392.426933	45106.0582	1.453878473
2023	71732.4213	1409.32136	46375.9177	1.483254933
2024	72941.6535	1428.67363	47778.83355	1.512611008
2025	74223.18695	1448.366305	49352.25468	1.543582945
2026	75488.4407	1468.345695	51055.78368	1.57476973
2027	76771.9074	1488.630155	53105.7077	1.606353993
2028	78092.93915	1509.202233	54945.66263	1.638590243
2029	79422.4246	1530.126893	56920.99873	1.67147192
2030	80788.13963	1551.420868	58991.7733	1.705012913
2031	82165.0768	1572.953533	61136.32248	1.739226718
2032	83573.77965	1594.653565	63352.87685	1.774125688
2033	85019.31418	1616.512605	65681.96113	1.809723125
2034	86484.3248	1638.52393	68081.84978	1.846035963
2035	87995.63908	1660.665985	70568.9918	1.88307546
2036	89537.66093	1682.919023	73140.67725	1.920857638
2037	91133.9151	1705.309995	75810.71613	1.95939746
2038	92754.09683	1727.87829	78570.47508	1.998709565
2039	94411.46943	1750.6286	81425.5172	2.038809588
2040	96112.82963	1773.569783	84392.00045	2.079713565
2041	97856.76818	1796.69926	87432.48728	2.121404565
2042	99637.37168	1820.044598	90637.2989	2.16391194
2043	101467.951	1843.65203	93952.66165	2.20727095
2044	103353.732	1867.534535	97359.33295	2.251498875
2045	105293.9743	1891.70683	100860.3636	2.296612725

Conference Board of Canada - January 4, 2022

(Average Aggregation) Unemployment Rate, Manitoba (%)
RLURM
5.539528758
5.532053195
5.526677583
5.421880975
5.307211695
5.234135133
5.158224078
5.107552188
5.041228793
5.006847575
5.010339885
4.977796865
4.92075413
4.890462965
4.871475465
4.881094245
4.923876748
4.970495715
4.975602688
4.96541071
4.965565705
4.964342018
4.940198385
4.881926223

Desjardins
ECONOMIC STUDIES | FEBRUARY 17, 2022

ECONOMIC & FINANCIAL OUTLOOK

High Inflation Will Prompt Central Banks to Perform Several Rate Hikes

HIGHLIGHTS

- Economic growth slowed in a number of major economies at the end of 2021, with the Omicron wave also expected to result in modest growth in early 2022. After an estimated 6.1% gain in 2021, global real GDP is expected to expand 3.9% in 2022 and 3.6% in 2023. We note that inflation continues to accelerate in a number of regions, with the supply issues that stoke it yet to be resolved.
- In the United States, annualized quarterly growth in real GDP hit 6.9% in the fourth quarter of 2021, ending last year with an annual average of 5.7%. Omicron wave effects and a reversal of strong business inventory contributions to real GDP growth should translate into more modest growth in the first quarter of 2022. That being said, the labour market is outperforming expectations and inflation remains very elevated.
- In Canada, health measures to rein in the Omicron variant likely triggered a temporary decline in real GDP in January. The Ambassador Bridge blockade on the Windsor side that lasted around a week, coupled with other protests, have squeezed supply chains that were already under great stress. These additional issues are likely to be only temporary, with the Canadian economic recovery poised to resume in short order. The gradual lifting of health measures is also encouraging news to that end.
- Our scenarios call for U.S. and Canadian policy rates to start rising as early as March. The Bank of Canada is expected to raise rates by 25 basis points four times in 2022, with the Federal Reserve likely to opt for five hikes of 25 basis points.
- Quebec economic growth will be sluggish in the first quarter owing to restrictive measures early in the year. The unemployment rate rose from 4.7% in December to 5.4% in January. The adverse effects on the labour market and real GDP will be short-lived, with a raft of relief measures in effect in February and March. Despite this, economic growth will be close to 2% in 2022 and 2023.
- Not only was Ontario one of the provinces hardest hit by recent health measures but was also the focal point for protests in early 2022. Ontario’s economy could stand to enjoy higher growth for the remainder of 2022. Automotive sector production may also pick up some of the slack if supply problems begin to ease.

MAIN CHANGES

- Inflation forecasts were upgraded due to higher oil prices and the host of imbalances set to remain in the near term.
- In response to high inflation, the Bank of Canada and the Federal Reserve are expected to raise policy rates faster and more often in 2022.

CONTENTS

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RISKS INHERENT TO OUR SCENARIOS

The pandemic is not on its last legs and remains a significant risk factor, as shown by the sharp upsurge in COVID-19 cases linked to the Omicron variant. New waves of the pandemic and the spread of new, potentially more vaccine-resistant variants may put another damper on economic conditions if restrictive health measures are extended or reimposed. They would also affect financial markets by sapping profit outlooks and investor optimism. The many supply and demand imbalances, including production constraints stemming from the pandemic and supply problems, have accelerated inflation, and this could persist, particularly if upward pressures on wages and housing costs strengthen. Led by mounting tensions with Russia over Ukraine, political or geopolitical uncertainties are already driving up energy prices and may further erode economic conditions. On the other hand, economic growth may be more robust than expected. Excess savings stockpiled during the pandemic may be spent rapidly, triggering robust demand and sustained growth in consumer prices. Risks of more lasting acceleration in price growth are making things hard for central banks. Moving too slowly to withdraw expansionary monetary policy or other fiscal measures driving demand could spark a much higher surge in inflation expectations and a sharper rise in bond yields. In contrast, tightening monetary policy too abruptly may also trigger adverse market reactions. A major financial crisis in China could worry international investors. In Quebec and across Canada, risks of an eventual house price correction have not abated.

TABLE 1
World GDP growth (adjusted for PPP) and inflation rate

	WEIGHT*	REAL GDP GROWTH			INFLATION RATE		
IN %		2021f	2022f	2023f	2021	2022f	2023f
Advanced economies	**40.0**	**5.1**	**3.3**	**2.3**	**3.1**	**4.1**	**1.8**
United States	15.9	5.7	3.3	2.6	4.7	5.7	2.4
Canada	1.4	4.7	3.8	2.8	3.4	4.5	2.4
Quebec	*0.3*	*6.2*	*2.1*	*2.1*	*3.8*	*4.2*	*2.3*
Ontario	*0.5*	*4.5*	*3.9*	*3.0*	*3.5*	*4.7*	*2.5*
Japan	4.0	1.7	2.4	1.7	-0.2	1.0	0.6
United Kingdom	2.4	7.5	3.8	2.0	2.6	5.2	2.4
Euro zone	12.5	5.2	3.6	2.1	2.6	3.7	1.4
Germany	*3.4*	*2.7*	*3.0*	*2.1*	*3.1*	*3.5*	*1.7*
France	*2.5*	*7.0*	*3.4*	*1.8*	*1.6*	*2.8*	*1.2*
Italy	*2.0*	*6.5*	*3.9*	*1.9*	*1.9*	*3.3*	*1.2*
Other countries	4.2	2.4	1.9	1.3	1.4	1.7	0.9
Australia	*1.0*	*4.0*	*3.5*	*2.9*	*2.7*	*3.2*	*2.0*
Emerging and developing economies	**60.0**	**6.8**	**4.3**	**4.5**	**3.6**	**4.9**	**3.1**
North Asia	25.7	8.1	5.4	5.4	2.4	3.3	2.9
China	*17.5*	*8.1*	*5.0*	*5.2*	*0.9*	*2.4*	*2.1*
India	*7.1*	*8.7*	*6.8*	*6.2*	*5.1*	*5.2*	*4.7*
South Asia	5.3	3.7	4.9	5.0	2.0	2.8	2.6
Latin America	5.9	6.2	1.7	2.3	6.9	5.1	3.5
Mexico	*1.9*	*5.6*	*2.2*	*2.3*	*5.7*	*4.6*	*3.5*
Brazil	*2.4*	*4.7*	*0.3*	*2.0*	*9.0*	*6.0*	*3.8*
Eastern Europe	8.0	5.7	3.1	3.1	8.8	13.3	5.4
Russia	*3.2*	*4.2*	*2.3*	*2.2*	*6.7*	*5.5*	*4.0*
Other countries	15.0	7.2	3.9	4.2	4.8	6.3	4.6
South Africa	*0.6*	*5.2*	*1.9*	*2.2*	*4.4*	*5.3*	*4.1*
World	**100.0**	**6.1**	**3.9**	**3.6**	**3.4**	**4.6**	**2.6**

f: forecasts; PPP : Purchasing Power Parities, exchange rate that equates the costs of a broad basket of goods and services across countries; * 2019.
Sources: World Bank, Consensus Forecasts and Desjardins, Economic Studies

FINANCIAL FORECASTS

On the back of a further acceleration in inflation, markets are now pricing in more aggressive monetary policy tightening than earlier in the year. Investors are even wondering whether the Federal Reserve will raise rates by 50 basis points in March. Our base-case outlook has American monetary policymakers raising rates 25 basis points in March, and then hiking four more times before the year is over. The Bank of Canada will likely want to take it a touch slower given that inflation isn't as much of a problem and household debt is more of a constraint. Longer-term interest rates should get an extra lift from global central banks reducing the sizes of their balance sheets. Given the way equity indexes have begun the year in response to the prospect of monetary tightening, we're forecasting a modest decline in the S&P 500 for 2022, and a healthy increase in the energy and financials-heavy S&P/TSX. At the moment, oil prices remain well-supported by increasing demand, supply issues from the Organization of the Petroleum Exporting Countries (OPEC), and concerns surrounding the conflict in Ukraine. However, we expect some of the supply constraints to fade and for commodity prices to get less of a boost from geopolitical tensions as the year progresses. While we see the reduction of uncertainty leading to strength for the Canadian dollar in the near-term, we expect that will fade as commodity prices trend lower.

TABLE 2
Summary of the financial forecasts

	2021		2022				2023			
END OF PERIOD IN % (EXCEPT IF INDICATED)	Q3	Q4	Q1f	Q2f	Q3f	Q4f	Q1f	Q2f	Q3f	Q4f
Key interest rate										
United States	0.25	0.25	0.50	1.00	1.25	1.50	1.75	2.00	2.25	2.25
Canada	0.25	0.25	0.50	0.75	1.00	1.25	1.25	1.25	1.50	1.75
Euro zone	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.25
United Kingdom	0.10	0.25	0.75	1.00	1.00	1.00	1.25	1.50	1.50	1.50
Federal bonds										
United States										
2-year	0.26	0.66	1.60	1.70	1.80	1.90	2.00	2.20	2.25	2.30
5-year	0.98	1.25	2.00	2.05	2.15	2.20	2.25	2.40	2.50	2.55
10-year	1.53	1.50	2.10	2.20	2.30	2.40	2.50	2.65	2.70	2.75
30-year	2.09	1.89	2.35	2.45	2.55	2.65	2.70	2.80	2.80	2.85
Canada										
2-year	0.53	0.95	1.55	1.60	1.70	1.75	1.80	1.85	1.95	2.00
5-year	1.11	1.25	1.90	1.95	2.05	2.10	2.10	2.15	2.20	2.25
10-year	1.51	1.42	2.00	2.10	2.20	2.30	2.40	2.45	2.50	2.50
30-year	1.98	1.68	2.25	2.35	2.45	2.55	2.60	2.65	2.65	2.65
Currency market										
Canadian dollar (USD/CAD)	1.27	1.26	1.25	1.24	1.25	1.27	1.27	1.28	1.27	1.27
Canadian dollar (CAD/USD)	0.79	0.79	0.80	0.81	0.80	0.79	0.79	0.78	0.79	0.79
Euro (EUR/USD)	1.16	1.14	1.14	1.15	1.16	1.17	1.18	1.19	1.20	1.20
British pound (GBP/USD)	1.35	1.35	1.36	1.38	1.38	1.39	1.40	1.40	1.41	1.41
Yen (USD/JPY)	111	115	115	115	116	116	116	115	114	113
Stock markets (level and growth)*										
United States – S&P 500	4,766		Target: 4,600 (-3.5%)				Target: 4,850 (+5.4%)			
Canada – S&P/TSX	21,223		Target: 22,000 (+3.7%)				Target: 23,400 (+6.4%)			
Commodities (annual average)										
WTI oil (US$/barrel)	68 (75*)		83 (75*)				71 (70*)			
Gold (US$/ounce)	1,800 (1,800*)		1,760 (1,700*)				1,665 (1,610*)			

f: forecasts; WTI: West Texas Intermediate; * End of year.
Sources: Datastream and Desjardins, Economic Studies

TABLE 3
United States: Major economic indicators

QUARTERLY ANNUALIZED VARIATION IN % (EXCEPT IF INDICATED)	2021		2022				ANNUAL AVERAGE			
	Q3	Q4	Q1f	Q2f	Q3f	Q4f	2020	2021	2022f	2023f
Real GDP (2012 US$)	**2.3**	**6.9**	**1.0**	**3.1**	**3.1**	**2.3**	**-3.4**	**5.7**	**3.3**	**2.6**
Personal consumption expenditures	2.0	3.3	3.3	2.8	3.4	1.8	-3.8	7.9	3.5	2.3
Residential construction	-7.7	-0.8	4.3	3.8	3.1	1.8	6.8	9.0	0.3	1.8
Business fixed investment	1.7	2.0	6.7	8.3	7.8	3.9	-5.3	7.3	5.6	5.8
Inventory change (US$B)	-66.8	174	50.0	50.0	60.0	75.0	-42.3	-37.5	58.8	52.5
Public expenditures	0.9	-2.9	1.2	1.8	1.8	1.8	2.5	0.5	0.4	1.8
Exports	-5.3	24.5	7.5	4.0	4.5	4.5	-13.6	4.6	7.5	5.2
Imports	4.7	17.7	7.5	6.0	10.0	4.0	-8.9	14.0	8.7	5.1
Final domestic demand	1.3	1.9	3.4	3.4	3.7	2.1	-2.5	6.5	3.1	2.7
Other indicators										
Nominal GDP	8.4	14.3	6.3	5.9	5.7	4.7	-2.2	10.0	8.2	5.1
Employment according to establishments	4.8	4.8	3.5	2.6	3.1	1.7	-5.8	2.8	3.6	1.6
Unemployment rate (%)	5.1	4.2	3.9	3.8	3.7	3.6	8.1	5.4	3.7	3.5
Housing starts[1] (thousands of units)	1,562	1,644	1,625	1,663	1,670	1,667	1,396	1,598	1,656	1,681
Total inflation rate*	5.3	6.7	7.7	6.3	5.2	3.6	1.2	4.7	5.7	2.4
Core inflation rate*[2]	4.1	5.0	6.3	5.2	4.7	3.9	1.7	3.6	5.0	2.9

f: forecasts; * Annual change; [1] Annualized basis; [2] Excluding food and energy.
Sources: Datastream and Desjardins, Economic Studies

TABLE 4
Canada: Major economic indicators

QUARTERLY ANNUALIZED VARIATION IN % (EXCEPT IF INDICATED)	2021		2022				ANNUAL AVERAGE			
	Q3	Q4f	Q1f	Q2f	Q3f	Q4f	2020	2021f	2022f	2023f
Real GDP (2012 $)	**5.4**	**6.6**	**1.2**	**5.4**	**4.7**	**3.2**	**-5.2**	**4.7**	**3.8**	**2.8**
Final consumption expenditure [of which:]	12.1	6.3	1.9	2.4	3.8	4.0	-4.5	5.4	4.3	2.6
Household consumption expenditure	*17.9*	*7.6*	*2.0*	*3.2*	*5.6*	*6.2*	*-6.2*	*5.6*	*5.7*	*4.2*
Governments consumption expenditure	*-0.7*	*3.2*	*1.8*	*0.6*	*-0.5*	*-1.4*	*0.0*	*5.1*	*1.1*	*-1.5*
Gross fixed capital formation [of which:]	-13.7	3.5	2.7	4.3	5.6	2.4	-2.8	8.1	3.5	3.5
Residential structures	*-31.3*	*-3.1*	*-2.9*	*-2.0*	*-2.0*	*-1.5*	*4.3*	*14.3*	*-7.4*	*-1.2*
Non-residential structures	*-1.1*	*12.5*	*4.9*	*8.5*	*12.6*	*5.2*	*-10.0*	*-4.6*	*7.1*	*4.8*
Machinery and equipment	*-0.7*	*3.6*	*4.2*	*9.2*	*14.3*	*6.1*	*-15.4*	*6.6*	*7.6*	*5.3*
Intellectual property products	*-5.7*	*-3.3*	*5.0*	*8.8*	*13.0*	*5.4*	*-3.3*	*2.2*	*3.6*	*4.9*
Governments gross fixed capital formation	*8.7*	*8.8*	*10.3*	*7.4*	*4.0*	*3.1*	*6.2*	*4.7*	*6.7*	*3.1*
Investment in inventories (2012 $B)	-8.3	-10.5	-21.7	-3.5	4.3	5.4	-18.7	-5.0	-3.9	0.5
Exports	8.0	14.4	4.1	10.8	9.1	5.9	-9.7	1.7	6.9	5.5
Imports	-2.3	10.3	1.1	13.6	12.1	7.9	-10.8	6.8	6.5	5.2
Final domestic demand	5.4	5.6	2.1	2.9	4.2	3.6	-4.1	5.5	3.5	2.5
Other indicators										
Nominal GDP	8.9	7.9	5.0	10.3	6.1	4.1	-4.5	12.4	7.1	4.1
Employment	6.8	6.2	1.5	5.1	2.8	2.2	-5.2	4.8	4.0	2.2
Unemployment rate (%)	7.2	6.3	6.3	5.7	5.5	5.3	9.5	7.5	5.7	5.3
Housing starts[1] (thousands of units)	262	261	230	226	223	221	217	271	225	215
Total inflation rate*	4.1	4.7	5.4	5.1	4.2	3.3	0.7	3.4	4.5	2.4
Core inflation rate*[2]	3.0	3.2	3.9	3.6	3.2	2.9	1.1	2.3	3.4	2.4

f: forecasts; * Annual change; [1] Annualized basis; [2] Excluding food and energy.
Sources: Datastream and Desjardins, Economic Studies

TABLE 5
Quebec: Major economic indicators

ANNUAL AVERAGE IN % (EXCEPT IF INDICATED)	2019	2020	2021f	2022f	2023f
Real GDP (2012 $)	**2.8**	**-5.5**	**6.2**	**2.1**	**2.1**
Final consumption expenditure [of which:]	2.2	-4.1	5.4	3.9	3.0
Household consumption expenditure	*1.6*	*-6.1*	*5.9*	*4.7*	*3.3*
Governments consumption expenditure	*3.5*	*0.5*	*5.3*	*2.1*	*2.5*
Gross fixed capital formation [of which:]	2.2	-2.9	5.2	-1.1	0.5
Residential structures	*3.7*	*3.1*	*13.3*	*-5.7*	*-3.4*
Non-residential structures	*10.2*	*-8.0*	*-5.7*	*-2.1*	*1.0*
Machinery and equipment	*-1.0*	*-16.0*	*-3.7*	*3.1*	*3.5*
Intellectual property products	*-1.4*	*-2.1*	*3.8*	*-0.3*	*1.5*
Governments gross fixed capital formation	*-2.3*	*-0.3*	*6.3*	*5.0*	*4.1*
Investment in inventories (2012 $B)	4,066	-5,328	373	175	1,250
Exports	2.7	-7.9	5.3	4.5	4.4
Imports	0.5	-8.5	7.1	5.7	5.2
Final domestic demand	2.2	-3.8	5.5	2.8	2.5
Other indicators					
Nominal GDP	4.7	-2.4	10.9	5.1	4.3
Real disposable personal income	3.3	8.5	1.0	0.7	1.0
Weekly earnings	3.5	7.8	3.2	4.1	4.2
Employment	2.0	-4.8	4.1	2.9	1.9
Unemployment rate (%)	5.1	8.9	6.1	4.6	4.1
Personal saving rate (%)	7.0	19.2	15.8	12.1	9.7
Retail sales	0.9	-0.2	13.1	4.3	3.7
Housing starts[1] (thousands of units)	48.0	53.4	67.8	55.0	52.0
Total inflation rate	2.1	0.8	3.8	4.2	2.3

f: forecasts; [1] Annualized basis.
Sources: Statistics Canada, Institut de la statistique du Québec, Canada Mortgage and Housing Corporation and Desjardins, Economic Studies

TABLE 6
Ontario: Major economic indicators

ANNUAL AVERAGE IN % (EXCEPT IF INDICATED)	2019	2020	2021f	2022f	2023f
Real GDP (2012 $)	**2.0**	**-5.1**	**4.5**	**3.9**	**3.0**
Final consumption expenditure [of which:]	1.5	-5.8	4.9	5.1	2.6
Household consumption expenditure	*1.6*	*-7.8*	*4.6*	*6.4*	*4.1*
Governments consumption expenditure	*1.0*	*-0.2*	*5.8*	*1.4*	*-1.5*
Gross fixed capital formation [of which:]	-0.7	1.3	11.0	0.2	2.3
Residential structures	*0.3*	*6.8*	*17.2*	*-8.6*	*-1.3*
Non-residential structures	*1.4*	*-0.1*	*-0.3*	*8.9*	*5.3*
Machinery and equipment	*-0.5*	*-12.6*	*14.5*	*8.2*	*5.1*
Intellectual property products	*-2.4*	*1.0*	*9.1*	*3.5*	*5.0*
Governments gross fixed capital formation	*-3.9*	*3.1*	*6.1*	*6.4*	*3.5*
Investment in inventories (2012 $B)	8,789	-5,876	-1,378	-240	466
Exports	2.3	-7.3	1.0	5.7	6.3
Imports	0.6	-8.9	5.5	5.7	5.6
Final domestic demand	1.0	-4.3	6.2	3.9	2.6
Other indicators					
Nominal GDP	3.7	-2.8	11.8	6.4	4.7
Real disposable personal income	3.2	9.5	1.1	-0.7	3.2
Weekly earnings	2.7	7.3	3.4	1.4	2.3
Employment	2.8	-4.8	4.9	4.6	2.3
Unemployment rate (%)	5.6	9.6	8.0	6.0	5.5
Personal saving rate (%)	0,0	15,1	7.2	6.5	5.6
Retail sales	2.3	-3.5	8.6	6.8	5.3
Housing starts[1] (thousands of units)	69.0	80.8	99.6	77.0	73.5
Total inflation rate*	1.9	0.7	3.5	4.7	2.5

f: forecasts; * Annual change; [1] Annualized basis.
Sources: Statistics Canada, Ontario's Ministry of Finance, Canada Mortgage and Housing Corporation and Desjardins, Economic Studies

TABLE 7
Canada: Major economic indicators by provinces

ANNUAL AVERAGE IN % (EXCEPT IF INDICATED)	2019	2020	2021	2022f	2023f
Real GDP growth – Canada	**1.9**	**-5.2**	**4.7**	**3.8**	**2.8**
Atlantic	2.7	-3.5	3.0	2.5	2.0
Quebec	2.8	-5.5	6.2	2.1	2.1
Ontario	2.0	-5.1	4.5	3.9	3.0
Manitoba	0.4	-4.6	3.3	3.0	2.5
Saskatchewan	-1.1	-4.9	3.0	4.0	3.0
Alberta	-0.1	-7.9	4.9	5.5	3.5
British Columbia	3.1	-3.4	4.5	4.1	3.0
Total inflation rate – Canada	**1.9**	**0.7**	**3.4**	**4.5**	**2.4**
Atlantic	1.5	0.2	3.9	4.1	2.2
Quebec	2.1	0.8	3.8	4.2	2.3
Ontario	1.9	0.7	3.5	4.7	2.5
Manitoba	2.2	0.5	3.3	4.2	2.0
Saskatchewan	1.7	0.6	2.6	4.0	2.0
Alberta	1.8	1.1	3.2	4.5	2.5
British Columbia	2.3	0.8	2.8	4.0	2.3
Employment growth – Canada	**2.2**	**-5.2**	**4.8**	**4.0**	**2.2**
Atlantic	1.7	-4.1	3.8	1.6	1.2
Quebec	2.0	-4.8	4.1	2.9	1.9
Ontario	2.8	-4.8	4.9	4.6	2.3
Manitoba	1.0	-3.7	3.6	3.0	1.8
Saskatchewan	1.9	-4.7	2.6	5.0	2.0
Alberta	0.7	-6.6	5.1	5.5	2.8
British Columbia	3.0	-6.6	6.6	4.5	2.4
Unemployment rate – Canada	**5.7**	**9.5**	**7.5**	**5.7**	**5.3**
Atlantic	8.7	10.8	9.5	7.7	7.5
Quebec	5.1	8.9	6.1	4.6	4.1
Ontario	5.6	9.6	8.0	6.0	5.5
Manitoba	5.3	8.0	6.4	5.0	4.7
Saskatchewan	5.6	8.4	6.5	5.2	5.0
Alberta	7.0	11.4	8.7	6.6	6.3
British Columbia	4.7	8.9	6.5	5.1	4.9
Retail sales growth – Canada	**1.2**	**-1.3**	**11.3**	**6.3**	**5.1**
Atlantic	1.9	0.1	13.9	6.1	4.4
Quebec	0.9	-0.2	13.1	4.3	3.7
Ontario	2.3	-3.5	8.6	6.8	5.3
Manitoba	0.8	0.8	14.0	6.0	5.0
Saskatchewan	0.3	-1.1	11.0	6.5	5.0
Alberta	-0.8	-2.3	13.0	7.5	6.0
British Columbia	0.6	2.4	12.0	7.0	6.0
Housing starts – Canada (thousands of units)	**208.7**	**216.7**	**271.2**	**225.1**	**214.6**
Atlantic	10.1	10.3	12.1	10.1	9.7
Quebec	48.0	53.4	67.8	55.0	52.0
Ontario	69.0	80.8	99.6	77.0	73.5
Manitoba	6.9	7.3	8.0	7.5	7.0
Saskatchewan	2.4	3.1	4.2	4.0	3.8
Alberta	27.3	24.0	31.9	30.5	29.4
British Columbia	44.9	37.9	47.6	41.0	39.2

f: forecasts
Sources: Statistics Canada, Institut de la statistique du Québec, Ontario's Ministry of Finance, Canada Mortgage and Housing Corporation and Desjardins, Economic Studies

TABLE 8

Medium-term major economic and financial indicators

	ANNUAL AVERAGE							AVERAGES	
IN % (EXCEPT IF INDICATED)	2020	2021	2022f	2023f	2024f	2025f	2026f	2016–2020	2021–2026f
United States									
Real GDP (var. in %)	-3.4	5.7	3.3	2.6	2.2	1.6	1.7	1.1	2.8
Total inflation rate (var. in %)	1.2	4.7	5.7	2.4	2.2	2.1	2.0	1.8	3.2
Unemployment rate	8.1	5.4	3.7	3.5	3.5	3.5	3.4	5.0	3.8
S&P 500 index (var. in %)[1]	16.3	26.9	-3.5	5.4	3.0	3.0	3.0	13.6	6.3
Federal funds rate	0.54	0.25	0.90	1.95	2.45	2.50	2.50	1.27	1.76
Prime rate	3.54	3.25	3.90	4.95	5.45	5.50	5.50	4.27	4.76
Treasury bills – 3-month	0.37	0.05	1.00	2.00	2.40	2.40	2.40	1.14	1.71
Federal bonds – 10-year	0.89	1.43	2.25	2.65	2.90	3.00	3.00	2.02	2.54
– 30-year	1.56	2.05	2.50	2.80	3.05	3.35	3.35	2.55	2.85
WTI oil (US$/barrel)	39	68	83	71	65	64	60	51	68
Gold (US$/ounce)	1,771	1,800	1,760	1,665	1,600	1,600	1,600	1,388	1,671
Canada									
Real GDP (var. in %)	-5.2	4.7	3.8	2.8	1.9	1.6	1.7	0.7	2.7
Total inflation rate (var. in %)	0.7	3.4	4.5	2.4	2.3	2.0	2.1	1.6	2.8
Employment (var. in %)	-5.2	4.8	4.0	2.2	1.4	1.0	1.2	0.3	2.4
Employment (thousands)	-986	866	756	431	279	212	241	41	464
Unemployment rate	9.5	7.5	5.7	5.3	5.2	4.9	4.8	6.9	5.6
Housing starts (thousands of units)	217	271	225	215	210	215	220	211	226
S&P/TSX index (var. in %)[1]	2.2	21.7	3.7	6.4	4.0	3.0	3.0	6.6	7.0
Exchange rate (US$/C$)	0.75	0.80	0.80	0.79	0.78	0.78	0.78	0.76	0.79
Overnight funds	0.56	0.25	0.80	1.40	1.95	2.00	2.00	0.98	1.40
Prime rate	2.75	2.45	3.00	3.60	4.15	4.20	4.20	3.18	3.60
Mortgage rate – 1-year	3.25	2.80	3.15	3.55	3.90	4.00	4.10	3.33	3.58
– 5-year	4.95	4.79	5.25	5.60	5.70	5.70	5.70	4.98	5.46
Treasury bills – 3-month	0.44	0.11	0.80	1.40	1.90	1.95	1.95	0.93	1.35
Federal bonds – 2-year	0.51	0.48	1.55	1.85	2.10	2.10	2.10	1.15	1.70
– 5-year	0.60	0.95	1.90	2.15	2.25	2.25	2.25	1.28	1.96
– 10-year	0.75	1.36	2.05	2.45	2.55	2.60	2.60	1.53	2.27
– 30-year	1.21	1.85	2.30	2.60	2.75	2.90	2.90	1.92	2.55
Yield spreads (Canada—United States)									
Treasury bills – 3-month	0.07	0.06	-0.20	-0.60	-0.50	-0.45	-0.45	-0.21	-0.36
Federal bonds – 10-year	-0.14	-0.07	-0.20	-0.20	-0.35	-0.40	-0.40	-0.49	-0.27
– 30-year	-0.35	-0.20	-0.20	-0.20	-0.30	-0.45	-0.45	-0.63	-0.30
Quebec									
Real GDP (var. in %)	-5.5	6.2	2.1	2.1	1.8	1.4	1.6	0.9	2.5
Total inflation rate (var. in %)	0.8	3.8	4.2	2.3	2.2	2.0	2.0	1.3	2.8
Employment (var. in %)	-4.8	4.1	2.9	1.9	1.3	1.0	1.1	0.4	2.1
Employment (thousands)	-209	169	125	85	60	45	50	-6	89
Unemployment rate	8.9	6.1	4.6	4.1	3.7	3.6	3.4	6.6	4.2
Retail sales (var. in %)	-0.2	13.1	4.3	3.7	3.5	3.0	3.0	3.3	5.1
Housing starts (thousands of units)	53	68	55	52	44	41	42	47	50
Ontario									
Real GDP (var. in %)	-5.1	4.5	3.9	3.0	2.0	1.7	1.8	1.1	2.8
Total inflation rate (var. in %)	0.7	3.5	4.7	2.5	2.4	2.1	2.1	1.7	2.9
Employment (var. in %)	-4.8	4.9	4.6	2.3	1.4	1.1	1.2	0.5	2.6
Employment (thousands)	-355	345	340	175	110	88	97	35	192
Unemployment rate	9.6	8.0	6.0	5.5	5.3	4.8	4.7	6.7	5.7
Retail sales (var. in %)	-3.5	8.6	6.8	5.3	4.5	3.7	4.0	3.6	5.5
Housing starts (thousands of units)	81	100	77	73	72	75	78	77	79

f: forecasts; WTI : West Texas Intermediate; [1] Variations are based on observation of the end of period.
Sources: Datastream, Statistics Canada, Institut de la statistique du Québec, Ontario's Ministry of Finance, Canada Mortgage and Housing Corporation and Desjardins, Economic Studies

Monthly Economic Monitor

Economics and Strategy

NATIONAL BANK OF CANADA
FINANCIAL MARKETS

February 2022

Summary

By Matthieu Arseneau and Jocelyn Paquet

- In the last issue of this monthly monitor we emphasized the risks arising from the sharp increase in new cases of Covid-19 in the developed economies. The data from South Africa, one of the first countries hit by the Omicron variant, suggested a very intense but short wave of epidemic. A month later, the pandemic seems to be evolving pretty much as we expected. By all appearances, daily new cases have peaked in the rich countries, allowing a gradual reopening of economies. Global growth will take a hit in the first quarter but in the months to come is likely to make up a good part of the ground lost. This assumes that Covid will remain under control in the emerging economies, which have so far been spared by Omicron but remain at risk because of their lesser vaccination. The ability of the global economy to recover from the Omicron shock will also depend on decisions made in the Kremlin. Since our last issue, thousands of Russian troops have massed at the border with Ukraine and now threaten a march on Kiev. The intentions of President Vladimir Putin may be anybody's guess, but there is no doubt that an invasion would trigger major disruptions around the world. Acknowledging these new risks, we have made small downward revisions to our global growth forecast for both 2022 (from 4.1% to 4.0%) and 2023 (from 3.7% to 3.6%).

- The U.S. economy had a good fourth quarter, with GDP growth of 6.9% annualized topping the consensus expectation. The upshot is that U.S. GDP for 2021 as a whole was up 5.7% from 2020, the largest annual expansion since 1984, almost entirely closing the deep output gap that opened in the early weeks of the pandemic. But that was last year. The news for the current quarter is less encouraging. The Omicron variant seems to have pooped the party. Though public-health measures have been much less restrictive in the U.S. than in other parts of the world (the Eurozone and Canada for example), the virus has continued to dampen growth by shrinking the available labour pool. Also to blame for a slowing of the economy is high inflation. In this context, we have revised down our forecast for Q1 growth, from 2.2% annualized to just 0.9%. For 2022 as a whole we now see 3.1%, down from 3.5% in last month's Monitor.

- In Canada, first-quarter growth will be braked by public-health restrictions. In January employment shrank by 200,000, the sharpest decline in a year. But outside the industries directly affected by the restriction, employment was resilient, so widespread contagion was avoided. In our view, because of labour scarcity elsewhere in the economy, the Q1 weakness is likely to prove temporary and limited to these industries. Hiring intentions as reported by the fourth-quarter Bank of Canada Business Outlook Survey were the strongest ever recorded. This augurs well for a vigorous rebound, the more so in that easing o public-health restrictions has already begun. The vigour of the labour market and the resulting rise of incomes suggest that consumption will be the growth driver in coming quarters, and this despite a rising cost of living, in particular a rising cost of borrowing. Households will be able to deploy some of their substantial excess savings accumulated since the beginning of the pandemic. The labour market could also prompt business investment – the Bank of Canada's Business Outlook survey reports a record high in investment intentions. As for governments, there is nothing to suggest a period of austerity, what with minority government in Ottawa and elections this year in the two largest provinces. That is likely to mean growth comfortably above potential in 2022. We are maintaining our forecast of 3.6%.

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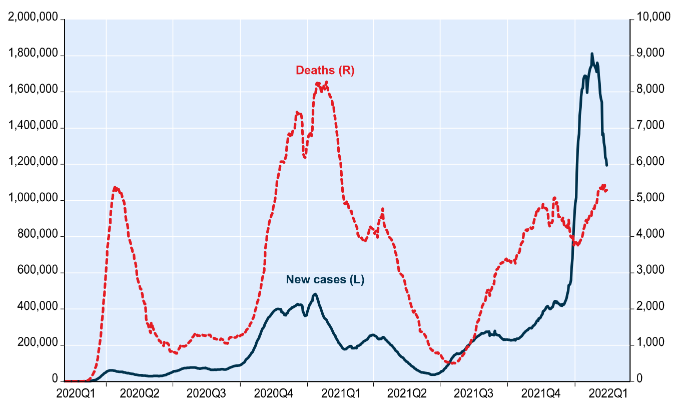
A world of imponderables

In the last issue of this monthly monitor we emphasized the risks arising from the sharp increase in new cases of Covid-19 in the developed economies. The data from South Africa, one of the first countries hit by the Omicron variant, suggested a very intense but short wave of epidemic. A month later, the pandemic seems to be evolving pretty much as we expected. By all appearances, daily new cases have peaked in the rich countries, allowing a gradual reopening of economies. Global growth will take a hit in the first quarter but in the months to come is likely to make up a good part of the ground lost. This assumes that Covid will remain under control in the emerging economies, which have so far been spared by Omicron but remain at risk because of their lesser vaccination.

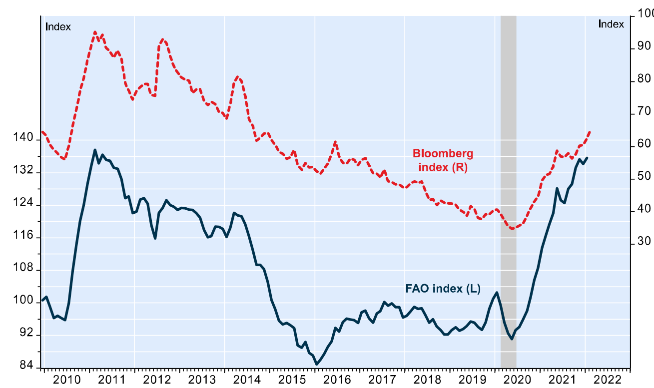
Developed countries: Has the Omicron wave peaked?
Daily new cases and deaths in Europe and North America, 7-day moving average



NBF Economics and Strategy (data from https://coronavirus.jhu.edu/map.html)

The ability of the global economy to recover from the Omicron shock will also depend on decisions made in the Kremlin. Since our last issue, thousands of Russian troops have massed at the border with Ukraine and now threaten a march on Kiev. The intentions of President Vladimir Putin may be anybody's guess, but there is no doubt that an invasion would trigger major disruptions around the world. Russia and Ukraine are two of the world's largest exporters of wheat. A conflict between them could drive up food prices, already at record highs.

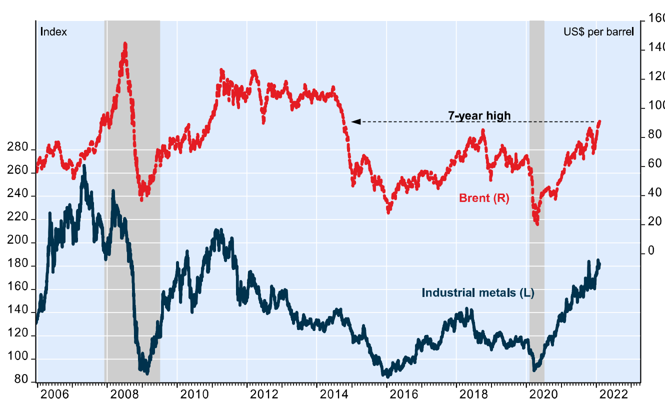
World: Russian threat boosting prices of certain staples (1)
Bloomberg agricultural prices index and FAO index of food prices



NBF Economics and Strategy (Bloomberg data)

Russia also exports oil and gas and industrial metals. While Ukraine probably lacks the military ability to imperil output of these goods, the hovering uncertainty could be enough to drive up prices. Rumours of war alone have driven oil prices to a seven-year high.

World: Russian threat boosting prices of certain staples (2)
Brent oil price and Bloomberg index of industrial metals prices



NBF Economics and Strategy (Bloomberg data)

But the most worrisome risk is interruption of gas deliveries to continental Europe. Whether accidental or orchestrated by Russia in response to possible financial sanctions by European countries, such an interruption would be a severe blow. About one-third of the natural gas consumed in Europe comes from Russia. For some countries, notably Germany, the share is close to 50%. If Russian gas were cut off, the continent would have to turn to liquefied natural gas, whose prices would explode.

Such convulsions are something Europe could do without. The Eurozone, whose GDP in the fourth quarter of 2021 was back to its pre-pandemic level, now faces multiple challenges. Like several other regions of the world, its Covid-19 case numbers surged in December and January. As if that were not enough, its households have also faced steep prices rises. In January, 12-

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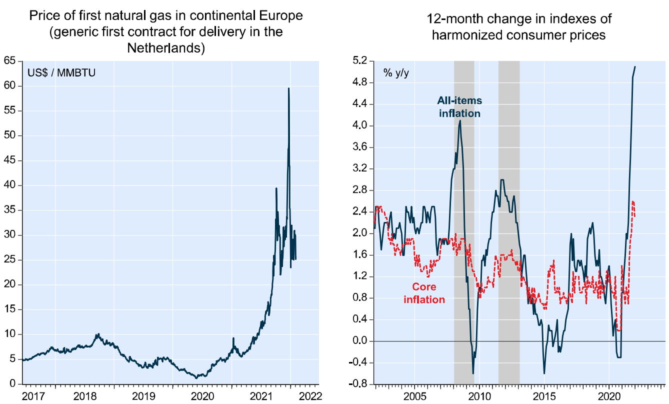
month all-items inflation in the Eurozone reached 5.1%, the highest since tracking of this indicator began in 2001.

Eurozone: Energy prices driving up inflation

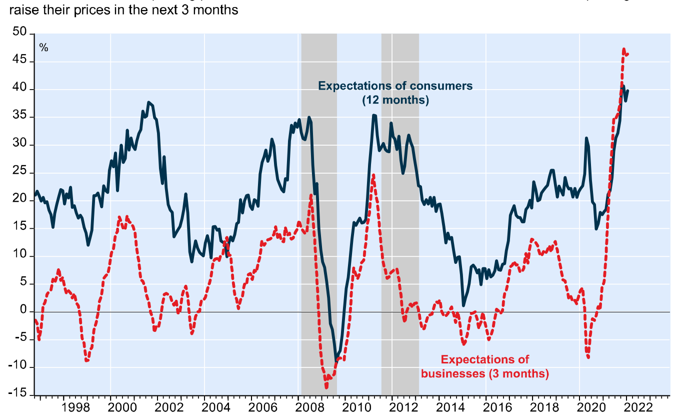


NBF Economics and Strategy (Bloomberg data)

This acceleration is due in large part to the marked rise in the price of natural gas, though other items also showed serious rises. Core inflation (i.e. excluding energy, food, alcohol and tobacco) was stronger than expected in December, well above the European Central Bank target. The jump is the more worrisome in that it seems to have shifted the inflation expectations of consumers and businesses, judging by a recent European Commission survey.

Eurozone: Inflation expectations on the rise

Net % of consumers expecting prices to rise in the next 12 months and net % of businesses expecting to raise their prices in the next 3 months

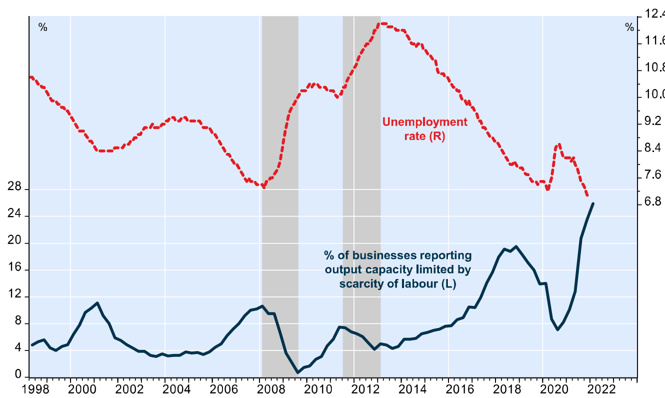


NBF Economics and Strategy (data from European Commission business and consumer survey)

The vigour of the labour market is another factor that could drive prices up in coming months. The unemployment rate reached a historical low in December, presenting businesses with a challenge. The same European Commission survey shows a record percentage of businesses reporting that labour scarcity was limiting their production capacity in the first quarter of the year. Good news for workers, likely to pump up pay raises. But for the ECB it is one more argument for gradually withdrawing monetary accommodation.

Eurozone: A high unmet demand for labour

Unemployment rate vs. % of businesses reporting production capacity limited by labour scarcity

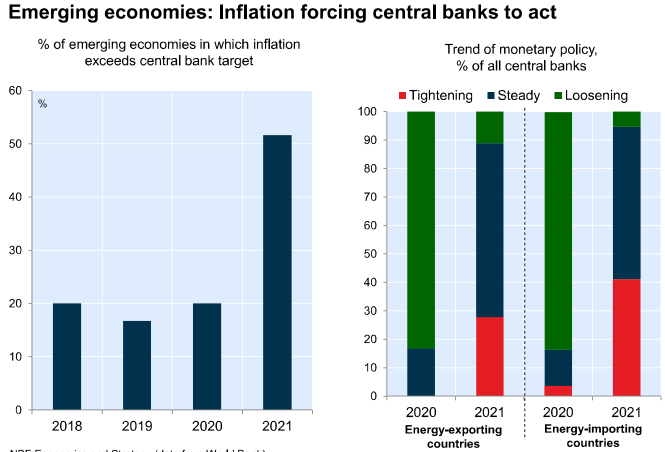


NBF Economics and Strategy (data from Bloomberg and European Commission)

A weaker-than-expected first quarter combined with an increase in uncertainty about the rest of the year prompts us to maintain our below-consensus growth forecast for the Eurozone in 2022 (see forecast table below).

Our outlook for emerging economies, meanwhile, have been revised downward. The central banks of the U.S., the Eurozone and Canada have the luxury of moving cautiously in their response to price rises. The situation is quite different in emerging economies, where inflation expectations are less well anchored and currencies are more exposed to investor mood shifts. To master inflation and avoid capital flight, a number of central banks – especially in countries that are importers of energy products – have already tightened their monetary policy considerably.

Emerging economies: Inflation forcing central banks to act



NBF Economics and Strategy (data from World Bank)

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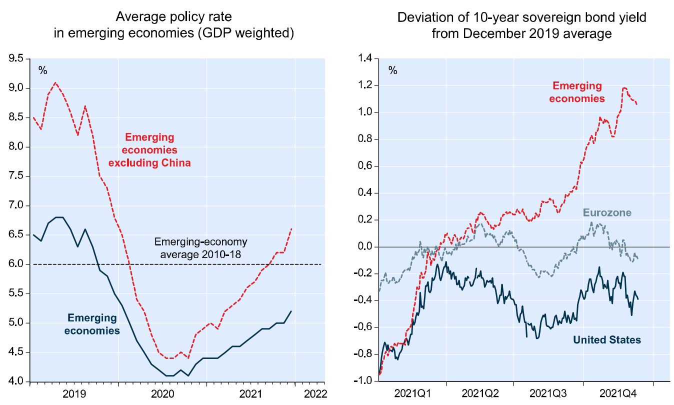
So interest rates are rising …

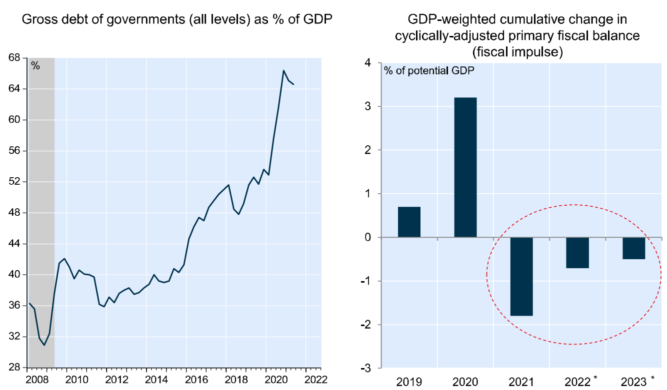
Emerging economies: Interest rates on the rise



NBF Economics and Strategy (data from World Bank)

… which will increase the cost of servicing public debt and force many countries to put their public finances in order. Hardly surprising, then, that the World Bank expects that fiscal policy will crimp growth in emerging countries in 2022 and 2023.

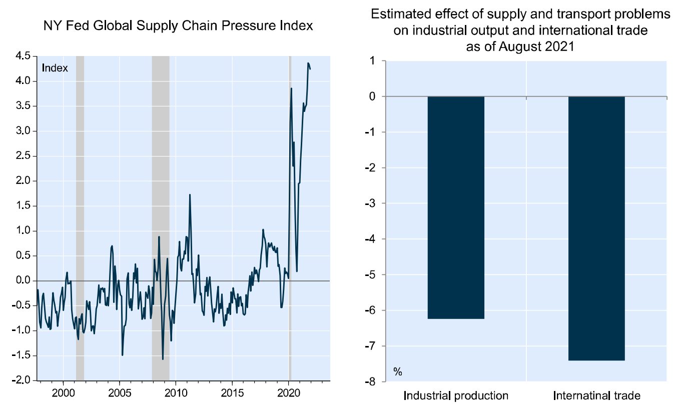
Emerging economies: Restrictive fiscal policies in store



* World Bank estimate
NBF Economics and Strategy (data from Bank of International Settlements and World Bank)

Supply constraints are another downside risk to growth in emerging countries. Though these constraints affect every country in the world, they tend to have a greater effect in economies that are more dependent on exports. The World Bank estimates that the volume of international trade would have been 7.4% higher in August 2021 were it not for problems of supply and transport, and industrial output would have been 6.2% higher. The situation could improve in 2022, but some bottlenecks will persist.

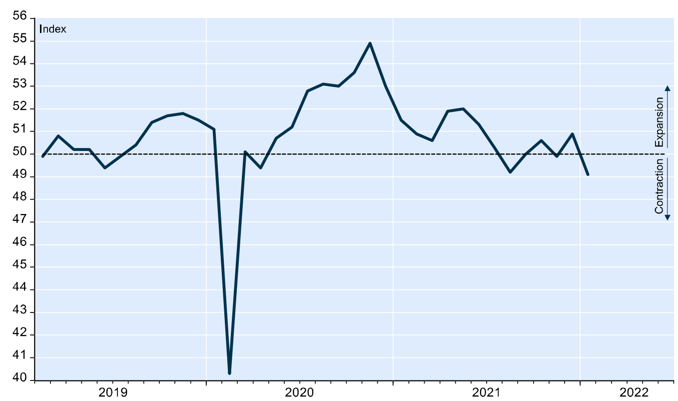
World: Growth braked by supply problems



NBF Economics and Strategy (data from New York Federal Reserve and World Bank)

Another cloud in the sky over emerging economies is the flagging of the Chinese recovery. Somewhat ironically, the weight of production for export in the world's second-largest economy, which enabled it to begin recovering well before other countries, could now hold it back for the reasons cited above. Combined with the downside effects of China's zero-Covid policy, supply problems have slowed its manufacturing sector.

Chine: Factory output slowing
Caixin/Markit manufacturing PMI, last observation January 2022



NBF Economics and Strategy (data from Markit)

Chinese domestic consumption cannot easily pick up the slack when several regions of the country remain under strict lockdown.

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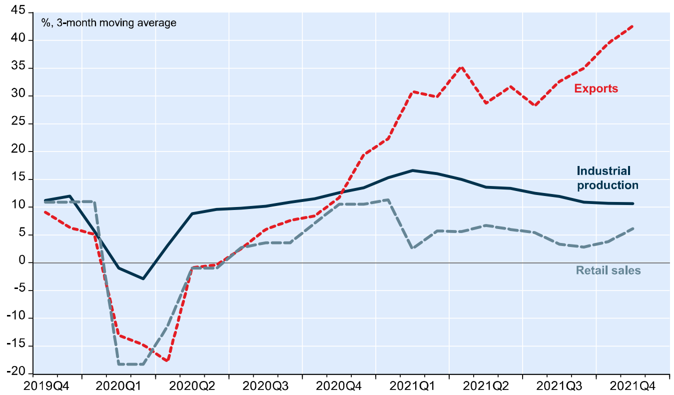
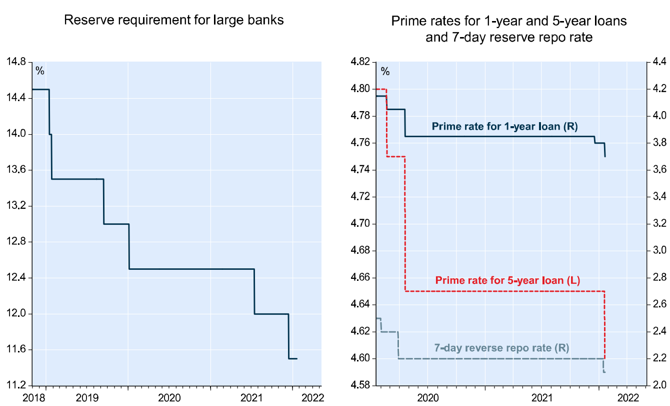
China: More and more dependent on exports
24-month change in exports, retail sales and industrial production



NBF Economics and Strategy (data from World Bank)

Fortunately, the People's Bank of China has decided to ease its monetary policy. The mandatory bank reserve ratio was revised down last month, injecting about $200 billion into the economy. The Bank has also lowered its prime rates for one- and five-year loans and its 7-day reserve repo rate. These shifts show Beijing to be intent on stimulating growth. But China's efforts will not prevent weakness in the emerging economies.

China: Monetary policy easing



NBF Economics and Strategy (Bloomberg data)

For all these reasons, we have made small downward revisions to our global growth forecast for both 2022 (from 4.1% to 4.0%) and 2022 (from 3.7% to 3.6%).

World Economic Outlook

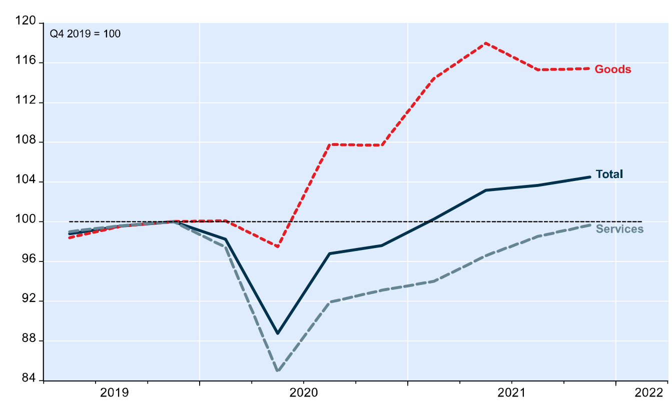
	2021	2022	2023
Advanced Economies	**5.1**	**3.3**	**2.3**
United States	5.7	3.1	2.2
Eurozone	5.2	3.5	2.1
Japan	1.6	2.7	1.3
UK	7.1	4.0	2.3
Canada	4.6	3.6	2.6
Australia	4.1	3.5	2.8
Korea	4.0	2.7	2.5
Emerging Economies	**6.5**	**4.5**	**4.5**
China	8.1	4.9	5.2
India	9.0	8.0	7.0
Mexico	5.3	2.8	2.5
Brazil	4.7	0.8	2.0
Russia	4.5	4.5	2.0
World	**5.9**	**4.0**	**3.6**

NBF Economics and Strategy (data via NBF and Conensus Economics)

U.S.: A soft patch in the first quarter

The U.S. economy had a good fourth quarter, with GDP growth of 6.9% annualized topping the consensus expectation. Though much of this gain was due to inventory rebuilding, optimism is encouraged by other aspects of the report of the Bureau of Economic Analysis. Continuing recovery in consumption of services (+4.7% annualized) brought this sector of the economy close to its pre-pandemic level.

U.S.: Consumption of services almost back to pre-pandemic level
Personal Consumption Expenditures



NBF Economics and Strategy (data from St. Louis FRED)

Exports were also well above expectations as foreigners began visiting the U.S. again.

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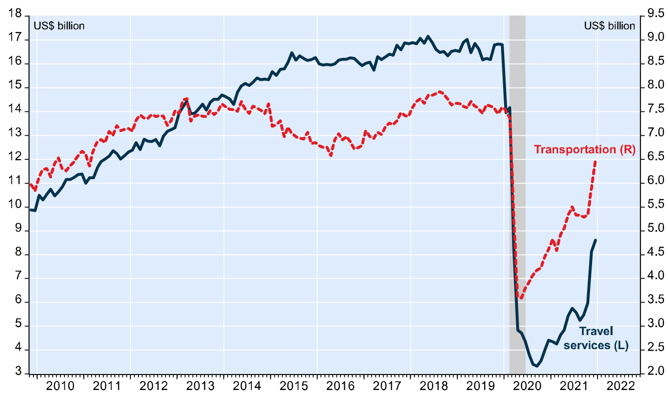
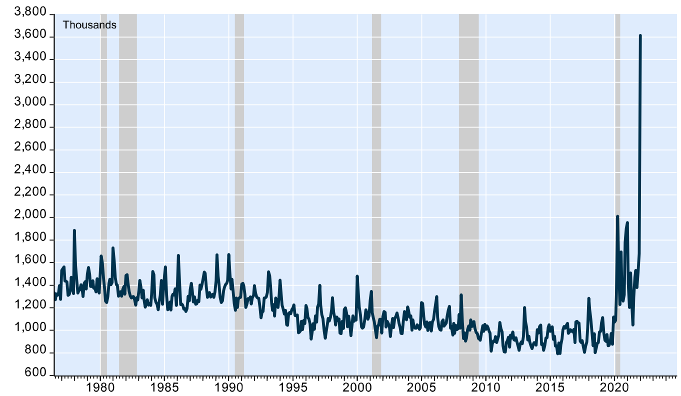
U.S.: A return of foreign visitors stimulates exports
Nominal exports of travel and transportation services



NBF Economics and Strategy (data from Census Bureau)

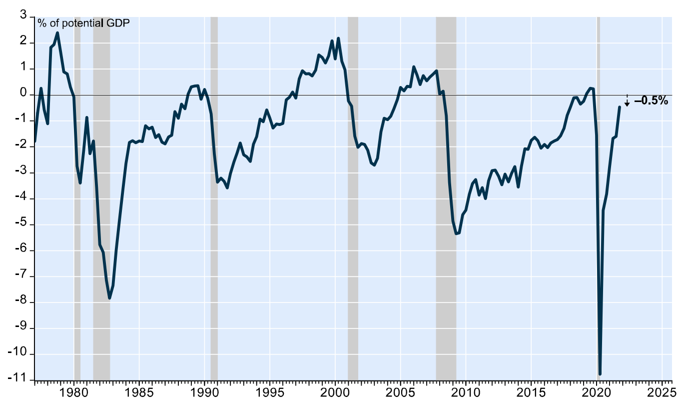
U.S.: Infected employees forced to stay home
Number of workers absent from work because of illness



NBF Economics and Strategy (data from Refinitiv)

The upshot is that U.S. GDP for 2021 as a whole was up 5.7% from 2020, the largest annual expansion since 1984, almost entirely closing the deep output gap that opened in the early weeks of the pandemic.

U.S.: Excess capacity almost absorbed in Q4
Output gap as % of potential GDP



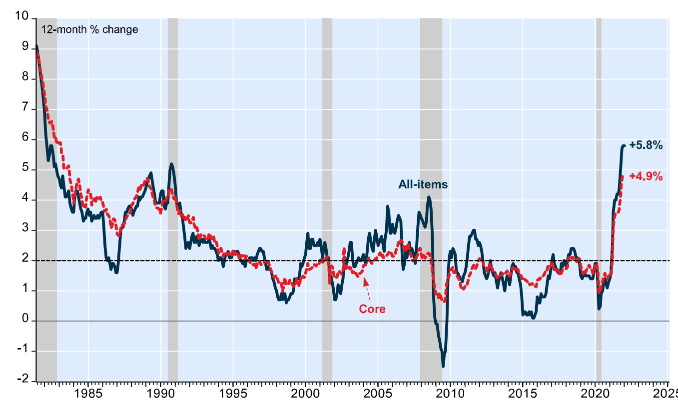
NBF Economics and Strategy (data from CBO and Refinitiv)

But that was last year. The news for the current quarter is less encouraging.

The Omicron variant seems to have pooped the party. Though public-health measures have been much less restrictive in the U.S. than in other parts of the world (the Eurozone and Canada for example), the virus has continued to dampen growth by shrinking the available labour pool. The Bureau of Labor Statistics reports 3.6 million people absent from work in January because of illness, almost twice as many as during the first wave of the pandemic.

Also to blame for a slowing of the economy is high inflation. The all-items Personal Consumption Expenditure Deflator (PCE Deflator) for the 12 months ending in December was 5.8%, the highest since July 1982.

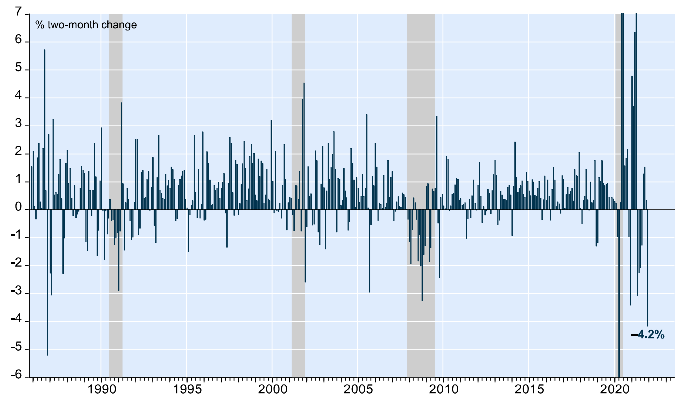
U.S.: Inflation highest since July 1982
Change in deflator of Personal Consumption Expenditures



NBF Economics and Strategy (data via Bloomberg)

The rises were especially high for goods prices (+8.8%), a clear hit to real household consumption. In the last two months of 2021, real spending on goods contracted no less than 4.2%. Apart from the period following the beginning of the pandemic, that was the worst decline since 1986. Spending on durable goods did even worse, contracting 6.6% during those two months as the auto industry continued to suffer from lack of computer chips.

U.S.: Inflation calms consumer ardour
Change in real expenditure on consumption of goods

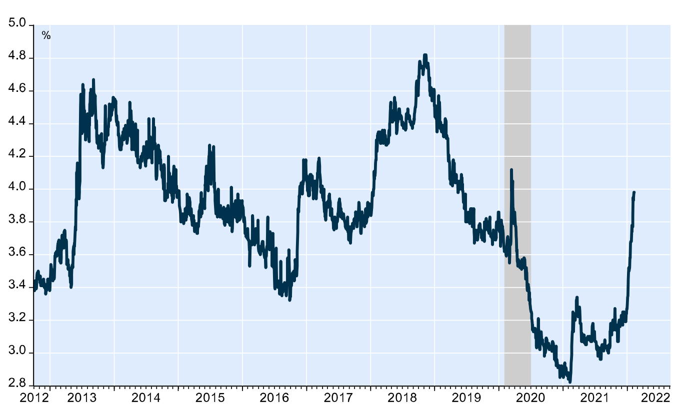


NBF Economics and Strategy (data via Bloomberg)

So the handoff to first-quarter consumption seems to have been weak. An imminent strong rebound is hard to imagine, with inflation intensifying further, microchips still almost unavailable and the country beset by Omicron. In view of this less favourable outlook, we have revised down our forecast for Q1 growth, from 2.2% annualized to just 0.9%. For 2022 as a whole we now see 3.1%, down from 3.5% in last month's Monitor, with the slow beginning of the year only partly offset by acceleration in Q2 (+2.8%) and Q3 (2.5%).

Consumption will contribute further to growth in the medium term if, as we expect, inflation slows and households draw on excess savings accumulated earlier in the pandemic. With the Federal Reserve getting ready to tighten, other parts of the economy may do less well. Real estate, for example. Although the cost of mortgage borrowing is at this point still very low by historical standards, its downtrend seems to have reversed sharply in recent weeks. If this continues, rising rates may well bite into demand in the second half of 2022.

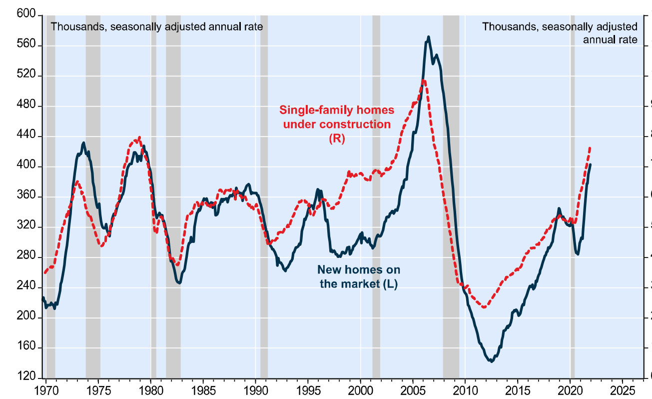
U.S.: Rise in cost of borrowing is a risk for the real estate sector
Average rate paid on a 30-year fixed-rate mortgage loan



NBF Economics and Strategy (data from Bankrate.com)

That could crimp construction, especially given the recent increase in the supply of homes for sale. In December there were more new houses for sale than at any other time since August 2008. And supply seems likely to increase further given the number of single-family homes currently under construction in the U.S.

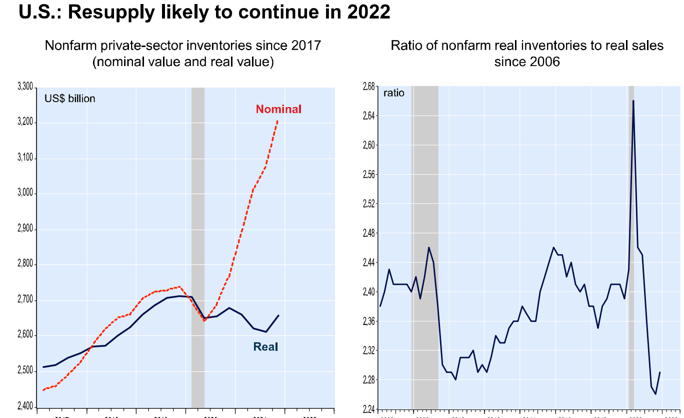
U.S.: A rising supply of new housing
New single-family homes for sale and single-family homes under construction



NBF Economics and Strategy (data via Bloomberg)

A dip in real estate could however be offset by a favourable turn in inventories. True, inventories hit a record nominal value in Q4, but that was in large part because of inflation. In real terms inventories remained rather low. It should also be kept in mind that the ratio of inventories to sales in the fourth quarter was extremely depressed by historical standards. Under these conditions, we think there is still considerable potential for inventory rebuilding in real terms in 2022.

U.S.: Resupply likely to continue in 2022

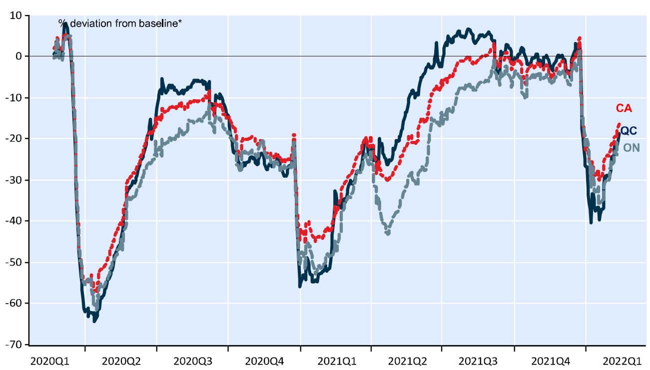


NBF Economics and Strategy (data from St. Louis FRED)

Canada: Interrupted momentum

As elsewhere, the Omicron variant has pooped the party with its stressing out of Canadian health-care systems in recent weeks. Governments responded with public-health restrictions to limit spread. In Quebec, restaurant indoor dining rooms and bars were again shut down, as were theatres and recreational activities. Stores remained open but were limited to 50% of capacity. In Ontario, except for dining rooms, bars and gyms, which were shut down completely, many sectors, including entertainment and recreation, remained open but limited to 50% of capacity. The Google mobility index for stores and recreation venues, after returning to normal in the fourth quarter, has slumped again in recent weeks, foreshadowing a Q1 soft patch in the economy.

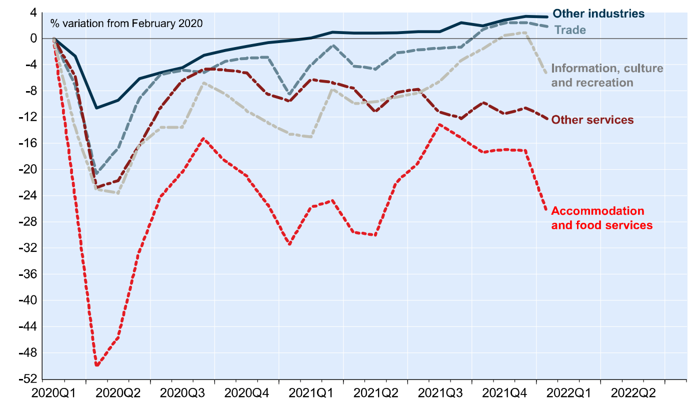
Canada: The fifth wave will weigh on growth in Q1
Google mobility index for retail and recreation venues



* Baseline: Median value from January 3 to February 6, 2020
NBF Economy and Strategy (data via Google)

The Labour Force Survey (LFS) results for January reflect the hit to the economy of this fifth wave. Thanks mainly to losses in Quebec and Ontario, employment was down 200,000, the sharpest decline since January of last year. By our calculation, 96% of the jobs lost in January were in industries directly affected by Covid-related public-health measures.[1] In other words, employment outside these industries was once again resilient in January and the economy dodged widespread contagion.

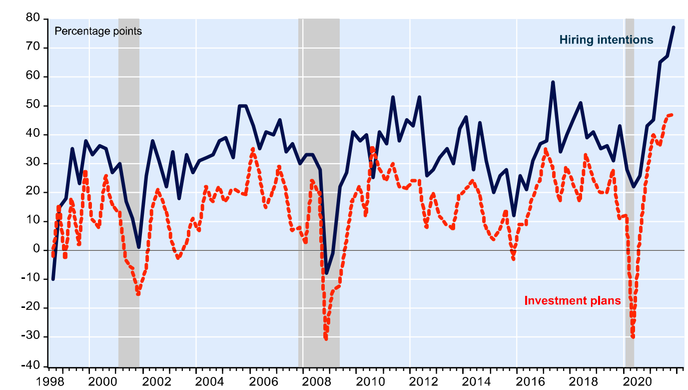
Canada: Again, no spillover
Employment in industries affected by Covid-19 and in other sectors



NBF Economics and Strategy (data via Statistics Canada)

In our view, because of a scarcity of labour elsewhere in the economy, the Q1 weakness is likely to prove temporary and limited to these industries. Despite the takeoff of the labour market in the second half of last year, leading to full employment, the hiring intentions of large employers as reported by the fourth-quarter Bank of Canada Business Outlook Survey were the strongest ever recorded. These intentions suggest a rapid recovery, the more so in that easing of public-health restrictions has already begun. Also noteworthy is that investment intentions were also at a record, possibly reflecting an intentness on raising productivity in response to labour scarcity.

Canada: Spectacular optimism in December outlooks
Investment plans and hiring intentions (balance of expectations*)



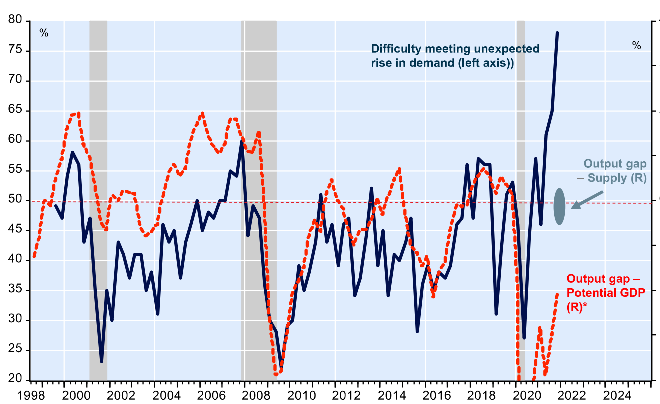
* % of businesses surveyed expecting to invest and hire more minus % expecting to invest and hire less
NBF Economy and Strategy (data from Bank of Canada Business Outlook Survey

The percentage of businesses that report facing capacity constraints is at a record. Almost 80%, a far higher share than ever before, say they would have a hard time meeting an

[1] Accommodation and food services, information/recreation, trade and other services.

unexpected rise in demand. These survey results certainly contributed to the Bank of Canada's decision to abandon the forward guidance it had been giving since July 2020, to the effect that it would not raise its policy rate before excess capacity had been fully absorbed. Last September the BoC thought that would happen in the second or third quarter of 2022. It now says that happened in the fourth quarter, though GDP for that quarter is expected to come in essentially as the Bank had anticipated in the autumn. Over the past year the central bank has cast off its traditional measures of the output gap relative to potential GDP, which were inconsistent with labour market data, its surveys (business/consumers) and inflation. It now uses the concept of supply, which is related to the concept of potential GDP but takes into account temporary factors limiting production capacity, notably supply-chain problems and public-health measures that push up inflation. The central bank considers that the economy, rather than operating 2% short of potential, was running at capacity in the final quarter of the year, a capacity limited essentially by supply-chain problems.

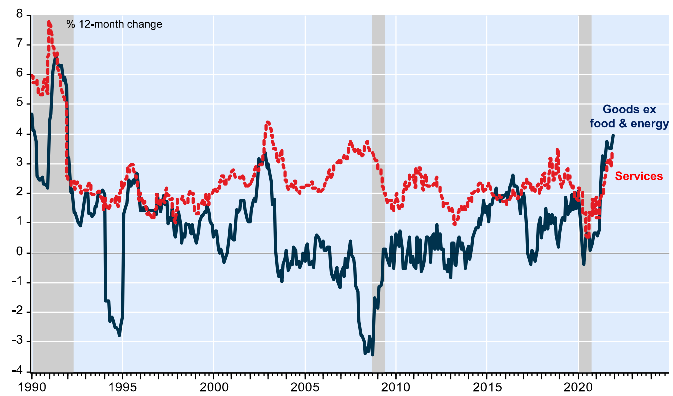
Canada: Traditional measures of output gap are broken
% of firms saying they would have difficulty meeting an unexpected rise in demand, vs. output gap



* Average of the two measures of the output gap
NBF Economics and Strategy (data via Bank of Canada and Statistics Canada)

But inflationary pressures are currently showing in services as well as goods. Services inflation is also running above the BoC target range of 1% to 3%, a phenomenon that generally occurs in the mature phase of a business cycle, i.e. when the output gap has been completely closed.

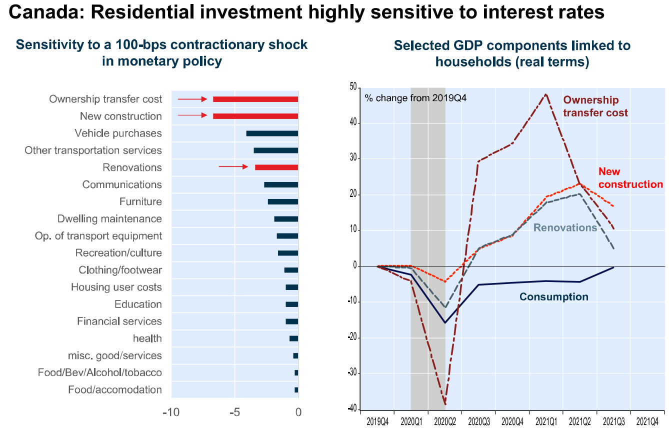
Canada: Inflation of service prices already at previous peak
Consumer Price Index



NBF Economics and Strategy (data via Statistics Canada)

It is the across-the-board nature of inflationary pressures that has been prompting us to say for some time now that the economy no longer requires a pedal-to-the-metal policy rate, especially considering the time lag for transmission of monetary policy. We continue to expect a rise of 125 basis points in the policy rate this year. That seems to us just enough to cool overheating parts of the economy without provoking a hard landing. The real estate sector, which has done extremely well during the pandemic and whose activity remained highly robust in January, is usually the most sensitive to interest rate among household expenditures.

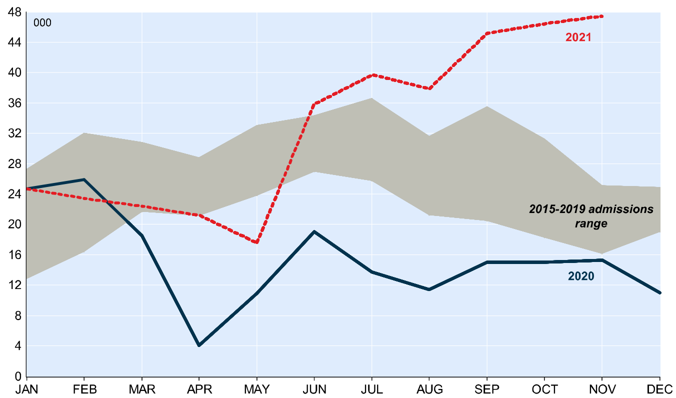
Canada: Residential investment highly sensitive to interest rates



NBF Economics and Strategy (data via Bank of Canada report and Statistics Canada)

Though the rise of interest rates could brake demand and prices for homes in the second half of the year, we expect homebuilding to remain sustained given the meagreness of supply on the resale market. We are struck by the evolution of the Canada's demographics since last June. Each month from last June to November, admissions of new permanent residents exceeded the levels of the five years preceding the pandemic.

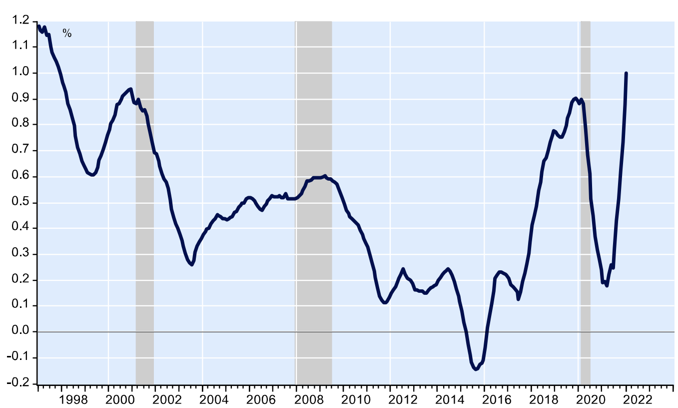
Canada: Admissions to permanent residency bounced back in 2021
As of November 2021



NBF Economics and Strategy (data via https://open.canada.ca/data/en/dataset/f7e5498e-0ad8-4417-85c9-9b8aff9b9eda/resource/5582034d-8f89-49d5-8597-483d628078a1)

The data of the Labour Force Survey suggest that this trend continued in December and January. Over the last 12 months, the population of 25- to 54-year olds has been growing at a rate unequalled in 25 years, from which we infer strong support for household formation.

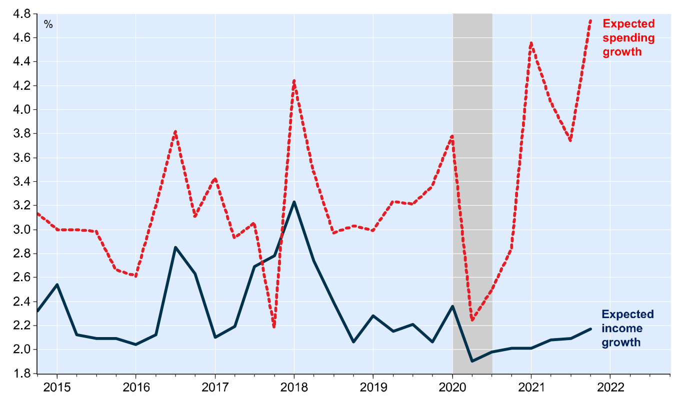
Canada: Household formation looks well supported
Growth of population aged 25-54



NBF Economics and Strategy (data via Statistics Canada)

All things considered, even if growth in the first quarter shows the braking effect of public-health restrictions, it is likely to rebound promptly over the rest of the year, leaving growth for the year as a whole comfortably exceeding potential. The vigour of the labour market and the resulting rise of incomes suggest that consumption will be the growth driver in coming quarters, despite a rising cost of living, in particular a rising cost of borrowing. Households will be able to deploy some of their substantial excess savings accumulated since the start of the pandemic. This hypothesis is consistent with the Bank of Canada's Survey of Consumer Expectations, which shows a rise of spending well in excess of the rise in incomes. Scarcity of labour could also prompt businesses to invest. As for governments, there is nothing to suggest a period of austerity, what with minority government in Ottawa and elections coming this year in the two largest provinces.

Canada: Households expect their spending to rise faster than income
Expected 12-month growth of spending and income, as of 2021 Q4



NBF Economy and Strategy (data via Bank of Canada)

Monthly Economic Monitor

Economics and Strategy

NATIONAL BANK OF CANADA
FINANCIAL MARKETS

United States
Economic Forecast

(Annual % change)*	2019	2020	2021	2022	2023	Q4/Q4 2021	Q4/Q4 2022	Q4/Q4 2023
Gross domestic product (2012 $)	2.3	(3.4)	5.7	3.1	2.2	5.5	2.1	2.0
Consumption	2.2	(3.8)	7.9	2.8	2.1	7.1	2.1	2.0
Residential construction	(0.9)	6.8	9.0	(0.4)	(0.9)	(2.2)	1.7	(1.3)
Business investment	4.3	(5.3)	7.3	2.6	1.8	6.4	2.0	2.2
Government expenditures	2.2	2.5	0.5	1.3	2.5	0.0	2.7	2.5
Exports	(0.1)	(13.6)	4.6	6.5	3.1	5.3	4.0	2.2
Imports	1.2	(8.9)	14.0	4.6	1.4	9.6	0.6	2.0
Change in inventories (bil. $)	75.1	(42.3)	(37.5)	60.0	0.0	173.5	25.0	(25.0)
Domestic demand	2.4	(2.5)	6.5	2.4	2.0	5.3	2.2	2.0
Real disposable income	2.3	6.2	2.2	(3.1)	2.4	-0.3	1.5	2.9
Payroll employment	1.3	(5.8)	2.8	3.0	1.9	4.3	1.9	2.0
Unemployment rate	3.7	8.1	5.4	3.8	3.5	4.2	3.7	3.4
Inflation	1.8	1.3	4.7	5.7	2.5	6.7	3.6	2.9
Before-tax profits	2.7	(5.2)	25.2	7.3	2.6	21.6	3.7	1.4
Current account (bil. $)	(472.1)	(616.1)	(821.7)	(770.5)	(710.0)	...	...	...

** or as noted*

Financial Forecast**

	Current 2/11/22	Q1 2022	Q2 2022	Q3 2022	Q4 2022	2021	2022	2023
Fed Fund Target Rate	0.25	0.50	0.75	1.00	1.25	0.25	1.25	2.25
3 month Treasury bills	0.37	0.35	0.65	0.90	1.15	0.06	1.15	2.15
Treasury yield curve								
2-Year	1.50	1.35	1.65	1.85	1.95	0.73	1.95	2.25
5-Year	1.84	1.85	1.95	2.10	2.15	1.26	2.15	2.30
10-Year	1.92	2.00	2.10	2.20	2.30	1.52	2.30	2.35
30-Year	2.24	2.30	2.40	2.45	2.50	1.90	2.50	2.50
Exchange rates								
U.S.$/Euro	1.14	1.14	1.15	1.16	1.17	1.14	1.17	1.15
YEN/U.S.$	116	115	113	114	113	115	113	109

*** end of period*

Quarterly pattern

	Q1 2021 actual	Q2 2021 actual	Q3 2021 actual	Q4 2021 forecast	Q1 2022 forecast	Q2 2022 forecast	Q3 2022 forecast	Q4 2022 forecast
Real GDP growth (q/q % chg. saar)	6.3	6.7	2.3	6.9	0.9	2.5	2.7	2.4
CPI (y/y % chg.)	1.9	4.8	5.3	6.7	7.5	6.4	5.4	3.7
CPI ex. food and energy (y/y % chg.)	1.4	3.7	4.1	5.0	6.2	5.1	4.3	3.6
Unemployment rate (%)	6.2	5.9	5.1	4.2	3.8	3.8	3.7	3.7

National Bank Financial

Canada
Economic Forecast

*(Annual % change)**	*2019*	*2020*	*2021*	*2022*	*2023*	*Q4/Q4 2021*	*2022*	*2023*
Gross domestic product (2012 $)	1.9	(5.2)	4.6	3.6	2.6	3.3	3.5	1.7
Consumption	1.4	(6.2)	5.4	3.9	2.9	6.1	2.7	1.7
Residential construction	(0.2)	4.3	14.3	(5.7)	(1.3)	(4.1)	1.2	(3.5)
Business investment	2.5	(12.1)	(0.8)	4.4	3.7	1.7	5.2	2.7
Government expenditures	0.8	0.9	4.8	1.5	1.2	2.2	1.7	1.0
Exports	2.3	(9.7)	1.5	6.2	5.2	0.7	6.7	4.4
Imports	0.4	(10.8)	7.0	5.0	4.9	4.2	4.6	5.0
Change in inventories (millions $)	18,377	(18,720)	(418)	15,250	22,719	8,000	14,000	27,280
Domestic demand	1.2	(4.1)	5.3	2.4	2.1	3.6	2.5	1.1
Real disposable income	3.0	8.2	1.4	(0.2)	1.4	2.4	0.5	1.5
Employment	2.2	(5.1)	4.8	3.3	1.6	4.2	2.0	1.2
Unemployment rate	5.8	9.6	7.4	5.9	5.6	6.3	5.6	5.6
Inflation	1.9	0.7	3.4	4.1	2.5	4.7	2.9	2.5
Before-tax profits	(0.6)	(1.9)	31.8	4.1	1.7	13.7	6.0	2.8
Current account (bil. $)	(47.0)	(39.4)	6.4	(5.0)	(16.0)	....	....	....

** or as noted*

Financial Forecast**

	Current 2/11/22	*Q1 2022*	*Q2 2022*	*Q3 2022*	*Q4 2022*	*2021*	*2022*	*2023*
Overnight rate	0.25	0.50	0.75	1.25	1.50	0.25	1.50	1.75
Prime rate	2.25	2.50	2.75	3.25	3.50	2.25	3.50	3.75
3 month T-Bills	0.32	0.55	0.80	1.20	1.40	0.17	1.40	1.75
Treasury yield curve								
2-Year	1.47	1.40	1.65	1.85	1.90	0.95	1.90	1.95
5-Year	1.75	1.75	1.85	1.95	2.00	1.26	2.00	2.05
10-Year	1.87	1.90	2.00	2.10	2.15	1.43	2.15	2.20
30-Year	2.15	2.15	2.20	2.25	2.30	1.68	2.30	2.30
CAD per USD	1.27	1.24	1.20	1.22	1.23	1.26	1.23	1.26
Oil price (WTI), U.S.$	93	85	85	83	81	75	81	80

*** end of period*

Quarterly pattern

	Q1 2021 actual	*Q2 2021 actual*	*Q3 2021 actual*	*Q4 2021 forecast*	*Q1 2022 forecast*	*Q2 2022 forecast*	*Q3 2022 forecast*	*Q4 2022 forecast*
Real GDP growth (q/q % chg. saar)	4.9	(3.2)	5.4	6.3	(0.1)	6.7	4.2	3.3
CPI (y/y % chg.)	1.4	3.4	4.1	4.7	5.0	4.6	3.8	2.9
CPI ex. food and energy (y/y % chg.)	1.0	2.1	3.0	3.2	3.6	3.3	2.8	2.6
Unemployment rate (%)	8.4	7.9	7.2	6.3	6.3	6.0	5.7	5.6

National Bank Financial

Monthly Economic Monitor

Economics and Strategy

NATIONAL BANK OF CANADA
FINANCIAL MARKETS

Provincial economic forecast

	Real GDP (% growth) 2019	2020	2021f	2022f	2023f	Nominal GDP (% growth) 2019	2020	2021f	2022f	2023f
Newfoundland & Labrador	3.3	-5.4	3.0	2.3	1.8	2.3	-10.7	13.9	8.4	2.5
Prince Edward Island	4.7	-1.7	3.1	2.5	2.6	6.6	0.9	8.8	5.1	3.4
Nova Scotia	3.0	-2.5	3.4	2.7	2.1	3.7	0.7	8.7	6.1	3.2
New Brunswick	1.3	-3.2	3.2	2.5	1.9	2.4	-1.3	9.2	6.0	2.4
Quebec	2.8	-5.5	6.2	2.6	2.3	4.7	-2.4	11.2	6.1	3.1
Ontario	2.0	-5.1	4.0	3.9	2.6	3.7	-2.8	11.0	6.3	3.0
Manitoba	0.4	-4.6	3.9	3.1	2.4	0.7	-1.4	11.3	6.3	3.0
Saskatchewan	-1.1	-4.9	4.3	3.6	2.6	-0.4	-6.6	17.8	12.7	2.5
Alberta	-0.1	-7.9	5.0	4.1	2.7	1.5	-16.1	21.5	12.5	2.9
British Columbia	3.1	-3.4	4.4	4.4	2.8	4.6	-0.5	12.0	7.0	3.1
Canada	1.9	-5.3	4.6	3.6	2.6	3.6	-4.6	12.8	7.4	3.0

	Employment (% growth) 2019	2020	2021f	2022f	2023f	Unemployment rate (%) 2019	2020	2021f	2022f	2023f
Newfoundland & Labrador	1.2	-5.9	3.0	2.0	0.7	12.3	14.1	12.9	12.5	11.5
Prince Edward Island	3.4	-3.2	3.7	3.0	1.8	8.6	10.6	9.4	8.5	8.1
Nova Scotia	2.3	-4.7	5.4	2.4	1.5	7.3	9.7	8.4	7.2	6.4
New Brunswick	0.7	-2.6	2.6	2.0	0.7	8.2	10.0	9.0	8.3	7.8
Quebec	2.0	-4.8	4.2	3.0	1.5	5.2	8.8	6.1	4.8	4.5
Ontario	2.8	-4.7	4.9	3.9	1.8	5.6	9.5	8.0	6.0	5.6
Manitoba	1.1	-3.7	3.5	2.2	1.2	5.4	8.0	6.4	5.5	5.1
Saskatchewan	1.7	-4.6	2.6	2.0	1.3	5.6	8.3	6.5	6.2	5.7
Alberta	0.6	-6.5	5.2	3.4	1.6	7.0	11.5	8.6	8.2	8.0
British Columbia	2.9	-6.5	6.6	3.3	1.8	4.7	9.0	6.5	4.7	4.3
Canada	2.2	-5.1	4.8	3.3	1.6	5.7	9.6	7.4	6.0	5.6

	Housing starts (000) 2019	2020	2021f	2022f	2023f	Consumer Price Index (% growth) 2019	2020	2021f	2022f	2023f
Newfoundland & Labrador	0.9	0.8	1.3	1.0	0.8	1.0	0.2	3.7	4.1	2.5
Prince Edward Island	1.3	1.1	1.2	1.0	1.0	1.2	0.0	5.1	3.9	2.5
Nova Scotia	4.7	4.9	6.0	4.4	4.1	1.6	0.3	4.1	4.1	2.4
New Brunswick	2.9	3.6	4.0	3.0	2.7	1.7	0.2	3.8	3.9	2.6
Quebec	48.0	54.2	70.9	58.0	55.0	2.1	0.8	3.8	4.1	2.5
Ontario	69.0	81.3	101.0	88.0	81.0	1.9	0.6	3.5	4.2	2.5
Manitoba	6.9	7.3	8.0	6.3	6.1	2.3	0.5	3.2	4.0	2.5
Saskatchewan	2.4	3.1	4.3	3.6	3.5	1.7	0.6	2.6	4.2	2.5
Alberta	27.4	24.1	31.9	27.0	26.5	1.7	1.1	3.2	3.8	2.5
British Columbia	45.1	38.0	47.7	37.0	35.8	2.3	0.8	2.8	4.0	2.5
Canada	208.5	218.4	276.2	229.3	216.5	1.9	0.7	3.4	4.1	2.5

e: estimate f: forecast

Historical data from Statistics Canada and CMHC, National Bank of Canada's forecast.

Monthly Economic Monitor

Economics and Strategy

NATIONAL BANK OF CANADA
FINANCIAL MARKETS

Economics and Strategy

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General

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RBC Economics

Provincial Outlook

Provinces enter advanced stages of recovery in 2022

December 2, 2021

While the pandemic still poses a significant risk to all provincial economies, the recovery is proceeding generally well. The majority of provinces have sustained strong enough momentum in 2021—in many cases the strongest in decades—to fully reverse the contraction in 2020. We expect positive trends to persist in 2022. High vaccination rates bode well for restrictions continuing to ease across the country, enabling the recovery to further broaden. Households will be keen to rotate some of their spending toward services though they will still have the means to drive up goods consumption too. Businesses will look to invest more, pressed by increasing capacity constraints, labour shortages and the need to address climate change. And governments will continue to play a constructive role by maintaining support where needed and stimulating the recovery of hard-hit sectors.

Omicron the latest worry

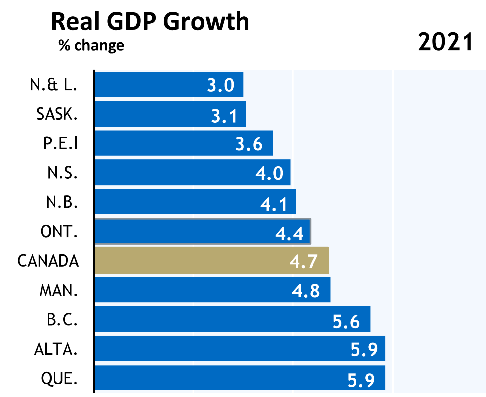
The recent discovery of the Omicron variant presents a downside risk to our outlook. There is a great deal of uncertainty surrounding the severity of the variant and the required intervention to stop its spread both at home and abroad. Should additional restrictions be necessary, this would impact the trajectory of provincial output growth in 2022. The level of growth reflected in our updated outlook does not consider additional restrictions.

Growth to be sustained from coast to coast

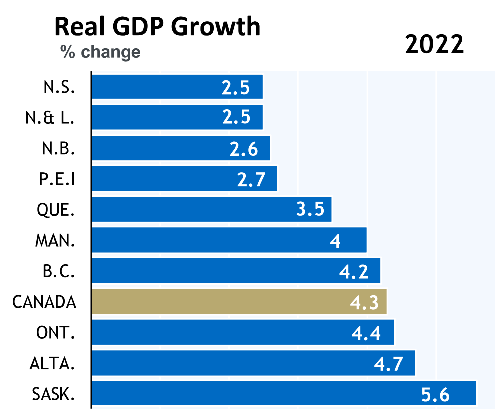
We project all provincial economies to continue to grow in 2022. However, the pace will be generally slower than it was in 2021 (Saskatchewan will be the lone exception) as the recovery phase matures. In fact, the relative maturity of the recovery will be a significant growth differentiator across provinces. We expect the Maritime Provinces, British Columbia, Quebec and Manitoba to be the furthest ahead when the books close on 2021—reflecting either a relatively smaller economic contraction in 2020 (Prince Edward Island, Nova Scotia, New Brunswick and Manitoba), strong rebound in 2021 (Quebec) or both (British Columbia). These provinces will bump up against capacity limits earlier on in 2022, causing overall momentum to decelerate more rapidly.

Saskatchewan, Alberta and Ontario to lead the way

On the other hand, still with some lost ground to cover, we expect oil-producing provinces and Ontario will remain in catch-up mode into 2022. This will apply resistance against the growth slowdown in these provinces. In the case of Saskatchewan, we project growth to accelerate to 5.6%, topping our 2022 provincial rankings, thanks to a ramp-up in capital investment, improved crop conditions and a material turnaround in the energy sector. These factors will also support growth in Alberta (4.7%, second in our rankings). Ontario (4.4%, third) will get a boost when supply chain issues are resolved.



Source: Statistics Canada, RBC Economics



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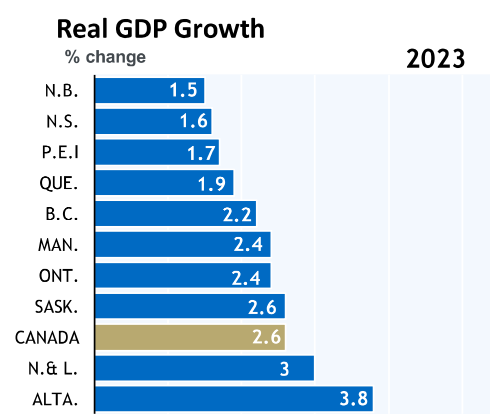

Source: Statistics Canada, RBC Economics

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Consumer-led growth across the country

All provinces will share a number of common trends. All will see consumers continuing to play a central role in driving up activity in 2022 (and beyond). Canadians from coast to coast have accumulated record levels of savings during the pandemic that we expect will be increasingly converted into purchases. We believe there is significant pent-up demand for close-contact services in every province.

Immigration to add a new dimension

The resumption of immigration will be felt virtually everywhere in the country. The reopening of our border is set to unleash a wave of newcomers, as Canada works toward meeting higher targets for new permanent residents (to 401,000 in 2021, 411,000 in 2022 and 421,000 in 2023). We expect provincial population growth to quickly return to pre-pandemic levels, with some provinces (e.g. in Atlantic Canada and British Columbia) possibly exceeding them if recent interprovincial migration trends persist.

Tight labour market will remain a challenge, especially in B.C. and Quebec

The arrival of new workers couldn't come soon enough for many employers. Provincial labour markets have tightened substantially in the past year. So much so that labour shortages will be among the top challenges to address in 2022 across most of the country. Those issues are currently most severe in British Columbia and Quebec though job vacancy rates are well above historical norms in every province. We expect the war on talent will result in widespread wage increases, further adding pressure on businesses facing escalating input costs.

Supply chain disruptions to stay top of mind in provincial manufacturing hubs

Global supply chain disruptions are a big reason many input (and output) costs are going up. They've caused serious headaches to manufacturers—especially those in the motor vehicle and parts industry—who have had to scale back operations due to parts shortages. Other sectors from retail trade to construction also feel the pain. These are complex issues that will take time to resolve. But we expect industrial activity to snap back across the country when they are resolved. We're penciling it in as a significant plus for growth in Ontario in the latter half of 2022.

Eastern tilt to inflation to flatten in 2022

Higher inflation will prevail in all provinces in the coming year. We expect the eastern tilt—inflation having been strongest east of Manitoba in 2021—to become less pronounced, though, as consumers resume more normal consumption patterns.

Housing to cool across the country, but still hot

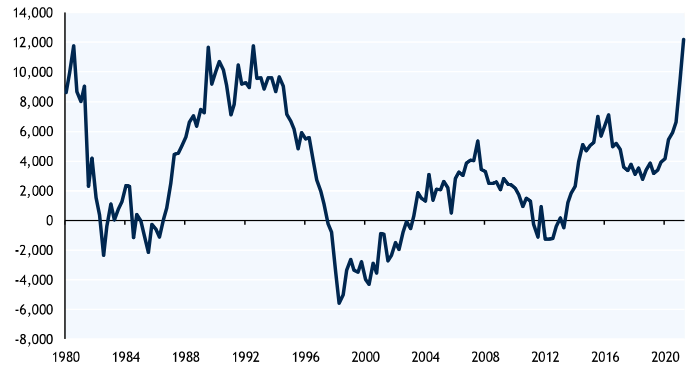
Finally, housing trends will look quite similar from coast to coast as exceedingly hot activity cools down amid rising interest rates, broadly deteriorating affordability and a moderation of pandemic-induced market churn. Responding to the dearth of supply issue will keep home builders very busy though we expect housing starts to generally moderate from exceptionally strong levels in 2021.

BRITISH COLUMBIA - Rebounding strongly despite natural disasters

Despite being hit by a series of natural disasters— including, most recently, unprecedented floods that cut off several communities in the interior of the province—British Columbia's economy staged one of the stronger recoveries in Canada in 2021. We expect much of that momentum will carry into 2022. BC consumers still have a lot of savings fire power to deploy on goods and services purchases. The resumption of immigration will further stimulate consumption and investment. The wider re-opening of the Canadian border will spur the tourism sector. And continuing work on major capital projects will generate substantial economic activity. We project growth to stay solid at 4.2% in 2022, down from an unsustainable 5.6% in 2021.

BC's net interprovincial migration reaches record levels

Net interprovincial migration, seasonally adjusted, persons



Source: Statistics Canada, RBC Economics

To be sure, November's massive floods pose significant near-term challenges for transportation, agriculture, forest products and many other industries. We expect disruptions to the broader provincial economy to ease fairly quickly as repair work restore key transportation corridors—though some communities face a much more difficult recovery. In fact, repair work will add to provincial economic growth, whereas the destruction of property and infrastructure will largely go unaccounted for in GDP numbers.

With jobs lost during the early stages of the pandemic now fully recovered, British Columbia's labour market enters 2022 in a tight position. Labour shortages are a bigger issue than in any other province—BC has the highest job vacancy rate in the country (7.4% as of September2021). We expect this will remain a central focus of employers. Rising in-migration will help but isn't likely to provide the entire solution.

Net migration from other provinces (mainly Alberta and Ontario) reached a 25-year high during the pandemic. We expect a sharp rise in immigration in 2022 will boost population growth to pre-pandemic levels, including a material increase in working-age individuals.

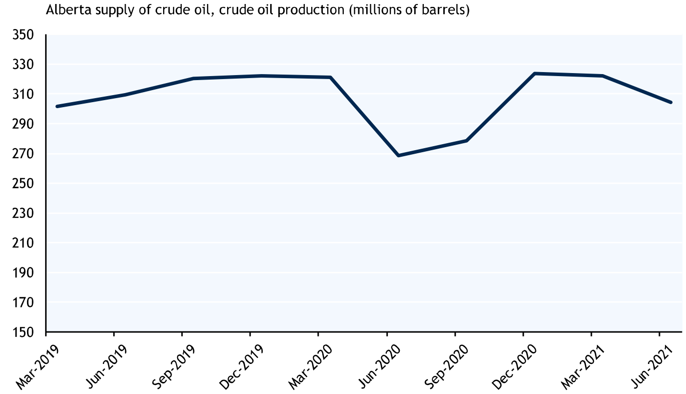
Non-residential investment will continue to play a prominent role in BC's growth story. We expect work on major capital projects—including the Trans Mountain pipeline, Site C hydroelectric project, LNG Canada liquid natural gas terminal and Coastal Gaslink pipeline—will be huge economic catalysts in several regions of the province.

ALBERTA - Solid economic recovery in motion

Amazing what a rebound in global oil and gas markets will do to Alberta's economy. Stronger demand and higher commodity prices have bolstered the provincial energy sector in 2021. This set a broad economic recovery in motion that we expect will be largely sustained in 2022.

Alberta oil production has rebounded from pandemic lows

Alberta supply of crude oil, crude oil production (millions of barrels)



Source: Statistics Canada, RBC Economics

Alberta's economy has much ground lost to make up for. The pandemic drilled a deep hole—the deepest among the provinces with GDP falling nearly 8%—last year. And this occurred as Alberta had not fully recovered from its 2015-2016 recession. We expect a growth of 4.7% in 2022, after a nation-leading 5.9% in 2021 (tied with Quebec).

The oil and gas industry's current upcycle has longer to run (though the Omicron variant could cut it short if recent global market volatility is any indication). RBC revised its 2022 forecast for oil prices (WTI) higher since our last Provincial Outlook on the strength of global demand. Improving cash flows will support stronger drilling activity and increasing crude production. New pipeline capacity expansion (including Enbridge's Line 3 replacement) will further facilitate delivery to market. We expect the sector's capital expenditures to trend higher though they will remain a fraction of what they were before oil prices crashed in mid-2014.

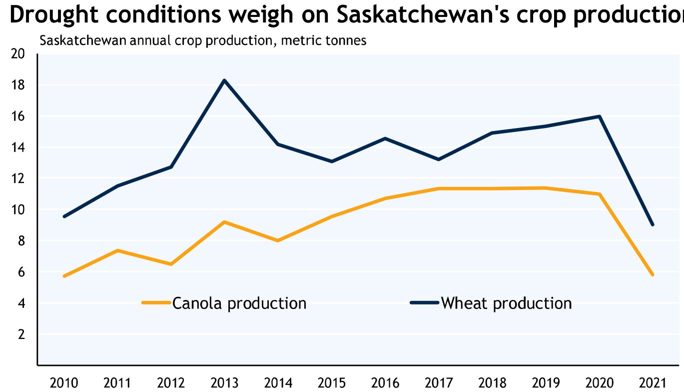
Investment in Alberta's renewable energy sector, however, is poised to grow much more rapidly. Construction of Canada's largest solar farm (Travers Solar) is underway in a part of the province known as Canada's Sun Belt. Alberta currently has 61 solar projects underway and set to be completed by the mid-2020s. We believe Alberta is well positioned to attract more investments of this type and size in the years ahead.

Solid economic growth in 2022 will also find support outside the energy sector. We see substantial scope for the agricultural sector to spring back from the drought-induced downturn in 2021 (wheat and canola yields plummeted 40% and 30%, respectively). We expect improved labour market conditions, rising consumer confidence, high household savings and stronger immigration to boost consumer spending and residential investment. Alberta is in fact one of only two provinces for which we project housing starts to pick up to 2022.

SASKATCHEWAN—A Brighter year ahead

For Saskatchewan, 2021 proved to be more challenging than anticipated. The fourth wave of the pandemic hit the province particularly hard, and severe drought conditions hammered crop production. We have revised our 2021 growth forecast lower from 3.8% to 3.1%. We expect the provincial economy will make it up in 2022, when we see growth accelerating to a nation-leading 5.6%, provided authorities can keep covid restrictions to a minimum and crop conditions improve. There's scope for a significant increase in exports. Strong global demand for fertilizers paired with tight supply and high prices will provide potash producers with opportunities to expand production. It's a similar story for pulse producers, who are facing stronger demand amid droughts in other producing countries (most notably in India and Turkey). The outlook for energy exports is also brighter with higher commodity prices likely to stimulate oil and gas production. And capital spending is poised to ramp up materially with BHP announcing it will go ahead with construction of the $12-billion Jansen Potash Mine—the province's largest project ever.

Drought conditions weigh on Saskatchewan's crop production



Note: 2021 is a preliminary estimate
Source: Statistics Canada, RBC Economics

The potash investment will be a significant development contributing materially to Saskatchewan's economy for years to come. Once operational in 2027, the mine will produce 4.4 million tonnes of potash annually, a four-fold increase from the province's current level of potash production.

The upcoming oil and gas drilling season is off to a stronger start, with close to 70% more drilling rigs operating in November 2021 relative to a year earlier. This activity is supported by producers' healthier cash flow position arising from the significant run-up in oil and gas prices, and points to a rise in production in 2022.

While crop yields were hammered by severe drought conditions, surging commodity prices have cushioned the blow. The province's food product exports still held up in 2021, as canola prices (+75% year-to-date) and wheat prices (+62%) surged. These conditions have minimized the impact on farmer's incomes and in turn, provincial tax receipts. We believe, businesses, households, and governments will generally be in a good position to contribute to economic growth in 2022.

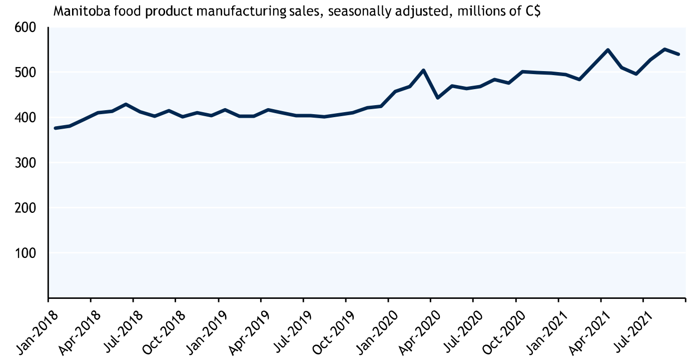
MANITOBA - Soaring commodity prices lend a helping hand

As 2021 draws to a close, most signs point toward Manitoba's economy being essentially back to where it was before the pandemic. Strong commodity prices have provided substantial support throughout the recovery, as did booming construction investment. To date, the vast majority of jobs lost during the pandemic have been recovered, and employee compensation has grown at a rate above the national average.

Manitoba is in a similar situation to other Prairie Provinces, where soaring commodity prices resulting from tight canola and wheat markets helped cushion the impact of lower crop yields, as export receipts remain well above pre-pandemic levels. The same is true for oil production. The number of physical barrels produced daily in Manitoba has fallen 15% in 2021 (year-to-date), while prices drive the value of energy product exports higher. We expect elevated commodity prices to continue to bolster crop and energy exporters' cash flows in 2022.

Soaring commodity prices cushioned lower crop yields in Manitoba

Manitoba food product manufacturing sales, seasonally adjusted, millions of C$



Source: Statistics Canada, RBC Economics

Throughout the pandemic, food product receipts have been largely responsible for growth in Manitoba's manufacturing sales. In 2022, additional capacity will be added to the province's pea processing industry, as Manitoba positions itself as a plant-based protein hub. The province's newest pea processing facility (Roquette Pea Processing manufacturing plant) is set to ramp up production to full capacity in 2022, boosting output in this sector by 50%. The outlook for other manufacturing industries is mixed with supply chains issues still likely to pose a challenge for some time.

In line with the widespread trend across Canada, Manitoba posted record growth in home resales in 2021, up 55% since 2019. We expect activity to cool in the coming year though still remain historically strong. Housing demand will get support from rebounding immigration. In 2021, Manitoba issued 10,000 invitations through its Provincial Nominee Program, which we expect will lead to a rising number of successful candidates. Well qualified newcomers will broadly benefit Manitoba's economy, filling job vacancies, boosting consumer spending, and generating additional tax revenue for the province.

ONTARIO - Signs of recovery are everywhere

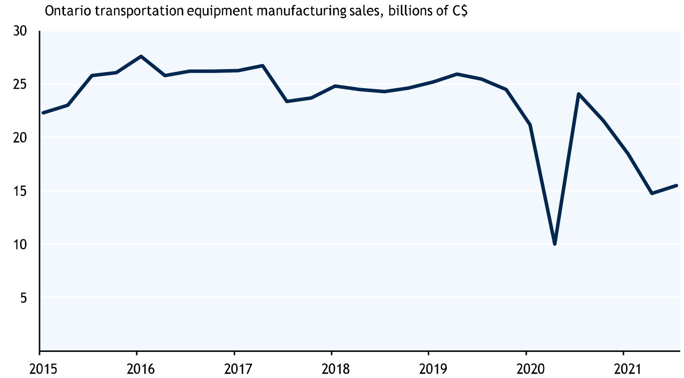
Despite a slower pace of re-opening than in most other provinces, signs of recovery are almost everywhere in Ontario. Ontarians have flocked back to restaurants, gyms and hockey arenas this fall, secured by high vaccination rates and their strong spending power. Yet nagging supply chain disruptions weigh on the provincial economy, holding it back from achieving a full recovery in 2021. Full recovery will be the story for 2022 when those supply chain issues ease and consumers dig deeper into their savings. We project Ontario's economic growth to clock in at 4.4%, unchanged from 2021 (4.4%) and ranking as the fastest rate east of the Prairies.

Booming residential investment did much of the heavy lifting during the early stages of the recovery. Both home resales and housing construction (including renovations) soared. So did property prices. While we don't expect record activity to be sustained—the cooling trend is already in motion, in fact—housing will continue to be major economic engine in Ontario. This will be the case not only in the province's major urban areas but also in smaller communities where an influx of big-city migrants will sustain solid demand.

We expect non-residential investment also to be a part of Ontario's growth story. The provincial government is boosting spending on public infrastructure by 11% in FY 2021-22. Major projects include transit expansion and new highways. Ontario automakers plan to collectively invest $4 billion in transformative electric vehicle (EV) investments at their facilities. Long-term, Ontario is pushing hard to develop the so-called Ring of Fire, a high-potential mining region in Northern Ontario that contains key minerals used in the production of electric vehicle batteries.

Chip shortages have weighed on Ontario's auto sector

Ontario transportation equipment manufacturing sales, billions of C$



Source: Statistics Canada, RBC Economics

The resumption of motor vehicle production at the GM Oshawa plant is good news for the province's manufacturing sector, which is otherwise challenged by supply chain bottlenecks. The plant will directly create 1800 new jobs and contribute to stronger manufacturing output in 2022.

Ontario's world-class tech sector has thrived during the pandemic. Nearly 100,000 new tech workers have been hired, accounting for over half of Canada's hirings in the sector. And Toronto outperformed other North American tech hubs, including Seattle and Vancouver, with a job growth of 26%. We see significant scope for further expansion of this sector in the coming year.

QUEBEC - Frenetic pace won't (or can't) be sustained

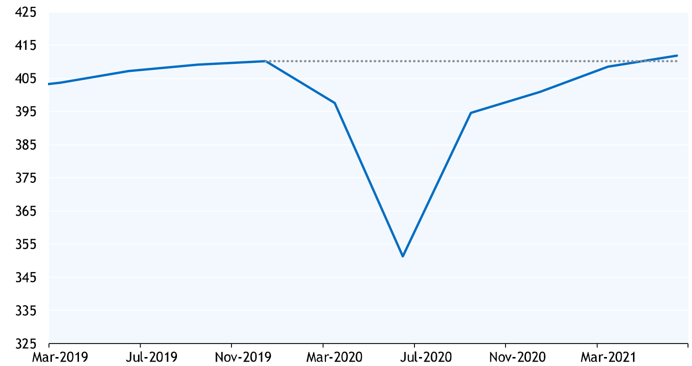
Quebec's economy staged an impressive comeback in 2021. Consumers, businesses and governments got seriously going when restrictions eased, fueling a projected 5.9% growth—tying Alberta for top spot in our rankings. And it's not over yet. We see further room for expansion in 2022 as provincial households tap into their huge savings to boost their spending, and businesses invest more to address mounting capacity issues. Yet we expect the pace to slow down materially to 3.5%. Labour shortages and other capacity limitations will increasingly bite, and an expected cooling in the housing market will contribute less to the economy.

With slack rapidly disappearing—GDP was back to pre-pandemic levels in the second quarter of 2021, far ahead of Ontario (expected to be at that stage in early 2022)—2022 is poised to be a year of growing strains for Quebec's economy. Stress is already palpable in the labour market where positions go increasingly unfilled. At last count, a record-high 280,000 jobs were vacant in the province, or 7.3% of the total. Quebec's unemployment rate (5.6% in October) is among the lowest in the country and rapidly closing in on its pre-pandemic, multi-decade lows. We expect tight labour market conditions to persist amid solid demand and an aging workforce opting to retire in growing numbers. The war on talent will only intensify in Quebec.

And so will the need to invest in machinery, equipment and technology. We expect firms to be under mounting pressure to boost productivity, improve efficiency and bring part of supply chains closer to home. Rapidly rising costs will only add to that pressure.

Quebec's economy has exceeded pre-pandemic levels

Real GDP, $ billions chained of 2012, seasonally adjusted and annualized



Source: Institut de la statistique du Québec, RBC Economics

As interest rates rise in the period ahead, housing affordability strains will become too much for a rising number of home buyers in the province. This will temper activity in a sector that played a central role in the economic recovery since the summer of 2020. We expect residential investment to moderate from record (and clearly unsustainable) levels in 2021. We project 55,000 housing starts in 2022, down from a 34-year high of 71,500 units in 2021.

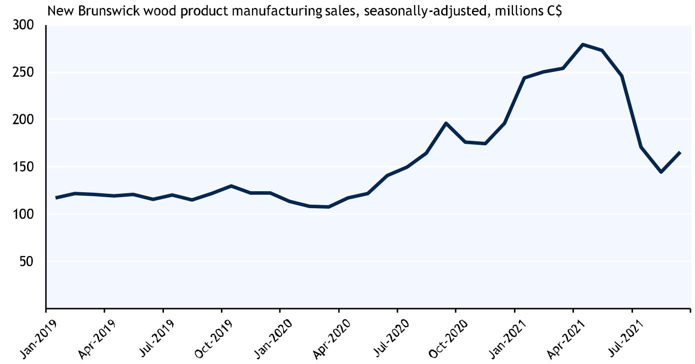
NEW BRUNSWICK - Into higher gear

We believe New Brunswick is now entering the expansion phase of its economic cycle. Like other Maritime Provinces, all signs point to its achieving full recovery in 2021. That's mainly thanks to generally low covid case counts (notwithstanding a spike this fall) permitting a quicker easing of restrictions. Strong demand and surging prices for commodities (including lumber and petroleum products) have also helped kick the recovery into a higher gear. Our projected growth of 4.1% would more than reverse the 3.2% decline recorded in 2020, placing the provincial economy ahead of most others relative to pre-pandemic levels. Reaching the expansion phase will be associated with slower growth though. We forecast to pace to ease to 2.6% in 2022, softer than the national average of 4.3%.

While off their all-time peak in May, lumber prices remain well above pre-pandemic levels supported by strong hous-

New Brunswick wood product manufacturing sales well-above pre-pandemic levels

New Brunswick wood product manufacturing sales, seasonally-adjusted, millions C$



Source: Statistics Canada, RBC Economics ing starts in the United States and Canada. We expect demand for New Brunswick lumber to stay elevated in the coming year as low housing inventories across the continent continue to stimulate homebuilding activity. The recent US decision to raise tariffs on Canadian softwood imports poses a risk though solid demand and historically high prices should attenuate the impact on producers.

Energy product exports will also keep driving growth in 2022. We expect demand for gasoline to increase as more workers commute to work and summer road trips resume, boding well for the province's refinery operations.

Demand for housing has boomed through the pandemic, in part driven by an influx of migrants from other provinces. New Brunswick led the Maritimes with the strongest increase in home resales in 2021 (up 28% based on the first 10 months of the year). We expect housing activity to remain hot in 2022 albeit a few degrees cooler than it was in 2021. Positive interprovincial migration flows and the resumption of immigration will provide support.

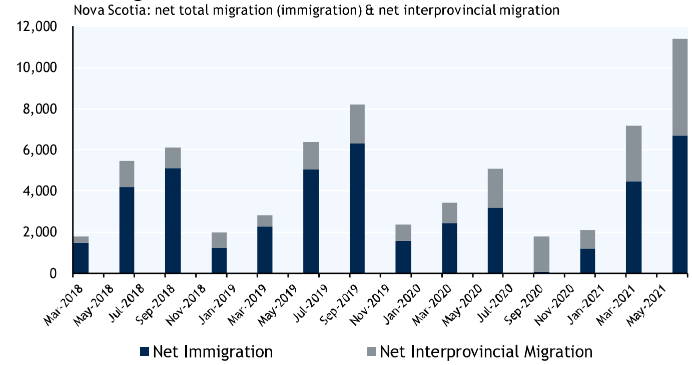
The outlook for the 2022 tourism season is bright. The provincial tourism sector will receive a boost from cruise ships returning to the port of Saint John (docking is already scheduled for 2022).

NOVA SCOTIA – A rebound fueled by population growth

For Nova Scotia, 2021 was a year of robust growth. Our current 4.0% projection places the province in a group of only five expected to fully reverse the decline in activity in 2020. Rebounding goods and services consumption has driven the recovery so far, alongside record residential investment. We expect momentum to slow to a rate of 2.5% in 2022, as the economy hits capacity constraints. We see stronger population growth, solid residential investment, growing export opportunities and busy manufacturing activity providing scope for the provincial economy to expand.

Nova Scotia population growth on an impressively strong track

Nova Scotia: net total migration (immigration) & net interprovincial migration



Source: Statistics Canada, RBC Economics

Nova Scotia has significantly benefited from interprovincial migration during the pandemic. The province welcomed a net 10,000 new residents from other provinces in the four quarters ending Q2 2021—a new record. This has set population growth on an impressively strong track in 2021. There's scope for even larger gains in 2022 as immigration bounces back from pandemic lows. We believe this will partly help address labour shortages in the province, as well as boost consumer spending and provincial tax revenues.

But a further influx of Canadians from higher-priced markets would maintain upward pressure on housing prices. Many newcomers have been lured by the province's relatively affordable housing costs, squeezing out local buyers in the process. This has contributed to a historic shrinking of inventories and strong competition between buyers. The average home price has soared 43% during the pandemic, the largest increase among the provinces. We expect exceptionally tight demand-supply conditions in the housing market will keep homebuilders very busy in 2022. We project housing starts to stay near a decades high at 5,200 units, down slightly from 5,600 units in 2021.

The outlook for Nova Scotia's manufacturers is generally positive. We expect seafood producers will benefit from higher restaurant demand for lobsters in the U.S. and China post-pandemic. An anticipated uptick in road trips will bolster the prospects for tire production in the province. And work on the overhaul of the Canadian Navy's aging warships and other contracts will keep over 1,000 Nova Scotia workers employed, while generating significant economic benefits.

PRINCE EDWARD ISLAND - Storms gather over solid economic upturn

All signs point to PEI's economy having already made a full recovery from the 2020 recession. Our projected growth of 3.6% in 2021 would put PEI comfortably above its pre-pandemic output. In 2022, we expect strong residential investment, further recovery in the manufacturing sector and robust consumer spending will drive the expansion at a rate of 2.7%.

PEI's agri-food sales have rebounded significantly since restaurants re-opened in Canada and the U.S. We expect growing demand for PEI's lobster and potato products will continue to bolster provincial exports into 2022. PEI potato producers grew one of the largest crops in decades in 2021 and receive strong prices thanks to drought conditions in other provinces. But Canada's recent decision to suspend fresh PEI potato exports to the United States due to the potato wart disease is casting a dark shadow on the industry. If prolonged, the suspension could materially impact the province's exports.

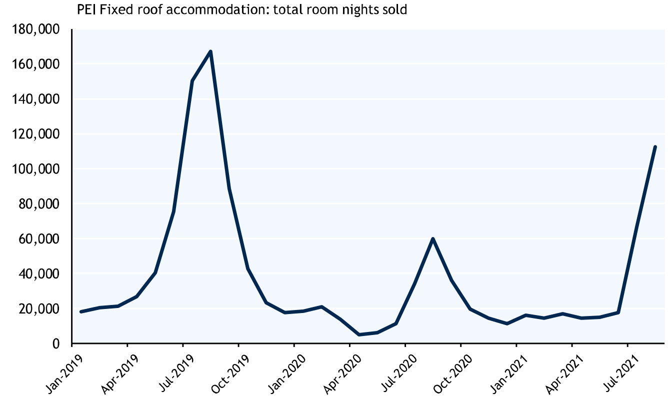
The outlook for residential investment remains bright in the year ahead, as elevated in-migration boosts demand. PEI welcomed the highest number of interprovincial migrants and immigrants on record in 2021. We see this continuing in 2022.

Higher shelter and transportation costs have driven PEI's inflation above that of other provinces. We expect inflationary pressures to persist through much of 2022 (with the annual inflation rate staying above 4%) though ease progressively as supply chain issues are addressed.

So far in 2021, PEI has reported the highest growth of retail sales growth nationally. When tourism returns on a more fulsome scale in 2022, this will drive spending in the province even higher. Overnight stays in PEI hotels were still 47% lower in 2021 than in pre-pandemic summers. In 2022, we expect PEI's tourism industry will make a strong comeback, as 75 cruise ships are already scheduled to dock at the Port of Charlottetown. PEI is still struggling to fill job vacancies in the tourism sector. As the industry recovers and the sector moves to operate at full capacity, this may exert upward pressure on wages.

PEI tourism has started to bounce back

PEI Fixed roof accommodation: total room nights sold



Source: Tourism Industry Association of Prince Edward Island, RBC Economics

NEWFOUNDLAND & LABRADOR - A long road to full recovery

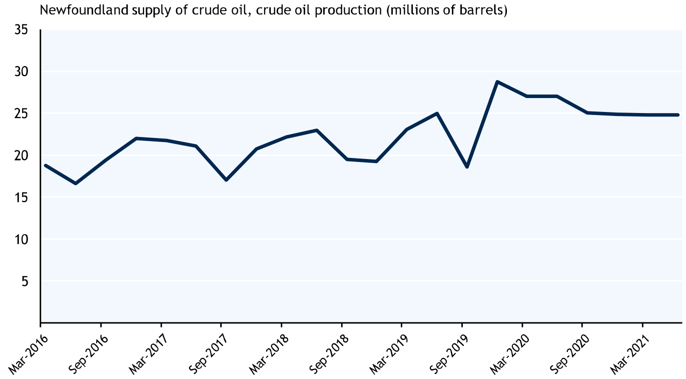
Newfoundland and Labrador will fully recover from the 2020 downturn later than most other provinces, with more challenges ahead. As an oil-producing province, it suffered a double whammy in 2020—an oil price crash and pandemic-induced recession—that drilled a deep hole in its economy (GDP falling 5.4%). Our projected growth rates of 3.0% in 2021 and 2.5% in 2022 would come short of the province climbing all the way back. We'll need to wait until 2023 for this.

In 2020, Newfoundland's oil production volumes were the highest in a decade. But in 2021, production has fallen by 7.4%. Output is waning as reserves shrink at Hibernia and White Rose oil fields. And global oil prices have recently seen tremendous volatility caused by the Omicron variant, which could weigh on the value of province's output if sustained. Terra Nova's restoration, however, is set to deliver more production towards the end of 2022. This will provide some lift to the province's total oil production in 2023, more than offsetting declines in other fields.

Higher levels of mineral production, strong retail sales growth, and the return of tourism will bolster Newfoundland's economy in 2022. Higher iron ore (+11% year-to-date) and nickel (+39%) production will benefit the province's exports, as price conditions remain elevated for both minerals. Interprovincial migration will support retail spending, bring high-skilled workers into the province, and boost tax revenues.

Newfoundland oil production waning as reserves shrink

Newfoundland supply of crude oil, crude oil production (millions of barrels)



Source: Statistics Canada, RBC Economics

Stronger price growth throughout the pandemic has translated to a larger revenue base for Newfoundland. It has also driven up nominal GDP, which lowers the province's net debt-to-GDP ratio. Debt servicing costs are currently low, but as the Bank of Canada moves to adjust rates in 2022, we will see higher interest on debt over the medium term. Newfoundland's Fall Fiscal Update revised the province's deficit 28% lower to $595 million thanks to higher revenues (up $186 million) and lower expenses (down $45 million).

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Forecast details
% change unless otherwise indicated

	Real GDP				Nominal GDP				Employment				Unemployment rate, %				Housing starts, (000s)				Retail sales				CPI			
	20	21F	22F	23F	20	21F	22F	23F	20	21F	22F	23F	20	21F	22F	23F	20	21F	22F	23F	20	21F	22F	23F	20	21F	22F	23F
N.& L.	-5.4	3.0	2.5	3.0	-10.7	14.3	5.6	4.0	-5.7	2.6	1.8	0.4	14.1	13.2	12.0	12.0	0.8	1.3	0.7	0.6	1.4	10.6	3.2	2.4	0.2	3.8	3.3	2.4
P.E.I	-1.7	3.6	2.7	1.7	0.9	8.3	5.5	3.9	-3.2	3.3	2.9	1.3	10.4	9.6	9.2	9.1	1.2	1.3	1.3	1.3	1.1	18.7	4.5	4.6	0.0	5.2	4.1	2.5
N.S.	-2.5	4.0	2.5	1.6	0.7	7.9	5.1	3.7	-4.7	5.3	2.0	1.0	9.8	8.4	7.5	7.2	4.8	5.6	5.2	4.7	-2.2	16.9	6.2	4.1	0.3	4.1	3.4	2.5
N.B.	-3.2	4.1	2.6	1.5	-1.3	8.2	5.2	3.6	-2.6	2.7	1.7	0.7	10.0	9.0	8.0	7.5	3.5	3.9	4.0	3.7	1.0	12.9	3.8	3.7	0.2	3.8	3.6	2.4
QUE.	-5.5	5.9	3.5	1.9	-2.4	11.2	6.7	4.2	-4.8	4.1	2.3	0.7	8.9	6.3	5.5	5.5	53.4	71.5	55.0	48.3	-0.1	13.2	4.6	4.1	0.8	3.8	3.4	2.3
ONT.	-5.1	4.4	4.4	2.4	-2.8	11.1	7.1	4.7	-4.8	4.7	2.7	0.9	9.6	8.1	6.1	5.7	80.8	102.1	88.3	82.0	-3.9	8.3	6.1	4.4	0.6	3.4	3.2	2.2
MAN.	-4.6	4.8	4.0	2.4	-1.4	11.2	6.4	4.2	-3.7	3.5	1.6	0.8	8.0	6.5	5.4	5.4	7.3	8.3	7.8	7.3	0.1	14.1	2.4	4.2	0.5	3.3	3.5	2.4
SASK.	-4.9	3.1	5.6	2.6	-6.6	13.4	9.8	3.0	-4.7	2.6	2.4	1.3	8.4	6.7	5.9	5.3	3.1	4.2	4.3	4.1	-1.3	10.7	3.7	3.8	0.6	2.7	3.3	2.7
ALTA.	-7.9	5.9	4.7	3.8	-16.1	21.7	9.9	3.7	-6.6	5.0	2.5	1.8	11.4	8.7	6.7	5.3	24.0	31.3	32.3	30.0	-2.7	12.7	5.1	4.9	1.1	3.3	3.3	2.1
B.C.	-3.4	5.6	4.2	2.2	-0.5	11.9	6.8	4.3	-6.6	6.6	2.3	1.2	8.9	6.5	5.2	5.0	37.9	47.0	37.5	35.8	1.3	13.5	4.8	4.9	0.8	2.8	2.9	2.0
CANADA	**-5.2**	**4.7**	**4.3**	**2.6**	**-4.5**	**12.7**	**7.4**	**4.3**	**-5.2**	**4.7**	**2.5**	**0.9**	**9.5**	**7.5**	**6.1**	**5.7**	**217**	**276**	**236**	**218**	**-1.7**	**11.4**	**5.2**	**4.4**	**0.7**	**3.4**	**3.3**	**2.2**

Key provincial comparisons
(2020 unless otherwise stated)

	Canada	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC
Population (000s, 2021)	**38,246**	521	164	992	789	8,604	14,826	1,384	1,180	4,443	5,215
Gross domestic product ($ billions)	**2,206.8**	31.6	7.5	46.8	37.6	449.1	866.9	72.8	77.8	294.8	309.3
Real GDP ($2012 billions)	**1,999.4**	32.3	6.5	40.7	32.8	385.6	762.2	65.1	82.6	319.7	265.8
Share of provincial GDP of Canadian GDP (%)	**100.0**	1.4	0.3	2.1	1.7	20.3	39.3	3.3	3.5	13.4	14.0
Real GDP growth (CAGR, 2015-20, %)	**0.6**	-0.4	2.3	1.1	0.5	0.9	1.0	0.5	-0.4	-1.1	2.6
Real GDP per capita ($ 2012)	**53,174**	62,001	40,024	41,412	41,844	44,951	51,687	47,179	70,001	72,331	51,518
Real GDP growth rate per capita (CAGR, 2015-20, %)	**-0.6**	-0.1	0.1	0.2	-0.1	-0.1	-0.5	-0.9	-1.4	-2.3	0.4
Personal disposable income per capita ($)	**36,745**	34,554	32,412	33,163	32,589	33,093	37,420	32,706	36,019	40,344	40,423
Employment growth (CAGR, 2015-20, %)	**0.2**	-2.0	1.2	0.0	-0.1	0.3	0.5	-0.1	-0.7	-1.1	1.0
Employment rate (Oct 2021, %)	**61.0**	49.3	59.0	56.5	55.8	60.7	60.9	62.5	63.1	63.7	61.5
Discomfort index (inflation + unemp. rate, Oct 2021)	**11.4**	18.4	15.7	13.7	14.6	10.9	11.9	10.0	9.4	11.9	9.4
Manufacturing industry output (% of GDP, 2020)	**9.5**	3.3	11.4	7.3	9.2	13.1	10.7	9.2	5.7	7.5	6.2
Personal expenditures on goods & services (% of GDP)	**55.6**	54.1	63.1	66.4	64.9	55.1	54.9	56.3	48.8	51.7	61.3
International exports (% of GDP)	**29.4**	38.6	22.5	15.1	29.8	27.2	32.8	22.4	39.9	31.6	21.3

Forecast Details

% change unless otherwise specified

British Columbia

	2016	2017	2018	2019	2020	2021F	2022F	2023F
Real GDP	2.8	3.8	3.6	3.1	-3.4	5.6	4.2	2.2
Nominal GDP	5.2	7.0	5.4	4.6	-0.5	11.9	6.8	4.3
Employment	3.5	4.1	1.4	3.0	-6.6	6.6	2.3	1.2
Unemployment Rate (%)	6.1	5.2	4.7	4.7	8.9	6.5	5.2	5.0
Retail Sales	7.7	9.3	1.9	0.6	1.3	13.5	4.8	4.9
Housing Starts (Thousands of Units)	41.8	43.7	40.9	44.9	37.9	47.0	37.5	35.8
Consumer Price Index	1.9	2.1	2.7	2.3	0.8	2.8	2.9	2.0

Alberta

	2016	2017	2018	2019	2020	2021F	2022F	2023F
Real GDP	-3.5	4.5	2.2	-0.1	-7.9	5.9	4.7	3.8
Nominal GDP	-6.1	9.2	4.2	1.5	-16.1	21.7	9.9	3.7
Employment	-2.3	1.1	1.9	0.7	-6.6	5.0	2.5	1.8
Unemployment Rate (%)	8.2	7.9	6.7	7.0	11.4	8.7	6.7	5.3
Retail Sales	-1.1	7.1	1.8	-0.8	-2.7	12.7	5.1	4.9
Housing Starts (Thousands of Units)	24.5	29.5	26.1	27.3	24.0	31.3	32.3	30.0
Consumer Price Index	1.1	1.5	2.5	1.7	1.1	3.3	3.3	2.1

Saskatchewan

	2016	2017	2018	2019	2020	2021F	2022F	2023F
Real GDP	-0.1	2.6	1.8	-1.1	-4.9	3.1	5.6	2.6
Nominal GDP	-5.0	6.0	4.3	-0.4	-6.6	13.4	9.8	3.0
Employment	-0.9	0.0	0.5	1.9	-4.7	2.6	2.4	1.3
Unemployment Rate (%)	6.4	6.4	6.2	5.6	8.4	6.7	5.9	5.3
Retail Sales	1.5	4.1	-0.5	0.3	-1.3	10.7	3.7	3.8
Housing Starts (Thousands of Units)	4.8	4.9	3.6	2.4	3.1	4.2	4.3	4.1
Consumer Price Index	1.1	1.7	2.3	1.7	0.6	2.7	3.3	2.7

Manitoba

	2016	2017	2018	2019	2020	2021F	2022F	2023F
Real GDP	1.4	3.3	2.0	0.4	-4.6	4.8	4.0	2.4
Nominal GDP	2.1	5.9	2.9	0.7	-1.4	11.2	6.4	4.2
Employment	-0.3	1.7	1.1	1.0	-3.7	3.5	1.6	0.8
Unemployment Rate (%)	6.2	5.4	6.0	5.3	8.0	6.5	5.4	5.4
Retail Sales	3.7	7.8	2.2	0.8	0.1	14.1	2.4	4.2
Housing Starts (Thousands of Units)	5.3	7.5	7.4	6.9	7.3	8.3	7.8	7.3
Consumer Price Index	1.3	1.6	2.5	2.3	0.5	3.3	3.5	2.4

Ontario

	2016	2017	2018	2019	2020	2021F	2022F	2023F
Real GDP	2.1	2.8	3.4	2.0	-5.1	4.4	4.4	2.4
Nominal GDP	4.0	4.3	4.3	3.7	-2.8	11.1	7.1	4.7
Employment	1.1	1.9	1.7	2.8	-4.8	4.7	2.7	0.9
Unemployment Rate (%)	6.6	6.0	5.7	5.6	9.6	8.1	6.1	5.7
Retail Sales	6.9	7.7	4.5	2.3	-3.9	8.3	6.1	4.4
Housing Starts (Thousands of Units)	75.0	79.1	78.7	69.0	80.8	102.1	88.3	82.0
Consumer Price Index	1.8	1.7	2.4	1.9	0.6	3.4	3.2	2.2

Forecast Details

% change unless otherwise specified

Quebec

	2016	2017	2018	2019	2020	2021F	2022F	2023F
Real GDP	1.6	2.9	2.9	2.8	-5.5	5.9	3.5	1.9
Nominal GDP	3.0	4.9	5.0	4.7	-2.4	11.2	6.7	4.2
Employment	0.5	2.5	1.5	2.0	-4.8	4.1	2.3	0.7
Unemployment Rate (%)	7.2	6.1	5.5	5.1	8.9	6.3	5.5	5.5
Retail Sales	6.6	5.5	3.6	0.9	-0.1	13.2	4.6	4.1
Housing Starts (Thousands of Units)	38.9	46.5	46.9	48.0	53.4	71.5	55.0	48.3
Consumer Price Index	0.7	1.1	1.7	2.1	0.8	3.8	3.4	2.3

New Brunswick

	2016	2017	2018	2019	2020	2021F	2022F	2023F
Real GDP	0.8	2.5	1.2	1.3	-3.2	4.1	2.6	1.5
Nominal GDP	2.6	4.4	3.7	2.4	-1.3	8.2	5.2	3.6
Employment	0.1	0.7	0.6	0.8	-2.6	2.7	1.7	0.7
Unemployment Rate (%)	9.7	8.2	8.0	8.1	10.0	9.0	8.0	7.5
Retail Sales	2.1	6.8	1.7	2.1	1.0	12.9	3.8	3.7
Housing Starts (Thousands of Units)	1.8	2.3	2.3	2.9	3.5	3.9	4.0	3.7
Consumer Price Index	2.2	2.3	2.2	1.7	0.2	3.8	3.6	2.4

Nova Scotia

	2016	2017	2018	2019	2020	2021F	2022F	2023F
Real GDP	1.6	1.8	1.9	3.0	-2.5	4.0	2.5	1.6
Nominal GDP	2.2	4.1	3.6	3.7	0.7	7.9	5.1	3.7
Employment	0.0	0.7	1.9	2.3	-4.7	5.3	2.0	1.0
Unemployment Rate (%)	8.4	8.6	7.7	7.4	9.8	8.4	7.5	7.2
Retail Sales	4.7	7.8	0.2	2.5	-2.2	16.9	6.2	4.1
Housing Starts (Thousands of Units)	3.8	4.0	4.8	4.7	4.8	5.6	5.2	4.7
Consumer Price Index	1.2	1.1	2.2	1.6	0.3	4.1	3.4	2.5

Prince Edward Island

	2016	2017	2018	2019	2020	2021F	2022F	2023F
Real GDP	2.1	4.7	1.7	4.7	-1.7	3.6	2.7	1.7
Nominal GDP	4.7	6.5	2.8	6.6	0.9	8.3	5.5	3.9
Employment	-1.5	3.5	4.2	3.3	-3.2	3.3	2.9	1.3
Unemployment Rate (%)	10.9	9.9	9.5	8.7	10.4	9.6	9.2	9.1
Retail Sales	7.3	6.3	2.7	3.9	1.1	18.7	4.5	4.6
Housing Starts (Thousands of Units)	0.6	0.9	1.1	1.5	1.2	1.3	1.3	1.3
Consumer Price Index	1.2	1.8	2.3	1.2	0.0	5.2	4.1	2.5

Newfoundland and Labrador

	2016	2017	2018	2019	2020	2021F	2022F	2023F
Real GDP	1.5	1.5	-2.6	3.3	-5.4	3.0	2.5	3.0
Nominal GDP	1.1	6.9	2.7	2.3	-10.7	14.3	5.6	4.0
Employment	-2.1	-2.1	0.6	1.1	-5.7	2.6	1.8	0.4
Unemployment Rate (%)	14.0	15.1	14.1	12.3	14.1	13.2	12.0	12.0
Retail Sales	0.4	2.4	-2.4	-0.2	1.4	10.6	3.2	2.4
Housing Starts (Thousands of Units)	1.4	1.4	1.1	0.9	0.8	1.3	0.7	0.6
Consumer Price Index	2.7	2.4	1.7	1.0	0.2	3.8	3.3	2.4

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PROVINCIAL ANALYSIS

Manitoba

January 24, 2022 · Marc Desormeaux

Small high-contact industry presence may prevent more severe economic hit from omicron wave. Manitoba's economy and labour market are less concentrated towards retail and sectors related to tourism and accommodation than most other provinces (chart 1); that helped mitigate the size of the downturn during past lockdown periods.

More normal weather should help agricultural sector. The severe drought that hit the Prairies this summer hurt yields across the region and looks to have weighed on Manitoba crop receipts in Q3-2021; exports of crop products also fell late last year—likely affected by Port of Vancouver closures. Luckily, commodity price gains offset some of these losses. Even average growing conditions would translate into strong volume gains this year, though extreme weather events will likely become more common as climate change advances.

Other key industries should also eventually gain from more normal conditions. Aerospace output—stubbornly weak last year—will likely be held back by reductions in travel activity prompted by the omicron wave but experience a bounce-back later in 2022. We expect

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Food manufacturing remains a strength for Manitoba. Sectoral shipments increased significantly last year—supported by elevated food price gains that we anticipate will continue through 2023—and the Roquette pea processing plant in Portage la Prairie—the world's largest—remains on track to reach its full production capacity this year.

Manitoba annual % change except where noted	21E	22F	23F
Real GDP	3.9	3.6	3.3
Employment	3.5	3.3	1.6
Unemployment Rate, %	6.4	4.5	4.1
Total CPI, annual avg.	3.2	4.1	3.1

Chart 1

Sources for tables and charts: Scotiabank Economics, Statistics Canada, Scotiabank Global Banking and Markets.

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The Provinces

(annual % change except where noted)

Real GDP	CA	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC
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	2.6	3.3	3.6	3.5	6.1	4.3	3.9	4.1	5.1	4.3
2022f	3.7	2.2	2.8	2.6	2.5	3.1	3.8	3.5	4.4	4.4	4.5
2023f	3.3	2.8	2.6	2.1	1.9	3.2	3.4	3.3	3.6	3.7	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	12.1	15.9	7.8	8.9	9.2	11.0	11.0	9.0	14.4	18.1	12.0
2022f	7.0	5.7	4.8	4.7	4.5	6.1	6.9	6.1	8.3	8.5	8.4
2023f	6.8	5.9	5.5	4.9	4.6	6.7	7.0	5.9	6.6	6.8	7.3
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	
2021	4.8	2.8	3.6	5.4	2.5	4.1	4.9	3.5	2.6	5.1	
2022f	3.7	2.4	2.8	2.9	2.8	3.5	3.9	3.3	3.8	4.0	
2023f	1.7	0.9	1.6	1.8	1.6	1.6	1.8	1.6	1.8	2.0	
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	5.7	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	5.4	11.4	7.8	6.9	7.6	4.4	5.7	4.5	4.5	6.4	4.8
2023f	4.9	10.9	7.3	6.4	7.0	4.1	5.0	4.1	4.0	5.6	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	4.3	4.0	4.7	4.6	4.7	4.6	4.5	4.1	3.4	4.0	3.5
2023f	3.2	3.0	3.6	3.6	3.6	3.4	3.3	3.1	2.9	3.0	2.6
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	220	0.8	1.2	4.8	3.5	53	81	7.3	3.1	24	38
2021e	273	1.2	1.2	5.3	3.9	71	101	7.7	4.2	32	46
2022f	220	1.1	1.1	4.3	3.6	55	75	6.0	4.3	32	38
2023f	199	1.0	1.0	3.8	3.0	48	68	4.5	3.5	30	36
Motor Vehicle Sales (units, 000s)											
2010–19	1,816	33	7	51	41	432	715	55	53	237	194
2019	1,913	31	8	51	41	455	848	58	49	223	216

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Budget Balances, (CAD mn)	CA	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC
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	-61	108	38	-6,847	-21,499	-1,123	-2,708	-5,822	-1,732
2022f	-58,400	-587	-46	-218	-296	-5,547	-19,600	-374	-1,685	-3,277	-5,484

* 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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Key Economic Indicators: Manitoba																					
Stokes Economics January 2022 Provincial Forecast																					
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
GDP Deflator (2012=1)	1.22	1.245	1.276	1.306	1.331	1.36	1.387	1.415	1.439	1.464	1.492	1.525	1.559	1.594	1.629	1.666	1.702	1.739	1.776	1.814	1.852
% Change	2.3	2.1	2.4	2.4	1.9	2.2	2	2	1.7	1.7	1.9	2.2	2.2	2.3	2.2	2.3	2.2	2.2	2.1	2.1	2.1
Consumer Price Index (2002=1)	1.467	1.501	1.533	1.565	1.598	1.632	1.664	1.698	1.731	1.764	1.798	1.838	1.88	1.923	1.967	2.011	2.056	2.102	2.148	2.195	2.242
% Change	3.3	2.3	2.2	2.1	2.1	2.1	2	2	1.9	1.9	1.9	2.2	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2

Provincial Economic Outlook | Our key forecasts for the Canadian provinces **December 16, 2022**

Provincial Economic Outlook for Dec. 16, 2022

A Publication of BMO Capital Markets Economic Research • Douglas Porter, CFA, Chief Economist, BMO Financial Group

	Canada	British Columbia	Alberta	Saskat-chewan	Manitoba	Ontario	Quebec	New Brunswick	Nova Scotia	P.E.I.	Nfld & Labrador
Real GDP Growth (y/y % chng)											
2021	5.0	6.1	4.8	-0.9	1.8	5.2	6.0	5.9	6.2	7.9	0.6
2022	**3.5**	**3.0**	**4.5**	**6.0**	**4.2**	**3.2**	**3.4**	**2.0**	**1.8**	**1.7**	**0.4**
2023	**0.0**	**-0.3**	**1.4**	**1.0**	**0.5**	**-0.4**	**-0.2**	**0.8**	**1.0**	**1.3**	**1.2**
2024	**1.5**	**1.6**	**1.7**	**1.3**	**1.2**	**1.6**	**1.4**	**0.9**	**1.1**	**1.2**	**0.7**
Employment Growth (y/y % chng)											
2021	5.1	6.6	5.2	2.6	3.5	4.9	4.2	2.6	5.4	3.7	3.0
2022	**3.7**	**3.1**	**5.0**	**3.2**	**2.4**	**4.4**	**2.4**	**2.1**	**3.2**	**6.0**	**3.4**
2023	**0.5**	**0.4**	**1.7**	**0.0**	**0.3**	**0.4**	**0.4**	**1.0**	**0.3**	**-0.1**	**0.0**
2024	**1.3**	**1.1**	**1.3**	**0.6**	**1.0**	**1.6**	**1.5**	**0.4**	**0.5**	**0.6**	**-0.1**
Unemployment Rate (percent)											
2021	7.4	6.5	8.6	6.5	6.4	8.0	6.1	9.0	8.4	9.4	12.9
2022	**5.3**	**4.8**	**5.8**	**4.6**	**4.7**	**5.7**	**4.4**	**7.3**	**6.7**	**7.6**	**10.8**
2023	**6.1**	**5.5**	**5.6**	**5.1**	**5.6**	**6.8**	**5.4**	**7.6**	**7.4**	**7.8**	**10.9**
2024	**6.5**	**6.2**	**6.1**	**6.1**	**6.4**	**7.0**	**5.7**	**8.1**	**7.9**	**7.9**	**11.0**
Housing Starts (thousands)											
2021	277	47.7	32.1	4.3	8.0	101.2	71.2	4.0	6.3	1.2	1.3
2022	**265**	**45.5**	**38.9**	**4.3**	**7.5**	**92.0**	**61.5**	**4.6**	**8.0**	**1.0**	**1.7**
2023	**225**	**39.0**	**40.0**	**4.0**	**6.5**	**72.0**	**51.0**	**4.0**	**7.0**	**1.2**	**0.6**
2024	**210**	**36.5**	**39.0**	**3.8**	**6.0**	**67.0**	**46.0**	**3.5**	**6.5**	**1.2**	**0.6**
Consumer Price Index (y/y % chng)											
2020	0.7	0.8	1.1	0.6	0.5	0.6	0.8	0.2	0.3	0.0	0.2
2021	3.4	2.8	3.2	2.6	3.2	3.5	3.8	3.8	4.1	5.1	3.7
2022	**6.7**	**6.9**	**6.5**	**6.8**	**7.9**	**6.7**	**6.5**	**7.2**	**7.5**	**8.9**	**6.5**
2023	**4.0**	**3.9**	**4.5**	**3.6**	**4.0**	**4.0**	**3.9**	**4.0**	**4.2**	**4.4**	**3.9**
2024	**2.6**	**2.6**	**2.8**	**2.7**	**2.5**	**2.6**	**2.5**	**2.4**	**2.5**	**2.3**	**2.5**
Budget Balance ($ mlns)											
FY21/22 e	-90,212	1,306	4,055	-1,468	-704	2,100	2,845	777	351	84	-272
% of GDP	-3.6	0.4	1.1	-1.7	-0.9	0.2	0.6	1.8	0.7	1.0	-0.7
FY22/23	**-36,400**	**5,732**	**12,294**	**1,094**	**-202**	**-12,900**	**-1,972**	**774**	**-554**	**-93**	**479**
% of GDP	**-1.3**	**1.3**	**2.6**	**1.1**	**-0.2**	**-1.2**	**-0.4**	**1.8**	**-1.0**	**-1.0**	**1.1**
Net Debt[1] ($ mlns)											
FY22/23	**1,177,300**	**56,389**	**46,024**	**15,171**	**29,487**	**407,231**	**199,625**	**11,701**	**18,397**	**2,664**	**16,040**
% of GDP	**42.3**	**13.0**	**9.9**	**14.6**	**33.7**	**39.0**	**36.0**	**26.7**	**33.5**	**29.7**	**38.4**

Bolded values represent forecasts; [1] federal = accumulated deficit

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Canadian Economic Outlook | Our key forecasts for the Canadian economy **December 16, 2022**

Canadian Economic Outlook for Dec. 16, 2022

A Publication of BMO Capital Markets Economic Research • Douglas Porter, CFA, Chief Economist, BMO Financial Group

		2021 Q1	Q2	Q3	Q4	2022 Q1	Q2	Q3	Q4	2023 Q1	Q2	Q3	Q4	2021	2022	2023	2024
Production	**q/q % chng : a.r.**																
Real GDP (chain-weighted)		5.3	-2.3	5.8	6.9	2.8	3.2	2.9	**0.6**	**-1.5**	**-1.8**	**0.0**	**1.5**	5.0	**3.5**	**0.0**	**1.5**
Final Sales		5.8	-6.9	9.5	2.8	0.6	-3.5	2.7	**1.7**	**0.7**	**-0.4**	**0.7**	**2.0**	4.0	**1.1**	**0.7**	**1.7**
Final Domestic Demand		6.4	-0.6	7.4	3.7	3.0	2.4	-0.6	**0.9**	**0.4**	**-0.3**	**0.7**	**2.0**	5.8	**2.7**	**0.5**	**1.7**
Consumer Spending		2.1	-2.0	20.7	1.3	2.3	9.5	-1.0	**1.2**	**-0.1**	**-1.5**	**0.3**	**1.4**	5.1	**4.8**	**0.5**	**1.4**
Durables		-4.2	-10.2	-2.3	-1.2	8.0	-14.4	-8.2	**1.0**	**-2.0**	**-2.0**	**0.0**	**2.0**	8.5	**-3.1**	**-2.6**	**1.3**
Nondurables		3.2	-8.3	2.9	-2.8	3.2	2.5	-3.9	**0.8**	**-1.0**	**-2.0**	**0.0**	**2.0**	1.1	**0.1**	**-0.7**	**1.2**
Services		2.4	5.7	30.4	4.0	1.1	17.8	3.8	**1.5**	**1.0**	**-1.1**	**0.5**	**1.0**	5.1	**8.6**	**1.9**	**1.5**
Government Spending		7.3	2.0	2.1	3.0	0.7	-2.2	3.9	**3.1**	**3.0**	**3.0**	**3.0**	**3.4**	5.5	**1.4**	**2.8**	**3.0**
Business Investment		-0.2	22.7	3.9	14.7	7.7	17.0	4.3	**3.0**	**1.0**	**1.0**	**1.0**	**2.5**	4.3	**10.3**	**2.8**	**2.1**
Non-residential Construction		17.5	10.0	5.2	15.1	13.3	13.8	11.7	**3.0**	**1.0**	**1.0**	**1.0**	**2.5**	0.8	**11.6**	**3.5**	**2.0**
Machinery and Equipment		-22.5	47.5	1.9	14.0	-1.3	23.1	-7.6	**3.0**	**1.0**	**1.0**	**1.0**	**2.5**	9.9	**8.1**	**1.6**	**2.3**
Residential Construction		38.0	-15.1	-31.0	11.7	8.8	-31.5	-15.4	**-9.5**	**-5.0**	**-5.0**	**-5.0**	**1.5**	14.9	**-10.6**	**-8.9**	**-0.3**
Exports		4.9	-19.0	3.6	16.2	-7.6	8.1	8.6	**4.2**	**-0.5**	**-0.5**	**2.0**	**2.0**	1.4	**2.8**	**2.5**	**1.8**
Imports		8.6	0.4	-3.0	20.4	0.2	29.5	-1.5	**1.9**	**-1.2**	**0.0**	**2.0**	**2.0**	7.8	**8.3**	**1.8**	**1.9**
Inventory Change	2012$ blns : a.r.	-17.7	4.7	-11.7	8.1	20.1	54.7	56.4	**51.2**	**39.0**	**31.2**	**27.5**	**24.8**	-4.1	**45.6**	**30.6**	**25.1**
Contrib. to GDP Growth	ppts : a.r.	0.2	4.3	-3.2	4.1	2.6	6.6	0.2	**-1.1**	**-2.2**	**-1.4**	**-0.7**	**-0.5**	1.0	**2.4**	**-0.7**	**-0.3**
Net Exports	2012$ blns : a.r.	-3.7	-37.8	-27.2	-34.2	-47.1	-80.0	-63.9	**-60.5**	**-59.1**	**-59.9**	**-60.2**	**-60.5**	-25.7	**-62.9**	**-59.9**	**-61.2**
Contrib. to GDP Growth	ppts : a.r.	-1.3	-6.0	2.0	-1.3	-2.5	-6.7	3.5	**0.8**	**0.3**	**-0.2**	**0.0**	**0.0**	-2.0	**-1.9**	**0.2**	**0.0**
Nominal GDP	$ blns : a.r.	2,423	2,463	2,530	2,622	2,720	2,830	2,811	**2,815**	**2,826**	**2,834**	**2,851**	**2,879**	2,510	**2,794**	**2,848**	**2,953**
Growth	q/q % chng : a.r.	18.9	6.7	11.5	15.3	15.8	17.2	-2.7	**0.6**	**1.6**	**1.1**	**2.5**	**4.0**	13.6	**11.3**	**1.9**	**3.7**
Real GDP	y/y % chng	0.5	12.1	4.3	3.9	3.2	4.7	3.9	**2.4**	**1.3**	**0.0**	**-0.7**	**-0.5**				
Inflation	**q/q % chng : a.r.**																
GDP Price Index		13.0	9.3	5.2	7.9	13.0	13.3	-5.4	**0.0**	**3.1**	**3.0**	**2.6**	**2.4**	8.2	**7.5**	**1.9**	**2.2**
CPI All Items		3.2	4.6	5.4	5.7	7.4	11.3	4.1	**3.6**	**2.8**	**4.0**	**3.6**	**2.7**	3.4	**6.7**	**4.0**	**2.6**
Ex. Food and Energy		1.4	4.1	4.1	3.3	4.8	7.6	5.4	**3.4**	**4.7**	**4.6**	**4.4**	**3.2**	2.3	**4.9**	**4.6**	**2.9**
Food Prices		0.8	3.7	5.5	7.9	10.1	11.1	9.7	**7.7**	**4.0**	**3.5**	**2.3**	**2.1**	2.2	**8.7**	**5.4**	**2.1**
Energy Prices		35.3	19.7	18.1	24.6	38.4	55.5	-21.9	**-8.6**	**-17.1**	**-0.4**	**-1.2**	**-1.2**	19.1	**22.2**	**-6.8**	**0.0**
Services		1.7	3.8	4.3	2.8	4.4	8.7	6.6	**3.2**	**4.1**	**3.6**	**3.4**	**3.2**	2.2	**5.0**	**4.3**	**2.7**
CPI All Items	y/y % chng	1.4	3.3	4.1	4.7	5.8	7.5	7.2	**6.6**	**5.4**	**3.7**	**3.5**	**3.3**				
CPIX8	y/y % chng	1.4	2.6	3.5	3.8	4.9	6.0	6.0	**5.8**	**5.0**	**3.6**	**2.9**	**2.8**	2.7	**5.7**	**3.6**	**2.4**
New Core CPIs	y/y % chng : avg.	1.9	2.5	3.1	3.4	4.2	5.3	5.5	**5.3**	**5.0**	**4.2**	**3.7**	**3.3**	2.7	**5.1**	**4.0**	**2.6**
Financial	**% : quarterly avg.**																
Overnight Rate		0.25	0.25	0.25	0.25	0.33	1.17	2.75	**3.92**	**4.50**	**4.50**	**4.50**	**4.50**	0.25	**2.04**	**4.50**	**3.88**
3-Month T-Bill		0.08	0.11	0.16	0.10	0.39	1.43	2.91	**3.95**	**4.40**	**4.45**	**4.45**	**4.45**	0.11	**2.15**	**4.40**	**3.80**
90-Day BAs		0.44	0.43	0.44	0.48	0.86	1.99	3.65	**4.65**	**5.10**	**5.15**	**5.15**	**5.05**	0.45	**2.80**	**5.10**	**4.30**
10-Year Bond Yield		1.13	1.49	1.24	1.58	1.92	2.98	3.01	**3.15**	**3.20**	**3.30**	**3.15**	**3.05**	1.36	**2.75**	**3.15**	**2.95**
10-Year BBB Corporate Spread	ppts	1.71	1.66	1.59	1.55	1.86	2.16	2.22	**2.35**	**2.40**	**2.50**	**2.40**	**2.30**	1.63	**2.15**	**2.40**	**2.13**
90 Day Canada/U.S. Spread	bps	3	8	11	5	9	33	16	**-27**	**-51**	**-64**	**-64**	**-64**	7	**8**	**-60**	**-55**
10 Year Canada/U.S. Spread	bps	-18	-10	-9	4	-2	5	-10	**-67**	**-65**	**-60**	**-56**	**-51**	-8	**-18**	**-58**	**-42**
Foreign Trade	**$ blns : a.r.**																
Current Account Balance		-0.8	-9.5	-15.4	-1.3	3.7	10.6	-44.4	**-40.0**	**-36.4**	**-36.4**	**-38.6**	**-40.6**	-6.7	**-17.5**	**-38.0**	**-41.0**
Share of GDP		0.0	-0.4	-0.6	0.0	0.1	0.4	-1.6	**-1.4**	**-1.3**	**-1.3**	**-1.4**	**-1.4**	-0.3	**-0.6**	**-1.3**	**-1.4**
Merchandise Balance		5.1	-2.3	5.8	10.2	32.8	41.5	6.7	**10.0**	**12.0**	**12.0**	**12.1**	**12.3**	4.7	**22.7**	**12.1**	**12.6**
Non-Merchandise Balance		-5.9	-7.2	-21.2	-11.5	-29.1	-30.9	-51.1	**-49.9**	**-48.4**	**-48.4**	**-50.8**	**-52.8**	-11.4	**-40.3**	**-50.1**	**-53.6**
US$	US¢/C$: qtr. avg.	79.0	81.4	79.4	79.4	79.0	78.4	76.6	**73.8**	**74.5**	**75.2**	**75.9**	**76.7**	79.8	**76.9**	**75.6**	**77.7**
	C$/US$: qtr. avg.	1.266	1.228	1.260	1.260	1.266	1.276	1.306	**1.355**	**1.342**	**1.329**	**1.317**	**1.304**	1.254	**1.301**	**1.323**	**1.286**
Yen	¥/C$: qtr. avg.	83.7	89.1	87.4	90.2	91.8	101.6	105.9	**104.4**	**100.0**	**100.0**	**100.0**	**100.0**	87.6	**100.9**	**100.0**	**98.9**
Euro	C$/€ : qtr. avg.	1.53	1.48	1.48	1.44	1.42	1.36	1.31	**1.38**	**1.42**	**1.42**	**1.43**	**1.43**	1.48	**1.37**	**1.42**	**1.44**
Corp. Profits Before Tax	y/y % chng	143.7	158.8	17.6	31.1	10.6	16.9	4.2	**-10.1**	**-22.3**	**-30.0**	**-13.4**	**-10.7**	68.2	**5.5**	**-20.0**	**3.0**
Corp. Profits After Tax	y/y % chng	47.3	54.7	9.5	20.8	9.3	17.8	13.6	**0.0**	**-9.6**	**-20.0**	**-13.4**	**-10.7**	30.8	**10.0**	**-13.6**	**3.0**
Personal Income	y/y % chng	5.5	1.6	4.5	4.8	5.9	6.3	7.2	**8.3**	**5.0**	**3.3**	**2.2**	**2.4**	4.1	**6.9**	**3.2**	**3.4**
Real Disposable Income	y/y % chng	7.1	-3.4	1.3	0.4	-0.5	-1.7	-1.0	**1.3**	**-1.4**	**-0.7**	**-0.7**	**-0.2**	1.2	**-0.5**	**-0.8**	**1.1**
Savings Rate	% : quarterly avg.	14.0	14.1	9.3	6.5	8.8	5.1	5.7	**5.0**	**4.6**	**4.6**	**4.4**	**4.4**	11.0	**6.1**	**4.5**	**4.2**
Other Indicators	**quarterly avg.**																
Unemployment Rate	percent	8.4	7.9	7.2	6.3	5.8	5.1	5.2	**5.1**	**5.5**	**6.0**	**6.4**	**6.5**	7.4	**5.3**	**6.1**	**6.5**
Housing Starts	000s : a.r.	304	279	262	261	244	271	282	**261**	**229**	**226**	**223**	**220**	277	**264**	**225**	**210**
Existing Home Sales	y/y % chng	49.6	92.7	-11.4	-4.0	-12.3	-23.8	-29.0	**-37.7**	**-36.5**	**-17.0**	**-0.8**	**6.0**	20.7	**-25.3**	**-15.0**	**7.0**
MLS Home Price Index	y/y % chng	19.8	25.4	23.6	28.1	27.2	14.8	3.7	**-6.8**	**-14.3**	**-13.2**	**-10.7**	**-8.6**	23.2	**12.1**	**-12.0**	**0.3**
Motor Vehicle Sales	mlns : a.r.	1.78	1.77	1.59	1.54	1.65	1.62	1.45	**1.48**	**1.52**	**1.60**	**1.70**	**1.78**	1.67	**1.55**	**1.65**	**1.95**
Employment Growth	q/q % chng : a.r.	1.5	2.5	6.8	6.2	3.2	3.9	-1.3	**2.4**	**-0.6**	**-0.5**	**0.6**	**1.6**	5.1	**3.7**	**0.5**	**1.3**
Industrial Production	q/q % chng : a.r.	6.8	-4.4	5.6	5.6	3.5	7.3	1.4	**1.4**	**-0.6**	**-1.6**	**0.1**	**1.0**	4.5	**4.0**	**0.5**	**1.2**
Federal Budget Balance	% of FY GDP													-3.6	**-1.3**	**-1.1**	**-0.9**

Bolded values represent forecasts

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Conference Board of Canada - December 19, 2022

Description:	(Average Aggregation) Consumer Price Index (2002=1.0)					
Mnemonic:	PCPI					
2022	1.512969					
2023	1.570703					
2024	1.607989					
2025	1.640388					
2026	1.67344					
2027	1.707157					

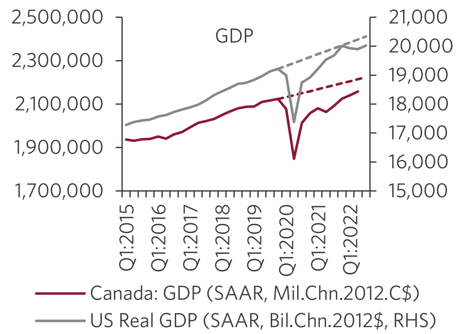
Forecast: How much pain for how much gain?

Avery Shenfeld and Karyne Charbonneau

As the body builders say at the gym, "no pain, no gain", and that's also true in the battle against inflation. But the outlook for both economic growth and interest rates in 2023 hinges on just how much pain in the economy we'll need to generate how much of a gain in terms of disinflation. Jumping to the punchline, our global growth outlook isn't as severe as some (Table 1), as we look for a lot of gain in containing inflation for relatively limited pain. For the US and Canada, isolated negative quarters are likely, along with a rise in the jobless rate (Table 2), but we're not pre-destined for anything worse than that if policymakers play their cards right.

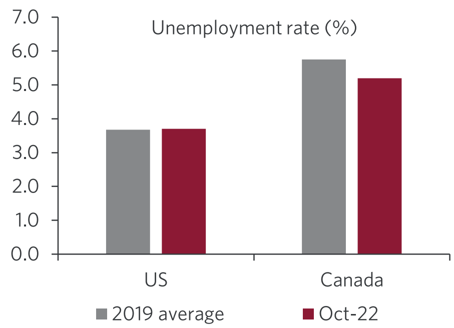
Supply side pressures on inflation proved not to be "transient", but central bankers were right in judging that such factors played a key role in igniting inflationary flames without aggressively overheated conditions in demand. Even today, two key measures of US and Canadian economic activity — the jobless rate and the level of real GDP versus its trend — don't look that far out of line with where they were in 2019 (Charts 1A and 1B), when inflation was fairly quiescent. So some of the progress we're starting to see on the supply side front (less fear of an oil or food crunch, reduced shipping bottlenecks, greater auto assemblies), if continued, would reduce the GDP or employment pain we might need.

Chart 1A: GDP not above 2019 trend



Source: Statistics Canada, BEA, CBO, Bank of Canada, CIBC.

Chart 1B: ...and the jobless rate is also similar



Source: Statistics Canada, BLS, CIBC.

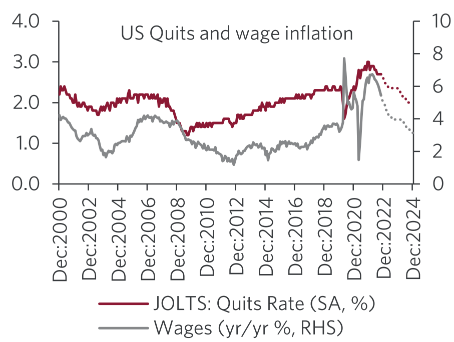
A gentle U-turn on the U-rate

While Canadian and US unemployment rates aren't out of line with 2019, two other labour market indicators suggest that we can't keep them this low over the next two years while defeating inflation. Elevated job vacancy rates, and partially related to that, the pace of wage inflation, signal that monetary policy will aim to push the jobless rate higher. Wage inflation not only impacts business costs, but along with employment growth, is critical in generating the spending power that's needed to sustain rising prices.

But we see a modest escalation to a roughly 4½% unemployment rate in the US and about 6% in Canada as sufficient, a trend that a stall in growth for a few quarters could achieve. For one, wage inflation actually tends to lag CPI inflation, since aggressive price hikes motivate more aggressive job switching. Year-on-year inflation rates for several globally-determined prices, most notably gasoline, will turn negative by the spring if prices stay at current levels, and could be joined by a further easing in prices on used cars as new vehicle supply improves.

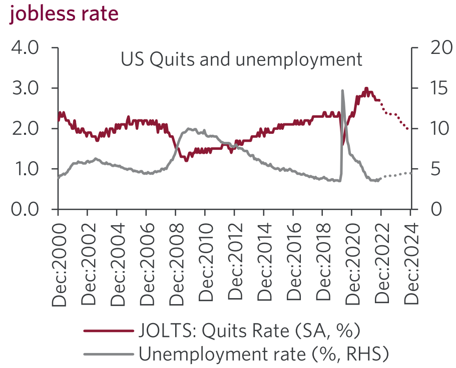
Moreover, we're seeing some signs that the one-time surge in wage gains triggered by the boost in labour demand and inflation on the economic reopening is beginning to fade. There's a solid relationship between wage inflation and the quit rate, the percentage of Americans leaving a job voluntarily, because the confidence and the motivation needed to do so relates to perceptions about the availability of positions elsewhere and the need to maximize wages to cover inflation. Both quits and wage inflation appear to be turning lower (Chart 2A). In turn, the quit rate is correlated with the unemployment rate, and given that link, a 4.3% jobless rate in early 2024 would be consistent with a roughly 2% quit rate (Chart 2B) and a steep drop in wage gains.

Chart 2A: Wages should fall with quit rate



Source: BLS, CIBC.

Chart 2B: Quits will decline with the rise in the jobless rate



Source: BLS, CIBC.

Vive la difference

Risks to our overnight rate forecast for the US still tilt to the upside, as will be the case while we wait for signs of the necessary slowing in employment growth. Estimating how high rates need to get to achieve a given deceleration is challenged by the fact that the sensitivity to rates will vary across cycles. Given the lags in economic responses, in which the peak impact on the economic slack isn't reached for five or six quarters (Chart 3), current data mostly reflects where rates were months ago. Based on the US Fed's own forecasting model, the impact we would have seen on the Q4 output gap is only equivalent to the peak impact of a 100 basis point hike. We obviously have had much larger rate hikes, and there is still more to come, but it's not surprising that we have yet to see clear evidence of their bite.

The same forecasting model would suggest that, based on previous cycles, we need about 450 to 500 basis points to achieve the necessary deceleration in the economy. That's consistent with our view for the Fed's terminal rate. We are a shade lower than market pricing in looking for the top of the Fed funds range to peak at 5%, but that reflects our call that disinflation can be achieved without trying to provoke a significant recession. We'd concede that the risks are tilted to the upside, and Powell's team is going to have to show good judgement to stand back from further hikes as they wait through the lags in the economic response to the prior hikes.

Indeed, there are some factors which could delay the slowdown relative to previous cycles, notably on the consumption side. Both Americans and Canadians were able to bank some excess savings during the pandemic. But it was more notable in the US, where housing wasn't as frenzied, and where fixed rate mortgages can be refinanced whenever rates plunge, that the low interest rates of the pandemic era, and tame rates in the last cycle, really slashed the share of incomes going to debt service (Chart 4).

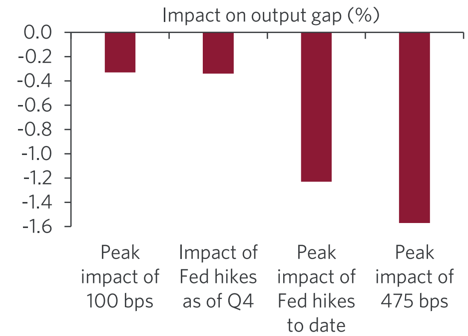
That does provide some cushioning against the impact of higher rates, but one has to be careful in looking at aggregate data that can mask stresses in more indebted households. Consumer sentiment and business survey indicators have fallen, suggesting optimism amongst economic participants is declining, and that though delayed, the impending slowdown is still coming (Chart 5).

Still, it's increasingly evident, not only in the tone of central bank chatter, but in the hard data, that Canada's peak rate should be close to 75 basis points lower than where the US heads. A gap in that range was observed in each of the last two cycles. Canadian households are more indebted, and mortgage debt service costs, unlike in the US, will climb given the need to refinance within five years or less.

To be sure, there are scenarios in which additional Fed hikes would see the BoC going along for some of that ride. If the Fed's stance reflects big upside surprises to US growth, there's a spillover into Canadian exports. Or if a wider rate gap sends dollar-Canada to, say, 1.50, the impact on import inflation could get the BoC off the sidelines.

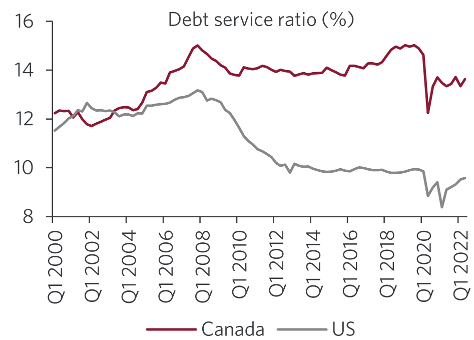
But the most likely motivation for Fed aggression — sticky core inflation that creates a tolerance for greater recession risks to get inflation down faster — would actually increase the motivation for the Bank of Canada to stand pat. Given the trade links, a steeper deceleration in US GDP growth on its own acts as a brake on Canadian activity. Each 1% decline in US GDP feeds into a 0.3% decline in Canada. The economic drag on Canada from the braking force from a 5% increase in US overnight rates is worth about 0.5% of Canadian GDP.

Chart 3: We've only seen the equivalent of 100 bps hike by the Fed



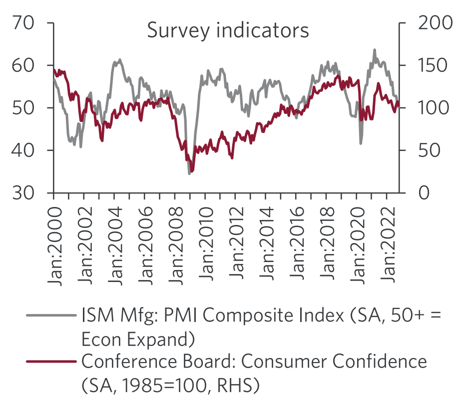
Source: Federal Reserve Board, CIBC.

Chart 4: The debt service ratio is much lower for Americans



Source: Statistics Canada, Federal Reserve Board.

Chart 5: US surveys hint at looming slowdown



Source: ISM, Conference Board.

Second, US rate hikes, and their impact on Treasury yields, will spill over into Canada's curve and thereby tighten monetary conditions north of the border, unless countered by a big move in the exchange rate. We found that 70% of an upward move in US 5-year rates feeds into Canadian 5-year yields (key to our mortgage market), after controlling for Bank of Canada overnight rates. So to some extent, a more aggressive Fed tightening stance can substitute for rate hikes north of the border.

Pain nevertheless

The bottom line is, however, that there's no pain-free way to excise inflation out of the global economy in 2023. Europe looks destined for an outright recession, and at best, the US and Canada will hover on the precipice of one. If central banks are wise enough to recognize the lagged impacts of what they've already done, they won't have that many more rate hikes to deliver, but in any scenario where they don't overshoot the mark, they won't have room to provide interest rate relief until 2024.

Table 1: Real GDP growth rates

Region	2019A	2020A	2021A	2022F	2023F	2024F
World[1]	2.9	-3.1	6.1	2.8	2.2	2.7
United States	2.3	-2.8	5.9	1.9	0.7	0.8
Canada	1.9	-5.2	4.5	3.3	0.6	1.3
Eurozone	1.6	-6.2	5.2	2.7	-0.1	1.8
United Kingdom	1.7	-9.3	7.4	2.9	-0.4	1.9
Australia	2.0	-2.1	4.9	3.8	1.6	1.8
Japan	-0.4	-4.6	1.7	1.6	1.7	1.2
China	6.0	2.2	8.1	2.9	5.1	5.5

Source: IMF, CIBC Economics.

Table 2: Economic update

Canada forecast detail (real % change, SAAR, unless otherwise noted)

Variable	22Q2A	22Q3F	22Q4F	23Q1F	23Q2F	23Q3F	23Q4F	2022F	2023F	2024F
Real GDP Growth (AR)	3.3	1.5	0.5	-0.3	0.2	0.7	1.3	3.3	0.6	1.3
Real Final Domestic Demand (AR)	2.9	0.6	0.8	0.5	0.5	0.8	1.3	3.1	0.8	1.5
Household Consumption (AR)	9.7	2.7	1.2	0.7	0.2	0.6	1.1	5.5	1.5	1.0
All Items CPI Inflation (Y/Y)	7.5	7.2	7.1	5.9	3.2	2.8	2.2	6.9	3.5	1.9
Unemployment Rate (%)	5.1	5.2	5.1	5.3	5.6	5.9	5.9	5.3	5.7	5.7

US forecast detail (real % change, SAAR, unless otherwise noted)

Variable	22Q2A	22Q3A	22Q4F	23Q1F	23Q2F	23Q3F	23Q4F	2022F	2023F	2024F
Real GDP Growth (AR)	-0.6	2.6	1.4	-0.4	0.7	1.0	0.7	1.9	0.7	0.8
Real Final Sales (AR)	1.4	3.3	1.1	0.0	0.9	1.8	0.9	1.2	1.2	1.0
All Items CPI Inflation (Y/Y)	8.6	8.3	7.4	5.2	2.8	2.0	1.6	8.1	2.9	2.0
Core CPI Inflation (Y/Y)	6.0	6.3	6.0	4.4	3.2	2.2	1.7	6.2	2.9	2.1
Unemployment Rate (%)	3.6	3.6	3.8	4.0	4.2	4.1	4.2	3.7	4.1	4.4

Source: BEA, BLS, Statistics Canada, CIBC.

[1] At purchasing power parity.

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IHS Markit - December 8, 2022

Table 1, Selected Economic Indicators	2022	2023	2024	2025
Prices				
GDP Deflator	128.0	128.2	130.1	133.3
Percent Change	7.3	0.1	1.5	2.4
CPI	151.3	155.5	158.0	161.2
Percent Change	6.9	2.8	1.6	2.0
BoC Core CPI	147.1	151.7	154.4	157.5
Percent Change	5.5	3.1	1.8	2.0
Raw Materials Price Index	154.0	147.5	149.5	151.6
Percent Change	25.5	-4.2	1.3	1.4
Industrial Product Price Index	127.3	124.1	124.5	124.9
Percent Change	12.2	-2.6	0.3	0.3

Conference Board of Canada - November 2, 2022

Description:	(Average Aggregation) Consumer Price Index, Manitoba (2002=1.0)						
Mnemonic:	RPCPIM						
2022	1.530551						
2023	1.589377						
2024	1.62331						
2025	1.656294						
2026	1.689425						
2027	1.723298						

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ECONOMIC STUDIES | DECEMBER 12, 2022

#1 MEILLEUR PRÉVISIONNISTE GLOBAL – CANADA
FOCUS ECONOMICS ANALYST FORECAST AWARDS 2022
#1 BEST OVERALL FORECASTER – CANADA

ECONOMIC & FINANCIAL OUTLOOK

The Global Recession Is at Our Doorstep

HIGHLIGHTS

- Some of the supply chain snarls that have been hampering economic growth and fuelling inflation appear to be easing. However, there are a number of signs that the global economy will dip into a recession next year. We expect real GDP to contract as early as Q4 2022 in the eurozone as energy uncertainty continues to keep inflation high. The same is true in the United Kingdom, where real GDP fell in the third quarter.
- In the US, the situation is expected to deteriorate in 2023 as interest rate hikes and other factors really start to bite. The economy may dip into a recession next year, posting three quarters of GDP contraction, job losses and rising unemployment.
- Recent Canadian economic data have come in much better than we anticipated when we released our last forecast in October. But we think it's a bit of a head fake. Our outlook for next year continues to be for a short and shallow recession, albeit one that could stretch into the third quarter. Risks to the outlook also continue to be tilted to the downside, as households are increasingly coming up against the reality of higher costs of servicing their mortgages.
- The rate hike announced by the Bank of Canada on December 7 should be the last of the tightening cycle, and we forecast rate cuts starting at the end of next year. In the US, we expect the Federal Reserve will raise rates further in the first quarter of 2023.
- According to a number of indicators, Quebec's economy is heading for a major downturn. While real GDP has posted three sharp declines since March, it's too soon to say whether the province is already in a recession. But it will be eventually. It looks like 2023 will be a tough year, as households and businesses really start to feel the pinch of higher interest rates.
- A housing-led Canadian economic downturn will have the worst effects on provinces most reliant on real estate. By contrast, net oil-producing provinces should benefit from relatively little exposure to real estate, solid commodity production and prices, and major project activity.
- Persistent inflation remains the biggest risk to the global economy, as it would force many central banks to raise interest rates to higher-than-expected levels. Moreover, the global economic slowdown could be worse than expected if more countries are dragged into recession. High inflation and rising borrowing costs could further chill consumer and business demand. If households adjusted to higher debt servicing costs by reducing their expenditures more significantly, growth would suffer more. Canada could be hit hard if the global economy takes a dive, hurting exports and terms of trade. A bigger jump in unemployment and interest rates could also mean a steeper housing correction in Canada.

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RISKS INHERENT IN OUR SCENARIOS

Persistent inflation remains the biggest risk to the global economy, as it would force many central banks to raise interest rates to higher-than-expected levels. And if central banks don't respond forcefully enough, high inflation could become even more entrenched and difficult to tame in the medium term, requiring even more aggressive monetary policy. The global economic slowdown could be worse than expected if more countries are pulled into recession. High inflation and rising borrowing costs could further chill consumer and business demand. Canada could be hit hard if the global economy takes a dive, hurting exports and terms of trade. A bigger jump in unemployment and interest rates could also mean a steeper housing correction in Canada. Europe's economy is especially vulnerable due to sky-high energy prices and potential energy supply shortages from the war in Ukraine. Although prices for oil, some foods and other commodities have moderated, the war in Ukraine remains a major source of uncertainty in our forecast. We'll also need to continue to keep a close eye on China, where the country's zero-COVID policy and resulting business closures could again disrupt global supply chains and cause further domestic unrest. Then there are the risks to financial stability. A deeper economic downturn could mean more bankruptcies and sharper corrections in risky assets. Investors could demand higher risk premiums and be more critical of government decisions that could worsen the state of public finances or undermine the work of central banks. The US dollar could also continue to appreciate, particularly against the currencies of countries considered more economically and financially fragile, in turn exacerbating these vulnerabilities.

TABLE 1
World GDP growth (adjusted for PPP) and inflation rate

	WEIGHT*	REAL GDP GROWTH			INFLATION RATE		
IN %		2022f	2023f	2024f	2022f	2023f	2024f
Advanced economies	**38.7**	**2.5**	**0.0**	**1.8**	**7.3**	**4.3**	**2.0**
United States	15.7	2.0	0.1	2.0	8.1	3.3	2.2
Canada	1.4	3.6	0.2	1.0	6.9	3.2	2.0
Quebec	*0.3*	*2.9*	*-0.2*	*1.2*	*6.5*	*3.1*	*2.1*
Ontario	*0.5*	*3.4*	*-0.3*	*1.0*	*7.0*	*3.1*	*2.0*
Japan	3.7	1.1	1.1	1.4	2.2	1.6	0.7
United Kingdom	2.3	4.3	-1.5	1.2	8.9	6.4	3.1
Euro zone	11.9	3.2	-0.7	1.4	8.7	6.3	2.2
Germany	*3.3*	*1.7*	*-1.5*	*1.2*	*8.5*	*7.3*	*2.5*
France	*2.3*	*2.4*	*-0.8*	*1.5*	*5.8*	*4.5*	*1.8*
Italy	*1.8*	*3.7*	*-0.6*	*1.2*	*8.0*	*5.5*	*1.6*
Other countries	4.2	2.9	0.9	2.5	5.9	4.1	2.0
Australia	*1.0*	*3.9*	*1.6*	*2.5*	*6.5*	*4.6*	*2.5*
Emerging and developing economies	**61.3**	**3.2**	**3.3**	**4.5**	**8.2**	**6.0**	**4.0**
North Asia	26.8	3.9	4.8	5.4	4.3	3.7	3.0
China	*18.6*	*2.9*	*4.7*	*5.2*	*2.5*	*2.5*	*2.2*
India	*7.0*	*6.8*	*5.4*	*6.3*	*6.9*	*5.2*	*4.8*
South Asia	5.1	4.9	3.9	4.8	5.2	4.2	2.8
Latin America	5.8	2.8	0.8	2.6	8.2	5.0	3.6
Mexico	*1.8*	*2.1*	*0.9*	*2.5*	*8.8*	*4.8*	*3.7*
Brazil	*2.3*	*2.6*	*0.6*	*2.4*	*6.2*	*5.1*	*3.7*
Eastern Europe	8.1	-1.4	-0.2	3.0	26.5	16.1	9.3
Russia	*3.3*	*-4.6*	*-3.1*	*1.7*	*12.9*	*6.5*	*5.2*
Other countries	15.5	3.6	3.0	4.1	9.7	8.6	6.0
South Africa	*0.6*	*1.6*	*1.0*	*2.1*	*6.9*	*5.9*	*4.7*
World	**100.0**	**3.0**	**2.0**	**3.5**	**7.8**	**5.3**	**3.2**

f: forecasts; PPP: Purchasing Power Parities, exchange rate that equates the costs of a broad basket of goods and services across countries; * 2021.
Sources: World Bank, Consensus Forecasts and Desjardins Economic Studies

FINANCIAL FORECASTS

Global sovereign yields have moved lower, reflecting some early indications that inflation across most jurisdictions is moderating. Risks to financial stability and uncertainty around the lags in monetary policy are enough motivation to slow down the pace of rate hikes. Policy makers have offset their communications regarding slower rate increases by also conveying a desire to keep rates higher for longer. We now expect the Bank of Canada to pause its hiking cycle at the end of this year and have forecast rate cuts starting at the end of next year. Although the Canadian curve remains inverted, we expect the curve to gradually steepen in 2023 and 2024. In the US, we expect the Federal Reserve will raise rates further in the first quarter of 2023 before pausing and cutting rates at the end of the year. Risk assets have moved higher over the period, reflecting the decline in global yields. However, they are likely to remain on the backfoot given that inflation, rate hikes and weaker economic growth will likely weigh on earnings growth. US dollar weakness has lifted currencies, but the Canadian dollar continues to lag relative to global peers, reflecting the view that the Bank of Canada will be unable to raise rates as high as the Federal Reserve.

TABLE 2
Summary of financial forecasts

	2022		2023				2024			
END OF PERIOD IN % (EXCEPT IF INDICATED)	Q3	Q4f	Q1f	Q2f	Q3f	Q4f	Q1f	Q2f	Q3f	Q4f
Key interest rate										
United States	3.25	4.50	5.00	5.00	5.00	4.75	3.75	3.00	2.50	2.50
Canada	3.25	4.25	4.25	4.25	4.25	3.75	3.25	2.75	2.25	2.25
Euro zone	1.25	2.75	3.25	3.25	3.25	3.00	2.50	2.00	1.50	1.50
United Kingdom	2.25	3.50	4.00	4.00	4.00	3.75	3.25	2.75	2.25	2.00
Federal bonds										
United States										
2-year	4.26	4.45	4.20	4.00	3.65	3.40	2.85	2.65	2.50	2.50
5-year	4.08	3.85	3.75	3.60	3.50	3.15	2.70	2.60	2.60	2.60
10-year	3.80	3.65	3.55	3.40	3.25	3.10	2.70	2.65	2.65	2.65
30-year	3.76	3.65	3.55	3.40	3.25	3.05	2.85	2.85	2.85	2.85
Canada										
2-year	3.79	3.85	3.60	3.45	3.15	2.90	2.45	2.30	2.25	2.20
5-year	3.32	3.10	3.00	2.95	2.90	2.85	2.45	2.30	2.30	2.25
10-year	3.16	2.85	2.75	2.70	2.65	2.60	2.45	2.40	2.35	2.35
30-year	3.09	2.85	2.80	2.70	2.65	2.60	2.45	2.40	2.35	2.35
Currency market										
Canadian dollar (USD/CAD)	1.38	1.37	1.39	1.39	1.37	1.33	1.30	1.28	1.27	1.27
Canadian dollar (CAD/USD)	0.72	0.73	0.72	0.72	0.73	0.75	0.77	0.78	0.79	0.79
Euro (EUR/USD)	0.98	1.03	0.99	1.00	1.03	1.05	1.07	1.09	1.11	1.13
British pound (GBP/USD)	1.12	1.19	1.14	1.15	1.18	1.21	1.23	1.25	1.27	1.30
Yen (USD/JPY)	145	136	132	127	122	118	114	112	111	110
Stock markets (level and growth)*										
United States – S&P 500	3,700		Target: 3,750 (+1.4%)				Target: 4,000 (+6.7%)			
Canada – S&P/TSX	18,800		Target: 19,250 (+2.4%)				Target: 20,600 (+7.0%)			
Commodities (annual average)										
WTI oil (US$/barrel)	95 (83*)		78 (80*)				85 (84*)			
Gold (US$/ounce)	1,795 (1,730*)		1,730 (1,680*)				1,615 (1,560*)			

f: forecasts; WTI: West Texas Intermediate; * End of year.
Sources: Datastream and Desjardins, Economic Studies

Desjardins

ECONOMIC STUDIES

Overseas

Supply Chain Issues Are Easing, but the Global Economy Won't Escape a Recession

FORECASTS

Some of the supply chain snarls that have been hampering economic growth and fuelling inflation appear to be easing. However, there are a number of signs that the global economy will dip into a recession next year. We expect real GDP to contract as early as Q4 2022 in the eurozone as energy uncertainty continues to keep inflation high. The same is true in the United Kingdom, where real GDP fell in the third quarter. Even China's economy is slated to shrink at the end of this year as authorities continue to grapple with the pandemic and the country's zero-COVID policy disrupts economic activity. World GDP is expected to post anemic growth of just 2.0% in 2023—a level compatible with a global recession. The world economy should then bounce back in 2024, growing by 3.5%.

Supply Chain Issues Have Eased

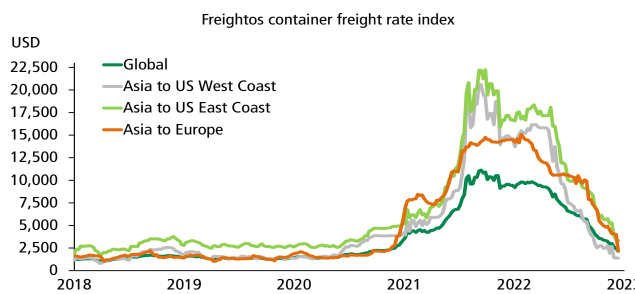
One of the biggest economic impacts of the pandemic has been supply chain problems. They've created an imbalance between supply and demand for goods and—most importantly—sky-high inflation throughout most of the world. It seems that some of these problems are going away, however. After spiking during the pandemic, freight costs are almost back to normal, especially for container shipping between Asia and the US West Coast (graph 1). Yes, we could still see hiccups like the latest round of COVID lockdowns in China that could disrupt supply chains again. But prices for some commodities are falling, and demand for goods is coming back into balance in advanced economies, which should improve the functioning of global markets. If inflation is going to come down, global supply pressures have to let up, and until just recently they were (graph 2).

We expect commodity price pressures to continue to ease as well. And as the global economy slows and demand for oil weakens, oil prices should fall. However, low government inventories and uncertainty around production by OPEC+ and other producers could partially offset this downward pressure. Prices for a number of other commodities such as metals and agricultural products are also expected to decline in the coming months as the global recession takes hold. European natural gas prices have come off their spring highs due to elevated inventories and mild weather in recent months. But the situation could change quickly if Europe gets hit with a cold winter.

China Is Still Grappling with COVID-19

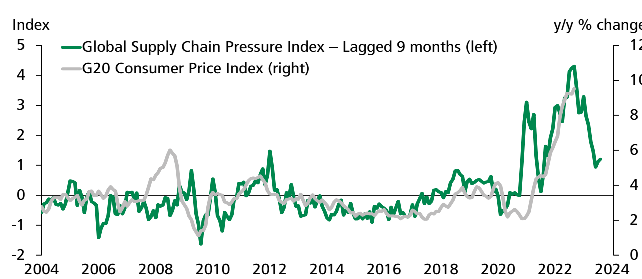
More and more countries are lifting their remaining public health measures and moving on from the pandemic. But not China. The country saw a record number of cases recently as Chinese authorities vacillate over their zero-COVID policy (graph 3 on page 5). After lifting a few lockdowns, they had to reinstate some. That said, Chinese authorities appear to be bending to protester demands, and COVID restrictions are being eased. Against this uncertain backdrop, China's

GRAPH 1
International container shipping costs have fallen dramatically



Sources: Freightos, Datastream and Desjardins Economic Studies

GRAPH 2
Resolving supply chain issues should slow global inflation



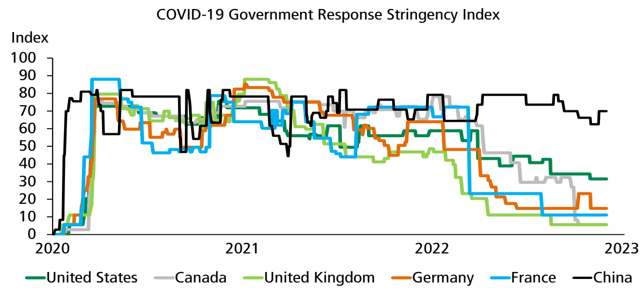
Sources: Federal Reserve Bank of New York, Organisation for Economic Co-operation and Development, and Desjardins Economic Studies manufacturing PMI fell to 48.0 in November and the non-manufacturing index dipped to 46.7 (graph 4). Meanwhile retail sales were down 0.5% year-over-year in October—the first decline since spring—and the real estate market continues to correct. Global spending on goods is also expected to drop, further darkening China's economic outlook. China's real GDP will likely contract in the fourth quarter this year, bringing annual GDP growth to 2.9%. We forecast growth of 4.7% in 2023 and 5.2% in 2024.

The Eurozone and the United Kingdom: The Recession Is Already Here

Despite being hobbled by the war in Ukraine, Europe's economy fared well through the third quarter. It posted annualized real GDP growth of 0.8% in Q3, and its labour market is holding up. (Unemployment is lower than in June.) But there's a sense that everything is about to change. A number of leading indicators already suggest the economy is contracting significantly. Consumer and business confidence is low, as are purchasing managers' indexes. Germany's ifo index is down, and the OECD's leading indicator for the eurozone has plummeted (graph 5). Everything points to imminent declines in real GDP or its major components. Inflation also remains very high in the eurozone, forcing the European Central Bank to continue raising interest rates despite the recession and ongoing energy crisis. We expect the recession to last until at least Q3 2023.

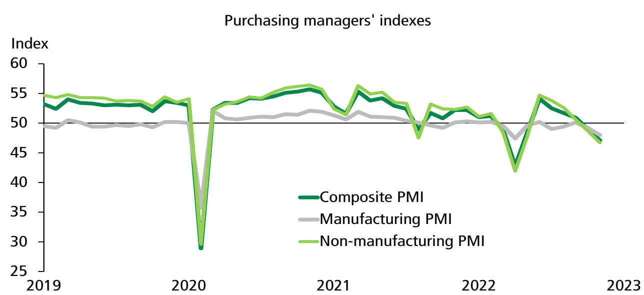
Meanwhile UK real GDP contracted an annualized 0.7% in the third quarter, and it looks like the slide has just begun. The cost of living crisis, political uncertainty, higher interest rates and Brexit are already weakening the economy and causing the UK to lag behind other countries. And the government of new Prime Minister Rishi Sunak is taking a rather restrictive approach to fiscal policy. We therefore expect the recession to last until the second half of 2023 in the United Kingdom as well.

GRAPH 3
Public health measures are much stricter in China



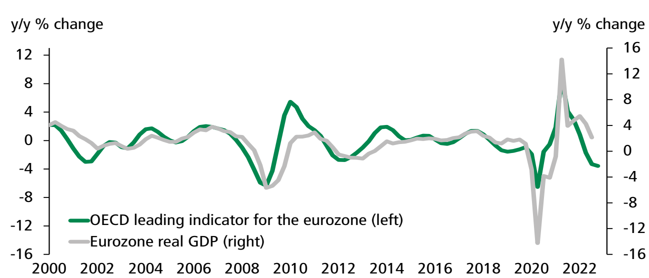
Sources: University of Oxford, Datastream and Desjardins Economic Studies

GRAPH 4
China's PMIs have started to fall again



Sources: National Bureau of Statistics of China and Desjardins Economic Studies

GRAPH 5
Leading indicators point to imminent declines in eurozone real GDP



Sources: Organisation for Economic Co-operation and Development, Eurostat and Desjardins Economic Studies

United States

The US Economy Is About to Enter a Rough Patch

FORECASTS
After contracting in the first half of 2022, US real GDP grew by a robust 2.9% in the third quarter. While further growth is expected the rest of this year, the situation is expected to deteriorate in 2023 as interest rate hikes and other factors really start to bite. The US economy may dip into a recession next year, posting three quarters of GDP contraction, job losses and rising unemployment. This should continue to bring down inflation. We predict the economy will begin to recover in late 2023 and bounce back strong in 2024.

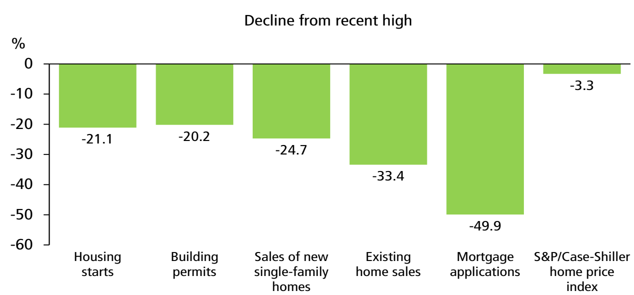
After falling 1.6% in Q1 and 0.6% in Q2, US real GDP finally entered positive territory in the third quarter, rising at an annualized rate of 2.9%. While these declines were due to negative contributions from international trade and business inventories respectively, the Q3 gain came on the back of improved net exports, stronger business investment and resilient real consumption.

Other economic data paints a gloomier near-term picture, however. The Conference Board and most other leading indicators have been trending lower for several months and are now consistent with declines in US real GDP. But we're not talking catastrophe here, especially not in the short term. The fourth quarter is off to a strong start after robust retail sales and real consumption in October. It looks as though post-Thanksgiving sales numbers were pretty solid, though we'll have to see more official data before we know for sure. Consumer confidence has also picked up after the summer doldrums, helped by lower gas prices and the gradual letup in inflation.

But the Federal Reserve's (Fed) aggressive monetary tightening means the US economy will likely contract next year. Rising interest rates are already having an effect, especially in the housing sector. Since peaking after the first wave of COVID-19, real residential investment has fallen 15.6% over the past six quarters. That's a lot, but it's probably not over yet. Housing starts are off 21.1% from their high. Existing home sales are down 31.7%, and sales of new single-family homes are lower by 24.7%. With 30-year mortgage rates temporarily over 7%, mortgage applications have plummeted 49.9%. Existing home prices have also started to fall, though as of the latest data from September, they're down just 3.3% from their June high (graph 6). We expect this price slide to continue over the next year.

Higher interest rates should also take a bite out of real consumption. Spending on durable goods was already down in the second and third quarters of this year. Expect a temporary rebound in the fourth quarter due to improved car dealer inventories and discounts from other businesses looking to reduce elevated inventory levels. But it will likely get more

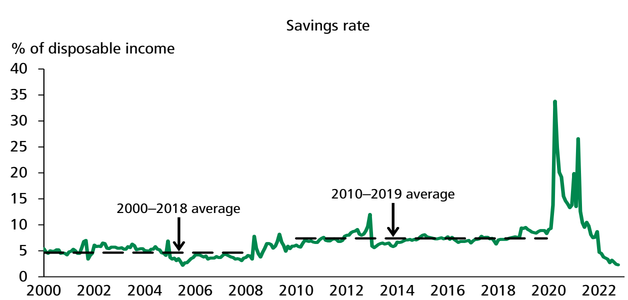
GRAPH 6
Most US housing market indicators are down sharply



Sources: U.S. Census Bureau, National Association of Realtors, Mortgage Bankers Association, Standard & Poor's and Desjardins Economic Studies

difficult after that. Households are slowly whittling away at the financial cushion they built up during the pandemic. The savings rate recently fell to just 2.3%, the lowest level since 2005 (graph 7). Accumulated savings are supporting consumption, but they won't last forever. That's because inflation is eating away at personal income and, more importantly, the labour market is expected to slow or contract next year. We also see the unemployment rate rising nearly 2 percentage points from its 3.5% cyclical low.

GRAPH 7
Americans are saving less



Sources: Bureau of Economic Analysis and Desjardins Economic Studies

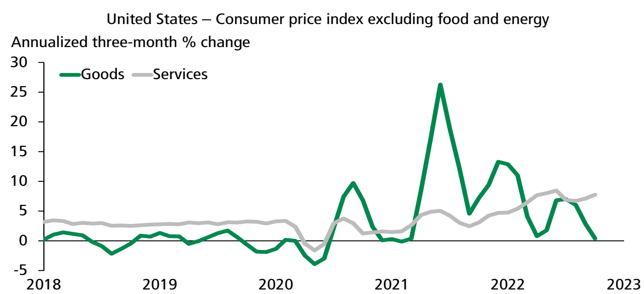
TABLE 3
United States: Major economic indicators

QUARTERLY ANNUALIZED VARIATION IN % (EXCEPT IF INDICATED)	2022 Q3	2022 Q4f	2023 Q1f	2023 Q2f	2023 Q3f	2023 Q4f	ANNUAL AVERAGE 2021	2022f	2023f	2024f
Real GDP (2012 US$)	**2.9**	**1.7**	**-0.6**	**-2.0**	**-0.6**	**1.7**	**5.9**	**2.0**	**0.1**	**2.0**
Personal consumption expenditures	1.7	3.8	0.5	-1.5	-0.3	1.3	8.3	2.8	0.9	1.7
Residential construction	-26.8	-11.7	-9.4	-7.9	-4.9	-0.8	10.7	-9.7	-11.6	0.5
Business fixed investment	5.1	4.5	-0.1	-1.6	-0.7	2.6	6.4	3.8	1.2	3.2
Inventory change (US$B)	49.6	40.0	0.0	-50.0	-75.0	-50.0	-19.4	103.5	-43.8	6.2
Public expenditures	3.0	1.0	0.7	0.7	0.7	0.7	0.6	-0.8	0.9	0.7
Exports	15.3	-1.5	-1.5	-1.5	-1.5	2.0	6.1	7.3	1.6	1.9
Imports	-7.3	5.0	-2.0	-4.0	-3.0	2.0	14.1	8.8	-1.4	1.5
Final domestic demand	0.9	2.7	0.0	-1.5	-0.4	1.3	6.7	1.7	0.4	1.7
Other indicators										
Nominal GDP	7.3	5.5	1.4	-1.0	1.5	3.6	10.7	9.1	3.0	4.0
Real disposable personal income	0.9	1.7	0.2	-1.5	-1.0	0.5	1.9	-6.5	0.0	1.6
Employment according to establishments	3.1	2.1	0.6	-0.9	-1.2	-0.5	2.8	4.1	0.8	0.3
Unemployment rate (%)	3.6	3.7	4.0	4.5	5.0	5.3	5.4	3.7	4.7	5.3
Housing starts[1] (thousands of units)	1,458	1,402	1,327	1,270	1,255	1,260	1,605	1,557	1,278	1,302
Corporate profits*[2]	4.4	3.0	0.0	-7.5	-7.0	-6.0	22.6	6.4	-5.2	3.2
Personal saving rate (%)	2.8	2.2	2.4	2.4	2.2	2.0	11.9	3.1	2.6	2.2
Total inflation rate*	8.3	7.3	5.9	3.4	2.4	1.9	4.7	8.1	3.3	2.2
Core inflation rate*[3]	6.3	6.1	5.1	3.8	2.7	1.9	3.6	6.2	3.4	1.8
Current account balance (US$B)	-888	-924	-918	-899	-886	-890	-846	-987	-898	-899

f: forecasts; * Annual change; [1] Annualized basis; [2] Before taxes; [3] Excluding food and energy.
Sources: Datastream and Desjardins, Economic Studies

As economic conditions deteriorate, inflation will to continue to moderate. The US consumer price index was up 7.7% year-over-year in October. That's still very high, but it's down from June's 9.1% peak. The improvement is mostly coming from the goods side for now, as the inflationary effects of supply chain issues and changes in consumer habits during the pandemic are increasingly becoming a thing of the past (graph 8). Inflation should be back near the Fed's 2% target by the end of 2023, allowing the Fed to start cutting interest rates. In 2024, US real GDP growth should therefore strengthen on the rebalancing of economic conditions and lower inflation and interest rates.

GRAPH 8
Pressure has eased on goods prices but not service prices



Sources: Bureau of Labor Statistics and Desjardins Economic Studies

Canada

Economic Outlook: The Calm Before the Economic Storm

FORECASTS

Recent Canadian economic data have come in much better than we anticipated when we released our last forecast in October. But we think it's a bit of a head fake. Our outlook for next year continues to be for a short and shallow recession, albeit one that could stretch into the third quarter. Risks to the outlook also continue to be tilted to the downside, as households are increasingly coming up against the reality of higher costs of servicing their mortgages. This said, we are more optimistic about 2024, as eventual interest rate cuts spur renewed activity.

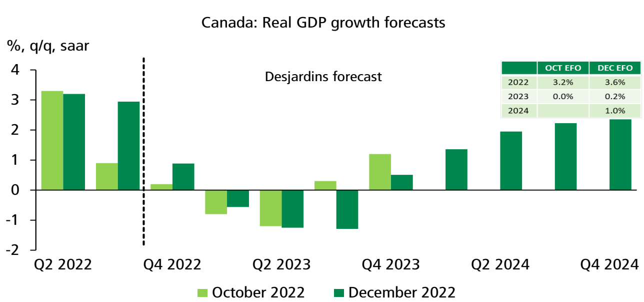
The Canadian economy never ceases to surprise. What looked like a sure bet on rapidly decelerating growth going into the end of 2022 has proven to be less of a certainty than we had earlier anticipated. Indeed, the third quarter outperformed our earlier expectations, and the fourth quarter looks on track to do the same. So, with real GDP growth in the second half of 2022 having come in stronger than expected in October, we've had to revise up our outlook for the year (graph 9). This has also helped to set a more positive tone going into next year, as the "handoff" to 2023—the impact that quarterly growth this year has on the annual rate of growth next year—is higher as well.

But take a look under the recent real GDP numbers, and it is clear that the Canadian economy is rapidly cooling. For instance, domestic demand contracted in the third quarter of this year as a result of declines in both consumption and investment. And as we outlined recently, we think positive data so far in the fourth quarter have likely been a bit of a head fake. As such, we anticipate this recent bout of good economic news to be the calm before the storm. Indeed, we continue to expect a recession in 2023 that is just as deep, if not deeper, than we were forecasting back in October (graph 9).

This moribund outlook for 2023 reflects broad-based weakness (graph 10). However, it is primarily the result of higher interest rates weighing on interest-rate sensitive parts of the Canadian economy, notably housing and consumption. The Bank of Canada is acutely aware of the long and variable lags with which monetary policy impacts the economy, and has been increasingly highlighting this in recent speeches and research. Indeed, the potential non-linear impacts of higher interest rates on the economy pose a meaningful downside risk to the outlook. We touched on this in a recent note which considered what a 1990s-style scenario could look like, where households slash consumption to ensure they can meet their higher mortgage costs. And it doesn't look good. While we don't think the outlook is likely to develop along the lines of this downside scenario, it does reinforce the notion that risks to our baseline forecast are tilted to the downside.

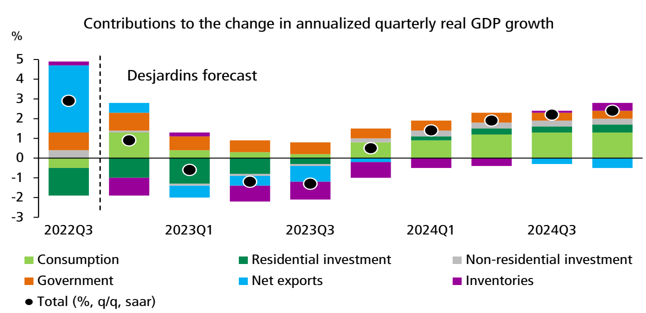
However, the outlook isn't all doom and gloom. In providing "inflation relief," federal and provincial governments have given income support to Canadians, with the general lean toward lower-income households. This should somewhat buttress the economy against the impending downturn. And with Canada ending 2022 having a tight labour market and consumers

GRAPH 9
We continue to expect a recession in Canada in 2023



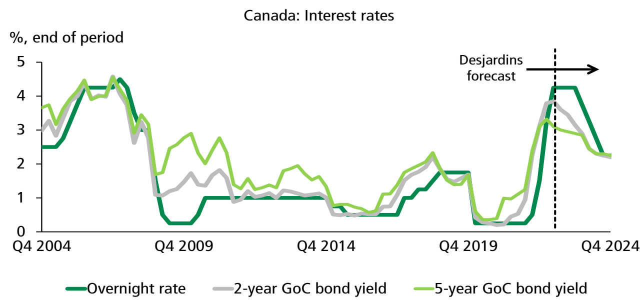
Sources: Statistics Canada and Desjardins Economic Studies

GRAPH 10
Economic weakness should be increasingly broad-based in 2023



Sources: Statistics Canada and Desjardins Economic Studies with savings in the bank, there is good reason to expect the slowdown in 2023 will be short lived. Elevated levels of immigration, particularly of economic immigrants, should also support higher growth over the medium term (see our recent note here). Further, inflation looks to be past its peak, and as such we expect the Bank of Canada to settle in for a prolonged pause. But as inflation cools on the back of slowing domestic and global demand, markets will anticipate that central banks will take their feet off the brake (graph 11). This will cause longer-term bond yields to move lower, helping to spur renewed growth in Canada and beyond, thereby underpinning a rebound in 2024.

GRAPH 11
This current hiking cycle is expected to come to an end in December



Sources: Bank of Canada and Desjardins Economic Studies

TABLE 4
Canada: Major economic indicators

QUARTERLY ANNUALIZED VARIATION IN % (EXCEPT IF INDICATED)	2022		2023				ANNUAL AVERAGE			
	Q3	Q4f	Q1f	Q2f	Q3f	Q4f	2021	2022f	2023f	2024f
Real GDP (2012 $)	**2.9**	**0.9**	**-0.6**	**-1.2**	**-1.3**	**0.5**	**5.0**	**3.6**	**0.2**	**1.0**
Final consumption expenditure [of which:]	0.8	2.8	1.4	1.1	0.8	1.6	5.4	3.9	1.7	1.7
Household consumption expenditure	*-1.0*	*2.4*	*0.7*	*0.5*	*0.2*	*1.5*	*5.1*	*4.8*	*1.3*	*1.7*
Governments consumption expenditure	*5.3*	*3.8*	*2.9*	*2.6*	*2.1*	*1.8*	*6.4*	*1.6*	*2.8*	*1.8*
Gross fixed capital formation [of which:]	-4.8	-3.4	-5.3	-3.6	-1.1	0.9	7.4	-0.9	-3.9	1.5
Residential structures	*-15.4*	*-10.5*	*-13.2*	*-8.9*	*-3.0*	*-0.3*	*14.9*	*-10.7*	*-11.7*	*0.8*
Non-residential structures	*11.7*	*3.3*	*-1.4*	*-1.2*	*-1.2*	*1.0*	*0.8*	*11.6*	*2.1*	*1.4*
Machinery and equipment	*-7.6*	*-2.8*	*-1.7*	*-2.8*	*-1.8*	*1.8*	*9.9*	*7.7*	*-1.3*	*2.9*
Intellectual property products	*1.0*	*2.1*	*2.0*	*2.0*	*2.0*	*2.0*	*4.0*	*0.1*	*2.2*	*2.1*
Governments gross fixed capital formation	*-4.0*	*1.5*	*1.4*	*2.1*	*2.3*	*2.4*	*0.9*	*0.1*	*0.7*	*2.4*
Investment in inventories (2012 $B)	56.4	51.0	52.3	47.9	42.8	38.5	-4.1	45.5	45.4	34.7
Exports	8.6	2.4	-2.7	-3.3	-2.1	1.1	1.4	2.6	0.4	1.6
Imports	-1.7	0.7	-0.9	-1.9	0.5	1.7	7.8	8.2	1.1	2.4
Final domestic demand	-0.6	1.3	-0.2	0.0	0.4	1.4	5.8	2.7	0.4	1.7
Other indicators										
Nominal GDP	-2.7	3.8	0.3	-1.0	1.6	2.9	13.6	11.5	1.6	2.9
Real disposable personal income	0.3	3.2	-1.5	1.1	-1.0	-0.9	1.2	-0.2	0.0	1.7
Employment	-1.3	2.3	-0.3	-0.9	0.3	0.9	4.8	3.7	0.2	1.2
Unemployment rate (%)	5.2	5.3	5.7	6.3	7.0	7.2	7.4	5.3	6.5	6.7
Housing starts[1] (thousands of units)	283	245	203	187	183	180	271	261	188	178
Corporate profits*[2]	16.3	1.9	-8.5	-23.0	-16.0	-11.3	35.8	11.4	-15.0	-0.7
Personal saving rate (%)	5.7	5.8	5.3	5.5	5.2	4.5	10.9	6.3	5.1	5.1
Total inflation rate*	7.2	6.9	5.4	2.9	2.6	2.1	3.4	6.9	3.2	2.0
Core inflation rate*[3]	5.4	5.3	4.8	3.3	2.6	2.3	2.3	5.0	3.2	2.1
Current account balance ($B)	-11.1	-4.8	-6.0	-7.4	-7.7	-8.4	-6.7	-12.3	-29.5	-36.6

f: forecasts; * Annual change; [1] Annualized basis; [2] Before taxes; [3] Excluding food and energy.
Sources: Datastream and Desjardins Economic Studies

Quebec

Is Quebec Already on the Brink of a Recession?

FORECASTS

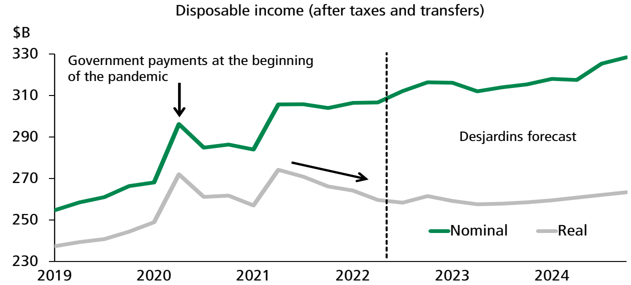
According to a number of indicators, Quebec's economy is heading for a major downturn. While real GDP has posted three sharp declines since March, it's too soon to say whether the province is already in a recession. But it will be eventually. It looks like 2023 will be a tough year, as households and businesses really start to feel the pinch of higher interest rates. The real estate market was hit first, and consumption is expected to start cooling shortly despite the government's fiscal support measures. The global economic downturn should also slow exports and business investment. The labour market has proved resilient so far, limiting the economic damage. But it's already shaky, and a few quarters of real GDP declines are likely. However, the economic recovery should begin in late 2023 and pick up steam in 2024.

Consumers are being squeezed by high inflation, which is reducing real income (graph 12) despite a number of relief measures from the Quebec government. This year, individuals in the province received $740 million in January, $3.2 billion in the spring and $3.5 billion in early December. In 2023, Québec Pension Plan benefits will go up 6.5%, and certain government fee increases will be capped at 3%. These measures and others announced by the federal and provincial governments are intended to help households contend with the rising cost of living and higher interest rates.

Consumer spending remained strong in the first half of this year. But durable goods purchases are showing signs of slowing and are expected to decline in the coming quarters. Less than 10% of Quebecers think it's a good time to make a major purchase (graph 13), a 20-year low. The recent string of interest rate hikes has been especially painful as it has driven up the cost of buying goods on credit. Other types of goods spending and service spending stand to slow as well. Overall household spending is expected to grow between 1.5% and 2.0% in 2023 compared to nearly 5% in 2022. Consumer spending will likely be slightly stronger in 2024 as lower interest rates fuel the economic recovery.

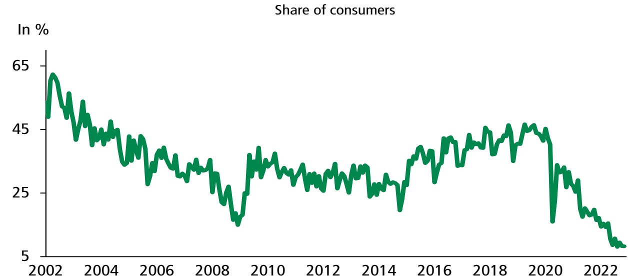
During Quebec's last recession in 2008–2009, excluding the 2020 pandemic shock, consumer spending fell about 2% on an annualized basis for two straight quarters. Consumers should fare better this time around as the labour market remains tight and the savings rate hovers around 10%. Quebec employers added 28,100 jobs in November, and the jobless rate hit a record low of 3.8%. But deteriorating economic conditions will push unemployment up to around 6% by the end of 2023 (graph 14 on page 11). Even if real GDP weakens for a few quarters, we should see limited job losses as there aren't enough workers to meet demand. In this tight job market, most businesses with the financial wherewithal will try to hold on to staff and hire any workers who become available. We're already seeing this in the

GRAPH 12
Despite government payments to individuals in 2022, real personal incomes are down in Quebec



Sources: Institut de la statistique du Québec and Desjardins Economic Studies

GRAPH 13
Durable goods are about to take a hit as not many consumers in Quebec think it's a good time to make a major purchase



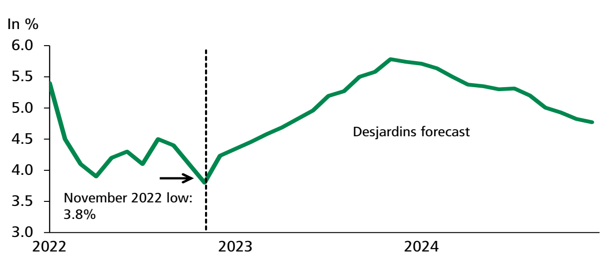
Sources: Conference Board of Canada and Desjardins Economic Studies

TABLE 5
Quebec: Major economic indicators

ANNUAL AVERAGE IN % (EXCEPT IF INDICATED)	2020	2021	2022f	2023f	2024f
Real GDP (2012 $)	**-5.0**	**6.0**	**2.9**	**-0.2**	**1.2**
Final consumption expenditure [of which:]	-3.3	5.9	3.9	2.1	2.0
Household consumption expenditure	*-5.7*	*5.4*	*4.5*	*1.8*	*2.0*
Governments consumption expenditure	*2.0*	*7.3*	*2.6*	*2.7*	*2.0*
Gross fixed capital formation [of which:]	-1.0	7.2	-0.3	-5.2	-0.2
Residential structures	*2.8*	*12.9*	*-10.3*	*-13.8*	*-2.0*
Non-residential structures	*0.6*	*-1.5*	*6.5*	*-3.0*	*-2.0*
Machinery and equipment	*-15.1*	*20.3*	*10.0*	*-3.0*	*-1.0*
Intellectual property products	*0.1*	*7.1*	*2.1*	*3.8*	*3.8*
Governments gross fixed capital formation	*0.5*	*-3.5*	*5.5*	*3.0*	*3.0*
Investment in inventories (2012 $M)	-6,550	-431	9,000	6,000	5,000
Exports	-7.8	2.9	2.5	0.0	2.3
Imports	-7.9	6.8	2.0	1.2	2.5
Final domestic demand	-2.9	6.2	3.0	0.5	1.5
Other indicators					
Nominal GDP	-1.9	11.8	10.3	2.8	3.3
Real disposable personal income	8.5	1.9	-1.5	-1.0	2.0
Weekly earnings	7.9	2.9	4.2	4.1	3.7
Employment	-4.8	4.1	2.6	0.6	1.3
Unemployment rate (%)	8.9	6.1	4.3	5.1	5.2
Personal saving rate (%)	17.6	14.6	8.9	6.0	5.8
Retail sales	0.4	14.4	8.0	3.1	3.8
Housing starts[1] (thousands of units)	53.4	67.8	60.0	47.0	49.0
Total inflation rate	0.8	3.8	6.5	3.1	2.1

f: forecasts; [1] Annualized basis.
Sources: Statistics Canada, Institut de la statistique du Québec, Canada Mortgage and Housing Corporation and Desjardins, Economic Studies

GRAPH 14
Quebec's unemployment rate will likely rise in 2023 before gradually coming down in 2024



Sources: Statistics Canada and Desjardins Economic Studies

construction industry, where employment has been fairly stable so far despite a significant drop in activity.

Quebec's housing market continues to cool. Existing home sales are down, and the average sale price is already 6.7% off its April peak. The frenzy is over, and bidding wars have become less common. The share of homes selling at least 10% above list has fallen from about 30% in April to less than 5% in October.[1] In areas that saw the most bidding wars through this spring, especially near the Island of Montreal and the Outaouais, prices are correcting sharply. Prices are holding up better in eastern and central Quebec. Provincewide, the average price is expected to decline by 17% by the end of 2023. The slowdown in new construction is also far from over. Housing starts are down nearly 10% this year and will likely drop by about 20% in 2023. But residential investment is expected to gradually bounce back in 2024, supporting the overall economic recovery.

[1] According to the Quebec Professional Association of Real Estate Brokers.

Ontario and Other Provinces

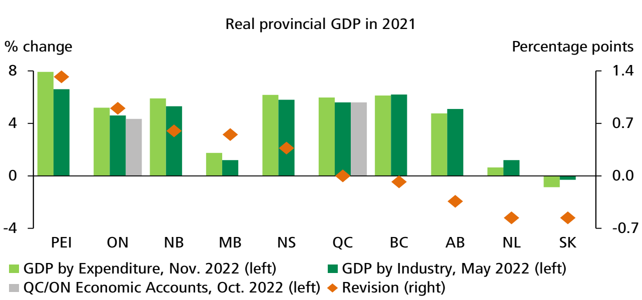
Inflation Relief Measures Offer Some Relief from Recession, If Not from Inflation

FORECASTS
A housing-led Canadian economic downturn will have the worst effects on provinces most reliant on real estate. By contrast, net oil-producing provinces should benefit from relatively little exposure to real estate, solid commodity production and prices, and major project activity. Affordability measures laid out since the spring budgets should boost national growth by about 0.1 ppts in 2022. Higher national immigration targets should support growth in all provinces, with the greatest gains to those with better economic prospects and ability to integrate newcomers into the labour market.

As the effects of this year's rate hikes work their way through the economy, we still expect Canada's largest province to see the most pronounced slowdown. Ontario's underperformance continued in the third quarter of this year. Home prices are further below their peak than in any other province. Total employment is almost 40k lower than the May 2022 high despite two consecutive monthly gains in October and November. The risk of a housing market spillover into the financial sector remains omnipresent. And national automobile output and motor vehicles and parts exports fell in Q3, which does not bode well for Ontario's principal export industry. Vehicle production is set to rise next year, but softer domestic demand in the US will hold back gains in external shipments from all provinces.

However, it's not all bad news for Canada's most populous province. Upward revisions to historical GDP mean positive handoff effects for growth rates this year. As in Canada's Q3 2022 economic accounts, Statistics Canada revised the 2021 expansion significantly higher in Ontario. Real GDP growth in 2021 was also revised substantially better for Prince Edward Island (PEI) and moderately improved in New Brunswick, Manitoba and Nova Scotia (graph 15).

GRAPH 15
Historical revisions should boost Ontario, PEI growth



Sources: Statistics Canada, Ontario Ministry of Finance, Institut de la Statistique du Québec, and Desjardins Economic Studies

Commodity prices are poised to stay high and continue to propel expansions in Canada's natural resources-producing regions. Alberta drilling activity is trending higher and at some of its highest levels since before the 2014–15 oil price correction. The government recently raised its production forecasts for 2023 and 2024, particularly for conventional oil. Saskatchewan has also lifted projections for crude output. In the potash sector, it should continue to benefit from rising production, high prices, and the ongoing Janssen mine construction. Newfoundland and Labrador's Terra Nova offshore oil field is scheduled to come back online next year. And in BC, still-high prices for metals and natural gas should offset some of the drag from housing. However, China's new lockdown measures do not bode well for base metals demand or trade in Canada's westernmost province.

The strength of commodity prices has also bolstered government revenues (alongside better-than-expected economic growth and inflation) and enabled new measures to address affordability challenges. We estimate that the sum of provincial household transfers (including those in Quebec) announced since the spring budget season make up 0.4% of nominal GDP in FY2023 (with impacts between 0.1% and 1% at the provincial level). That should boost the national annual growth rate by about 0.1 ppts in 2022. The risk remains that these measures exacerbate or prolong inflationary pressures. See our commentary on the Alberta and Ontario mid-year updates and our Ontario recession report for details.

In the Maritimes, expectations that interprovincial in-migration will ease towards historical averages still underpin the economic slowdown forecast for the next two years. Infrastructure outlays to meet the needs of growing populations and rebuilding after Hurricane Fiona are also key. The question is whether projects can progress on schedule amid elevated input costs and acute labour shortages. Nova Scotia's Q1 fiscal update cut building infrastructure spending plans by $130M (17%), primarily due to health sector project delays.

Higher national immigration targets should boost all provinces' expansions, but the strength of the effect will vary by region. For one thing, newcomers to the Prairies have tended to fare better in the labour market than those who settle elsewhere. That trend could well continue given the strong economic prospects in Alberta, Saskatchewan and Manitoba versus other provinces. Moreover, recessions tend to have lagged and lasting impacts on where newcomers settle. For instance, the portion of immigrants who landed in Alberta dropped during and after the 2015–16 provincial downturn; Ontario's share then surged. By contrast, during the severe 1990s recession, Ontario's share stagnated, to the benefit of BC.

TABLE 6
Ontario: Major economic indicators

ANNUAL AVERAGE IN % (EXCEPT IF INDICATED)	2020	2021	2022f	2023f	2024f
Real GDP (2012 $)	**-4.7**	**5.2**	**3.4**	**-0.3**	**1.0**
Final consumption expenditure [of which:]	-5.7	5.0	4.7	0.7	1.8
Household consumption expenditure	*-7.9*	*4.4*	*5.6*	*0.1*	*1.8*
Governments consumption expenditure	*0.2*	*1.3*	*2.1*	*1.8*	*1.7*
Gross fixed capital formation [of which:]	3.4	8.8	-4.9	-6.3	2.3
Residential structures	*8.9*	*14.3*	*-14.3*	*-16.0*	*2.0*
Non-residential structures	*0.8*	*2.3*	*7.6*	*-2.1*	*1.6*
Machinery and equipment	*-11.7*	*12.8*	*3.8*	*-1.1*	*3.7*
Intellectual property products	*1.4*	*3.7*	*-1.9*	*1.2*	*2.1*
Governments gross fixed capital formation	*6.9*	*6.8*	*1.1*	*0.4*	*2.4*
Investment in inventories (2012 $M)	-7,749	3,462	10,955	10,250	9,000
Exports	-7.7	1.3	4.8	1.9	0.4
Imports	-8.3	5.7	5.2	0.4	1.9
Final domestic demand	-3.7	5.9	2.3	-0.8	1.9
Other indicators					
Nominal GDP	-2.9	10.3	10.3	0.8	2.7
Real disposable personal income	8.8	1.3	-0.8	-1.5	1.7
Weekly earnings	8.0	1.6	4.7	4.9	2.6
Employment	-4.7	4.9	4.2	0.0	1.1
Unemployment rate (%)	9.5	8.0	5.7	7.2	7.4
Personal saving rate (%)	15.0	12.4	7.1	5.4	5.3
Retail sales	-3.5	9.3	11.7	1.5	2.2
Housing starts[1] (thousands of units)	81.3	99.6	91.9	64.0	58.0
Total inflation rate*	0.6	3.5	7.0	3.1	2.0

f: forecasts; * Annual change; [1] Annualized basis.
Sources: Statistics Canada, Ontario's Ministry of Finance, Canada Mortgage and Housing Corporation and Desjardins Economic Studies

TABLE 7
Canada: Major economic indicators by province

ANNUAL AVERAGE IN % (EXCEPT IF INDICATED)	2020	2021	2022f	2023f	2024f
Real GDP growth – Canada	**-5.2**	**5.0**	**3.6**	**0.2**	**1.0**
Atlantic	-3.5	4.6	1.8	0.4	0.5
Quebec	-5.0	6.0	2.9	-0.2	1.2
Ontario	-4.7	5.2	3.4	-0.3	1.0
Manitoba	-4.4	1.8	2.2	0.7	0.8
Saskatchewan	-4.8	-0.9	5.2	1.2	1.1
Alberta	-8.0	4.8	4.9	1.3	1.3
British Columbia	-3.0	6.1	3.9	-0.1	1.2
Total inflation rate – Canada	**0.7**	**3.4**	**6.9**	**3.2**	**2.0**
Atlantic	0.2	4.0	7.2	3.4	2.1
Quebec	0.8	3.8	6.5	3.1	2.1
Ontario	0.6	3.5	7.0	3.1	2.0
Manitoba	0.5	3.2	7.9	3.7	2.1
Saskatchewan	0.6	2.6	6.8	3.7	2.1
Alberta	1.1	3.2	6.6	3.4	2.0
British Columbia	0.8	2.8	7.0	3.4	2.0
Employment growth – Canada	**-5.1**	**4.8**	**3.7**	**0.2**	**1.2**
Atlantic	-4.1	3.9	3.2	0.2	0.0
Quebec	-4.8	4.1	2.6	0.6	1.3
Ontario	-4.7	4.9	4.2	0.0	1.1
Manitoba	-3.7	3.5	2.5	0.2	1.0
Saskatchewan	-4.6	2.6	3.3	0.4	1.2
Alberta	-6.5	5.2	5.0	0.4	1.3
British Columbia	-6.5	6.6	3.1	0.4	1.2
Unemployment rate – Canada	**9.6**	**7.4**	**5.3**	**6.5**	**6.7**
Atlantic	10.8	9.6	7.7	8.4	8.7
Quebec	8.9	6.1	4.3	5.1	5.2
Ontario	9.5	8.0	5.7	7.2	7.4
Manitoba	8.0	6.4	4.6	5.6	5.8
Saskatchewan	8.3	6.5	4.6	6.0	6.3
Alberta	11.5	8.6	5.7	6.9	7.2
British Columbia	9.0	6.5	4.7	5.7	5.9
Retail sales growth – Canada	**-1.3**	**11.8**	**8.3**	**2.5**	**3.5**
Atlantic	0.0	14.1	6.6	2.1	2.9
Quebec	0.4	14.4	8.0	3.1	3.8
Ontario	-3.5	9.3	11.7	1.5	2.2
Manitoba	-0.3	13.3	7.9	3.0	4.2
Saskatchewan	0.3	14.6	6.9	4.0	5.4
Alberta	-2.1	11.5	6.8	4.2	6.0
British Columbia	1.2	12.6	3.2	2.7	3.8
Housing starts – Canada (thousands of units)	**216.7**	**271.2**	**261.1**	**188.5**	**178.2**
Atlantic	10.3	12.1	12.2	8.1	8.1
Quebec	53.4	67.8	60.0	47.0	49.0
Ontario	81.3	99.6	91.9	64.0	58.0
Manitoba	7.3	8.0	8.0	5.5	4.8
Saskatchewan	3.1	4.2	4.4	3.5	3.0
Alberta	24.0	31.9	38.9	28.0	26.0
British Columbia	37.7	47.6	44.9	32.0	29.0

f: forecasts
Sources: Statistics Canada, Institut de la statistique du Québec, Ontario's Ministry of Finance, Canada Mortgage and Housing Corporation and Desjardins Economic Studies

Medium-Term Issues and Forecasts

What Will Be the New Normal for the Economy?

In 2023 and 2024, many countries will fall into a recession, then recover. After that, economic growth should return to its potential pace, which is determined by structural factors such as demographic trends and productivity. For some economies, this may mean slower average growth than in the previous economic cycle. But other factors could also play a role. These include a more challenging global environment with a high risk of conflict and the possibility of less trade globalization. The energy transition should become a greater focus as well. And after falling in 2024, interest rates should stabilize, but at higher levels than before the pandemic.

Lower Potential Growth

Slower demographic trends in many countries are expected to limit potential economic growth over the medium to long term. With more immigrants arriving in Canada, the nation's worker pool could maintain a good pace of growth. Quebec will have a harder time on this front, however. We could see productivity—a key variable of economic growth—accelerate and partially offset today's labour shortages, but that's still a big maybe. Productivity has been pretty disappointing for many years.

Unfortunately, there's no magic formula for boosting productivity. But economists do agree that it can be stimulated through productive investments and new technologies that add value to economic growth. Workforce training and education are also key. Optimizing the various regulatory constraints to reduce unwanted economic impacts could help, too.

Ultimately, we estimate that economic growth will be just shy of 2% in Canada by 2027. We expect it to be closer to 1.5% in Quebec and around 2% in the United States. Despite growth rates lower than previous economic cycles, workers should maintain the upper hand in the job market, especially in Quebec. Because of the province's anemic labour force growth, Quebec's unemployment rate could be back around 4% in the medium term.

Other Thoughts on the Next Cycle

Unfortunately, the global geopolitical balance has shifted. For proof, look no further than the war in Ukraine and tensions with China. The end of the Cold War, German reunification and China's opening to the West all contributed to the economic boom of the 1990s and early 2000s. At the same time, we saw increased globalization, when many economies benefitted from lower trade barriers and greater capital mobility. We expect very few gains in this area over the next few years, and we could even see declines.

The KOF Swiss Economic Institute publishes indexes of major globalization trends. According to the institute, heightened tension among world powers and greater US protectionism had already slowed globalization sharply before the pandemic (graph 16). More limited access to certain international markets could not only hurt economic growth, but also eventually make inflation a bit tougher to control. This argues for keeping interest rates higher than they were in the previous economic cycle.

GRAPH 16
The pace of globalization has already slowed considerably

Sources: KOF Swiss Economic Institute and Desjardins Economic Studies

The world needs to make the energy transition, but it could also make it harder to keep inflation on target. The energy transition will require huge investments. While this will likely have a positive impact on economic growth, it could also create inflationary pressure. This could be a problem, especially if the transition happens faster than production capacities and resources can handle. On the other hand, if the transition doesn't happen fast enough, climate change could be even costlier.

TABLE 8
Major medium-term economic and financial indicators

IN % (EXCEPT IF INDICATED)	2021	2022f	2023f	2024f	2025f	2026f	2027f	2017–2021	2022–2027f
		ANNUAL AVERAGE						AVERAGES	
United States									
Real GDP (var. in %)	5.9	2.0	0.1	2.0	3.0	2.4	2.1	2.1	1.9
Total inflation rate (var. in %)	4.7	8.1	3.3	2.2	2.2	2.0	2.0	2.5	3.3
Unemployment rate	5.4	3.7	4.7	5.3	4.9	4.5	4.2	5.1	4.6
S&P 500 index (var. in %)[1]	26.9	-22.4	1.4	6.7	6.0	4.0	4.0	17.0	-0.1
Federal funds rate	0.25	1.85	4.95	3.25	2.50	2.50	2.50	1.21	2.93
Prime rate	3.25	4.85	7.95	6.25	5.50	5.50	5.50	4.21	5.93
Treasury bills – 3-month	0.05	2.05	4.60	2.90	2.35	2.35	2.35	1.09	2.77
Federal bonds – 10-year	1.43	2.90	3.40	2.70	2.65	2.65	2.65	1.94	2.83
– 30-year	2.05	3.05	3.40	2.90	2.85	2.85	2.85	2.44	2.98
WTI oil (US$/barrel)	68	95	78	85	82	80	78	56	83
Gold (US$/ounce)	1,800	1,797	1,720	1,615	1,565	1,605	1,645	1,499	1,658
Canada									
Real GDP (var. in %)	5.0	3.6	0.2	1.0	2.1	1.8	1.7	1.4	1.7
Total inflation rate (var. in %)	3.4	6.9	3.2	2.0	2.0	2.0	2.0	2.0	3.0
Employment (var. in %)	4.8	3.7	0.2	1.2	2.0	1.6	1.3	1.1	1.7
Employment (thousands)	867	690	31	234	406	318	265	191	324
Unemployment rate	7.4	5.3	6.5	6.7	5.9	5.7	5.7	7.0	6.0
Housing starts (thousands of units)	217	271	188	178	194	213	224	226	211
S&P/TSX index (var. in %)[1]	21.7	-11.4	2.4	7.0	6.0	5.0	5.0	7.5	2.3
Exchange rate (US$/C$)	0.80	0.77	0.73	0.78	0.78	0.77	0.77	0.77	0.77
Overnight funds	0.25	1.90	4.20	2.80	2.25	2.25	2.25	0.93	2.61
Prime rate	2.45	4.10	6.40	5.00	4.45	4.45	4.45	3.13	4.81
Mortgage rate – 1-year	2.80	4.45	6.50	5.15	4.60	4.50	4.30	3.26	4.92
– 5-year	4.79	5.65	6.75	6.25	5.90	5.80	5.70	5.01	6.01
Treasury bills – 3-month	0.11	2.15	4.10	2.65	2.25	2.20	2.20	0.85	2.59
Federal bonds – 2-year	0.48	2.85	3.40	2.40	2.20	2.20	2.20	1.13	2.54
– 5-year	0.95	2.70	2.95	2.40	2.25	2.25	2.25	1.32	2.47
– 10-year	1.36	2.70	2.70	2.40	2.35	2.35	2.35	1.55	2.48
– 30-year	1.85	2.75	2.70	2.40	2.35	2.35	2.35	1.90	2.48
Yield spreads (Canada—United States)									
Treasury bills – 3-month	0.06	0.10	-0.50	-0.25	-0.10	-0.15	-0.15	-0.24	-0.18
Federal bonds – 10-year	-0.07	-0.20	-0.70	-0.30	-0.30	-0.30	-0.30	-0.39	-0.35
– 30-year	-0.20	-0.30	-0.70	-0.50	-0.50	-0.50	-0.50	-0.54	-0.50
Quebec									
Real GDP (var. in %)	6.0	2.9	-0.2	1.2	2.1	1.7	1.5	1.9	1.5
Total inflation rate (var. in %)	3.8	6.5	3.1	2.1	2.0	2.0	2.0	1.9	2.9
Employment (var. in %)	4.1	2.6	0.6	1.3	2.0	1.4	1.2	1.1	1.5
Employment (thousands)	169	112	25	55	90	65	55	13	67
Unemployment rate	6.1	4.3	5.1	5.2	4.5	4.2	3.9	6.3	4.5
Retail sales (var. in %)	14.4	8.0	3.1	3.8	5.5	5.2	5.0	4.9	5.1
Housing starts (thousands of units)	68	60	47	49	51	52	53	53	52
Ontario									
Real GDP (var. in %)	5.2	3.4	-0.3	1.0	2.5	2.3	1.7	1.5	1.8
Total inflation rate (var. in %)	3.5	7.0	3.1	2.0	2.1	2.0	2.0	2.0	3.0
Employment (var. in %)	4.9	4.2	0.0	1.1	1.7	1.7	1.4	1.3	1.7
Employment (thousands)	343	311	0	88	132	130	112	89	129
Unemployment rate	8.0	5.7	7.2	7.4	7.0	6.6	6.4	7.0	6.7
Retail sales (var. in %)	9.3	11.7	1.5	2.2	4.4	3.8	3.8	4.0	4.6
Housing starts (thousands of units)	100	92	64	58	65	73	78	81	72

f: forecasts; WTI: West Texas Intermediate; [1] Variations are based on observation of the end of period.
Sources: Datastream, Statistics Canada, Institut de la statistique du Québec, Ontario's Ministry of Finance, Canada Mortgage and Housing Corporation and Desjardins Economic Studies

ECONOMIC RESEARCH AND STRATEGY

LAURENTIAN BANK SECURITIES

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FALL ECONOMIC OUTLOOK

Plausible Characteristics of the Upcoming Canadian and U.S. Recession

The synchronous, fast-and-furious tightening in financial conditions orchestrated by central banks looking to prevent a high inflation regime at the cost of near-term economic damage is the main market theme. Led by the U.S. Federal Reserve, more than 20 central banks have been increasing policy rates this year according to the World Bank, the largest single factor contributing to the fading global economic momentum and major decline in asset prices.

The fast run of inflation-focused central banks into restrictive territory will be deep enough to predict at the very least a shallow recession in North America, stifling corporate earnings below current 2023 expectations and increasing unemployment during the next 6-12 months.

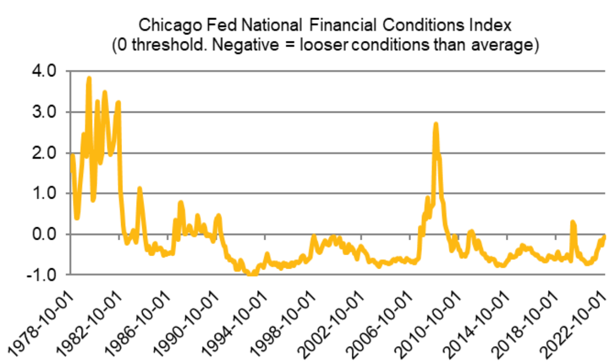
For the first time since Volker's inflation squeeze in the early 80s, investors note the absence of a pre-emptive pause in monetary hiking, or turnaround in policy rates, before the economic downturn begins. At least, broad measures of financial conditions, such as the U.S. Fed Chicago Financial Conditions Index, are not restrictive enough however to call for a deep recession at this point (see chart). Nonetheless, several leading indicators on our recession dashboard have recently turned red. Soon will be the end of what should be remembered as a very short, and volatile, business cycle. In terms of timing, the recession in North America is poised to begin imminently, before the Holiday Season, or at the latest in early 2023. In terms of length, the long adjustment phase of companies and households to higher financing costs points to a recession lasting at least 3 quarters in both Canada and the U.S.

Besides central bankers front-loading policy rates, other factors deteriorating financial conditions consolidate our recession call. For instance, U.S. banks have been tightening their credit standards for commercial and industrial loans according to US Federal Reserve surveys. The safe-heaven investor behaviour reinforcing the DXY generates longer-than-usual capital outflows from emerging markets, especially from USD-debt international borrowers and countries importing in USD. We cannot dismiss that 2022-23 marks the largest break on the global fiscal easing pedal observed since the 1990s, as reported in the World Bank September Outlook. And, unfortunately, the price of war taking the form of global energy and food access problems are not over. The extent of the upcoming energy rationing in Europe will have to be watched closely. Despite this geopolitically induced inflation source, central banks' policy rates would still elevated today, looking to calm down the global and domestic demand excess caused by the overly stimulative macro-policies of 2020-21 and pandemic-led shutdowns.

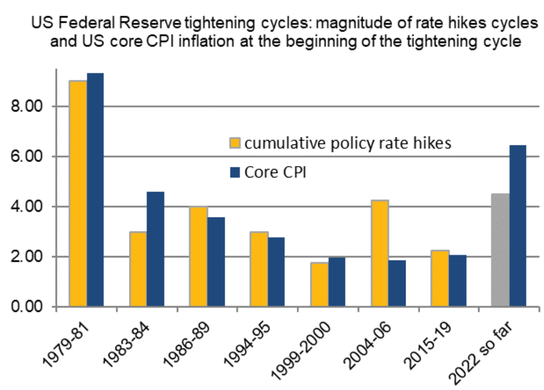
Furthermore, this year has been marked by an unfortunate juncture taking the form of market liquidity deterioration, as highlighted in the October IMF Financial Stability Report. The situation unusually worsened when the UK government came up with the idea of financing tax cuts through a surge in Gilt supply. The consequent massive loss in Gilt value triggered margin calls. UK pension funds scrambled to sell assets in reaction to the unexpected 200+ basis points surge in UK bond yields. Somehow, unconventional global QE led to unconventional risk taking by pension funds looking to eventually pay retirees on defined benefits. But we assist to a reduction of the G4 central banks' balance sheets, totaling more than $US2T so far this year according to Yardeni Research. This switch from QE to QT, combined with derivatives, amplifies financial markets losses. All in all, this matter was another shoe to drop from our perspective of dealing with higher interest rates. A recent European Central Bank study reveals a 25% international spillover effect of Gilts fluctuations on the North American bond market.

Surrounding our fragile base case U.S. and Canadian economic scenario are risks tilted to the downside. First, monetary policy makers could miscalculate the right stance to hammer CPI inflation. The peak effect of a 100-basis points interest rate shock on real GDP of advanced economies usually occurs 3-to-4 quarters later, ranging between 0.3pp and 0.5pp according to some models. But there is uncertainty surrounding the exact timing and cumulative impact in terms of magnitude due to higher and uneven leverage than before, on top of the unclear nonlinear, or psyche-driven, impact of jumbo rate hikes on economic agents' behaviour. Also, monetary policy paths in the largest economies could diverge or lead to unusual actions, as it is the case in Australia with the RBA low 2.60% policy rate and last week's Japan FX intervention as the BoJ has a difficult time to keep rates low. A global, coordinated USD devaluation does not appear in the cards following the 4th G20 Finance Ministers and Central Bank Governor Meeting held in Washington mid-October. Also, commodity supply shocks driven by climate disasters or geopolitical shifts might cause inflation to persist for longer. The global tightening in financing conditions could trigger widespread distress in emerging market debt and among companies with weaker balance sheets involved in the corporate bond market. A resurgence of COVID-19 might further stunt economic activity. A worsening of China's property sector crisis could spill over to the domestic banking sector and weigh heavily on the country's economic momentum, with negative cross-border effects. Also, geopolitical fragmentation could impede trade and capital flows.

On the positive side, there are elements that could brighten the outlook. New funding support from advanced countries to the World Bank could open the floodgates to lending for emerging markets struggling with the energy and food bill. The 2023 rotation of FOMC voting members could tilt the balance in favor of the doves recognizing the danger of going too far on the terminal policy rate and loss of competitiveness triggered by the USD appreciation. Exhaustion on the battlefield and growing vulnerability could bring Russia and the West to some agreement at some point in time, easing the supply energy and food access problem.



Source: Federal Reserve of Chicago



Source: World Bank, June 2022 Outlook

Remarks on the –Possibly Rapid– CPI Inflation Cooling and Fed/BoC Pivot

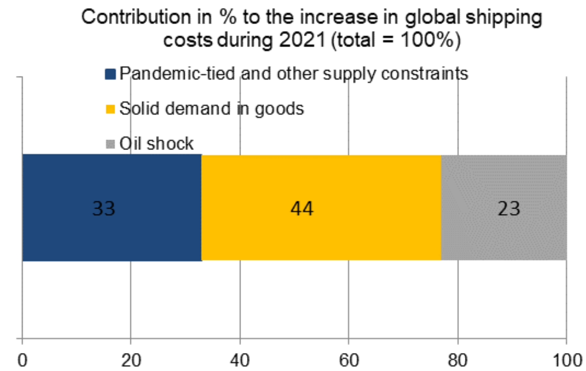
Among all the complex dynamics exposed above, let us comeback on the crucial global monetary tightening phase orchestrated by the U.S. Federal Reserve. More precisely, how much more monetary tightening is in order? The answer resides essentially in the near-term path of global, U.S. and Canadian CPI inflation.

Real policy rates in most countries including the U.S. are still negative but not for long as the monetary policy lag impact kicks in. The rule of thumb of the original Taylor rule says that the real interest rate needs to rise by 0.5 percentage points for each percentage point increase in CPI inflation. The yield on the 5-year TIPS, which incorporates recent and near-term expected changes in monetary policy, has risen by 330 basis points over the past year. According to the Taylor rule, that would be appropriate if inflation had risen by 6.6 percentage points. This is not too far from the 8.2% September U.S. CPI inflation and 6.2% August U.S. PCE inflation figures. However, the U.S. Federal Reserve made the mistake of waiting too long for CPI inflation to surge before starting to tighten in 2022. Accordingly, the front-loaded tightening effort does not appear entirely over according to recent FOMC officials' speeches and media interventions.

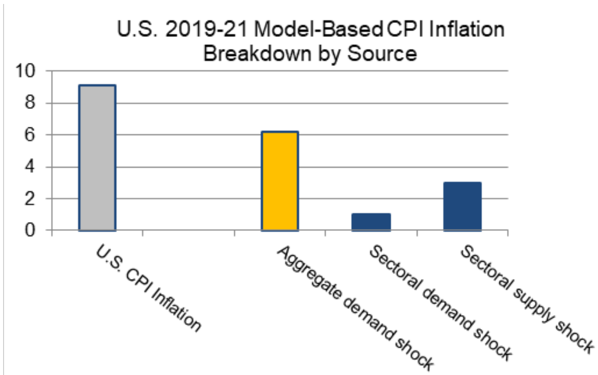
All in all, US CPI inflation current elevated plateau will not last for long in our view. The U.S. real policy rate will move mildly in positive territory during 2023H1, as we've seen in most previous tightening cycles according to the World Bank (see chart). The downward shift in global demand during the upcoming recession is the essence of our prediction of a rapid cooling in CPI inflation, both total and core. Indeed, as the pullback in consumer demand sets in more broadly, the current leveling off in commodity prices will be replaced by outright declines. The U.S. Michigan University survey has been showing for several months diminishing purchase intentions. Americans cite more than before the higher price tag of items and higher interest rates as reasons. Accordingly, sales prospects from companies deteriorate. The intention of companies to build up inventories, which previously exacerbated CPI upward pressures at the worse moment, wanes: companies do not see inventory stocks as too low anymore according to the U.S. National Federation of Independent Business survey.

The root of the problem is mostly demand. And it turns out central banks are good at cooling demand. For instance, a NY Federal Reserve study reveals two-thirds of the hot US CPI inflation figure was basically driven by excessive consumer demand (see chart). Another Bank of England research indicates global excess demand for goods was predominantly driving the shipping rates and CPI inflation in Europe (see chart). In turn, upstream sources of CPI inflation have already cooled down as producers and wholesalers cannot come up with big surcharges. Global container freight rates are down 67% from their peak. This adjustment phase of consumers is observable by the current decline in U.S. monetary aggregates, which usually have a sustained downward impact on CPI inflation lasting for more than one year. A similar dynamic is underway in the U.S. housing market, pointing towards a rapid deceleration in CPI shelter over the course of 2023.

Of course, we acknowledge the existence of structural inflationary irritants on the supply side, such as supply hurdles exposed in the challenging energy transition. Also, China's factory powerhouse is still impaired by the zero-COVID policy. Meanwhile, the BIS highlighted in a September report how semiconductors shortages prevent the build-up in auto inventories to be as solid as for other retail goods. In addition, the global offshoring expansion phase has ended without creating a generalized onshoring era according to the European-based Centre for Economic Policy Research. Thus, we do not expect the NY Federal Reserve global supply chains pressure index to completely go back to normal. The other supply issue relates to ageing population restraining labour force participation. We do not anticipate the structural labour supply problem to fully get resolve because of the upcoming recession, even if it turns out to be deep and very long. U.S. unemployment is poised to increase by 1.0-1.5pp from the current 3.5% level but to stay below the NAIRU estimate of 6.0%-6.5% according to U.S. Federal Reserve staff. Most of the increase in unemployment should occur around mid-2023 once the recession bite on corporate earnings. However, the main driver of the average wage inflation acceleration has been the excess number of job postings allowing Americans to switch jobs. It turns out U.S. job postings are falling fast and voluntary quits are next. Thus, we anticipate market concerns surrounding the wage-inflation spiral to dissipate during 2023. The same story should unfold in Canada where we forecast the 5.2% unemployment rate to edge up slightly north of 6% during 2023.



Source: Bank of England, Bank Underground Research, March 2022



Source: NY Federal Reserve, Giovanni, Kalmli-Ozcan, Silva, and Yildirim (2022)

In summary, the cyclical, demand-driven sources of CPI inflation should abate enough to take over structural factors for the time being. We forecast US and Canadian CPI inflation to tumble fast below the 3% mark by mid-2023, sufficient to bring down consumer inflation expectations along the way. The stubborn, stickiness part of CPI inflation should wear off to the point of bringing the U.S. Federal Reserve to contemplate the idea of a peak in policy rates as the recession begins. It will be difficult for Fed Chair Powell, and BoC Governor Macklem, to justify in front of the public policy rate hikes once the recession sets in, leading us to pinpoint the last hikes of this fast-tightening cycle at their respective December policy meetings.

Once possible terminal policy rates of 4.50% for the U.S. and 4.25% for Canada are reached at the end of 2022 (see forecast table at the end), a pause should last a few months before reaching the next leg of the pivot called rate cuts. Central bankers won't declare victory over inflation as easily as investors would like them to. The prudent nature of central bankers leaning in favour of inflation and inflation expectations, in addition to the lag in high-frequency data releases including the CPI, could bring them to communicate eventual policy rate cuts during the recession, at some point during the Winter or Spring of 2023. Then, formal rate cuts could be implemented starting mid-2023. In order words, the full pivot will likely come later than in previous business cycles, contrasting with previous business cycles where the pivot began before or during the recession. If we consider the real, natural short-term policy rate NY Fed estimate of about 0.4%, the so-called r*, policy rates could stand closer to 3.00-3.50% than 4.00% in both the U.S. and Canada by the end of 2023, implying modestly positive real policy rates.

Economic Fog Likely to Harm Market Risk Taking Over the Short-Term Horizon

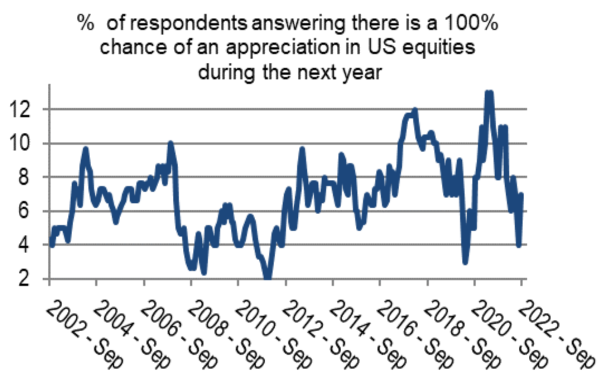
Besides the upcoming North American recession, the complex mix of adverse factors echoed above makes market timing ill-advised. It should incite investors to privilege a defensive approach for the next 3-6 months ahead. For instance, the share of Americans expecting positive equity returns in the next year is currently lower than average according to the Michigan survey, but this portion of bullish people has been even lower during previous recessions (see chart).

First, in respect to market liquidity deterioration, a low level of depth means that liquidity provision remains fragile due to heavier reliance on sufficiently rapid quote replenishment to meet trading demands without resulting in sharp price moves. This dependence on higher-velocity quote replenishment could pose problem by creating additional market dysfunction. Central banks can generally deal with a liquidity crisis, as we recently observed with the Bank of England, by providing unlimited amounts of money if needed.

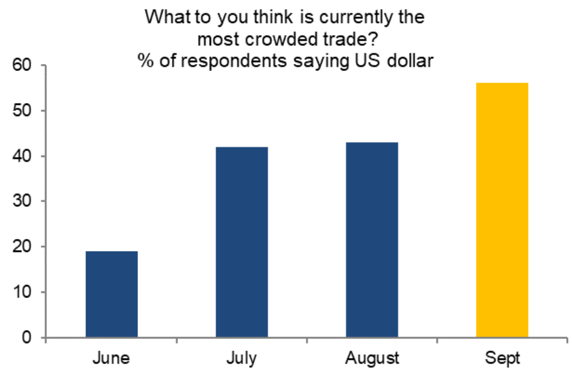
Also, the National Communist Party Congress just ended in China. The NCCPC, which takes place every five years, is the highest-profile event in China's political calendar, providing a forum for leadership and constitutional changes. China's economy, the second largest in the world, is in a tailspin. The recent trend of this large net importer of commodities is obviously not supportive for the TSX stock market. China's property market, which over the last 10 years contributed about a quarter of real GDP growth, melts down. Foreign investment falters. China's zero-tolerance approach to COVID has crippled consumer demand and stalled domestic businesses. It remains to be seen if further consolidation of President Xi's power could lead to a broad confirmation of structural policy settings, shift back the focus to a steady acceleration in economic growth by supporting industries and demand, loosen COVID policies and find ways to stabilise the property market.

Closer to home, another source of potential short-term financial market volatility looms: the November 8 US midterm election. According to recent polls, Republicans are expected to make gains in Congress and control both Houses, setting up a scenario favored by many investors because it would split the government now controlled by President Joe Biden's Democratic party. Historically, a divided U.S. government has been more favorable for equities than when Democrats control both the House of Representatives and the Senate along with the presidency. But this possible shift of power in Washington should not materially changed by itself the current sour investor sentiment.

All in all, there could be several hiccups during the recession period. Fundamentally, the fragile environment should continue to fuel the bearish sentiment that has been perceived in various ways, including in the Bank of America investors monthly survey: overweight cash, a position that could be sustained if the currently elevated CPI inflation falters soon; underweight equities as the grim economic outlook takes over. Furthermore, the risk of a deep recession may prevent investors from favoring corporate credit over equities. As for bonds, central and subnational governments in the U.S. and Canada are likely to act more prudently given the lesson learned from the major UK policy mistake. One conclusion from our deep analysis of the Canadian fiscal update season so far is that most Provinces set aside buffers and secure higher-than-expected revenues for potential tougher economic days. This may favor a more sustained bid into government bonds. As for the Canadian dollar, sour investor sentiment fueling the USD was previously the main driver behind the depreciation earlier this year according to the BofA survey (see chart). But more recently, it was more the deteriorating global commodity outlook and market expectations that the U.S. Federal Reserve will end up with a policy rate slightly higher than in Canada that drove the USDCAD depreciation lately. With global commodity prices expected to pullback further as the recession sets in, the USDCAD should be under further depreciation pressure until 2023H2, moving a notch closer to 1.40 (see forecast table at the end).



Source: University of Michigan Survey



Source: BofA Global Fund Manager Survey

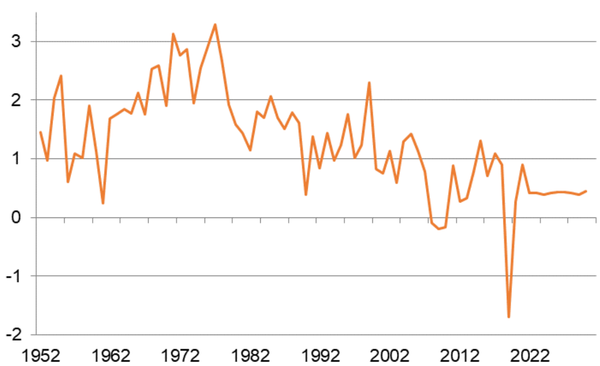
Glimpses on the –Possibly Slow– Economic Recovery Post-Recession

Our final words go to the more appealing flip side of the story: short-term economic damage is the price to pay to restore CPI stability … and to restore a more positive environment for investment returns. If our crucial call that central banks can engineer a sustainable cooling of inflation, stagflation fears will return in the genie bottle. In a way, the current streak of quarterly heavy losses in balanced portfolios, and upcoming recession, is the lesser of the two evils because the alternative appears worse: a long era of high inflation eroding corporate margins, preventing growth in earnings per share and ultimately reducing real returns on investment.

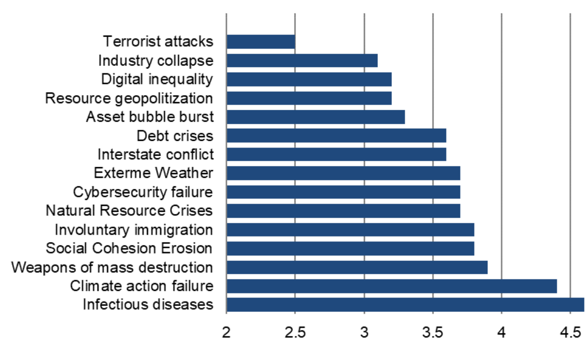
Thus, investors with a longer-term strategic view, and thinking central banks will prevail, should still find comfort in overweighting equities and eventually deploying some of today's excess cash on the side. Similarly, bond investors should be able to lean at some point into longer duration and rethink about a normal steepening of the yield curve. At the same time, in this attempt to provide a flair on how the recovery could look like, we end up with the conclusion that the far-stretched market risk taking and elevated price-earnings ratios of 2020-21 do not appear in the cards. Even if central banks backtrack, real policy rates are unlikely to return deeply in negative territory, far from providing the V-shaped pulse observed in late 2020-21.

The fact that consumers will not be able to catch-up over the 2023-24 horizon for the 2021-22 major loss in purchasing power point toward a slow recovery. While the staying power of the U.S. and Canadian consumers has shown uncanny resilience in previous business cycles, several signs point to the tide turning. The U.S. saving rate has notably dipped to 3.5%, credit card borrowing has risen well above pre-COVID levels, and the pool of excess cash is drying up. Consumers have increasingly relied on their balance sheets to spend, with wage gains not keeping pace with inflation. The longer this situation lasts, the greater the deterioration in household finances become. If the differential from the pre-pandemic saving habits continues to shrink at the same rate that it has over the past three quarters, the excess savings accumulated in 2020-21 by the U.S. consumer will be wiped out by mid-2023.

Another alternative point of view on the eventual recovery leads us to think about labour force and productivity. The U.S. Bureau of Labor Statistics projects a compound annual rate of change of 0.5% for the labour force for the period 2021-31 (see chart). In other words, the marked slowdown in the influx of workers observed in the past will continue. Put simply, the ageing population will continue to restrain the pool of available workers. As for labour productivity gains reaching 1.4% per year on average since 2009, it also marks a slowdown relatively to the above-average 3.2% annual growth of the late 1990s and early 2000s. Innovation and the widespread use of new technologies could reverse the trend. But the bar is high for potentially high productivity gains to more-than-offset a world of prevailing multi-dimensional risks and structural supply impairments (see chart): the multi-polar world is replacing hyper-globalization and contributes to the loss of fluidity in global merchandise trade; the lack of reliable energy in a global climate transition and geologically challenging time stifle activity and lead to social unrest. Overall, the supply limit could lower the threshold at which CPI inflation re-accelerates during the next recovery phase. All in all, combined with unlikely return of the super-friendly Fed's put, these factors should convince investors to do not expect consistent high single- or double-digit annual growth returns in equity markets in upcoming years.



Source: St. Louis Federal Reserve, U.S. BLS Projections



Source: World Economic Forum Global Risk Landscape, Annual Survey 2021.

Key Economic and Financial Forecasts	2021	2022	2023	2024
U.S. Real GDP (%)	5.9	1.7	0.0	1.4
Can. Real GDP (%)	4.5	3.3	0.0	1.3
Can. Unemployment Rate (%)	7.4	5.5	6.1	6.3
Can. CPI Inflation	3.4	6.7	2.6	2.1
U.S. Fed Funds Rate Target (%, EOP)	0.25	4.50	3.50	3.00
BoC Overnight Rate (%, EOP)	0.25	4.25	3.50	3.00
5Y Fed Can Gvt Bond Yield (%, EOP)	1.26	3.45	3.10	3.20
TSX Index (EOP)	21223	18000	19000	20000
Canadian Dollar (CADUSD, EOP)	0.79	0.72	0.74	0.78

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Monthly Economic Monitor

Economics and Strategy

NATIONAL BANK OF CANADA FINANCIAL MARKETS

December 2022 / January 2023

Summary

By Matthieu Arseneau, Jocelyn Paquet and Daren King

- For some months now China's economy has been struggling in the face of two different but interdependent headwinds: a marked slowdown in the real estate sector and a very strict anti-Covid policy. So it is with great relief that markets have welcomed the measures Beijing has taken in recent weeks to attack these problems. What could really change the picture is China's new approach to the pandemic. But the transition to living with the virus could be tough; a million people could succumb to Covid from now until sufficient herd immunity is reached. The economic fallout will likely be substantial. Fortunately this state of things is likely to be temporary. As herd immunity gradually develops, we see an acceleration of Chinese growth in the second half of 2023, when abolition of public-health measures will really begin to bear fruit. Until then, the rest of the world is unlikely to offer much to offset the weakness of Chinese growth. In the Eurozone a long-awaited recession seems finally under way, with October volume retail sales showing the largest monthly decline in 10 years outside of the pandemic period. Emerging economies, meanwhile, continue to suffer from highly aggressive monetary tightening and are also likely to slow in the coming months. Given these conditions we have slightly lowered our outlook for 2023 growth, from 2.2% to 2.1%. For 2024 our forecast is unchanged at +2.9%.

- Two weeks before the big day, markets got an early Christmas present from the Bureau of Labor Statistics – a second straight monthly report showing inflation below what the consensus had expected. The recent path of prices should have led the Federal Reserve to communicate a less hawkish stance, but at its most recent monetary policy meeting, for a reason that escapes us, the central bank instead hardened its tone. This change seems to us hard to justify when leading economic indicators are signalling a distinct slowdown of growth. The Fed, insensitive to these spikes of weakness, seems rather preoccupied by the vigour of employment. We do not deny that the labour market remains strong, but keep in mind that it is a coincident indicator, not a leading indicator like real estate and manufacturing. And even in employment data a certain slowing is now being felt. In such a context, we think the central bank will be obliged to end its monetary tightening phase no later than at its first monetary policy meeting of 2023 if it is to avoid making recession almost inevitable. But even a Fed change of course would not prevent a substantial slowing of growth next year. Our base case scenario includes two quarters of contraction, Q2 and Q3. For 2023 as a whole we see real GDP growth of just 0.2%. Fed rate cuts in the second half of 2023 should then allow acceleration of growth to 1.1% in 2024.

- Manœuvres for the landing of the economy have continued. The Bank of Canada raised its policy rate for a seventh straight time in December. However, cooling domestic demand and labor market and slowing inflation have prompted it to greater prudence about the next steps and it is no longer telegraphing further hikes as in its previous communications. It now affirms that the Governing Council will evaluate whether it will be necessary to raise the policy rate further. This is prudent, since the Bank acted with haste and the time lag for transmission of monetary policy means there is a risk it has gone too far. We will unfortunately know only a posteriori whether it has done so. One thing is certain: we are now seeing a marked slowdown in residential real estate, leading to extremely rapid deflation. Consumers have been struck simultaneously by loss of purchasing power, an interest-payment shock and an unprecedented negative wealth effect. In our view, interest rates will not need to be kept at current levels for very long to brake inflation and we accordingly expect the Bank to be obliged to lower them in the second half of next year. Given the monetary tightening, we anticipate stagnation of the economy over the next three quarters and anemic growth of 0.7% in 2023 as a whole.

Monthly Economic Monitor

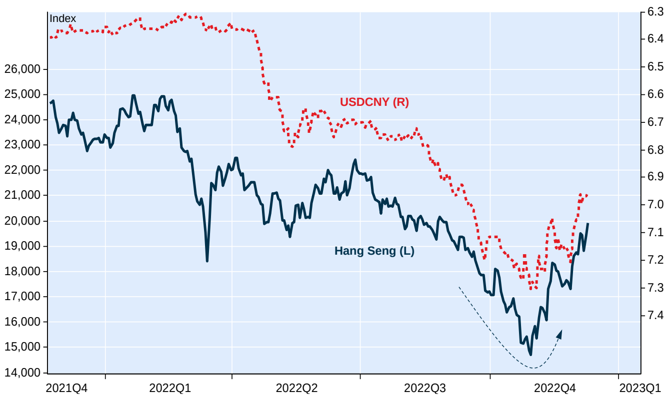
Economics and Strategy

NATIONAL BANK OF CANADA FINANCIAL MARKETS

World: China reopens … for better and for worse

For some months now China's economy has been struggling in the face of two different but interdependent headwinds: a marked slowdown in the real estate sector and a very strict anti-Covid policy. So it is with great relief that markets have welcomed the measures Beijing has taken in recent weeks to attack these problems.

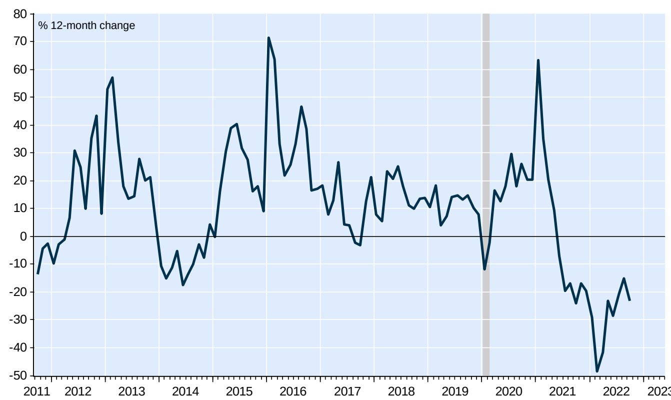
China: Investors reassured by announced easing measures
Hang Seng equity index and USDCNY



NBF Economics and Strategy (Bloomberg data)

First, the Chinese central bank and regulatory authorities (the Banking and Insurance Regulatory Commission) obliged banks to extend the payback periods of certain loans to real estate promoters, giving the latter more room to manoeuvre financially and thus to finish projects under construction. Lenders were also encouraged to grant homebuyers more time to pay down their mortgage debt. Many homebuyers had ceased making payments in recent weeks, fearing that their purchases would never be delivered. (In China, buyers of a real estate asset often start making payments before construction is finished.) That situation threatened to trigger a negative feedback loop, with loss of confidence threatening to exacerbate promoters' problems by depressing demand and prices.

China: Can the new measures brake the housing-market decline? (1)
12-month change in new-home sales (square metres)



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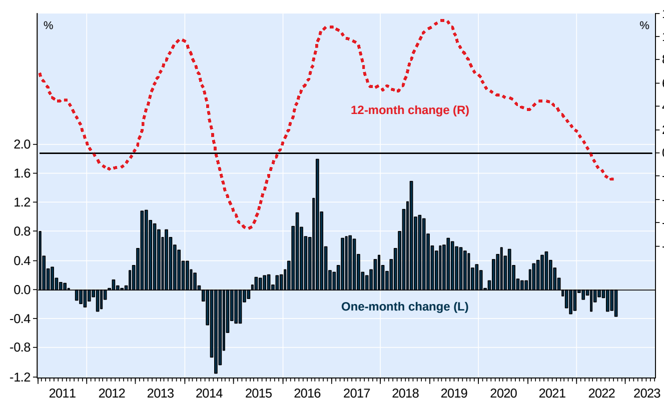
China: Can the new measures brake the housing-market decline? (2)
12-month and one-month changes of new-home prices in 70 large cities



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It's still too soon to say whether the measures put in place will suffice to clot the hemorrhaging in the housing sector, but they should at least revive the confidence of potential buyers.

What could really change the picture is China's new approach to the pandemic. On December 7 its State Council announced various measures to ease its zero-Covid policy. First, people with the virus but with few or no symptoms were authorized to isolate at home rather than in centralized quarantine facilities. The requirement to show proof of a negative test result to gain access to certain public places was also revoked and the isolation period for visitors from abroad was reduced from 10 days to eight days.

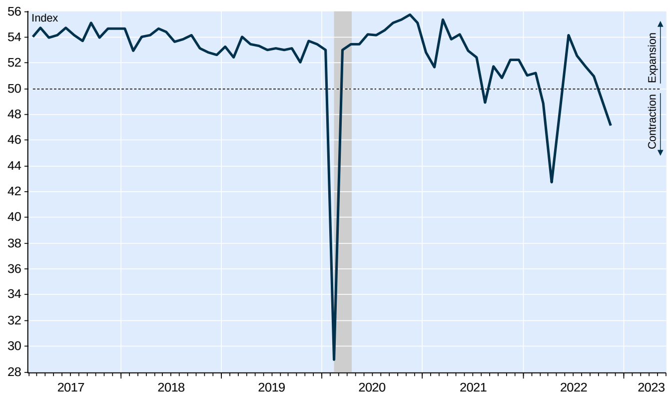
This about-face by the authorities was certainly encouraged by the wave of demonstrations that swept China last month, but we suspect that the economic slowdown caused by the most recent lockdowns also played an important role. The contraction of the private sector indeed seems to have accelerated in November, judging by the composite PMI published by the China Federation of Logistics & Purchasing.

Monthly Economic Monitor

Economics and Strategy

NATIONAL BANK OF CANADA FINANCIAL MARKETS

China: Accelerating contraction of the private sector
Composite PMI



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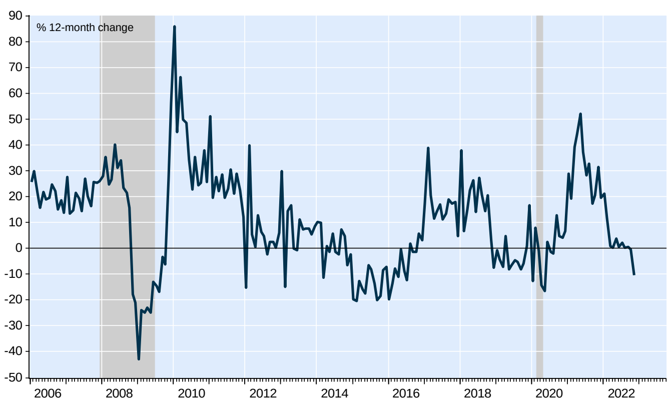
November imports data also show the extent of the damage done to domestic demand by public-heath restrictions.

China: Health-care restrictions have stifled domestic demand
12-month change in total imports (in USD)

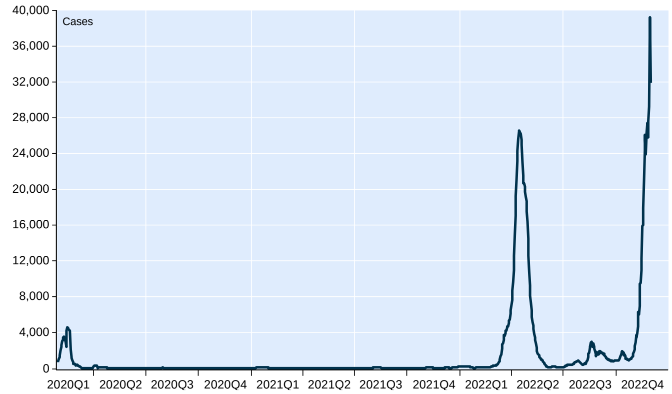


NBF Economics and Strategy (Bloomberg data)

And though earlier this year the slack of Chinese households may have been partly offset by strong foreign demand, an export-based growth model no longer works in a world of global slowdown. To continue growing in 2023, the Chinese economy will need support from strong consumer spending. One more reason to end the zero-Covid policy.

The transition to living with the virus could be tough. The easing of public-health restrictions comes at a time when the new-case count is rising sharply. (Some attribute the slackening of recent days to a marked drop in the number of tests carried out rather than to a decline of infections.)

China: Toward a flare-up of cases?
New cases of Covid-19, 7-day moving average



NBF Economics and Strategy (data from Our World in Data)

A number of factors suggest that the picture could deteriorate rapidly. First, only 40% of people aged 80 or older have had the third dose of the vaccine required for effective protection against the Omicron variant. These people are susceptible to a serious form of the disease and could increase pressure on a hospital system under-equipped to meet an upsurge of cases. (The shortfall in intensive-care capacity is especially worrisome.) In addition, the coming Chinese new year and the millions of trips people typically make for the occasion could help the virus spread across the country.

So a short but extremely intense wave is in the cards if China revokes its public-health measures all at once. A million people could succumb to Covid from now until sufficient herd immunity is reached. Since we think these numbers will be unacceptable to the Chinese Communist Party, we see a partial reopening punctuated by partial lockdowns for the health-care system to catch its breath. That would bring a slightly longer but less severe wave of infection. The economic fallout would still be substantial. We expect many households to limit their activities even in places where restrictions are completely lifted. At least, Beijing seems to be preparing the ground for such a scenario by boosting its monetary stimulation. In late November the People's Bank of China said it would cut the bank reserve requirement ratio by 25 basis points effective December 5, injecting about US$70 billion into the economy.

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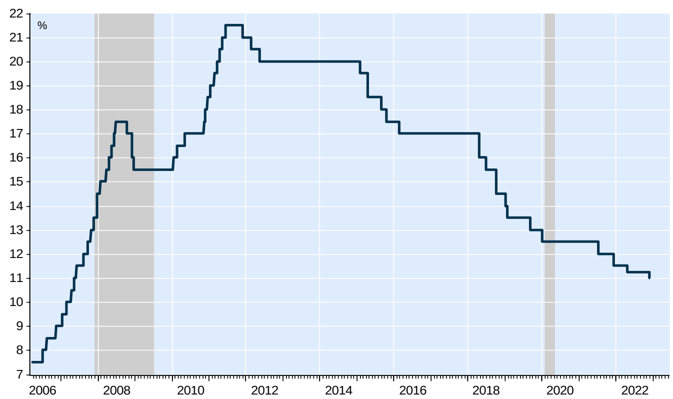
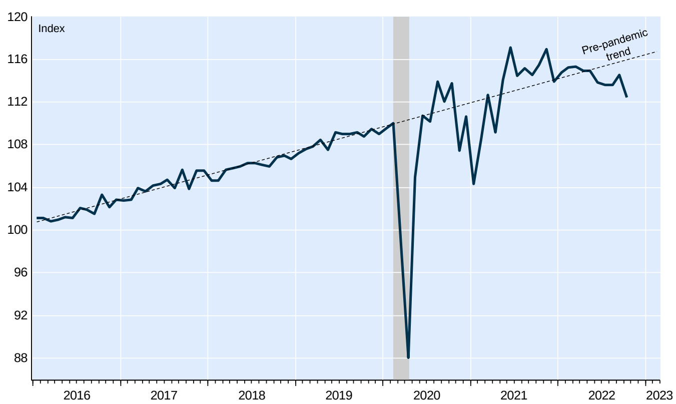
China: An increase of monetary stimulus
Mandatory reserve rate for largest banks



NBF Economics and Strategy (Bloomberg data)

Fortunately this state of things is likely to be temporary. As herd immunity gradually develops, we see an acceleration of Chinese growth in the second half of 2023, when abolition of public-health measures will really begin to bear fruit. Until then, the rest of the world is unlikely to offer much to offset the weakness of Chinese growth. In the Eurozone a long-awaited recession seems finally under way, with October volume retail sales showing the largest monthly decline in 10 years outside of the pandemic period. Emerging economies, meanwhile, continue to suffer from highly aggressive monetary tightening and are also likely to slow in the coming months.

Eurozone: Consumer spending is losing steam
Real retail sales



NBF Economics and Strategy (Bloomberg data)

Given these conditions we have slightly lowered our outlook for 2023 growth, from 2.2% to 2.1%. For 2024 our forecast is unchanged at +2.9%.

World Economic Outlook

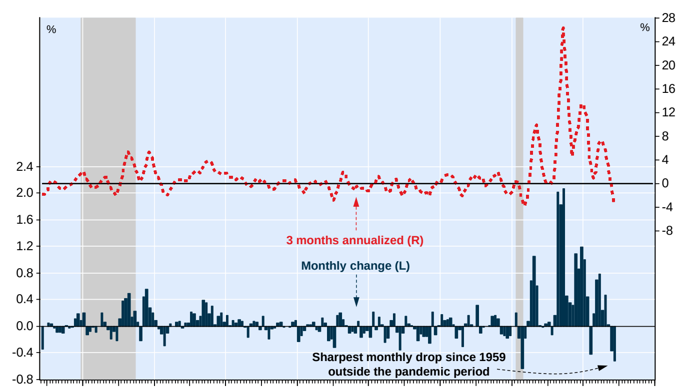
	2022	2023	2024
Advanced Economies	**2.5**	**0.2**	**1.2**
United States	1.9	0.2	1.1
Eurozone	3.2	-0.8	0.7
Japan	1.4	1.3	1.2
UK	4.3	-1.4	0.9
Canada	3.5	0.7	1.5
Australia	3.8	1.2	1.8
Korea	2.6	1.5	2.4
Emerging Economies	**3.6**	**3.5**	**4.1**
China	3.0	4.7	4.8
India	6.8	6.0	6.7
Mexico	2.8	1.0	2.0
Brazil	3.0	0.9	1.9
Russia	-3.5	-2.5	2.0
World	**3.1**	**2.1**	**2.9**

NBF Economics and Strategy (data via NBF and Conensus Economics)

U.S.: A Christmas present from the BLS

Two weeks before the big day, markets got an early Christmas present from the Bureau of Labor Statistics – a second straight monthly report showing inflation below what the consensus had expected. The Consumer Price Index was up only 0.1% in November after a monthly increase of 0.4% in October. A 1.6% decline of energy costs certainly contributed to this slowdown, but it was not the only factor – the core inflation index showed the smallest rise since August 2021 (+0.2%). Prices for goods excluding food and energy were down 0.5% from October, a decline matched only once before since 1959, during the first wave of the pandemic. Over three months ending November this indicator fell at an annual rate of 3.5%.

U.S.: Rapid declines of prices for core goods
Consumer Price Index, core goods (excluding food and energy)



NBF Economics & Strategy (Refinitiv data)

The cost of non-energy services, meanwhile, continued to rise substantially in November (+0.4%). This figure is misleading, however, because it includes large gains in two categories

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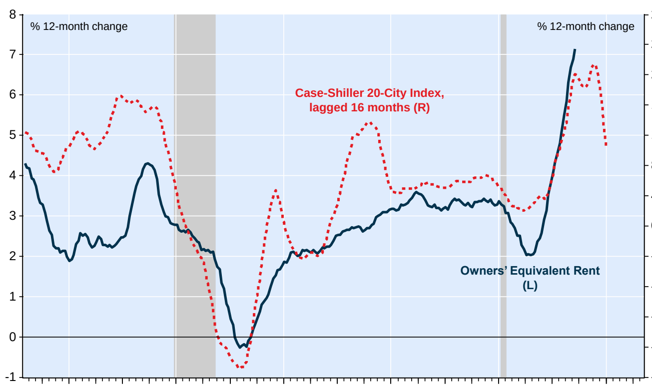
that react with a long lag time to price variations in the field: rents (+0.6%) and owners' equivalent rent (+0.7%). This last segment generally follows rather closely the path of home price indexes such as that published by S&P CoreLogic, but with a lag of about a year and a half.

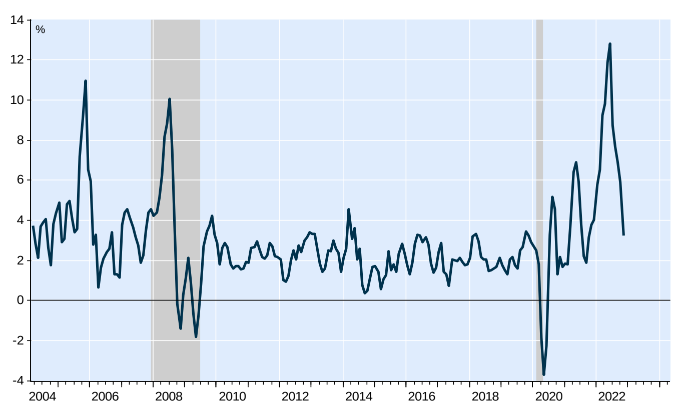
U.S.: The rise of housing costs is about to slow
Owners' equivalent rent (CPI) vs. S&P CoreLogic Case-Shiller 20-City Composite Home price Index



NBF Economics & Strategy (Bloomberg data)

Because of this lag, there is now a substantial divergence between housing indicators included in the CPI and those that follow the path of the real estate market day by day. In this light, and given current market conditions of declining home prices and stabilizing rents, we think core service prices as reported by the BLS provide an overly alarmist view of current inflationary pressures. When the housing component (which will inevitably slow in the coming months) is excluded, services inflation seems much less of a problem.

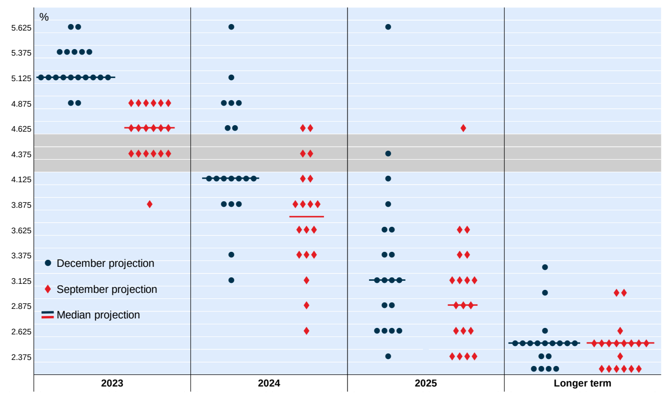
U.S.: Prices for non-housing services are stabilizing
Consumer Price Index, non-housing services, annualized 3-month change



NBF Economics & Strategy (Bloomberg data)

The recent path of prices should have led the Federal Reserve to communicate a less hawkish stance, but at its most recent monetary policy meeting, for a reason that escapes us, the central bank instead hardened its tone. It not only hiked its policy rates by 50 basis points, which had been expected, but also revised up its expected endpoints for these rates. The dot plot released immediately after the meeting showed FOMC members expecting the upper limit of the target range for fed funds rates to top out at 5.25%, 50 basis points above the expectation in the September dot plot.

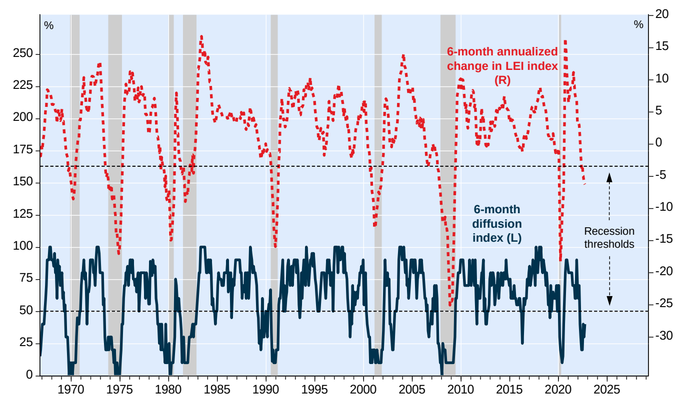
An increasing discrepancy between the Fed's tone and economic reality
FOMC participants' views of appropriate policy rate (current target range in gray: 4.25%-4.50%)



NBF Economics & Strategy (Federal Reserve data)

This change seems to us hard to justify when leading economic indicators are signalling a distinct slowdown of growth.

U.S.: Leading indicators signal a distinct slowdown
Index of leading economic indicators and diffusion index, last observation October 2022



NBF Economics & Strategy (source: Conference Board via Refinitiv)

Annual inflation remains very high, of course, but as we showed above, the recent trend is rather encouraging. Elsewhere, the impact of previous rate hikes is being cruelly felt, notably in the real estate market ...

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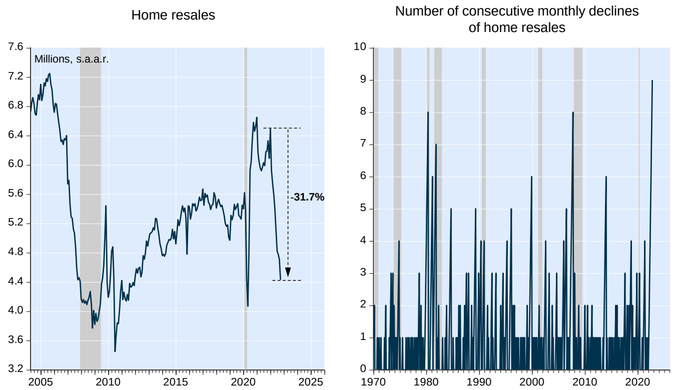
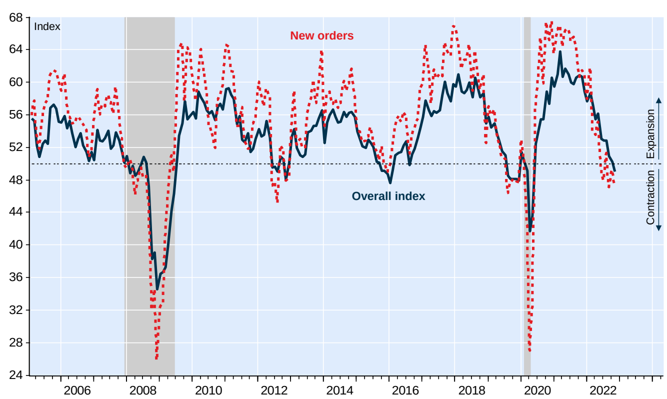
U.S.: The home-resale market is slowing rapidly



NBF Economics & Strategy (Datastream data)

… and in manufacturing.

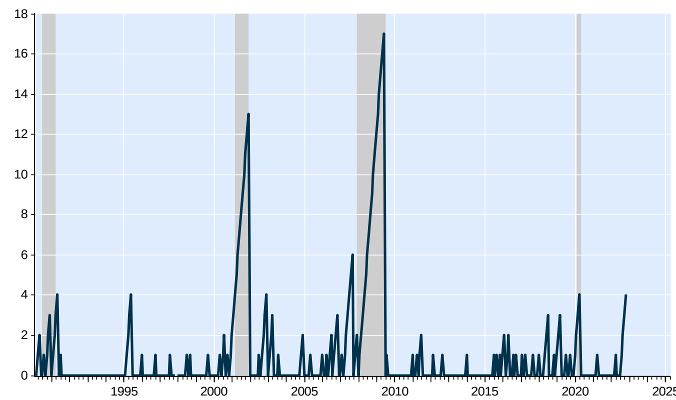
U.S.: Manufacturing stalls
ISM Manufacturing PMI



NBF Economics & Strategy (Refinitiv data)

The Fed, insensitive to these spikes of weakness, seems rather preoccupied by the vigour of employment. We do not deny that the labour market remains strong, but keep in mind that it is a coincident indicator, not a leading indicator like real estate and manufacturing. And even in employment data a certain slowing is now being felt. While the payroll survey signalled further gains in November (+263,000), the household survey showed a second consecutive decline (-138,000). In addition, temporary-help jobs – a good leading indicator of overall employment – were down for a fourth month in a row. We note here that since the early 1990s this indicator has never fallen five months in a row without the economy falling into recession.

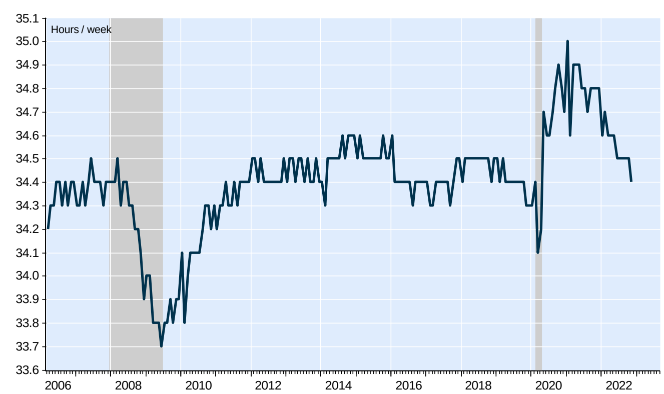
U.S.: Signs of weakness in the November employment report (1)
Number consecutive monthly declines in number of positions in temporary-help services



NBF Economics & Strategy (Bloomberg data)

Another sign of cooling to come is a decline in the number of weekly hours worked.

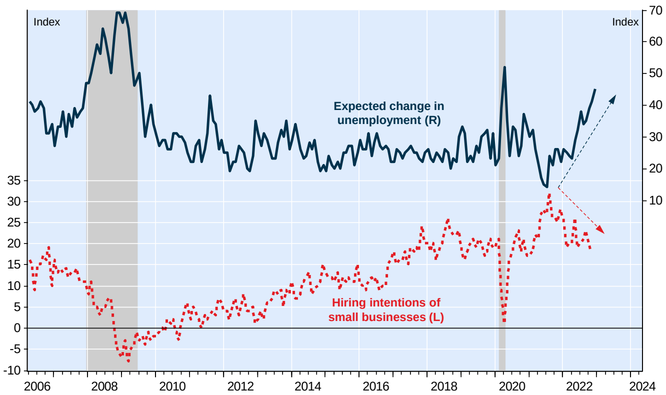
U.S.: Signs of weakness in the November employment report (2)
Average hours worked weekly



NBF Economics & Strategy (Bloomberg data)

In light of this information, we anticipate considerable slowing of employment growth in coming months, a view consistent with the expectations of small businesses and households.

U.S.: Employment outlooks less optimistic
Hiring intentions of small businesses (NFIB survey) vs. change in unemployment expected by consumers over the next 12 months (U of Michigan survey)



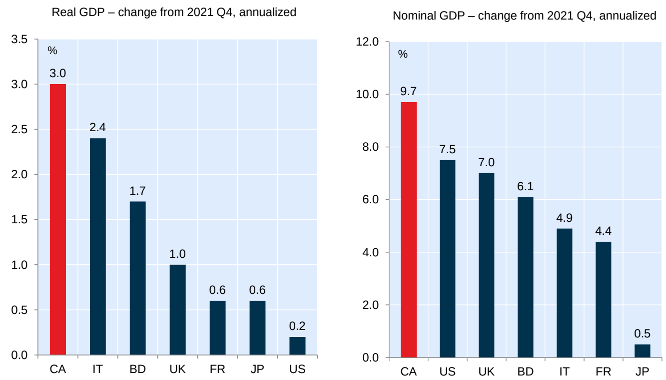
NBF Economics & Strategy (Bloomberg data)

If this scenario materializes, we think the central bank will be obliged to end its monetary tightening phase no later than at its first monetary policy meeting of 2023 if it is to avoid making recession almost inevitable. But even a Fed change of course would not prevent a substantial slowing of growth next year. Our base case scenario includes two quarters of contraction, Q2 and Q3. For 2023 as a whole we see real GDP growth of just 0.2%. Fed rate cuts in the second half of 2023 should then allow acceleration of growth to 1.1% in 2024.

Canada: Last turn of the screw?

In December the Bank of Canada raised its policy rate for a seventh consecutive time, to 4.25% – the highest since 2008 and well above the 2%-3% range the central bank considers neutral. The Ukraine war has left Canada in a unique position in 2022. As elsewhere, soaring inflation launched the central bank on a very steep tightening phase that is already weighing on various parts of the economy. On the other hand, Canada benefits from the sanctions imposed on Russia because of its large resource sector. The upshot is that over the year to date the Canadian economy has shown the best performance of the G7 countries in both real and nominal terms, since its terms of trade have improved considerably in step with soaring prices for raw materials.

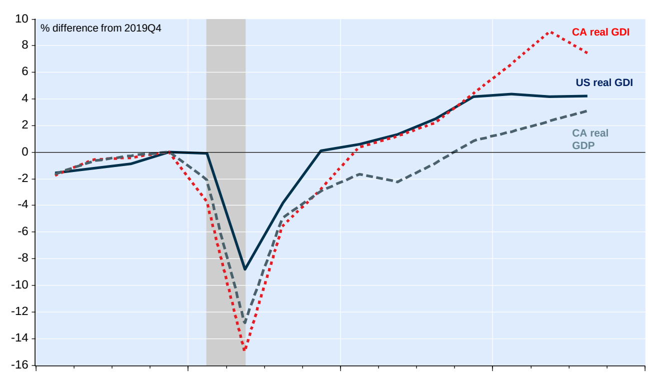
Canada: Outperformance so far in 2022
Annualized % change in nominal and real GDP from 2021Q4 to 2022Q3



NBF Economics and Strategy (data via Refinitiv)

An alternative to GDP as a measure of the path of the national economy is gross domestic income. When this measure, which includes wages, profits and taxes, is corrected for inflation by an index of domestic prices that excludes terms of trade, we obtain real gross domestic income as a good indicator of the purchasing power of these incomes. Despite a decline in Q3 due to a retreat of raw materials prices, this purchasing power is now 7.4% above its pre-pandemic level, well above the 3.0% indicated by real GDP and better than the U.S. performance of 4.2%.

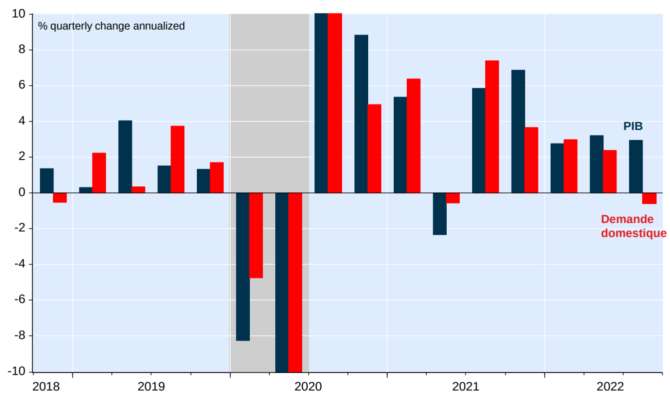
Canada: Gross domestic income growing faster than GDP
Real gross domestic income (GDI) in Canada and U.S. and real gross domestic product (GDP) of Canada



NBF Economics and Strategy (data via Statcan and FRED)

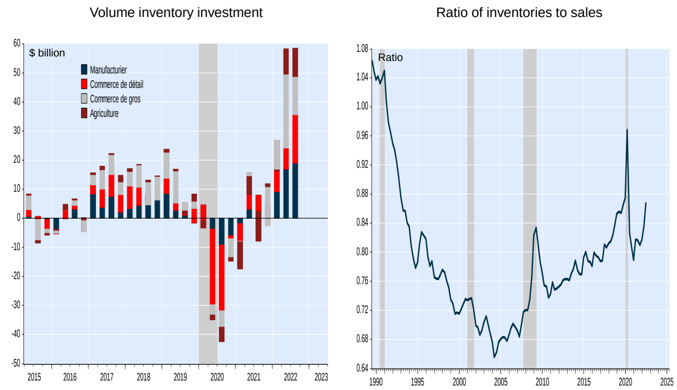
Signs of weakness have nevertheless begun showing in the last few months. In Q3, economic growth was certainly still solid at 2.9% annualized, well above expectations. But without the contribution of international trade the economy would have shrunk: domestic demand contracted at 0.6% annualized.

Canada: Q3 jump in GDP masks a weakness in demand
Gross domestic product and domestic demand



NBF Economics and Strategy (data via Statistics Canada)

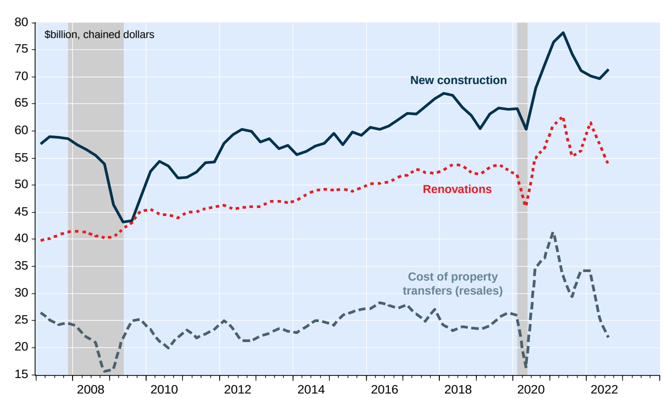
Canada: Inventory rebuilding is over



NBF Economics and Strategy (data via Datastream)

First, consumer spending retreated in the third quarter, ending a frenzy of goods purchasing as purchasing power declined and interest-rate shock hit the fan. Residential investment, the GDP component most sensitive to interest rates, contracted sharply for a second consecutive quarter and this sector will continue to weigh on growth in quarters to come. The resale market continued its retreat in the fourth quarter and the up-trend of housing inventory for sale suggests that homebuilding will moderate in 2023. As for renovation, many households had brought forward their projects earlier in the pandemic, resulting in a subsequent retreat amplified by the rise of interest rates.

Canada: Residential real estate a brake to growth
Components of residential investment – in real terms

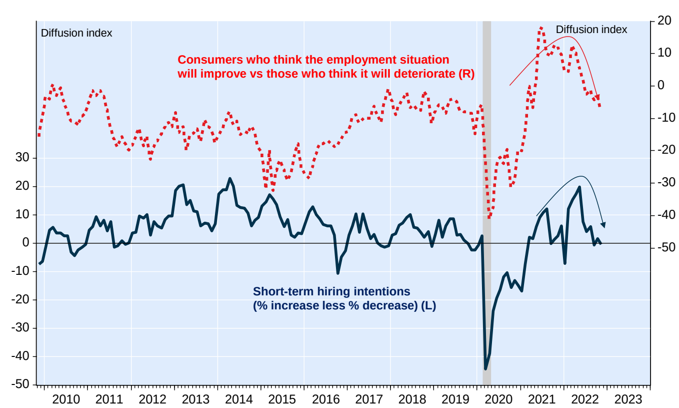


NBF Economics and Strategy (data via Statistics Canada)

We also note that a source of growth in 2022 to date is on the verge of becoming a brake. The country's economy has been stimulated in the last two quarters by frenzied inventory investment, which had languished early in the pandemic but set new records in each of the last two quarters. With the inventory-to-sales ratio returning to its pre-pandemic level, we must expect a significant moderation that will weigh on growth in the coming quarters.

The labour market, meanwhile, has recovered in recent months after weakening earlier this year. Full-time employment and private-sector employment were both up for a third straight month in November. Despite this recovery, total employment shows only a modest gain of 26,000 over the last six months. That's very little. Historically, consumers have been accurate in their perceptions of labour-market turnarounds. The most recent Conference Board data show a fading of optimism about the labour-market outlook. The indicator is essentially back to its pre-pandemic level after reaching historic highs in 2021. Meanwhile, the most recent CFIB survey shows a fading of small-business hiring intentions. Firms expecting to increase their work force are about equal in number to those expecting to reduce their head counts. In other words, an overall hiring freeze.

Canada: Small businesses and employees anticipate a slowdown
Full-time hiring intentions in the next 3-4 months and expected average wages



NBF Economics and Strategy (data via CFIB)

Apart from the cooling of domestic demand and the labour market, there is reason to think the path of inflation in recent months is good news for the Bank of Canada. Inflationary pressures are much less acute and widespread than they were earlier this year. From July to October, CPI-median rose at 3.4%

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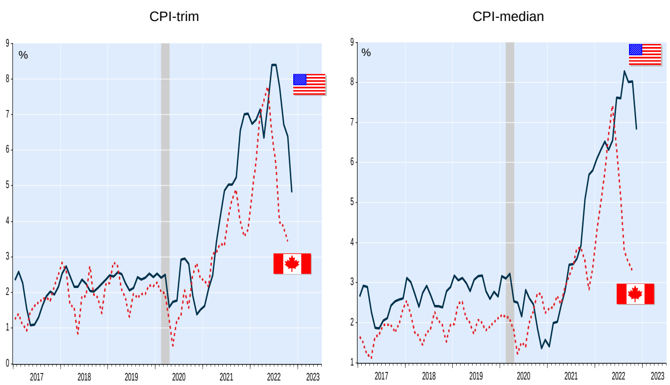
and CPI-trim at 3.3%, paces that compare favorably with those observed south of the border.

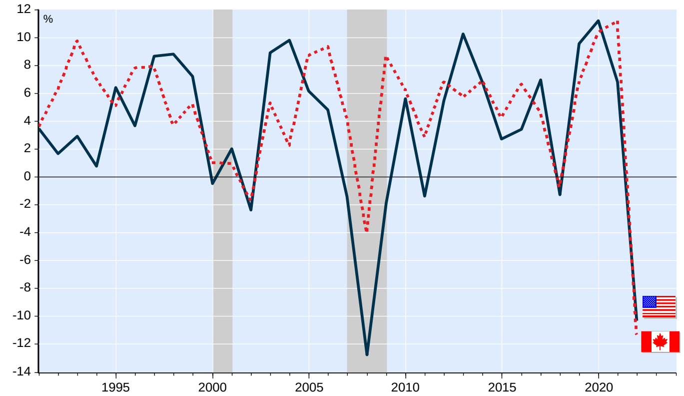
Canada-U.S.: Core inflation is easing
Annualized 3-month change in core inflation measures



NBF Economics and Strategy (data via Statistics Canada, FRED)

Manœuvres for the landing of the economy have continued. The Bank of Canada raised its policy rate for a seventh straight time in December. However, recent economic data have prompted it to greater prudence about the next steps and it is no longer telegraphing further hikes as in its previous communications. It now affirms that the Governing Council will evaluate whether it will be necessary to raise the policy rate further. This is prudent, since the Bank acted with haste and the time lag for transmission of monetary policy means there is a risk it has gone too far. We will unfortunately know only a posteriori whether it has done so. One thing is certain: we are now seeing a marked slowdown in residential real estate, leading to extremely rapid deflation. Consumers have been struck simultaneously by loss of purchasing power, an interest-payment shock and an unprecedented negative wealth effect. In our view, interest rates will not need to be kept at current levels for very long to brake inflation and we accordingly expect the Bank to be obliged to lower them in the second half of next year. Given the monetary tightening, we anticipate stagnation of the economy over the next three quarters and anemic growth of 0.7% in 2023 as a whole.

Canada: Inflation has amplified the loss of wealth
Change in household net wealth deflated by CPI, US vs CA – annual except for 2022 (first three quarters)



NBF Economics and Strategy (data via Statistics Canada and Refinitiv)

United States
Economic Forecast

(Annual % change)*	2020	2021	2022	2023	2024	2022	Q4/Q4 2023	2024
Gross domestic product (2012 $)	(2.8)	5.9	1.9	0.2	1.1	0.5	(0.4)	2.1
Consumption	(3.0)	8.3	2.8	1.0	0.6	2.1	(0.2)	1.6
Residential construction	7.2	10.7	(9.9)	(10.9)	3.6	(16.1)	(3.0)	6.0
Business investment	(4.9)	6.4	3.8	2.1	0.5	4.6	(0.1)	1.9
Government expenditures	2.6	0.6	(0.8)	1.6	2.1	0.1	1.7	2.0
Exports	(13.2)	6.1	7.0	(0.2)	0.3	4.2	(2.3)	2.2
Imports	(9.0)	14.1	9.0	0.6	0.1	4.8	(0.8)	2.2
Change in inventories (bil. $)	(54.6)	(19.4)	113.6	20.0	32.5	80.0	0.0	50.0
Domestic demand	(1.9)	6.7	1.7	0.7	1.0	1.2	0.0	1.9
Real disposable income	6.2	1.9	(6.6)	(0.2)	0.7	-2.9	-0.6	1.8
Payroll employment	(5.8)	2.8	4.1	0.8	0.0	3.3	-0.5	0.6
Unemployment rate	8.1	5.4	3.7	4.2	4.7	3.7	4.6	4.7
Inflation	1.3	4.7	8.0	3.1	3.2	7.1	1.9	3.3
Before-tax profits	(5.9)	22.6	6.2	(2.6)	3.7	2.3	-1.9	5.6
Current account (bil. $)	(619.7)	(940.2)	(1,024.9)	(933.8)	(917.5)	...	...	...

** or as noted*

Financial Forecast**

	Current 12/16/22	Q1 2023	Q2 2023	Q3 2023	Q4 2023	2022	2023	2024
Fed Fund Target Rate	4.50	4.75	4.75	4.50	3.50	4.00	3.50	3.00
3 month Treasury bills	4.20	4.60	4.55	4.00	3.35	4.35	3.35	2.70
Treasury yield curve								
2-Year	4.17	4.15	3.75	3.35	2.95	4.25	2.95	2.60
5-Year	3.61	3.55	3.40	3.10	3.00	3.65	3.00	2.75
10-Year	3.48	3.40	3.20	3.05	2.95	3.45	2.95	2.95
30-Year	3.53	3.40	3.25	3.15	3.10	3.45	3.10	3.15
Exchange rates								
U.S.$/Euro	1.06	1.05	1.06	1.08	1.09	1.03	1.09	1.12
YEN/U.S.$	137	135	130	125	124	140	124	119

*** end of period*

Quarterly pattern

	Q1 2022 actual	Q2 2022 actual	Q3 2022 actual	Q4 2022 forecast	Q1 2023 forecast	Q2 2023 forecast	Q3 2023 forecast	Q4 2023 forecast
Real GDP growth (q/q % chg. saar)	(1.6)	(0.6)	2.9	1.2	0.0	(1.1)	(1.4)	0.7
CPI (y/y % chg.)	8.0	8.6	8.3	7.1	5.1	3.2	2.2	1.9
CPI ex. food and energy (y/y % chg.)	6.3	6.0	6.3	6.0	5.1	4.1	3.0	2.6
Unemployment rate (%)	3.8	3.6	3.6	3.7	3.8	4.1	4.4	4.6

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Canada
Economic Forecast

*(Annual % change)**	*2020*	*2021*	*2022*	*2023*	*2024*	*Q4/Q4 2022*	*2023*	*2024*
Gross domestic product (2012 $)	(5.1)	5.0	3.5	0.7	1.5	2.3	0.4	2.0
Consumption	(6.3)	5.1	4.8	1.1	1.4	3.0	0.8	1.6
Residential construction	5.0	14.9	(10.4)	(9.9)	1.2	(12.3)	(6.5)	5.9
Business investment	(11.6)	4.3	10.1	1.4	1.7	6.9	0.6	1.9
Government expenditures	1.9	5.6	1.3	1.8	2.1	1.1	1.8	2.3
Exports	(8.9)	1.4	2.7	4.1	2.3	3.0	2.8	2.1
Imports	(9.3)	7.8	7.8	1.1	2.0	5.1	1.3	2.0
Change in inventories (millions $)	(23,493)	(4,148)	40,284	16,625	12,000	30,000	14,500	10,500
Domestic demand	(3.8)	5.8	2.7	0.3	1.6	1.4	0.4	2.1
Real disposable income	7.6	1.2	(0.4)	0.3	1.3	1.8	0.8	1.5
Employment	(5.1)	4.8	3.7	0.6	0.9	2.0	0.2	1.1
Unemployment rate	9.6	7.4	5.3	5.9	6.3	5.2	6.2	6.4
Inflation	0.7	3.4	6.8	2.8	2.2	6.5	1.9	2.2
Before-tax profits	(1.4)	35.8	11.3	(8.2)	3.5	1.3	(1.9)	5.2
Current account (bil. $)	(47.6)	(6.7)	8.0	(5.0)	(10.0)	....	....	....

** or as noted*

Financial Forecast**

	Current 12/16/22	*Q1 2023*	*Q2 2023*	*Q3 2023*	*Q4 2023*	*2022*	*2023*	*2024*
Overnight rate	4.25	4.25	4.25	4.25	3.75	4.25	3.75	3.00
3 month T-Bills	4.20	4.25	4.20	3.75	3.25	4.25	3.25	2.80
Treasury yield curve								
2-Year	3.67	3.70	3.40	3.15	2.95	3.80	2.95	2.60
5-Year	2.92	2.90	2.75	2.70	2.65	3.00	2.65	2.70
10-Year	2.82	2.75	2.70	2.65	2.70	2.80	2.70	2.85
30-Year	2.88	2.75	2.70	2.65	2.70	2.80	2.70	2.90
CAD per USD	1.37	1.35	1.30	1.25	1.24	1.36	1.24	1.27
Oil price (WTI), U.S.$	74	76	76	77	80	75	80	75

*** end of period*

Quarterly pattern

	Q1 2022 actual	*Q2 2022 actual*	*Q3 2022 forecast*	*Q4 2022 forecast*	*Q1 2023 forecast*	*Q2 2023 forecast*	*Q3 2023 forecast*	*Q4 2023 forecast*
Real GDP growth (q/q % chg. saar)	2.8	3.2	2.9	0.2	0.2	(0.3)	0.6	1.2
CPI (y/y % chg.)	5.8	7.5	7.2	6.5	4.8	2.5	2.1	1.9
CPI ex. food and energy (y/y % chg.)	4.0	5.1	5.4	5.3	4.7	3.5	2.6	2.6
Unemployment rate (%)	5.8	5.1	5.2	5.2	5.5	5.9	6.1	6.2

National Bank Financial

Provincial economic forecast

	Real GDP (% growth) 2020	2021	2022f	2023f	2024f	Nominal GDP (% growth) 2020	2021	2022f	2023f	2024f
Newfoundland & Labrador	-4.6	0.6	1.6	0.7	0.9	-10.0	17.7	12.3	-1.5	-0.1
Prince Edward Island	-1.6	7.9	2.1	0.8	1.2	1.4	14.3	8.9	1.6	2.3
Nova Scotia	-3.5	6.2	2.2	0.6	1.1	0.0	10.9	8.2	0.9	2.6
New Brunswick	-2.7	5.9	1.8	0.5	0.8	-1.6	13.8	7.7	0.1	1.3
Quebec	-5.0	6.0	3.4	0.7	1.2	-1.9	11.8	10.2	1.4	3.7
Ontario	-4.7	5.2	3.4	0.6	1.6	-2.9	10.3	9.8	1.3	3.8
Manitoba	-4.4	1.8	3.5	0.6	1.2	-1.3	8.4	10.6	0.4	2.7
Saskatchewan	-4.8	-0.9	4.6	1.0	1.3	-7.6	13.1	24.1	-2.0	-1.1
Alberta	-8.0	4.8	4.5	1.2	1.7	-15.7	26.2	17.4	-2.9	0.5
British Columbia	-3.0	6.1	3.1	0.7	1.6	-0.7	14.2	9.0	-0.1	2.7
Canada	-5.3	5.0	3.5	0.7	1.5	-4.6	13.6	11.3	0.2	2.8

	Employment (% growth) 2020	2021	2022f	2023f	2024f	Unemployment rate (%) 2020	2021	2022f	2023f	2024f
Newfoundland & Labrador	-5.9	3.0	3.6	-0.3	-0.1	14.1	12.9	10.9	11.6	11.6
Prince Edward Island	-3.2	3.7	6.3	-0.1	0.9	10.6	9.4	7.3	8.9	10.0
Nova Scotia	-4.7	5.4	3.3	0.5	0.7	9.7	8.4	6.6	7.0	7.0
New Brunswick	-2.6	2.6	2.2	0.4	0.5	10.0	9.0	7.3	7.6	7.7
Quebec	-4.8	4.2	2.6	0.5	1.0	8.8	6.1	4.4	4.7	5.0
Ontario	-4.7	4.9	4.2	0.5	1.0	9.5	8.0	5.7	6.6	6.9
Manitoba	-3.7	3.5	2.4	0.3	0.9	8.0	6.4	3.9	5.4	5.9
Saskatchewan	-4.6	2.6	3.3	0.8	0.7	8.3	6.5	3.6	4.4	5.2
Alberta	-6.5	5.2	5.1	1.0	1.0	11.5	8.6	5.6	6.0	6.4
British Columbia	-6.5	6.6	3.1	0.5	0.8	9.0	6.5	4.7	5.5	5.7
Canada	-5.1	4.8	3.7	0.6	0.9	9.6	7.4	5.3	5.9	6.3

	Housing starts (000) 2020	2021	2022f	2023f	2024f	Consumer Price Index (% growth) 2020	2021	2022f	2023f	2024f
Newfoundland & Labrador	0.8	1.3	1.6	1.1	1.0	0.2	3.7	6.4	2.4	2.3
Prince Edward Island	1.1	1.2	1.0	0.9	0.9	0.0	5.1	8.9	2.7	2.3
Nova Scotia	4.9	6.0	5.3	4.5	4.5	0.3	4.1	7.4	2.6	2.2
New Brunswick	3.6	4.0	4.5	3.0	3.0	0.2	3.8	7.2	2.7	2.2
Quebec	54.2	71.2	62.5	52.5	49.0	0.8	3.8	6.6	3.1	2.2
Ontario	81.3	101.2	93.0	79.5	75.5	0.6	3.5	6.8	2.7	2.2
Manitoba	7.3	8.0	7.6	7.2	6.9	0.5	3.2	7.8	2.9	2.2
Saskatchewan	3.1	4.3	4.6	3.3	3.0	0.6	2.6	6.7	2.8	2.2
Alberta	24.1	32.1	38.7	30.3	29.8	1.1	3.2	6.5	2.5	2.2
British Columbia	38.0	47.7	45.5	33.0	31.9	0.8	2.8	6.9	3.1	2.2
Canada	218.4	276.8	264.3	215.3	205.5	0.7	3.4	6.8	2.8	2.2

e: estimate f: forecast

Historical data from Statistics Canada and CMHC, National Bank of Canada's forecast.

Monthly Economic Monitor

Economics and Strategy

NATIONAL BANK OF CANADA
FINANCIAL MARKETS

Economics and Strategy

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Past the peak

Inflation is slowly starting to retreat from multi-decade highs, helped by falling energy prices and in some cases government relief programs. Oil prices are now at year-to-date lows (WTI is more than 40% below its post-invasion peak) as global growth concerns mount and Russian supply holds up in the face of fresh sanctions. Fading energy base effects will see headline inflation rates continue to ease in 2023. Core inflation is proving stickier and wage growth has picked up as labour markets remain resilient, suggesting it's too early for central banks to declare victory in their campaigns to quash inflation. But with economic activity slowing and more attention being paid to the lagged impact of rate hikes, peak policy rates are in sight. We think the BoC will be the first to move to the sidelines in January, having opened the door to a pause at last week's meeting. The Fed, BoE and ECB are expected to hike by 50 bps this week but should signal in one way or another that their tightening cycles are nearing an end. Along with the RBA we don't see these central banks raising rates beyond the first quarter of 2023.

As they approach terminal policy rates, central banks are likely to follow the Fed's cue and emphasize the need to keep monetary policy restrictive for a period of time. With above-target inflation delaying any response to an economic slowdown, we think most central banks will be on hold throughout next year. The Fed, having taken its tightening cycle the furthest, will likely be the first to cut rates in late-2023. Longer-term government bonds have already started to rally and we think the short-end will do so next year as market focus shifts from remaining rate hikes to eventual cuts. That will reverse some of the curve flattening seen in recent months—yield curves are now deeply inverted in the US and Canada, and more recently in the UK and Germany, as at least a mild recession now looks unavoidable.

Central bank near-term bias

The BoC landed on the hawkish side of consensus with a 50 bp hike in December but softened its guidance on further rate hikes. We expect it will hit pause in January and hold the overnight rate at 4.25% next year.

The Fed looks set to dial back to a 50 bp hike in December after four consecutive 75 bp hikes. We expect some further tightening in Q1/23 and will be watching December's dot plot to gauge the committee's expectations around further hikes.

After a one-off 75 bp hike in November we expect the BoE will revert to a 50 bp increase in December, taking monetary policy further into restrictive territory amid too-high inflation and firming wage growth. We expect one final 25 bp hike early next year.

We see the ECB opting for a 50 bp hike in December to get monetary policy close to estimates of neutral. We look for rates to rise into restrictive territory early next year (terminal deposit rate at 2.50%) and think QT will begin in April.

The RBA hiked by 25 bps again in December and left its forward guidance unchanged, suggesting it's not ready to pause its tightening cycle just yet. We expect further hikes in Q1/23 leaving the terminal cash rate at 3.60%

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Highlights

▲ The BoC watered down its tightening bias in December.

▲ Year-over-year inflation rates remain sticky but near-term measures are showing some slowing.

▲ Canada's trend job growth has slowed but the unemployment rate remains low.

▲ Q3 GDP surprised to the upside but momentum has slowed in recent months.

BoC signals a pause after one more oversized hike

After a dovish surprise in October, the BoC landed on the hawkish side of consensus in December with a second consecutive 50 bp hike. That lifted the overnight rate to 4.25%—a cumulative 400 bp increase since March. While the rate decision itself was hawkish, the accompanying policy statement leaned dovish with the BoC shifting to an even softer tightening bias than we envisioned: "Governing Council will be considering whether the policy interest rate needs to rise further." That clearly opens the door to a pause as soon as the next meeting in January, and in our view frames that decision as between 0 and 25 bps.

Near-term focus will be on whether the BoC is done its tightening cycle (more on that below) but we think the bigger question for markets is how long it holds the overnight rate at its terminal level. While the Fed has emphasized it will need to keep monetary policy "at a restrictive level for some time," the BoC has provided less medium-term guidance. While we expect Canada's economy will slip into recession in the first half of next year, a starting point of excess demand and above-target inflation will keep the BoC from reacting to that slowdown as quickly as it has in past cycles. We think monetary policy will be on hold throughout 2023 though yields are likely to decline over the course of the year as eventual rate cuts come into view.

Further evidence that inflation is turning a corner

Canadian inflation has been fairly steady in recent months with headline CPI stuck around 7% and core inflation generally closer to 5% year-over-year. But monthly inflation readings have started to slow with core measures running below 4% on an annualized basis. In its December policy statement the BoC pointed to that as "an early indicator that price pressures may be losing momentum." Diffusion measures also suggest the breadth of inflation has started to narrow, a sign that widespread inflationary pressure isn't becoming entrenched. With economic activity slowing we think those trends will continue in the coming months, supporting a pause by the BoC in January. But fully returning inflation to target will be a slow process—we don't see core inflation getting back to the BoC's 1-3% target range until 2024. Headline inflation will come down faster as base effects from rising food and energy prices fade—we think all items CPI will be close to 2% by the end of next year.

Canada's labour market holding up, but for how long?

We think recent resilience in Canada's labour market was one of the reasons the BoC opted for another oversized hike in December. Canada's economy added an on-consensus 10,000 jobs in November, avoiding giving back any of the unexpectedly strong 108,000 gain seen in the prior month. It remains the case that trend employment growth has slowed—an average of just 4,000 positions added in the past six months—but sluggish labour force growth has kept the unemployment rate close to 5%. Strong demand for labour has pushed wages higher, and whether the LFS (wage growth north of 5%) or SEPH data (around 4%) are closer to reality, the recent pace is faster than is consistent with the BoC's 2% inflation target. Labour costs haven't been a major driver of inflation to date with pay gains barely keeping pace with the rising cost of living. But the BoC will want to see some of the heat coming out of Canada's labour market to ensure wages are growing at a more sustainable pace.

The labour market is a lagging indicator, so the BoC also needs to focus on GDP trends in deciding when to pause its tightening cycle. Canadian GDP growth was unexpectedly strong in Q3 with a nearly 3% annualized increase coming in well ahead of our forecast and the BoC's. The surprise was due to upward revisions to monthly growth estimates over the summer—it remains the case that momentum has slowed in recent months with GDP edging up just 0.1% in September and October's flash reading coming in flat. Details of the Q3 increase left much to be desired with final domestic demand actually declining in the quarter. Consumer spending fell as a pullback in goods sales offset ongoing recovery in services spending, while housing remained a notable drag. Growth was driven entirely by further inventory accumulation (not a sustainable source of growth) and an increase in exports that will be tough to sustain in a challenging global growth environment. Housing is expected to remain a near-term drag and we think consumer spending growth will remain weak as debt servicing costs absorb a growing share of household income. We continue to look for slower growth in the final quarter of this year before Canada's economy enters a recession in the first half of 2023.

US consumer showing resilience

Consumer spending, which represents two-thirds of the US economy, is showing surprising resilience in the face of tightening financial conditions. Inflation-adjusted spending rose an annualized 4.8% in the three months to October, the fastest pace in a year. But we think that momentum will be difficult to sustain. The recent increase in durables spending was driven by a jump in auto sales that was partially retraced in November. Higher interest rates will continue to make those big-ticket purchases less attractive. And recent spending growth has been funded by a decline in household savings. In fact, October's 2.3% savings rate was one of the lowest on record as consumers dipped into excess savings accumulated during the pandemic. While there's still a savings pool to draw from, weak consumer confidence and negative wealth effects (home prices have started to decline, on top of a sharp pullback in equity and bond markets this year) could make households less comfortable running down their rainy-day funds.

Real income growth has done little to support consumer spending—inflation-adjusted disposable income was actually down 3% year-over-year in October. While headline inflation has peaked, we see it continuing to exceed wage growth (which has been steady around 5%) through the first quarter of next year. And there are tentative signs that labour demand is softening, suggesting wage growth will also start to slow in 2023. While payroll gains have been stronger than expected—averaging 323,000 in the past six months—the separate household survey shows a sharp slowing with average employment gains of just 7,000 over that period. It's worth noting that payrolls tend to be slower to respond to turning points in the labour market. Jobless claims have ticked higher in recent weeks, and the Fed's latest Beige Book noted scattered layoffs in sectors like tech, finance and real estate. Labour markets were still described as tight though some districts saw some relaxation of wage pressures.

Fed ready to slow its tightening cycle

In a late-November speech, Chair Powell discussed easing in core goods inflation and early signals that housing services inflation will eventually turn disinflationary. But he noted only tentative signs of rebalancing in the labour market, with wages still rising significantly faster than is consistent with 2% inflation. With labour costs being a key driver of inflation in core services ex housing, Powell said the Fed has "a long way to go in restoring price stability." He reiterated his view that interest rates will have to move higher than the Fed's dot plot suggested in September (when all participants saw the terminal fed funds rate below 5%). But minutes from the November meeting show that view was only shared by "various" participants, suggesting upward revisions to December's dot plot might not be so widespread.

The minutes also showed "a substantial majority of participants" thought it would soon be appropriate to slow the pace of rate hikes, cementing market expectations (and our own) for a 50 bp increase in December. After that we see the Fed delivering some further tightening in early-2023 but hitting pause as economic and inflation data show greater evidence of slowing. The Fed has emphasized that interest rates will have to be held "at a restrictive level for some time," but we think cuts are likely in the later stages of 2023. As market focus shifts from near-term hikes to eventual easing, we see Treasury yields drifting lower next year and some of the current yield curve inversion (which has deepened in recent months) being unwound over the next year.

Highlights

▲ US consumer spending growth has picked up in recent months…

▲ …with households drawing down some of the excess savings built up during the pandemic.

▲ Payroll gains have been stronger than expected but the separate household survey points to sluggish hiring.

▲ Minutes of the Fed's November meeting suggest Powell overstated the committee's increase in terminal rate expectations.

Highlights

▲ The UK's Q3 GDP decline likely marks the start of a four-quarter slowdown.

▲ UK inflation would be roughly 2 ppts higher if it weren't for government energy support.

▲ Euro area consumer confidence has fallen sharply this year amid war and rising inflation.

▲ We think Australia's economy will see slower growth but avoid a recession next year.

UK recession underway amid challenging consumer outlook

UK GDP fell 0.2% (non-annualized) in Q3, kicking off what we expect will be a recession that extends into the second half of next year. Some of the Q3 pullback reflected an extra public holiday, though a half percent decline in household spending was greater than that factor alone would suggest. Consumers are clearly feeling the pinch of sharply rising inflation. Even with the government's energy price guarantee partially shielding households from market prices—without it, CPI would be running at 13% rather than today's 11%—real pay growth is still deeply negative. And consumer confidence is now weaker than it was in the depths of the pandemic and global financial crisis, despite record low unemployment. While we think inflation has peaked, it's likely to decline more slowly than in other advanced economies as energy support becomes less generous in the spring—headline inflation isn't expected to slow below 4% until 2024. We look for the BoE to revert to a 50 bp hike in December (November's 75 bps was a one-off) and think the central bank will opt for another 25 bp increase in February before hitting pause on its tightening cycle with the Bank Rate at 3.75%. The impact of that tightening will continue to build in 2023. The BoE estimates around one quarter of mortgages will reach the end of their fixed-rate term between the current quarter and the end of next year, which will mean a significant increase in mortgage costs. A debt servicing hit combined with ongoing cost of living challenges should result in mild GDP declines continuing over the first half of next year.

Surveys point to euro area slowdown heading into 2023

Euro area PMI data continue to suggest the currency bloc began to slow in Q4 with both manufacturing and services indices in contractionary territory. Consumer confidence has ticked up in the past two months but remains deeply depressed. Sentiment was dealt a blow early in the year with Russia's invasion of Ukraine, and has soured further as energy prices pushed inflation to multi-decade highs. Headline inflation is likely past its peak but remained at 10% in November, running well ahead of wage growth. This cost of living shock is expected to weigh on consumer spending, resulting in GDP declines in the current quarter and early next year. We expect this slowdown will begin to ease as inflation moderates, and increased fiscal support from the NGEU recovery plan will help. We look for a 50 bp hike by the ECB in December, lifting the deposit rate to 2% which we think is close to neutral. We expect rate hikes to continue at a slower pace in the first quarter of 2023 before the ECB hits pause after its March meeting. The central bank is already shrinking its balance sheet through TLTRO redemptions, and we expect it will add to that by beginning to reduce its APP holdings next spring, shortly after its final rate hike. We should get details from the ECB at its upcoming meeting but at this stage expect passive QT by limiting reinvestment rather than outright asset sales.

RBA not ready to hit pause just yet

Australia's economy continued to expand at a steady pace with Q3 GDP rising 0.6% (non-annualized) led by gains in consumer spending and business investment. The former was helped by further normalization in the household savings rate, although there is still little evidence of consumers dipping into the substantial savings accumulated during the pandemic. Housing has felt the greatest drag from rising rates—residential investment was down nearly 4% year-over-year in Q3—but we think the impact on consumer spending will mount as a relatively high share of variable rate mortgages accelerates pass-through of the RBA's rapid rate hikes (+300 bps in the past eight months). As in other countries, consumer confidence has fallen sharply with rising borrowing costs and high inflation dampening any positive sentiment around a strong labour market. A moderation in consumer spending and further pullback in housing are central to our forecast for GDP growth to slow to 1.5% next year from 3.6% this year. The RBA hiked by another 25 bps in December and left its forward guidance unchanged, suggesting it has no intention to pause its tightening cycle in the near term. However, the statement noted "substantial" tightening already delivered and lags in monetary policy transmission, in our view indicating a more data dependent approach with monetary policy now in restrictive territory. We look for a further 50 bps of hikes in Q1/23 but see the RBA pausing thereafter as the Australian economy's recent resilience begins to fade.

Interest rate outlook

%, end of period

	Actual			Forecast								
	22Q1	22Q2	22Q3	22Q4	23Q1	23Q2	23Q3	23Q4	24Q1	24Q2	24Q3	24Q4
Canada												
Overnight	0.50	1.50	3.25	4.25	4.25	4.25	4.25	4.25	3.75	3.50	3.25	3.00
Three-month	0.60	2.08	3.58	4.15	4.15	4.15	4.15	3.90	3.50	3.25	3.00	2.85
Two-year	2.29	3.09	3.80	3.90	3.75	3.65	3.60	3.30	3.00	2.90	2.80	2.70
Five-year	2.41	3.11	3.33	3.15	3.05	2.95	2.85	2.75	2.70	2.65	2.60	2.55
10-year	2.40	3.23	3.17	2.90	2.85	2.80	2.75	2.70	2.65	2.60	2.60	2.60
30-year	2.38	3.14	3.09	2.90	2.90	2.90	2.85	2.85	2.85	2.85	2.85	2.85
United States												
Fed funds*	0.38	1.63	3.13	4.38	4.88	4.88	4.63	4.38	4.13	3.88	3.63	3.38
Three-month	0.52	1.72	3.33	4.70	4.80	4.75	4.50	4.25	4.00	3.75	3.50	3.25
Two-year	2.28	2.92	4.22	4.50	4.25	4.10	3.85	3.65	3.35	3.05	2.80	2.55
Five-year	2.42	3.01	4.06	4.00	3.70	3.50	3.40	3.30	3.20	3.10	3.00	2.95
10-year	2.32	2.98	3.83	3.75	3.75	3.65	3.55	3.45	3.35	3.25	3.20	3.15
30-year	2.44	3.14	3.79	4.00	4.00	3.90	3.90	3.85	3.80	3.75	3.70	3.65
United Kingdom												
Bank rate	0.75	1.25	2.25	3.50	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
Two-year	1.36	1.85	4.29	3.25	3.10	3.00	2.90	2.80	2.70	2.65	2.60	2.60
Five-year	1.40	1.88	4.40	3.25	3.10	3.00	3.00	2.90	2.80	2.75	2.70	2.70
10-year	1.60	2.22	4.08	3.10	3.00	2.90	2.90	2.80	2.70	2.65	2.60	2.60
30-year	1.77	2.59	3.82	3.50	3.40	3.25	3.25	3.10	3.05	3.00	3.00	3.00
Euro area**												
Deposit Rate	-0.50	-0.50	0.75	2.00	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Two-year	-0.08	0.64	1.78	2.00	2.00	1.90	1.80	1.75	1.70	1.65	1.60	1.60
Five-year	0.37	1.09	1.98	1.80	1.75	1.70	1.60	1.60	1.50	1.45	1.40	1.40
10-year	0.55	1.36	2.12	1.90	1.80	1.75	1.75	1.75	1.65	1.60	1.55	1.50
30-year	0.67	1.63	2.10	1.80	1.80	1.70	1.70	1.70	1.60	1.55	1.50	1.50
Australia												
Cash target rate	0.10	0.85	2.35	3.10	3.60	3.60	3.60	3.60	3.60	3.35	3.10	3.10
Two-year	1.78	2.73	3.43	3.10	3.00	3.00	2.90	2.75	2.65	2.50	2.50	2.50
10-year	2.84	3.66	3.90	3.55	3.35	3.25	3.35	3.35	3.35	3.35	3.40	3.35
New Zealand												
Cash target rate	1.00	2.00	3.00	4.00	5.00	5.25	5.00	4.50	4.25	4.00	3.75	3.50
Two-year swap	3.27	4.06	4.76	5.20	5.00	4.50	4.10	3.70	3.60	3.50	3.40	3.30
10-year swap	3.38	4.10	4.50	4.35	4.20	4.15	4.00	3.80	3.75	3.70	3.65	3.60
Yield curve***												
Canada	11	14	-63	-100	-90	-85	-85	-60	-35	-30	-20	-10
United States	4	6	-39	-75	-50	-45	-30	-20	0	20	40	60
United Kingdom	24	37	-21	-15	-10	-10	0	0	0	0	0	0
Eurozone	63	72	34	-10	-20	-15	-5	0	-5	-5	-5	-10
Australia	106	93	47	45	35	25	45	60	70	85	90	85
New Zealand	11	4	-26	-85	-80	-35	-10	10	15	20	25	30

*Midpoint of 25 basis point range, **Yields refer to German government bonds, *** Two-year/10-year spread in basis points,
Source: Reuters, RBC Economics

Economic outlook

Growth outlook

% change, quarter-over-quarter in real GDP

	22Q1	22Q2	22Q3	22Q4	23Q1	23Q2	23Q3	23Q4	24Q1	24Q2	24Q3	24Q4	2021	2022F	2023F	2024F
Canada*	2.8	3.2	2.9	0.5	-0.5	-1.0	0.2	0.5	1.5	2.0	2.6	2.8	5.0	3.5	0.4	1.3
United States*	-1.6	-0.6	2.9	0.3	0.0	-1.2	-1.5	0.5	1.0	1.5	2.0	2.0	5.9	1.9	0.0	0.7
United Kingdom	0.7	0.2	-0.2	-0.4	-0.4	-0.3	0.0	0.1	0.2	0.2	0.3	0.3	7.5	4.4	-0.9	0.6
Euro Area	0.6	0.8	0.3	-0.4	-0.3	0.2	0.4	0.4	0.4	0.5	0.5	0.5	5.3	3.3	0.2	1.7
Australia	0.4	0.9	0.6	0.6	0.2	0.2	0.2	0.3	0.6	0.9	0.9	1.0	5.2	3.6	1.5	1.8

*annualized

Inflation outlook

% change, year-over-year

	22Q1	22Q2	22Q3	22Q4	23Q1	23Q2	23Q3	23Q4	24Q1	24Q2	24Q3	24Q4	2021	2022F	2023F	2024F
Canada	5.8	7.5	7.2	6.7	5.2	3.1	2.4	2.1	2.4	2.3	2.1	1.9	3.4	6.8	3.2	2.2
United States	8.0	8.6	8.3	7.3	5.3	3.2	2.4	2.1	2.3	2.3	2.2	1.9	4.7	8.1	3.2	2.2
United Kingdom	6.2	9.2	10.0	10.7	9.8	8.0	6.7	4.6	4.2	1.6	1.4	1.3	2.6	9.0	7.3	2.1
Euro Area	6.1	8.0	9.3	10.3	8.6	7.0	5.7	3.5	2.8	2.6	2.3	2.2	2.6	8.5	6.2	2.5
Australia	5.1	6.1	7.3	7.4	6.6	6.0	5.7	5.4	5.2	5.0	4.7	4.4	2.9	6.5	5.9	4.8

Source: Statistics Canada, Bureau of Economic Analysis, Bureau of Labor Statistics, Office for National Statistics, Statistical Office of the European Communities, Australian Bureau of Statistics, Statistics New Zealand, RBC Economics

Currency outlook

Level, end of period

	Actuals							Forecast				
	21Q1	21Q2	21Q3	21Q4	22Q1	22Q2	22Q3	22Q4	23Q1	23Q2	23Q3	23Q4
Canadian dollar	1.26	1.24	1.27	1.26	1.25	1.29	1.38	1.38	1.40	1.39	1.38	1.36
Euro	1.17	1.19	1.16	1.14	1.11	1.05	0.98	0.97	0.95	0.98	1.02	1.05
U.K. pound sterling	1.38	1.38	1.35	1.35	1.31	1.22	1.12	1.08	1.04	1.08	1.13	1.17
Japanese yen	111	111	111	115	122	136	145	150	155	147	145	143
Australian dollar	0.76	0.75	0.72	0.73	0.75	0.69	0.64	0.64	0.64	0.65	0.65	0.66

Canadian dollar cross-rates

	21Q1	21Q2	21Q3	21Q4	22Q1	22Q2	22Q3	22Q4	23Q1	23Q2	23Q3	23Q4
EUR/CAD	1.47	1.47	1.47	1.44	1.38	1.35	1.36	1.34	1.33	1.36	1.41	1.43
GBP/CAD	1.73	1.71	1.71	1.71	1.64	1.57	1.54	1.49	1.46	1.50	1.56	1.59
CAD/JPY	88	90	88	91	97	105	105	109	111	106	105	105
AUD/CAD	0.95	0.93	0.92	0.92	0.94	0.89	0.89	0.88	0.90	0.90	0.90	0.90

Rates are expressed in currency units per US dollar and currency units per Canadian dollar, except the euro, UK pound, Australian dollar, and New Zealand dollar, which are expressed in US dollars per currency unit and Canadian dollars per currency unit.

Source: Bloomberg, RBC Economics

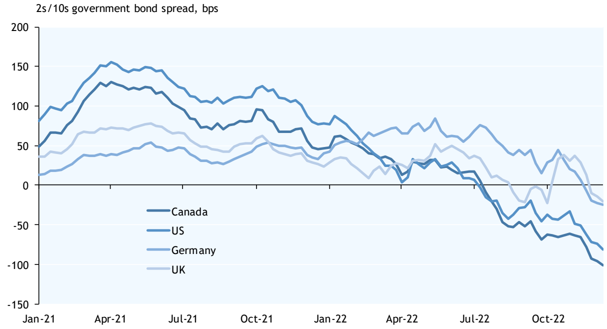
Charts we're watching

Shorter-term government bond yields have generally moved sideways as central banks approach terminal policy rates, while expectations of slowing growth and inflation, and eventually rate cuts, have seen longer-term bonds rally. Deeply inverted yield curves in Canada and the US, and to a lesser extent the UK and Germany, flag an impending economic downturn.

Purchasing managers' indices point to a slowdown in economic activity in both the manufacturing and services sectors in many countries. Output and new orders have softened, though on the positive side, fewer order backlogs and slower price increases suggest less inflationary pressure.

Inverted yield curves pointing to recession

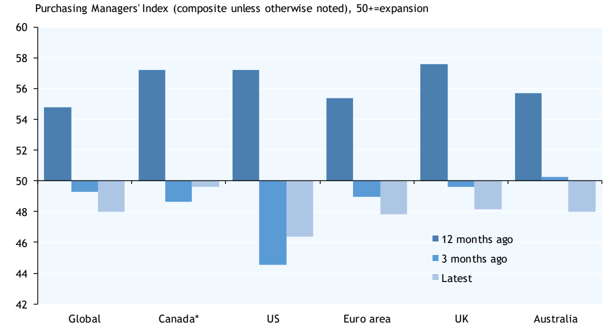
2s/10s government bond spread, bps



Source: BoC, US Treasury, Refinitiv, RBC Economics

PMI data point to an economic slowdown

Purchasing Managers' Index (composite unless otherwise noted), 50+=expansion



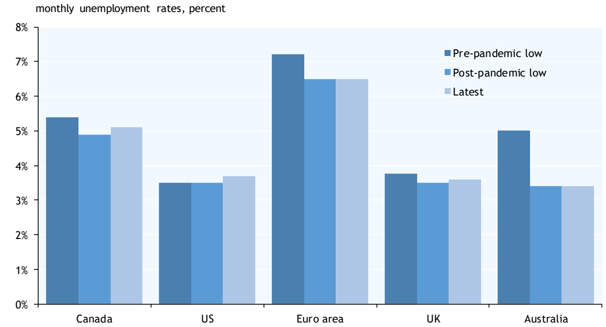
Source: S&P Global, RBC Economics | *manufacturing index

While surveys and some hard data point to a slowing economy, labour markets have generally remained resilient with unemployment rates at or near post-pandemic (and in some cases record) lows. Tight labour markets are contributing to rising wages, though in most cases pay growth hasn't kept up with inflation.

Despite firm labour market conditions, declines in real earnings, negative wealth effects from falling asset prices, and rising debt servicing costs have consumers feeling pessimistic about the economic outlook. We expect slower consumer spending will see most of these economies (not Australia) slip into recession.

Unemployment rates remain at or near cycle lows

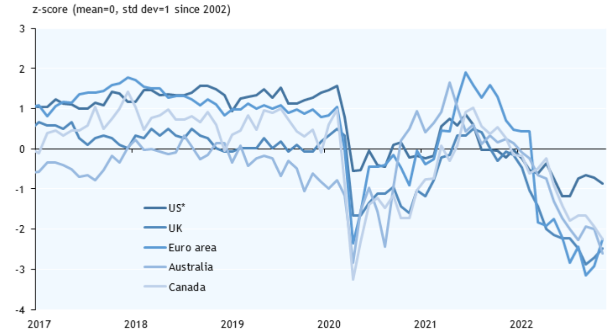
monthly unemployment rates, percent



Source: StatCan, BLS, EuroStat, ONS, ABS, RBC Economics

Consumer confidence has plunged in 2022

z-score (mean=0, std dev=1 since 2002)



*average of Conference Board and University of Michigan measures
Source: The Conference Board, UMich, CBoC, GfK/NOP, EC, Westpac-Melbourne Institute, RBC Economics

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RBC Economics & Thought Leadership

Provincial Outlook

Provincial forecast tables

December 2022

Forecast details

% change unless otherwise indicated

	Real GDP				Nominal GDP				Employment				Unemployment rate, %				Housing starts, (000s)				Retail sales				CPI			
	21	22F	23F	24F	21	22F	23F	24F	21	22F	23F	24F	21	22F	23F	24F	21	22F	23F	24F	21	22F	23F	24F	21	22F	23F	24F
N.& L.	0.6	0.9	1.8	0.6	17.7	11.0	0.6	-0.4	2.8	3.6	-0.2	0.5	12.9	10.9	12.3	12.4	1.0	1.7	1.0	0.8	11.0	6.9	1.0	2.3	3.7	6.4	3.2	2.3
P.E.I	7.9	2.3	1.3	2.1	14.3	8.8	3.5	4.1	3.6	6.3	0.4	1.0	9.2	7.3	8.6	9.0	1.3	1.1	1.4	1.3	19.0	5.7	1.2	3.6	5.1	8.9	3.7	2.4
N.S.	6.2	2.0	1.2	1.5	10.9	7.8	3.6	3.3	5.4	3.3	0.3	1.1	8.4	6.6	7.6	8.4	6.0	6.6	7.3	8.0	16.3	5.0	1.1	3.3	4.1	7.4	3.6	2.4
N.B.	5.9	2.1	1.1	1.5	13.8	8.7	3.2	3.3	2.5	2.2	0.8	0.9	9.0	7.3	8.1	8.5	3.8	4.9	5.3	4.5	12.6	7.1	1.3	2.8	3.8	7.3	3.4	2.4
QUE.	6.0	3.1	0.0	1.4	11.8	9.5	2.2	3.8	4.1	2.5	-0.4	0.3	6.1	4.3	5.4	6.2	67.8	60.6	53.0	52.0	14.4	7.6	0.4	2.7	3.8	6.7	3.4	2.2
ONT.	5.2	3.2	-0.1	1.1	10.3	9.3	2.3	3.5	4.9	4.2	-0.4	0.3	8.0	5.7	7.2	7.5	99.6	94.2	97.3	106.3	9.3	11.5	-0.3	3.0	3.5	6.8	3.2	2.2
MAN.	1.8	3.7	0.8	1.4	8.4	9.7	2.5	3.6	3.5	2.4	0.1	0.6	6.4	4.6	5.7	6.4	8.0	7.6	7.8	7.8	13.3	7.4	1.6	3.2	3.2	7.8	3.7	2.3
SASK.	-0.9	5.8	1.5	1.6	13.1	20.7	0.1	3.3	2.6	3.3	0.4	1.0	6.5	4.6	5.1	5.7	4.2	4.3	4.1	4.4	14.6	6.6	1.8	3.0	2.6	6.6	3.8	2.6
ALTA.	4.8	4.9	1.9	2.1	26.2	22.2	0.7	1.8	5.1	5.0	0.8	1.1	8.7	5.7	5.9	5.6	31.9	37.9	43.8	45.0	11.5	6.1	2.2	3.5	3.2	6.5	3.1	2.0
B.C.	6.1	3.1	0.3	1.1	14.2	7.8	2.2	3.1	6.6	3.1	0.1	0.5	6.5	4.7	5.5	5.9	47.6	48.0	49.8	52.5	12.6	2.6	0.0	3.1	2.8	6.9	3.4	2.0
CANADA	**5.0**	**3.5**	**0.4**	**1.3**	**13.6**	**11.5**	**1.9**	**3.2**	**4.8**	**3.6**	**-0.1**	**0.4**	**7.5**	**5.3**	**6.3**	**6.8**	**271**	**267**	**271**	**283**	**11.8**	**7.9**	**0.5**	**3.0**	**3.4**	**6.8**	**3.3**	**2.2**

Key provincial comparisons

(2021 unless otherwise stated)

	Canada	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC
Population (000s, 2022)	**38,930**	526	171	1,020	812	8,696	15,109	1,409	1,195	4,543	5,319
Gross domestic product ($ billions)	**2,509.6**	37.9	8.6	51.9	42.6	504.5	956.7	79.8	88.3	374.5	350.6
Real GDP ($2012 billions)	**2,103.3**	33.0	7.0	42.9	34.9	411.0	805.8	66.9	82.5	335.6	282.1
Share of provincial GDP of Canadian GDP (%)	**100.0**	1.5	0.3	2.1	1.7	20.1	38.1	3.2	3.5	14.9	14.0
Real GDP growth (CAGR, 2016-21, %)	**1.5**	-0.3	3.4	1.9	1.6	1.9	1.7	0.7	-0.4	0.6	2.6
Real GDP per capita ($ 2012)	**55,340**	63,308	43,179	43,728	44,549	47,921	54,720	48,495	70,001	75,973	54,720
Real GDP growth rate per capita (CAGR, 2016-21, %)	**0.3**	0.1	1.1	0.9	0.9	0.9	0.4	-0.4	-1.1	-0.5	1.2
Personal disposable income per capita ($)	**37,790**	37,060	34,736	34,390	34,180	34,180	38,372	33,313	35,215	41,677	41,638
Employment growth (CAGR, 2016-21, %)	**1.0**	-1.0	2.2	1.1	0.4	1.0	1.3	0.7	0.0	0.4	1.6
Employment rate (November 2022, %)	**61.5**	50.9	60.2	56.8	55.6	61.7	61.2	62.5	63.5	64.6	61.8
Discomfort index (inflation + unemp. rate, October 2022)	**12.1**	16.8	14.1	14.4	13.6	10.5	12.4	13.0	12.6	12.0	12.0
Manufacturing industry output (% of GDP)	**9.5**	3.0	11.7	7.6	9.8	13.9	11.7	9.4	6.1	7.7	6.4
Personal expenditures on goods & services (% of GDP)	**52.9**	48.3	62.6	65.8	61.6	53.8	53.4	55.9	46.0	43.7	59.3
International exports (% of GDP)	**30.9**	43.3	22.7	16.9	38.7	27.1	31.6	22.5	44.9	39.7	23.5

Forecast Details

% change unless otherwise specified

British Columbia

	2017	2018	2019	2020	2021	2022F	2023F	2024F
Real GDP	3.8	3.6	2.6	-3.0	6.1	3.1	0.3	1.1
Nominal GDP	7.0	5.4	3.9	-0.7	14.2	7.8	2.2	3.1
Employment	4.1	1.4	3.0	-6.6	6.6	3.1	0.1	0.5
Unemployment Rate (%)	5.2	4.7	4.7	8.9	6.5	4.7	5.5	5.9
Retail Sales	9.3	2.0	0.6	1.2	12.6	2.6	0.0	3.1
Housing Starts (Thousands of Units)	43.7	40.9	44.9	37.7	47.6	48.0	49.8	52.5
Consumer Price Index	2.1	2.7	2.3	0.8	2.8	6.9	3.4	2.0

Alberta

	2017	2018	2019	2020	2021	2022F	2023F	2024F
Real GDP	4.5	2.2	0.1	-8.0	4.8	4.9	1.9	2.1
Nominal GDP	9.2	4.2	1.7	-15.7	26.2	22.2	0.7	1.8
Employment	1.1	1.9	0.7	-6.6	5.1	5.0	0.8	1.1
Unemployment Rate (%)	7.9	6.7	7.0	11.4	8.7	5.7	5.9	5.6
Retail Sales	7.2	2.0	-0.5	-2.1	11.5	6.1	2.2	3.5
Housing Starts (Thousands of Units)	29.5	26.1	27.3	24.0	31.9	37.9	43.8	45.0
Consumer Price Index	1.5	2.5	1.7	1.1	3.2	6.5	3.1	2.0

Saskatchewan

	2017	2018	2019	2020	2021	2022F	2023F	2024F
Real GDP	2.6	1.8	-0.4	-4.8	-0.9	5.8	1.5	1.6
Nominal GDP	6.0	4.3	1.0	-7.6	13.1	20.7	0.1	3.3
Employment	0.0	0.5	1.9	-4.7	2.6	3.3	0.4	1.0
Unemployment Rate (%)	6.4	6.2	5.6	8.4	6.5	4.6	5.1	5.7
Retail Sales	4.4	0.1	1.1	0.3	14.6	6.6	1.8	3.0
Housing Starts (Thousands of Units)	4.9	3.6	2.4	3.1	4.2	4.3	4.1	4.4
Consumer Price Index	1.7	2.3	1.7	0.6	2.6	6.6	3.8	2.6

Manitoba

	2017	2018	2019	2020	2021	2022F	2023F	2024F
Real GDP	3.3	2.0	1.2	-4.4	1.8	3.7	0.8	1.4
Nominal GDP	5.9	2.9	1.7	-1.3	8.4	9.7	2.5	3.6
Employment	1.7	1.1	1.0	-3.7	3.5	2.4	0.1	0.6
Unemployment Rate (%)	5.4	6.0	5.3	8.0	6.4	4.6	5.7	6.4
Retail Sales	7.7	2.0	0.6	-0.3	13.3	7.4	1.6	3.2
Housing Starts (Thousands of Units)	7.5	7.4	6.9	7.3	8.0	7.6	7.8	7.8
Consumer Price Index	1.6	2.5	2.3	0.5	3.2	7.8	3.7	2.3

Ontario

	2017	2018	2019	2020	2021	2022F	2023F	2024F
Real GDP	2.8	3.4	2.1	-4.7	5.2	3.2	-0.1	1.1
Nominal GDP	4.3	4.3	3.9	-2.9	10.3	9.3	2.3	3.5
Employment	1.9	1.7	2.8	-4.8	4.9	4.2	-0.4	0.3
Unemployment Rate (%)	6.0	5.7	5.6	9.6	8.0	5.7	7.2	7.5
Retail Sales	7.7	4.6	2.5	-3.5	9.3	11.5	-0.3	3.0
Housing Starts (Thousands of Units)	79.1	78.7	69.0	81.3	99.6	94.2	97.3	106.3
Consumer Price Index	1.7	2.4	1.9	0.6	3.5	6.8	3.2	2.2

Forecast Details

% change unless otherwise specified

Quebec

	2017	2018	2019	2020	2021	2022F	2023F	2024F
Real GDP	2.9	2.9	2.8	-5.0	6.0	3.1	0.0	1.4
Nominal GDP	4.9	5.0	4.6	-1.9	11.8	9.5	2.2	3.8
Employment	2.5	1.5	2.0	-4.8	4.1	2.5	-0.4	0.3
Unemployment Rate (%)	6.1	5.5	5.1	8.9	6.1	4.3	5.4	6.2
Retail Sales	5.6	3.9	1.3	0.4	14.4	7.6	0.4	2.7
Housing Starts (Thousands of Units)	46.5	46.9	48.0	54.1	67.8	60.6	53.0	52.0
Consumer Price Index	1.1	1.7	2.1	0.8	3.8	6.7	3.4	2.2

New Brunswick

	2017	2018	2019	2020	2021	2022F	2023F	2024F
Real GDP	2.5	1.2	1.3	-2.7	5.9	2.1	1.1	1.5
Nominal GDP	4.4	3.7	2.4	-1.6	13.8	8.7	3.2	3.3
Employment	0.7	0.6	0.8	-2.6	2.5	2.2	0.8	0.9
Unemployment Rate (%)	8.2	8.0	8.1	10.0	9.0	7.3	8.1	8.5
Retail Sales	6.8	1.7	2.1	1.1	12.6	7.1	1.3	2.8
Housing Starts (Thousands of Units)	2.3	2.3	2.9	3.5	3.8	4.9	5.3	4.5
Consumer Price Index	2.3	2.2	1.7	0.2	3.8	7.3	3.4	2.4

Nova Scotia

	2017	2018	2019	2020	2021	2022F	2023F	2024F
Real GDP	1.8	1.9	3.4	-3.5	6.2	2.0	1.2	1.5
Nominal GDP	4.1	3.6	4.4	0.0	10.9	7.8	3.6	3.3
Employment	0.7	1.9	2.3	-4.7	5.4	3.3	0.3	1.1
Unemployment Rate (%)	8.6	7.7	7.4	9.8	8.4	6.6	7.6	8.4
Retail Sales	7.8	0.2	2.6	-2.0	16.3	5.0	1.1	3.3
Housing Starts (Thousands of Units)	4.0	4.8	4.7	4.9	6.0	6.6	7.3	8.0
Consumer Price Index	1.1	2.2	1.6	0.3	4.1	7.4	3.6	2.4

Prince Edward Island

	2017	2018	2019	2020	2021	2022F	2023F	2024F
Real GDP	4.7	1.7	4.5	-1.6	7.9	2.3	1.3	2.1
Nominal GDP	6.5	2.8	6.5	1.4	14.3	8.8	3.5	4.1
Employment	3.5	4.2	3.3	-3.2	3.6	6.3	0.4	1.0
Unemployment Rate (%)	9.9	9.5	8.7	10.4	9.2	7.3	8.6	9.0
Retail Sales	6.3	2.6	3.9	1.1	19.0	5.7	1.2	3.6
Housing Starts (Thousands of Units)	0.9	1.1	1.5	1.2	1.3	1.1	1.4	1.3
Consumer Price Index	1.8	2.3	1.2	0.0	5.1	8.9	3.7	2.4

Newfoundland and Labrador

	2017	2018	2019	2020	2021	2022F	2023F	2024F
Real GDP	1.5	-2.6	4.0	-4.6	0.6	0.9	1.8	0.6
Nominal GDP	6.9	2.7	3.6	-10.0	17.7	11.0	0.6	-0.4
Employment	-2.1	0.6	1.1	-5.7	2.8	3.6	-0.2	0.5
Unemployment Rate (%)	15.1	14.1	12.3	14.1	12.9	10.9	12.3	12.4
Retail Sales	2.4	-2.3	0.0	1.8	11.0	6.9	1.0	2.3
Housing Starts (Thousands of Units)	1.4	1.1	0.9	0.8	1.0	1.7	1.0	0.8
Consumer Price Index	2.4	1.7	1.0	0.2	3.7	6.4	3.2	2.3

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Scotiabank.
GLOBAL ECONOMICS

PROVINCIAL OUTLOOK
December 19, 2022

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Growth to Grind to a Halt Next Year in Most Provinces

HIGHLIGHTS

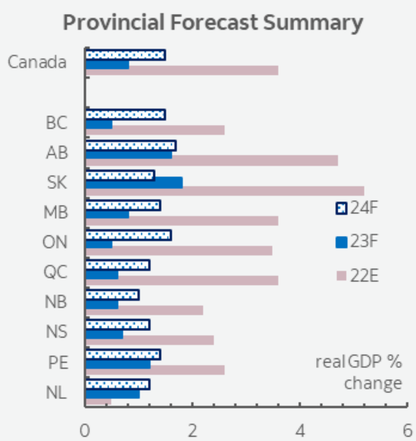
After seeing strong broad-based growth in the first three quarters of 2022, the tide is turning quickly as all provinces are feeling the pinch of rising interest rates and dimmed global outlook (chart 1). With high levels of uncertainty regarding inflation and monetary policy actions, growth should continue to slow well into 2023, and we now expect national growth to stall in the first half of next year. Alberta and the Prairie Provinces face fewer headwinds relative to the rest of the country, whereas Ontario and BC brace for a sharper slowdown.

An interest-rate-induced housing slowdown weighs on growth across the board, with the impact most pronounced in Ontario and BC via high exposure to housing-related sectors. Although the pace of decline seems to be moderating as of November, our baseline forecasts assume the downward trend will continue into 2023, with large uncertainty around homebuyer sentiment and central bank actions. The Bank of Canada's 400 bps rate hikes have driven the slowdown so far this year, facilitated by other factors—as pointed out in our latest Housing News Flash (see **here**), the softness this year is also partly the outcome of an advancement in purchases front-loaded to 2021. Hence, with house prices still well above pre-pandemic levels, the Atlantic provinces (particularly Nova Scotia and New Brunswick) could see further rebalancing in sales activities next year. Housing markets in Saskatchewan and Alberta are more shielded by their smaller price appreciation during the past two years (chart 2).

The cooling effect of restrictive interest rates is also felt in the consumer sector, compounding headwinds in Ontario and BC while adding pressure to Alberta. Households in these provinces have higher debt relative to income and will see their debt servicing costs increase more as interest rates rise, weighing on spending. The continued decline in property valuation could also erode spending through the wealth effect.

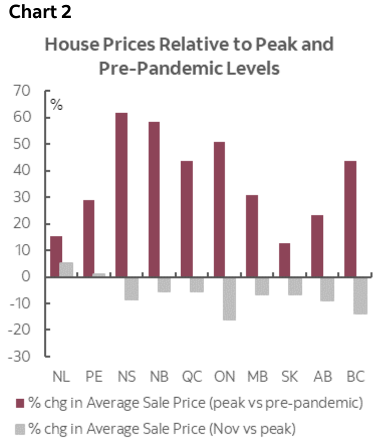
Provinces are also facing strong headwinds from abroad, mainly through weaker demand for exports (chart 3). As we flagged in the latest forecast tables, a global recession is assured and largely driven by dramatic slowdowns in China and Western Europe. Meanwhile, we are also seeing the US entering a technical recession with output falling modestly in 2022Q4 and 2023Q1 as a result of aggressive monetary policy tightening and an equity market correction. Weaker demand from the US disproportionally affects Ontario and Quebec, particularly weighing on manufacturing in Ontario. Non-energy exports from BC and Alberta should also see sizable declines driven by the US and China. On the flip side, Manitoba, Nova Scotia, and PEI are relatively shielded from a global slowdown as over half of their exports are interprovincial.

Chart 1



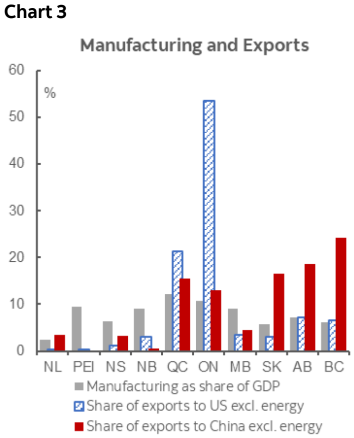
Sources: Scotiabank Economics, Statistics Canada, Institut de la Statistique du Québec, Ontario Finance.

Chart 2



Sources: Scotiabank Economics, CREA.

Chart 3



Sources: Scotiabank Economics, Statistics Canada.

Index

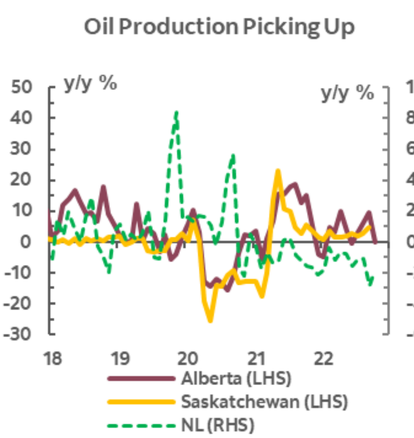
Alberta and the Prairie Provinces should continue to benefit from well-supported commodity prices and agriculture production recovery. Although pulled back from the peak levels this summer, oil prices are expected to average well above US$90/bbl this year and next despite recession fears against tight supply. Oil production is picking up in Alberta and Saskatchewan (chart 4). Looking forward, even an average harvest could support growth next year—prices of main crops are expected to remain strong as the Russia-Ukraine war continues.

Tight labour markets across the country, but particularly pronounced in BC and Quebec, could be a double-edged sword—low unemployment rates provide a buffer in a slowdown, while continued labour shortages could weigh on growth next year. Job vacancies have doubled compared to pre-pandemic levels across Canada, owing to the strong economic rebound that has seen an additional half-million jobs created since the onset of the pandemic. Shortages have been exacerbated by a temporary dip in immigration and a surge in retirements. Record-level immigration targets in the next three years could help fill some of these positions, but the mismatch of skills will likely keep vacancies materially higher in some occupations, constraining capacity expansion in key sectors such as construction, health care, agriculture, accommodation, and food services. BC and Quebec have had the highest vacancy rates among all provinces since 2019 and should continue to see high vacancies with over 20% of workers reaching retirement age in the next 5 years in both provinces. Alberta's vacancy rate doubled relative to pre-pandemic but is still lower than that of most of its peers, thanks to the province's younger workforce (chart 5).

Benefitting from the rise in net interprovincial migration in the past two years, the Atlantic provinces should continue to see strong population growth as international migration picks up. Canada is currently on track to beat the upper range of its 2022 target to welcome 445k new permanent residents, which would be close to another 10% increase from last year's record-level immigration. The Government of Canada also increased its immigration targets for the coming two years, planning to receive 447k immigrants in 2023 and 451k in 2024. The influx of international immigration should also give Ontario and BC a boost—from July 2021 to June 2022, international migration contributed to over 2% of population growth in these two provinces. Quebec will likely continue the trend of weak population growth, but saw the largest surge in non-permanent residents among all provinces. Population growth is still lagging in Saskatchewan and Manitoba despite strong contributions from immigration—residents moving out of these two provinces reduced their respective populations by 0.7% (chart 6).

Global and national drivers should continue to dominate provincial growth paths ahead with some regional differences. Looking beyond the slowdown in the first half of 2023, the Bank of Canada could begin rate cuts in the back half of next year and into 2024 given the expected slowing in inflation, hence we could expect some rebound to take hold (see **here** for our latest national forecast) in most provinces.

Chart 4

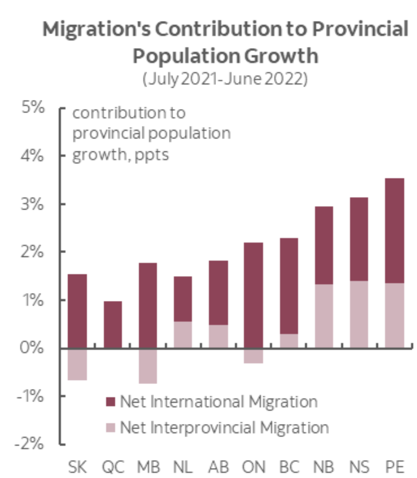


Sources: Scotiabank Economics, Alberta Energy Regulator, Saskatchewan Ministry of Energy and Resources, Canada-Newfoundland Offshore Petroleum Board

Chart 5

Sources: Scotiabank Economics, Statistics Canada.

Chart 6



Sources: Scotiabank Economics, Statistics Canada.

December 19, 2022

BRITISH COLUMBIA

Following a strong recovery of 6.1% real growth last year, we expect more downside to BC's economy this year, with weaknesses continuing into 2023. BC is more affected by an interest-rate-induced slowdown compared to its peers through larger exposure to the housing sector and reliance on household consumption. The housing market is cooling faster in the province than its peers—reflected in resale activity where year-to-date sales plunged -34% relative to last year—the largest drop among all provinces. This contraction affects the province disproportionally—over 23% of BC's real GDP is contributed by real estate and residential construction, compared to 17% in Ontario and 14% in the rest of the country. BC's economy also skews towards household consumption of goods and services, which could see a sharper slowdown than the rest of the country due to high household indebtedness and the wealth effect from the depreciation of house prices.

The province saw strong growth in exports so far this year, but the tide is likely turning given reduced demand from BC's trading partners. We expect weaker growth from exports for the rest of this year and next, driven by the province's key commodities—lower lumber demand associated with continued declines in US homebuilder sentiment, as well as weak copper prices resulting from a slowdown in China. Robust prices of energy products (natural gas and coal) should continue to support the province's export values.

British Columbia

Labour Markets & Households

	Last Update	Unit	Level	m/m level chg.	YTD avg. % chg.
Employment	Nov 2022	000s, SA	2,748.4	-13.7	3.3
Full-time employment	*Nov 2022*	*000s, SA*	*2,186.0*	*8.8*	4.9
Part-time employment	*Nov 2022*	*000s, SA*	*562.4*	*-22.6*	-2.3

	Last Update	Unit	m/m % chg.	y/y % chg.	YTD avg. % chg.
Avg. Hourly Wage	Nov 2022	CAD, SA	0.6	6.5	4.2

	Last Update	Unit	Level	2010-2019 avg	YTD avg. chg.
Unemployment Rate	Nov 2022	%	4.2	6.2	-1.9
Job Vacancy Rate	Jun 2022	%	6.8	3.9	1.5

	Last Update	Unit	Level	2010-2019 avg	YTD avg. chg.
Household debt-to-disposable income	Jun 22	%	222.8	219.2	7.2

Business Sector Activity

	Last Update	Unit	m/m % chg.	y/y % chg.	YTD avg. % chg.
Manufacturing Shipments	Oct 2022	CAD mn, SA	-1.2	9.5	9.9
Wholesale Trade	Oct 2022	CAD mn, SA	3.8	11.6	10.3
Non-res. construction investment	Oct 2022	CAD mn, SA	1.6	19.9	10.7
Retail sales	Sep 2022	CAD mn, SA	-2.0	3.1	2.5
Car sales (volume)	Sep 2022	Units, SA	-6.2	-11.5	-11.3
Car sales (value)	Sep 2022	CAD mn, SA	-8.4	1.8	-1.4

Housing

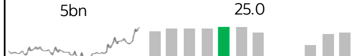
	Last Update	Unit	m/m % chg.	y/y % chg.	YTD avg. % chg.
Housing starts	Nov 2022	000s, SAAR	9.1	28.0	-2.0
MLS resales	Nov 2022	Units, SA	-9.5	-50.5	-34.4
MLS avg. price	Nov 2022	SA, C$	-2.5	-8.9	7.0
New listings	Nov 2022	Units, SA	-7.4	-13.1	-4.8
Residential construction investment	Oct 2022	CAD mn, SA	-1.6	28.7	18.9
Building Permits	Oct 2022	000s, SA	16.0	30.2	17.8

International Trade

Latest Release: Oct 2022
Units: CAD bn

Exports

Value	YTD avg. % change
5bn	25.0


5-year trend / Last 12-months

Imports

Value	YTD avg. % change
7bn	22.0


5-year trend / Last 12-months

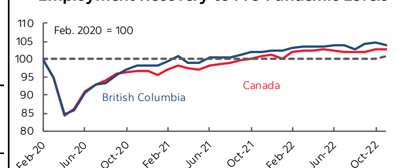
Trade Balance

-1.7 bn surplus

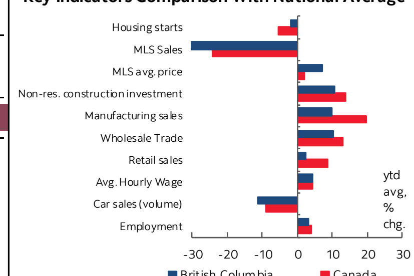

5-year trend

Featured Charts

Employment Recovery to Pre-Pandemic Levels

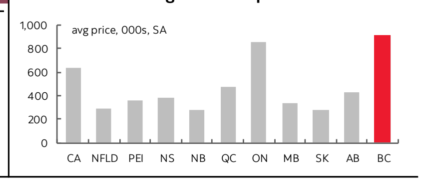


Key Indicators Comparison With National Average



Sources: Scotiabank Economics, Statistics Canada.

Housing Price Comparison



Sources for tables and charts: Scotiabank Economics, Statistics Canada, CMHC, CREA.

ALBERTA

We expect Alberta to continue to lead growth this year and next. Although pulled back from the peak in June of around US$120 per barrel, crude oil prices remain favourable. Drilling is ramping up—the Alberta Energy Regulator expects oil and gas capital spending to increase by 56% this year and remain around levels higher than in years preceding the pandemic, yet still well below 2014 peak levels. The completion of the TransMountain pipeline expansion next year will increase the transportation capacity and should narrow price discounts between the Western Canada Select (WCS) and West Texas Intermediate (WTI), giving the sector more advantage moving forward.

Employment growth in Alberta outpaced the national average this year, mainly driven by broad-based gains in the service sector. The province is having a strong year in housing starts as of the third quarter, bringing the year-to-date total to 21.2% higher than in the same period last year. But the province's housing market has been cooling fast as interest rates rose—sales contracted -46% since the peak in February, and the average sales price declined by -8.9% during the same period. Nevertheless, as the province experienced less price appreciation during the pandemic than the national average, housing remains relatively affordable in Alberta—especially after accounting for income levels.

Alberta has been diversifying business investments into non-energy sectors—capital outlay in sectors such as petrochemical manufacturing has been ramping up, but the benefits are likely to be seen only after some time.

Alberta

Labour Markets & Households

	Last Update	Unit	Level	m/m level chg.	YTD avg. % chg.
Employment	Nov 2022	000s, SA	2,364.1	-15.1	5.2
Full-time employment	*Nov 2022*	*000s, SA*	*1,920.7*	*-10.0*	5.5
Part-time employment	*Nov 2022*	*000s, SA*	*443.4*	*-5.1*	4.0

	Last Update	Unit	m/m % chg.	y/y % chg.	YTD avg. % chg.
Avg. Hourly Wage	Nov 2022	CAD, SA	0.2	1.0	1.2

	Last Update	Unit	Level	2010-2019 avg	YTD avg. chg.
Unemployment Rate	Nov 2022	%	5.6	6.2	-3.1
Job Vacancy Rate	Jun 2022	%	5.3	2.7	1.6

	Last Update	Unit	Level	2010-2019 avg	YTD avg. chg.
Household debt-to-disposable income	Jun 22	%	190.4	192.1	-5.8

Business Sector Activity

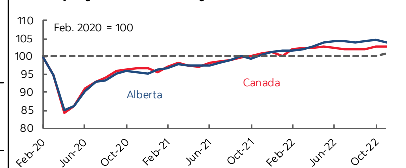
	Last Update	Unit	m/m % chg.	y/y % chg.	YTD avg. % chg.
Manufacturing Shipments	Oct 2022	CAD mn, SA	7.3	27.9	29.8
Wholesale Trade	Oct 2022	CAD mn, SA	2.1	19.4	22.3
Non-res. construction investment	Oct 2022	CAD mn, SA	0.9	7.5	15.0
Retail sales	Sep 2022	CAD mn, SA	-1.6	6.9	6.5
Car sales (volume)	Sep 2022	Units, SA	-2.6	-4.4	-7.6
Car sales (value)	Sep 2022	CAD mn, SA	-4.8	8.4	2.2

Housing

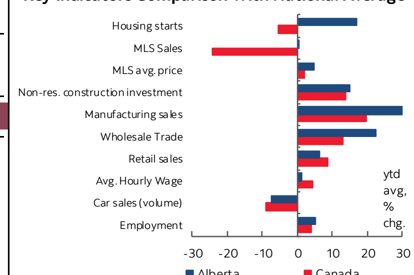
	Last Update	Unit	m/m % chg.	y/y % chg.	YTD avg. % chg.
Housing starts	Nov 2022	000s, SAAR	-33.7	-23.9	16.8
MLS resales	Nov 2022	Units, SA	-3.8	-27.7	0.0
MLS avg. price	Nov 2022	SA, C$	-0.8	-1.0	4.9
New listings	Nov 2022	Units, SA	-2.2	-14.9	1.6
Residential construction investment	Oct 2022	CAD mn, SA	-2.1	23.0	18.6
Building Permits	Oct 2022	000s, SA	-9.0	-11.3	10.1

Featured Charts

Employment Recovery to Pre-Pandemic Levels

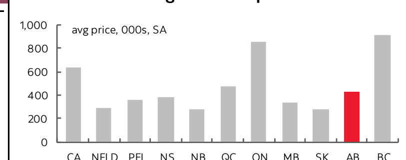


Key Indicators Comparison With National Average

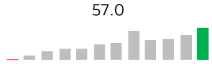
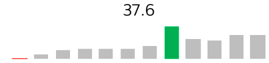
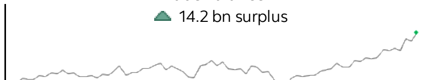


Sources: Scotiabank Economics, Statistics Canada.

Housing Price Comparison



International Trade

	Exports		Imports		Trade Balance
Latest Release: Oct 2022	Value	YTD avg. % change	Value	YTD avg. % change	14.2 bn surplus
Units: CAD bn	18bn	57.0	4bn	37.6	
	 5-year trend	 Last 12-months	 5-year trend	 Last 12-months	 5-year trend

Sources for tables and charts: Scotiabank Economics, Statistics Canada, CMHC, CREA.

SASKATCHEWAN

Saskatchewan is better positioned to weather the monetary-policy-induced downturn than most provinces. We expect a rebound in agricultural production and favourable commodity prices to support growth momentum in Saskatchewan well into next year. Prices of potash and wheat have pulled back from their May peaks following Russia's invasion of Ukraine, but are expected to remain strong for as long as the conflict continues. Benefitting from the steep price appreciation of crude oil this year, oil production in the province increased modestly by 2.1% relative to the same period last year, while year-to-date oil and gas exports jumped by nearly 70% in value as of September.

Outside the commodity sectors, Saskatchewan has also been leading in wholesale trade, manufacturing, and construction investments so far this year. The province faces more modest headwinds compared to its peers in an environment of monetary policy tightening. Household consumption contributes to a smaller share of real GDP than the national average. The housing markets are more insulated from the large adjustments we have witnessed in most parts of the country—mainly thanks to smaller price appreciation during the past two years.

Saskatchewan

Labour Markets & Households

	Last Update	Unit	Level	m/m level chg.	YTD avg. % chg.
Employment	Nov 2022	000s, SA	576.8	-1.3	3.5
Full-time employment	*Nov 2022*	*000s, SA*	*468.7*	*-6.5*	4.4
Part-time employment	*Nov 2022*	*000s, SA*	*108.1*	*5.2*	-0.4

	Last Update	Unit	m/m % chg.	y/y % chg.	YTD avg. % chg.
Avg. Hourly Wage	Nov 2022	CAD, SA	0.1	2.0	3.3

	Last Update	Unit	Level	2010-2019 avg	YTD avg. chg.
Unemployment Rate	Nov 2022	%	3.5	5.3	-2.0
Job Vacancy Rate	Jun 2022	%	5.1	2.2	1.5

	Last Update	Unit	Level	2010-2019 avg	YTD avg. chg.
Household debt-to-disposable income	Jun 22	%	187.8	149.0	-4.7

Business Sector Activity

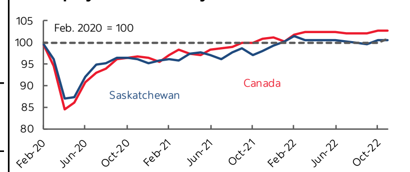
	Last Update	Unit	m/m % chg.	y/y % chg.	YTD avg. % chg.
Manufacturing Shipments	Oct 2022	CAD mn, SA	7.4	27.1	28.9
Wholesale Trade	Oct 2022	CAD mn, SA	4.6	51.3	53.4
Non-res. construction investment	Oct 2022	CAD mn, SA	3.1	-78.2	-16.8
Retail sales	Sep 2022	CAD mn, SA	0.5	10.0	7.7
Car sales (volume)	Sep 2022	Units, SA	-1.9	7.8	-3.4
Car sales (value)	Sep 2022	CAD mn, SA	-2.3	19.9	5.1

Housing

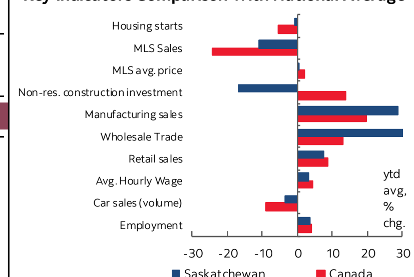
	Last Update	Unit	m/m % chg.	y/y % chg.	YTD avg. % chg.
Housing starts	Nov 2022	000s, SAAR	-41.7	-28.9	-0.9
MLS resales	Nov 2022	Units, SA	-5.1	-32.0	-10.9
MLS avg. price	Nov 2022	SA, C$	-1.5	-8.2	0.4
New listings	Nov 2022	Units, SA	-4.2	-9.5	-6.9
Residential construction investment	Oct 2022	CAD mn, SA	-5.5	27.7	27.3
Building Permits	Oct 2022	000s, SA	-9.3	-2.3	10.2

Featured Charts

Employment Recovery to Pre-Pandemic Levels

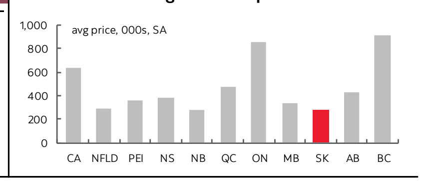


Key Indicators Comparison With National Average



Sources: Scotiabank Economics, Statistics Canada.

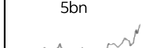
Housing Price Comparison



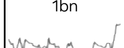
International Trade

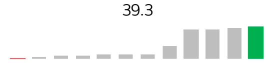
Latest Release: Oct 2022
Units: CAD bn

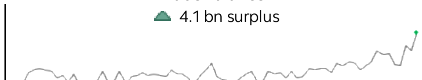
Exports		Imports		Trade Balance
Value	YTD avg. % change	Value	YTD avg. % change	
5bn	43.0	1bn	39.3	4.1 bn surplus


5-year trend


Last 12-months


5-year trend


Last 12-months


5-year trend

Sources for tables and charts: Scotiabank Economics, Statistics Canada, CMHC, CREA.

December 19, 2022

MANITOBA

Manitoba's economic growth has been tracking strong this year, with its key indicators very close to the national average on a year-over-year basis. The strong growth was mainly due to the recovery from the drought last year, which affects the economy in two folds: the first one is through the loss of crop production, which has fully recouped this year. The second one is through electricity exports. Last year, Manitoba didn't generate enough hydroelectricity and had to import from the US to compensate for drought conditions. This year, electricity generation in Manitoba picked up and rose over 80% year over year in September, which gave the economy a sizable boost through exports.

We expect Manitoba to continue its middle-of-the-pack performance next year. The province is exposed to the same factors that drive the national slowdown, but with some differentiators. The province's housing sector should see more downside in sales next year. Average sale prices rose over 30% during the pandemic, much higher than the price appreciation seen in Saskatchewan and Alberta, and only declined by under 7% since the February peak this year. Sales dropped -26.2% year-to-date relative to last year, and should continue to slow with interest rates remaining in restrictive territory. Housing is still relatively affordable in Manitoba, but the province has a lower share of private dwellings per capita than the national average—not much higher than Ontario. Immigration should continue boosting the province's population, but inter-provincial migration removes some of that gain.

Elevated commodity prices should continue to provide a lift to the regional outlook next year, as prices of the province's key exports remain favourable with the ongoing global geopolitical conflict. As an export province, Manitoba could face some headwinds from weaker US demand next year but is also more insulated than other export provinces since half of its exports are towards other jurisdictions in Canada. Domestic demand should remain relatively strong in Canada compared to most of its trading partners.

Manitoba

Labour Markets & Households

	Last Update	Unit	Level	m/m level chg.	YTD avg. % chg.
Employment	Nov 2022	000s, SA	669.3	-5.4	2.6
Full-time employment	*Nov 2022*	*000s, SA*	*547.0*	*-4.2*	1.5
Part-time employment	*Nov 2022*	*000s, SA*	*122.3*	*-1.1*	7.4

	Last Update	Unit	m/m % chg.	y/y % chg.	YTD avg. % chg.
Avg. Hourly Wage	Nov 2022	CAD, SA	-0.4	6.3	3.2

	Last Update	Unit	Level	2010-2019 avg	YTD avg. chg.
Unemployment Rate	Nov 2022	%	4.0	5.6	-1.9
Job Vacancy Rate	Jun 2022	%	4.8	2.3	1.3

	Last Update	Unit	Level	2010-2019 avg	YTD avg. chg.
Household debt-to-disposable income	Jun 22	%	175.3	147.0	10.3

Business Sector Activity

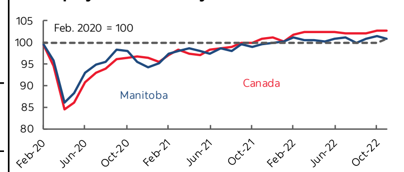
	Last Update	Unit	m/m % chg.	y/y % chg.	YTD avg. % chg.
Manufacturing Shipments	Oct 2022	CAD mn, SA	4.5	28.9	20.4
Wholesale Trade	Oct 2022	CAD mn, SA	2.2	14.3	14.0
Non-res. construction investment	Oct 2022	CAD mn, SA	-4.0	11.5	3.3
Retail sales	Sep 2022	CAD mn, SA	-1.3	9.4	7.9
Car sales (volume)	Sep 2022	Units, SA	-0.6	-8.7	-12.8
Car sales (value)	Sep 2022	CAD mn, SA	-3.5	1.3	-6.0

Housing

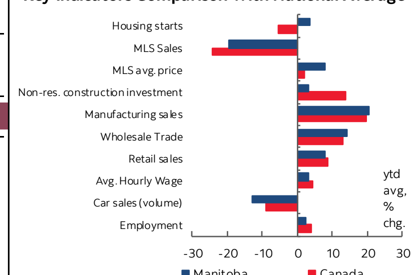
	Last Update	Unit	m/m % chg.	y/y % chg.	YTD avg. % chg.
Housing starts	Nov 2022	000s, SAAR	12.1	57.0	3.5
MLS resales	Nov 2022	Units, SA	-1.8	-28.5	-19.4
MLS avg. price	Nov 2022	SA, C$	0.5	-0.7	7.7
New listings	Nov 2022	Units, SA	1.1	5.7	-4.3
Residential construction investment	Oct 2022	CAD mn, SA	3.0	13.1	9.3
Building Permits	Oct 2022	000s, SA	-1.5	-31.9	-19.0

Featured Charts

Employment Recovery to Pre-Pandemic Levels

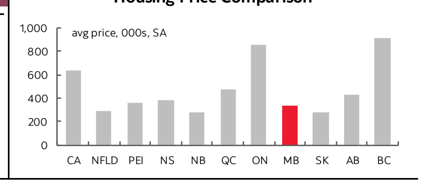


Key Indicators Comparison With National Average



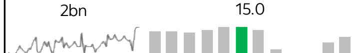
Sources: Scotiabank Economics, Statistics Canada.

Housing Price Comparison



International Trade

	Exports: Value	Exports: YTD avg. % change	Imports: Value	Imports: YTD avg. % change	Trade Balance
Latest Release: Oct 2022 **Units:** CAD bn	2bn	15.0	3bn	27.2	-0.4 bn surplus



Sources for tables and charts: Scotiabank Economics, Statistics Canada, CMHC, CREA.

December 19, 2022

ONTARIO

Ontario's real growth held up firmly in the second quarter, led by strong household spending and exports. We see the momentum slow rapidly as the impact of rising interest rates disproportionally affects the province, where minimal real growth is expected next year (0.5% in our current forecast). The province has seen the largest housing market correction in the country as average sale prices plunged by -16.2% since February's peak, and sales contracted by -36%. The secondary effect of a housing market slowdown is weaker construction activity—residential investment fell at twice the speed as the national average in real terms—further weighing on growth. Slowing economic activity will also likely weigh on the finance and insurance sectors, which make up over 10% of Ontario's real output.

Manufacturing output growth will likely face more headwinds as the year progresses, owing to persistent supply disruptions, higher input costs, and labour shortages in the industry, but an improved auto sector outlook next year provides some upside. The province's critical auto sector saw slower-than-anticipated production recovery in the first half of the year as chip shortages remained the bottleneck. The rebound in auto production will nevertheless contribute to the province's economic growth—Wards Automotive forecasts a 13% growth in Canadian light vehicle production in 2022 and a further 17% in 2023.

On the flip side, sizable public investments in infrastructure will offset falling residential investments and give growth a boost. In the mid-year fiscal update, the provincial government pledged over $20 bn in infrastructure spending each year for the next two years. Major investments have been flowing in the province's electric vehicle industry, including $12.5 bn in EV and EV battery-related manufacturing investments in the past two years, with the first production operations scheduled to begin in 2024.

On the fiscal front, the rollout of childcare rebates that started this fall provides a near-term stimulus of $1.1 bn in 2022 and should improve labour participation and productivity in the long run.

Ontario

Labour Markets & Households

	Last Update	Unit	Level	m/m level chg.	YTD avg. % chg.
Employment	Nov 2022	000s, SA	7,701.6	22.6	4.6
Full-time employment	*Nov 2022*	*000s, SA*	*6,375.2*	*60.3*	4.4
Part-time employment	*Nov 2022*	*000s, SA*	*1,326.4*	*-37.7*	5.5

	Last Update	Unit	m/m % chg.	y/y % chg.	YTD avg. % chg.
Avg. Hourly Wage	Nov 2022	CAD, SA	0.7	6.4	4.4

	Last Update	Unit	Level	2010-2019 avg	YTD avg. chg.
Unemployment Rate	Nov 2022	%	4.9	7.0	-2.6
Job Vacancy Rate	Jun 2022	%	5.7	2.9	1.6

	Last Update	Unit	Level	2010-2019 avg	YTD avg. chg.
Household debt-to-disposable income	Jun 22	%	204.5	183.2	12.4

Business Sector Activity

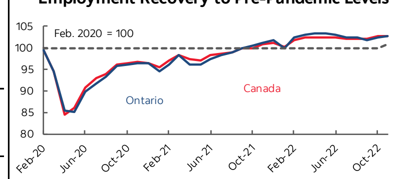
	Last Update	Unit	m/m % chg.	y/y % chg.	YTD avg. % chg.
Manufacturing Shipments	Oct 2022	CAD mn, SA	1.7	13.1	19.9
Wholesale Trade	Oct 2022	CAD mn, SA	0.6	6.7	12.1
Non-res. construction investment	Oct 2022	CAD mn, SA	1.2	7.8	7.1
Retail sales	Sep 2022	CAD mn, SA	1.0	8.5	13.0
Car sales (volume)	Sep 2022	Units, SA	1.7	-3.7	-5.7
Car sales (value)	Sep 2022	CAD mn, SA	0.6	10.5	3.4

Housing

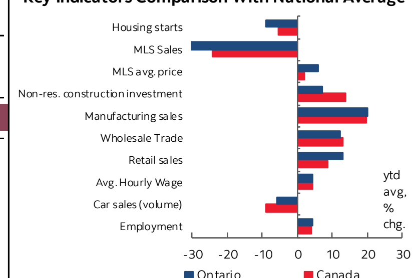
	Last Update	Unit	m/m % chg.	y/y % chg.	YTD avg. % chg.
Housing starts	Nov 2022	000s, SAAR	11.7	-22.4	-8.9
MLS resales	Nov 2022	Units, SA	-1.9	-43.8	-31.9
MLS avg. price	Nov 2022	SA, C$	0.1	-10.0	6.0
New listings	Nov 2022	Units, SA	1.8	-2.3	-0.2
Residential construction investment	Oct 2022	CAD mn, SA	3.1	9.6	6.2
Building Permits	Oct 2022	000s, SA	-11.2	-37.3	-17.4

Featured Charts

Employment Recovery to Pre-Pandemic Levels

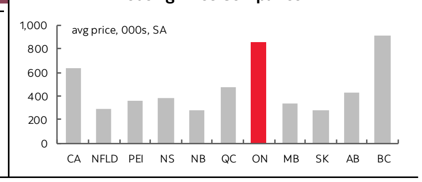


Key Indicators Comparison With National Average



Sources: Scotiabank Economics, Statistics Canada.

Housing Price Comparison

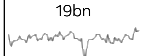


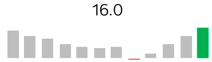
International Trade

Latest Release: Oct 2022
Units: CAD bn

Exports

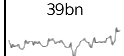
Value: 19bn
YTD avg. % change: 16.0


5-year trend


Last 12-months

Imports

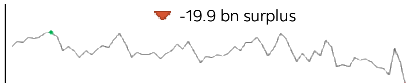
Value: 39bn
YTD avg. % change: 20.1


5-year trend


Last 12-months

Trade Balance

-19.9 bn surplus


5-year trend

Sources for tables and charts: Scotiabank Economics, Statistics Canada, CMHC, CREA.

QUEBEC

The economic expansion continues to slow in Quebec after a sharp decline of real growth in Q2 to +0.3% q/q from +1.4% q/q in Q1. We expect an expansion of around 3% in Quebec this year on the back of strong real growth in the first half of the year, with a much softer growth projection of around 0.6% in 2023. Weaker US demand poses strong headwinds to exports and manufacturing in the province, but a softer CAD could act as a buffer.

Household consumption will likely remain more resilient in Quebec compared to its peers, with the household saving rate well above the national average since 2016, and a lower household debt burden proportional to disposable income than in other large provinces. The large fiscal stimulus announced by the province should help support consumption but may slow the deceleration of inflation.

Quebec has one of the highest job vacancy rates in the country while the unemployment rate remains historically low. Labour shortages stemming from an aging workforce, the low employment rate among older workers, and slow population growth will likely remain a major constraint on growth—especially in industries such as construction and manufacturing where vacancy rates are the highest. The province plans to make up for the labour supply gap with a record immigration target this year (71k, including 15k carry-over from 2021).

Quebec should see a more modest slowdown in residential investment—the province's housing market has been adjusting in response to rising interest rates and declining affordability, but to a lesser extent than the national average. Government infrastructure spending, including the $80 bn investments planned in the next five years under the 2022–2032 Québec Infrastructure Plan (QIP), will contribute to growth in the medium term.

Quebec

Labour Markets & Households

	Last Update	Unit	Level	m/m level chg.	YTD avg. % chg.
Employment	Nov 2022	000s, SA	4,436.4	28.1	2.7
Full-time employment	*Nov 2022*	*000s, SA*	*3,630.5*	*7.2*	1.9
Part-time employment	*Nov 2022*	*000s, SA*	*806.0*	*21.0*	6.6

	Last Update	Unit	m/m % chg.	y/y % chg.	YTD avg. % chg.
Avg. Hourly Wage	Nov 2022	CAD, SA	0.5	6.4	6.2

	Last Update	Unit	Level	2010-2019 avg	YTD avg. chg.
Unemployment Rate	Nov 2022	%	3.5	7.1	-1.9
Job Vacancy Rate	Jun 2022	%	6.4	2.5	1.4

	Last Update	Unit	Level	2010-2019 avg	YTD avg. chg.
Household debt-to-disposable income	Jun 22	%	156.3	160.1	1.3

Business Sector Activity

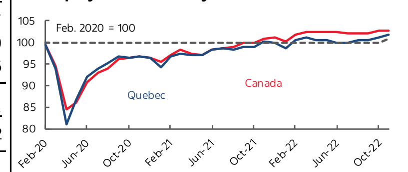
	Last Update	Unit	m/m % chg.	y/y % chg.	YTD avg. % chg.
Manufacturing Shipments	Oct 2022	CAD mn, SA	3.3	17.0	17.5
Wholesale Trade	Oct 2022	CAD mn, SA	3.6	11.7	6.5
Non-res. construction investment	Oct 2022	CAD mn, SA	0.9	19.0	29.9
Retail sales	Sep 2022	CAD mn, SA	-1.3	6.3	8.6
Car sales (volume)	Sep 2022	Units, SA	4.7	-0.3	-10.9
Car sales (value)	Sep 2022	CAD mn, SA	3.5	11.1	-3.0

Housing

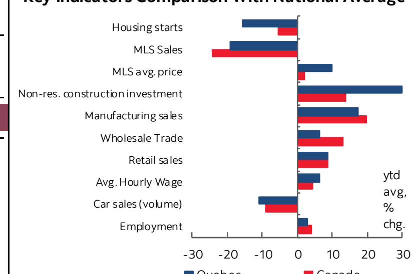
	Last Update	Unit	m/m % chg.	y/y % chg.	YTD avg. % chg.
Housing starts	Nov 2022	000s, SAAR	-9.4	-23.8	-15.6
MLS resales	Nov 2022	Units, SA	-2.8	-31.1	-19.2
MLS avg. price	Nov 2022	SA, C$	0.3	1.1	10.1
New listings	Nov 2022	Units, SA	-1.5	-2.2	1.2
Residential construction investment	Oct 2022	CAD mn, SA	-4.2	1.5	11.2
Building Permits	Oct 2022	000s, SA	-0.3	-36.2	-19.4

Featured Charts

Employment Recovery to Pre-Pandemic Levels

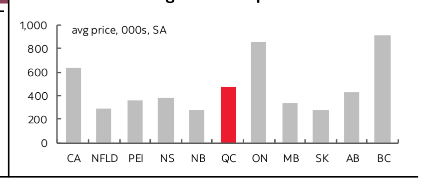


Key Indicators Comparison With National Average



Sources: Scotiabank Economics, Statistics Canada.

Housing Price Comparison

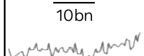


International Trade

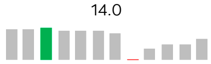
Latest Release: Oct 2022
Units: CAD bn

Exports

Value	YTD avg. % change
10bn	14.0



5-year trend



Last 12-months

Imports

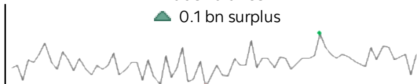
Value	YTD avg. % change
10bn	23.3

5-year trend

Last 12-months

Trade Balance

▲ 0.1 bn surplus



5-year trend

Sources for tables and charts: Scotiabank Economics, Statistics Canada, CMHC, CREA.

December 19, 2022

NEW BRUNSWICK

Highly dependent on trade, declining exports due to weaker demand from the US and Europe will no doubt be a major drag to New Brunswick's economy next year, but the province has some advantages that keep growth close to the national average next year. The province witnessed soaring house prices during the pandemic and only saw a slight decline in prices since the February peak. Average sales prices are still close to 50% above pre-pandemic levels—the highest among all provinces. Resale activity mostly normalized from last year's unsustainable growth and was down -19.6% year-to-date. Housing starts held up firmly and rose by 20.7% so far this year compared to the same period last year. As high interest rates work through the system, we should continue to see slowdowns in sales activities and further drops in prices. But demand for housing should remain strong given the province's growing population and put a floor on the scope of decline.

Although New Brunswick's economy will not be spared from a slowdown in consumption as the result of restrictive interest rates and the broader erosion of purchasing power from high inflation, consumer demand should be more resilient than the rest of the country. The province has the lowest debt-to-disposable income ratio in the country, which helps support consumption in a high-interest-rate environment. Housing is still very affordable in the province, providing some relief against the rising cost of living. The growing population should continue to help contribute to the consumption of both goods and services.

New Brunswick

Labour Markets & Households

	Last Update	Unit	Level	m/m level chg.	YTD avg. % chg.
Employment	Nov 2022	000s, SA	373.5	-1.5	2.3
Full-time employment	*Nov 2022*	*000s, SA*	*316.9*	*-4.0*	4.3
Part-time employment	*Nov 2022*	*000s, SA*	*56.6*	*2.5*	-8.7

	Last Update	Unit	m/m % chg.	y/y % chg.	YTD avg. % chg.
Avg. Hourly Wage	Nov 2022	CAD, SA	1.7	10.0	7.8

	Last Update	Unit	Level	2010-2019 avg	YTD avg. chg.
Unemployment Rate	Nov 2022	%	6.6	9.4	-1.9
Job Vacancy Rate	Jun 2022	%	5.3	2.6	0.9

	Last Update	Unit	Level	2010-2019 avg	YTD avg. chg.
Household debt-to-disposable income	Jun 22	%	128.1	132.3	-2.3

Business Sector Activity

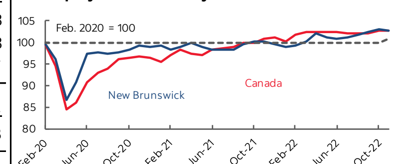
	Last Update	Unit	m/m % chg.	y/y % chg.	YTD avg. % chg.
Manufacturing Shipments	Oct 2022	CAD mn, SA	-0.4	26.8	33.7
Wholesale Trade	Oct 2022	CAD mn, SA	5.6	14.4	6.8
Non-res. construction investment	Oct 2022	CAD mn, SA	2.7	3.3	-1.9
Retail sales	Sep 2022	CAD mn, SA	1.0	8.9	7.8
Car sales (volume)	Sep 2022	Units, SA	-1.6	-11.6	-11.6
Car sales (value)	Sep 2022	CAD mn, SA	-0.9	0.6	-1.2

Housing

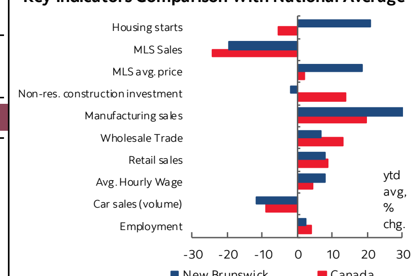
	Last Update	Unit	m/m % chg.	y/y % chg.	YTD avg. % chg.
Housing starts	Nov 2022	000s, SAAR	294.8	58.4	20.7
MLS resales	Nov 2022	Units, SA	-1.5	-31.2	-19.6
MLS avg. price	Nov 2022	SA, C$	0.1	9.2	18.5
New listings	Nov 2022	Units, SA	2.5	-3.3	-4.5
Residential construction investment	Oct 2022	CAD mn, SA	2.0	17.7	13.3
Building Permits	Oct 2022	000s, SA	-26.9	-27.5	0.3

Featured Charts

Employment Recovery to Pre-Pandemic Levels

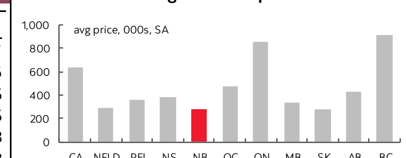


Key Indicators Comparison With National Average



Sources: Scotiabank Economics, Statistics Canada.

Housing Price Comparison



International Trade

Latest Release: Oct 2022
Units: CAD bn

Exports

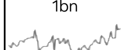
Value	YTD avg. % change
1bn	33.0

5-year trend

Last 12-months

Imports

Value	YTD avg. % change
1bn	43.4

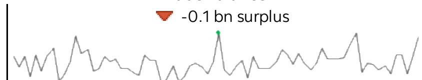


5-year trend

Last 12-months

Trade Balance

-0.1 bn surplus



5-year trend

Sources for tables and charts: Scotiabank Economics, Statistics Canada, CMHC, CREA.

December 19, 2022

NOVA SCOTIA

Nova Scotia saw its population surge by over 3% so far in 2022 to 1.03 mn, bringing robust growth to the housing sector. Average sale prices rose by a whopping 62% during the pandemic up until the February peak—the highest among all provinces—and even with the -8.5% pullback since then, prices are still 48% higher than pre-pandemic levels. Resale activities slowed by -21.1% so far this year compared to the same period last year—other than the impact of rising mortgage rates, this could also be the result of the rebalancing of font-loaded purchases during the pandemic. Hence, demand should remain firm on the back of strong population growth and put a floor to the slowdown. So far in the ongoing housing downturn, the province's housing starts dropped slightly, but residential construction investment is still tracking strong growth—both well above the national average. With solid demand from the growing population and still-high prices, construction activity in the province should continue its momentum next year.

Aiming to double the population by 2060, Nova Scotia would need to sustain at least 1.8% population growth every year. Efforts will be needed to achieve that goal—the average pace of population growth is 1.2% since the province started to see consistent population gains in 2016. Overall, we expect further decline in the housing sector to drag growth next year, offset by the impact of continued population growth.

Nova Scotia

Labour Markets & Households

	Last Update	Unit	Level	m/m level chg.	YTD avg. % chg.
Employment	Nov 2022	000s, SA	482.5	1.6	3.4
Full-time employment	*Nov 2022*	*000s, SA*	*404.1*	*1.6*	5.6
Part-time employment	*Nov 2022*	*000s, SA*	*78.4*	*0.0*	-6.0

	Last Update	Unit	m/m % chg.	y/y % chg.	YTD avg. % chg.
Avg. Hourly Wage	Nov 2022	CAD, SA	0.6	5.8	4.1

	Last Update	Unit	Level	2010-2019 avg	YTD avg. chg.
Unemployment Rate	Nov 2022	%	5.8	8.7	-2.0
Job Vacancy Rate	Jun 2022	%	5.4	2.6	1.4

	Last Update	Unit	Level	2010-2019 avg	YTD avg. chg.
Household debt-to-disposable income	Jun 22	%	137.3	143.1	4.5

Business Sector Activity

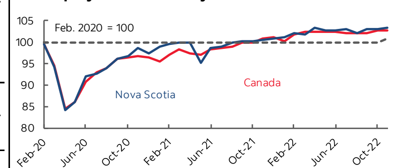
	Last Update	Unit	m/m % chg.	y/y % chg.	YTD avg. % chg.
Manufacturing Shipments	Oct 2022	CAD mn, SA	1.9	5.2	8.9
Wholesale Trade	Oct 2022	CAD mn, SA	8.7	9.7	3.9
Non-res. construction investment	Oct 2022	CAD mn, SA	-3.2	5.8	29.4
Retail sales	Sep 2022	CAD mn, SA	-1.6	-0.6	7.8
Car sales (volume)	Sep 2022	Units, SA	-6.5	-21.3	-18.0
Car sales (value)	Sep 2022	CAD mn, SA	-8.8	-10.7	-10.5

Housing

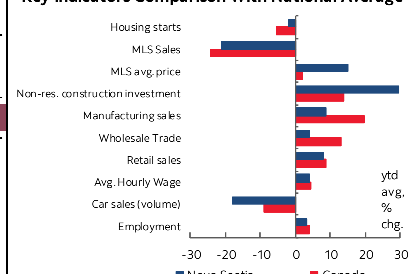
	Last Update	Unit	m/m % chg.	y/y % chg.	YTD avg. % chg.
Housing starts	Nov 2022	000s, SAAR	32.1	-45.6	-1.9
MLS resales	Nov 2022	Units, SA	1.2	-28.7	-21.1
MLS avg. price	Nov 2022	SA, C$	-4.6	-1.9	15.0
New listings	Nov 2022	Units, SA	-2.3	-15.9	-7.4
Residential construction investment	Oct 2022	CAD mn, SA	4.4	29.4	37.6
Building Permits	Oct 2022	000s, SA	-40.4	-22.4	17.6

Featured Charts

Employment Recovery to Pre-Pandemic Levels

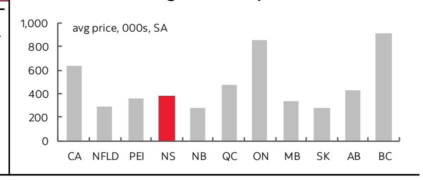


Key Indicators Comparison With National Average



Sources: Scotiabank Economics, Statistics Canada.

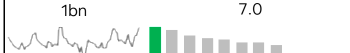
Housing Price Comparison



International Trade

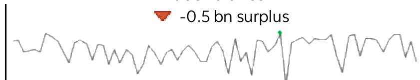
Latest Release: Oct 2022
Units: CAD bn

	Exports: Value	Exports: YTD avg. % change	Imports: Value	Imports: YTD avg. % change	Trade Balance
	1bn	7.0	1bn	13.9	-0.5 bn surplus



5-year trend / Last 12-months

5-year trend / Last 12-months



5-year trend

Sources for tables and charts: Scotiabank Economics, Statistics Canada, CMHC, CREA.

PRINCE EDWARD ISLAND

The Island's economy was lifted by its population boom this year, which grew by 3.8% year-over-year as of November—the highest in the country. Close to two-thirds of the increases resulted from newcomers to the country, with the rest mostly contributed by soaring interprovincial migration to the island that started in 2019. We expect strong growth to continue here as the record-level population gain continues to bring strong demand for goods, services, and housing.

The labour market churned out some strong job gains despite the impact of Hurricane Fiona in September. Employment was up 6.7% this year as of November, much higher than the 3.9% national average. Wage growth in PEI also outpaced all other provinces except New Brunswick. Employment has started to soften in recent months as growth slows, and we expect the trend to continue into next year until economic conditions stabilize.

The province tables its largest capital budget in history on November 2nd, pledging to spend $1.2 bn in the next five years (2.7% of nominal GDP each year), with $308 mn planned for FY23 on health care, highways, schools, and publicly-owned housing units, up 24% from the fiscal year prior. This could bring material upside to growth next year.

Prince Edward Island

Labour Markets & Households

	Last Update	Unit	Level	m/m level chg.	YTD avg. % chg.
Employment	Nov 2022	000s, SA	84.7	-1.5	6.8
Full-time employment	*Nov 2022*	*000s, SA*	*71.8*	*-0.5*	6.7
Part-time employment	*Nov 2022*	*000s, SA*	*12.8*	*-1.0*	7.5

	Last Update	Unit	m/m % chg.	y/y % chg.	YTD avg. % chg.
Avg. Hourly Wage	Nov 2022	CAD, SA	0.6	9.4	6.2

	Last Update	Unit	Level	2010-2019 avg	YTD avg. chg.
Unemployment Rate	Nov 2022	%	7.0	10.7	-1.8
Job Vacancy Rate	Jun 2022	%	6.4	2.8	1.8

	Last Update	Unit	Level	2010-2019 avg	YTD avg. chg.
Household debt-to-disposable income	Jun 22	%	137.2	131.3	10.7

Business Sector Activity

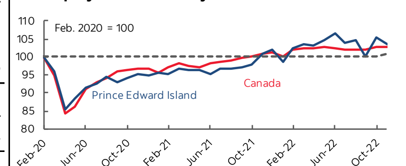
	Last Update	Unit	m/m % chg.	y/y % chg.	YTD avg. % chg.
Manufacturing Shipments	Oct 2022	CAD mn, SA	6.9	12.8	17.0
Wholesale Trade	Oct 2022	CAD mn, SA	15.6	11.5	4.0
Non-res. construction investment	Oct 2022	CAD mn, SA	-4.1	-9.8	-16.5
Retail sales	Sep 2022	CAD mn, SA	-2.5	3.6	7.0
Car sales (volume)	Sep 2022	Units, SA	-12.3	-33.3	-19.6
Car sales (value)	Sep 2022	CAD mn, SA	-16.3	-25.9	-13.6

Housing

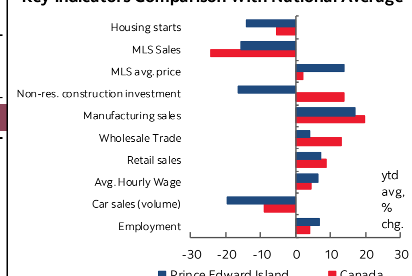
	Last Update	Unit	m/m % chg.	y/y % chg.	YTD avg. % chg.
Housing starts	Nov 2022	000s, SAAR	41.5	28.4	-14.0
MLS resales	Nov 2022	Units, SA	17.6	-13.0	-15.7
MLS avg. price	Nov 2022	SA, C$	0.0	3.5	13.7
New listings	Nov 2022	Units, SA	10.4	-0.4	-2.0
Residential construction investment	Oct 2022	CAD mn, SA	-13.0	-20.6	-12.1
Building Permits	Oct 2022	000s, SA	-3.2	-52.6	-10.1

Featured Charts

Employment Recovery to Pre-Pandemic Levels

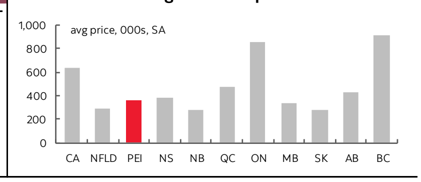


Key Indicators Comparison With National Average



Sources: Scotiabank Economics, Statistics Canada.

Housing Price Comparison

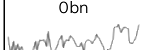


International Trade

Latest Release: Oct 2022
Units: CAD bn

Exports

Value	YTD avg. % change
0bn	20.0

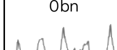


5-year trend

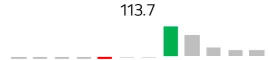
Last 12-months

Imports

Value	YTD avg. % change
0bn	113.7



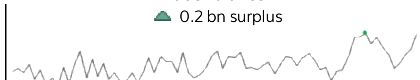
5-year trend



Last 12-months

Trade Balance

▲ 0.2 bn surplus



5-year trend

Sources for tables and charts: Scotiabank Economics, Statistics Canada, CMHC, CREA.

December 19, 2022

NEWFOUNDLAND AND LABRADOR

We expect higher growth in Newfoundland and Labrador in 2023 compared to 2022, underpinned by an improved outlook in the province's oil and gas industry. Despite favourable oil prices, the economic growth in Newfoundland and Labrador this year has inevitably been held back by falling oil production. Crude oil production was down -26% compared to last year as the Terra Nova site remained shut down. 2023 growth should get a boost with the planned reopening of the Terra Nova site later this year and the conversion of the Come By Chance Refinery. The progression of major projects such as The Bay du Nord project could provide additional employment opportunities down the line.

Newfoundland and Labrador

Labour Markets & Households

	Last Update	Unit	Level	m/m level chg.	YTD avg. % chg.
Employment	Nov 2022	000s, SA	229.1	-3.5	4.0
Full-time employment	*Nov 2022*	*000s, SA*	*193.2*	*-1.7*	3.7
Part-time employment	*Nov 2022*	*000s, SA*	*35.9*	*-1.8*	5.4

	Last Update	Unit	m/m % chg.	y/y % chg.	YTD avg. % chg.
Avg. Hourly Wage	Nov 2022	CAD, SA	0.6	5.1	4.0

	Last Update	Unit	Level	2010-2019 avg	YTD avg. chg.
Unemployment Rate	Nov 2022	%	9.8	13.3	-2.1
Job Vacancy Rate	Jun 2022	%	4.5	2.0	1.1

	Last Update	Unit	Level	2010-2019 avg	YTD avg. chg.
Household debt-to-disposable income	Jun 22	%	153.8	148.9	-1.2

Business Sector Activity

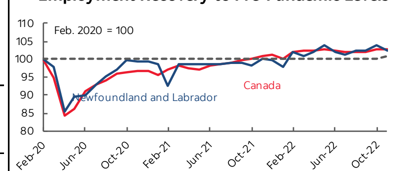
	Last Update	Unit	m/m % chg.	y/y % chg.	YTD avg. % chg.
Manufacturing Shipments	Oct 2022	CAD mn, SA	-0.3	1.1	-18.3
Wholesale Trade	Oct 2022	CAD mn, SA	4.6	3.8	0.5
Non-res. construction investment	Oct 2022	CAD mn, SA	-1.1	-25.9	-19.0
Retail sales	Sep 2022	CAD mn, SA	-1.8	7.2	7.6
Car sales (volume)	Sep 2022	Units, SA	-1.6	-8.1	-18.6
Car sales (value)	Sep 2022	CAD mn, SA	-3.7	2.9	-11.7

Housing

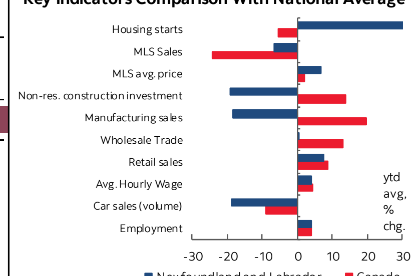
	Last Update	Unit	m/m % chg.	y/y % chg.	YTD avg. % chg.
Housing starts	Nov 2022	000s, SAAR	10.8	-3.6	33.4
MLS resales	Nov 2022	Units, SA	6.2	-13.8	-6.6
MLS avg. price	Nov 2022	SA, C$	0.0	5.2	6.8
New listings	Nov 2022	Units, SA	-6.7	-1.2	-8.4
Residential construction investment	Oct 2022	CAD mn, SA	-1.1	32.8	23.2
Building Permits	Oct 2022	000s, SA	33.8	19.6	44.9

Featured Charts

Employment Recovery to Pre-Pandemic Levels



Key Indicators Comparison With National Average



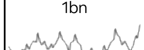
Sources: Scotiabank Economics, Statistics Canada.

Housing Price Comparison

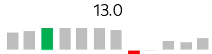
International Trade

Latest Release: Oct 2022
Units: CAD bn

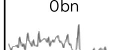
Exports		Imports		Trade Balance
Value	YTD avg. % change	Value	YTD avg. % change	▲ 0.8 bn surplus
1bn	13.0	0bn	33.0	



5-year trend

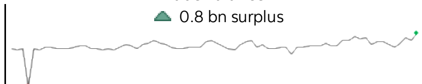


Last 12-months



5-year trend

Last 12-months



5-year trend

Sources for tables and charts: Scotiabank Economics, Statistics Canada, CMHC, CREA.

The Provinces

(annual % change except where noted)

Real GDP	CA	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC
2010–19	2.3	1.1	2.1	1.2	0.7	1.9	2.3	2.2	2.3	2.6	2.9
2020	-5.1	-4.6	-1.6	-3.5	-2.7	-5.0	-4.7	-4.4	-4.8	-8.0	-3.0
2021	5.0	0.6	7.9	6.2	5.9	6.0	5.2	1.8	-0.9	4.8	6.1
2022f	3.6	0.5	2.6	2.4	2.2	3.6	3.5	3.6	5.2	4.7	2.6
2023f	0.8	1.0	1.2	0.7	0.6	0.6	0.5	0.8	1.8	1.6	0.5
2024f	1.5	1.2	1.4	1.2	1.0	1.2	1.6	1.4	1.3	1.7	1.5
Nominal GDP											
2010–19	4.0	3.7	4.2	3.0	2.8	3.9	3.6	3.9	3.5	3.7	4.5
2020	-4.5	-10.0	1.4	0.0	-1.6	-2.5	-2.9	-1.3	-7.6	-15.7	-0.7
2021	13.6	17.7	14.3	10.9	13.8	11.8	10.3	8.4	13.1	26.2	14.2
2022f	11.4	11.9	7.0	6.6	5.5	10.3	10.1	9.1	20.0	19.8	7.3
2023f	3.4	2.0	4.2	3.4	3.1	3.8	3.6	3.8	2.9	2.5	3.4
2024f	3.2	0.7	2.4	2.3	1.9	3.8	4.1	3.1	0.7	1.0	3.8
Employment											
2010–19	1.3	0.6	1.5	0.3	0.0	1.2	1.4	0.7	0.8	1.2	2.0
2020	-5.1	-5.7	-3.2	-4.7	-2.6	-4.8	-4.8	-3.3	-4.7	-6.6	-6.5
2021	4.8	2.8	3.6	5.4	2.5	4.1	4.9	3.3	2.5	5.1	6.7
2022f	3.6	3.6	3.5	3.3	3.2	3.2	3.8	3.2	3.3	4.4	3.2
2023f	0.9	1.2	0.8	0.9	0.9	0.8	0.9	0.8	1.1	1.3	0.6
2024f	1.3	1.6	1.3	1.3	1.3	1.2	1.2	1.3	1.6	1.6	1.2
Unemployment Rate (%)											
2010–19	6.9	13.3	10.6	8.7	9.3	7.1	7.0	5.5	6.4	6.2	6.1
2020	9.5	14.1	10.4	9.8	10.0	8.9	9.6	7.6	10.2	11.4	8.8
2021	7.4	12.9	9.2	8.4	9.0	6.1	8.0	6.3	8.1	8.7	6.3
2022f	5.3	10.9	7.4	6.6	7.2	4.3	5.7	4.6	4.7	5.8	4.7
2023f	5.8	11.0	7.9	7.1	7.7	4.9	6.2	5.2	5.0	5.9	5.5
2024f	6.3	11.2	8.4	7.6	8.1	5.4	6.7	5.7	5.2	6.1	6.1
Total CPI, annual average											
2010-19	1.6	2.0	1.6	1.7	1.8	1.5	1.9	1.8	1.8	1.7	1.6
2020	0.6	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	6.8	6.4	8.8	7.4	7.3	6.7	6.9	7.7	6.5	6.4	6.8
2023f	4.1	4.4	5.6	4.7	4.5	4.3	4.1	4.2	3.7	3.5	4.0
2024f	1.9	2.1	2.5	2.2	2.1	2.0	1.9	1.9	1.7	1.6	1.9
Housing Starts (units, 000s)											
2010–19	201	2.2	0.8	4.2	2.7	44	70	6.6	6.0	31	34
2020	218	0.8	1.2	4.9	3.5	54	81	7.3	3.1	24	38
2021	271	1.0	1.3	6.3	3.8	68	100	8.0	4.2	32	48
2022f	258	1.8	1.2	5.6	4.3	63	89	7.8	4.5	36	45
2023f	202	1.1	0.9	4.5	3.1	50	72	6.0	3.3	26	35
2024f	194	0.7	1.0	4.4	2.9	48	72	6.1	2.9	22	34
Motor Vehicle Sales (units, 000s)											
2010–19	1,816	33	7	52	42	441	738	56	54	239	199
2020	1,566	27	7	40	35	378	653	47	42	184	179
2021	1,668	29	8	45	38	404	665	49	43	196	199
2022f	1,532	25	7	35	34	366	628	42	40	182	178
2023f	1,698	27	7	40	37	404	696	46	44	204	195
2024f	1,864	29	8	45	40	443	765	51	48	222	215
Budget Balances, (CAD mn)											
2019*	-39,392	1,117	22	2	49	32	-8,672	5	-319	-12,152	-322
2020	-327,729	-1,492	-6	-342	409	-7,539	-16,404	-2,124	-1,127	-16,962	-5,468
2021	-90,200	-272	-27	351	488	-772	2,051	-704	-1,468	3,944	1,306
2022f	-36,400	479	-93	-506	774	-5,225	-12,900	-548	1,094	12,294	5,732
2023f	-30,600	-309	-52	-419	21	-2,267	-8,100	-440	-384	5,615	-4,128

* 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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GLOBAL ECONOMICS

SCOTIABANK'S FORECAST TABLES

December 8, 2022

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Outlook Evolving Largely as Expected

- **There are few changes to the outlook relative to our last publication. Most of the changes reflect the fact that incoming data for industrialized countries has been somewhat more positive than expected in recent weeks, leading to minor upward revisions to 2022 forecasts. In some cases, growth dynamics imply that some of this strength has led to small increases to 2023 forecasts. The general narrative remains the same as earlier articulated, the global economy is expected to slow rapidly owing to the combined impacts of still-elevated commodity prices for commodity importers, the deterioration in purchasing power from higher inflation, the policy response to lower inflation, the challenges faced in China and of course remaining uncertainties from Russia's war on Ukraine.**

- **On the inflation front, recent data in Canada and the US suggest the expected slowing is underway, increasing confidence that central banks in those countries are near terminal rates. In Canada, the Bank of Canada is signalling a pause as it waits to assess the impact of its policy actions on inflation and growth. This is in line with our previous forecast, and we continue to expect that the BoC's next move will be a cut late in 2023 given the expected slowing in both inflation and growth. A similar dynamic is forecast for the US, though we continue to expect that the Fed will lift rates to 5% early next year before eventually beginning rate cuts late in 2023. A series of additional cuts are expected in 2024.**

For more details on our forecast narrative, please refer to our **October forecast**.

International

	2010–19	2020	2021	2022f	2023f	2024f	2010–19	2020	2021	2022f	2023f	2024f
	Real GDP (annual % change)						Consumer Prices (annual % change, unless noted)					
World (based on purchasing power parity)	3.7	-3.0	6.4	3.1	2.1	2.6						
Canada	2.3	-5.1	5.0	3.6	0.8	1.5	1.6	0.7	3.4	6.8	4.1	1.9
United States	2.3	-2.8	5.9	1.9	0.6	1.5	1.8	1.3	4.7	8.1	5.0	2.6
Mexico	2.7	-8.2	4.8	2.8	0.8	1.9	4.0	3.4	5.7	8.0	6.3	4.2
United Kingdom	2.0	-11.0	7.5	4.3	-0.9	1.2	2.2	0.9	2.6	9.0	6.9	3.0
Eurozone	1.4	-6.2	5.5	3.3	-0.5	1.5	1.4	0.3	2.6	8.5	6.6	3.0
Germany	2.0	-4.1	2.7	1.7	-0.9	1.6	1.4	0.4	3.2	8.8	7.5	3.2
France	1.4	-7.9	7.2	2.5	-0.1	1.4	1.3	0.5	2.1	6.0	5.2	3.0
China	7.7	2.3	8.1	3.2	4.4	4.5	2.7	0.2	0.9	2.2	2.2	1.9
India	7.0	-7.1	8.7	6.8	6.1	6.8	6.8	4.6	5.5	6.9	5.1	4.4
Japan	1.2	-4.7	1.7	1.7	1.6	1.3	0.6	-1.2	-0.2	2.0	1.4	1.0
South Korea	3.3	-0.9	4.1	2.6	2.0	2.7	1.7	0.5	2.5	5.5	3.8	2.3
Australia	2.6	-2.3	4.9	3.8	1.9	1.8	2.1	0.9	2.8	6.5	4.8	2.9
Thailand	3.6	-6.1	1.5	2.8	3.7	3.6	1.5	-0.3	1.2	6.3	2.8	1.5
Brazil*	1.4	-3.3	5.2	3.0	0.8	1.7	5.8	3.2	8.3	9.1	5.6	4.2
Colombia	3.7	-7.0	11.0	8.0	2.0	3.0	3.7	2.5	3.5	10.1	8.9	4.6
Peru	4.5	-11.0	13.6	2.8	2.4	2.2	2.8	1.8	4.0	7.8	6.4	3.3
Chile	3.3	-6.0	12.0	2.7	-1.7	2.8	3.0	3.1	4.5	11.7	7.1	3.2

Commodities

	2010–19	2020	2021	2022f	2023f	2024f
	(annual average)					
WTI Oil (USD/bbl)	74	39	68	98	94	75
Brent Oil (USD/bbl)	82	43	70	104	100	80
WCS - WTI Discount (USD/bbl)	-18	-12	-13	-17	-19	-16
Nymex Natural Gas (USD/mmbtu)	3.39	2.02	3.84	6.69	5.00	4.25
Copper (USD/lb)	3.10	2.80	4.23	3.95	3.50	4.00
Zinc (USD/lb)	1.02	1.03	1.36	1.58	1.40	1.40
Nickel (USD/lb)	7.00	6.25	8.37	11.21	9.25	9.00
Iron Ore (USD/tonne)	101	109	160	120	90	90
Metallurgical Coal (USD/tonne)	179	127	204	360	200	180
Gold, (USD/oz)	1,342	1,771	1,799	1,826	1,800	1,600
Silver, (USD/oz)	21.64	20.48	25.15	23.00	24.00	23.00

Sources: Scotiabank Economics, Statistics Canada, BEA, BLS, IMF, Bloomberg.
*Consumer Prices: average of quarterly y/y% change

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North America

	2010–19	2020	2021	2022f	2023f	2024f	2010–19	2020	2021	2022f	2023f	2024f
	Canada (annual % change, unless noted)						United States (annual % change, unless noted)					
Real GDP	2.3	-5.1	5.0	3.6	0.8	1.5	2.3	-2.8	5.9	1.9	0.6	1.5
Consumer spending	2.5	-6.1	5.0	4.7	1.3	1.7	2.2	-3.0	8.3	2.7	0.3	1.4
Residential investment	2.5	5.0	14.9	-9.6	-7.4	8.7	4.5	7.2	10.7	-9.4	-10.7	3.3
Business investment*	3.0	-9.8	4.2	7.4	-4.6	10.4	5.1	-4.9	6.4	3.6	0.4	0.9
Government	1.1	1.9	5.5	1.2	1.4	1.6	0.1	2.6	0.6	-0.9	0.4	0.8
Exports	3.6	-8.9	1.4	3.0	5.3	0.2	3.9	-13.2	6.1	8.3	3.3	2.6
Imports	3.7	-9.3	7.8	7.6	-1.0	3.0	4.3	-9.0	14.1	8.3	-0.8	2.3
Inventories, contribution to annual GDP growth	0.1	-1.8	1.0	2.2	-1.2	-0.7	0.2	-0.7	0.2	0.6	-0.4	0.1
Nominal GDP	4.0	-4.5	13.6	11.4	3.4	3.2	4.0	-1.5	10.7	9.2	5.1	3.2
GDP deflator	1.7	0.6	8.2	7.6	2.6	1.7	1.7	1.3	4.5	7.1	4.5	1.7
Consumer price index (CPI)	1.6	0.7	3.4	6.8	4.1	1.9	1.8	1.3	4.7	8.1	5.0	2.6
Core inflation rate**	1.7	1.9	2.7	4.7	3.2	2.0	1.6	1.3	3.5	5.0	3.5	2.5
Pre-tax corporate profits	6.3	-1.4	35.8	12.7	-0.7	3.7	5.9	-5.9	22.6	7.2	3.7	1.6
Employment	1.3	-5.1	4.8	3.6	0.9	1.3	1.2	-5.8	2.8	4.0	0.9	0.4
Unemployment rate (%)	6.9	9.5	7.4	5.3	5.8	6.3	6.2	8.1	5.4	3.7	4.2	4.8
Current account balance (CAD, USD bn)	-56.9	-47.6	-6.7	-9.9	16.7	-18.7	-407	-620	-846	-893	-727	-732
Merchandise trade balance (CAD, USD bn)	-13.6	-40.3	4.7	29.8	65.0	44.6	-763	-914	-1090	-1170	-1054	-1087
Federal budget balance (FY, CAD, USD bn) ***	-18.7	-327.7	-90.2	-36.4	-30.6	-25.4	-829	-3,132	-2,775	-1,036	-1,016	-1,134
percent of GDP	-1.0	-14.8	-3.6	-1.3	-1.1	-0.9	-4.8	-14.9	-11.9	-4.1	-3.8	-4.1
Housing starts (000s, mn)	201	218	271	258	202	194	1.31	1.40	1.61	1.56	1.37	1.41
Motor vehicle sales (000s, mn)	1,816	1,566	1,668	1,532	1,698	1,864	15.7	14.5	14.9	13.8	15.4	16.8
Industrial production	2.4	-8.2	4.5	3.9	1.0	1.6	1.7	-7.0	5.0	4.2	2.0	2.0
	Mexico (annual % change)											
Real GDP	2.7	-8.2	4.8	2.8	0.8	1.9						
Consumer price index (year-end)	4.0	3.4	5.7	8.0	6.3	4.2						
Unemployment rate (%)	4.4	4.4	4.1	3.5	3.9	3.7						

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 2 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

	2021	2022				2023				2024			
Canada	Q4	Q1	Q2	Q3	Q4f	Q1f	Q2f	Q3f	Q4f	Q1f	Q2f	Q3f	Q4f
Real GDP (q/q ann. % change)	6.9	2.8	3.2	2.9	1.0	-0.2	-0.1	-0.1	1.5	1.6	2.2	2.2	2.2
Real GDP (y/y % change)	3.9	3.2	4.7	3.9	2.5	1.7	0.9	0.2	0.3	0.7	1.3	1.8	2.0
Consumer prices (y/y % change)	4.7	5.8	7.5	7.2	6.8	5.3	4.2	3.8	2.9	2.3	1.8	1.7	1.7
Average of new core CPIs (y/y % change)*	3.3	4.0	5.0	5.0	4.8	4.0	3.4	2.9	2.5	2.2	2.0	1.9	1.8
CPIXFET (y/y % change)**	3.2	4.0	5.1	5.4	5.1	4.3	3.7	3.3	2.8	2.5	2.2	2.1	1.9
Unemployment Rate (%)	6.3	5.8	5.1	5.2	5.2	5.4	5.7	6.0	6.1	6.2	6.3	6.3	6.3
United States													
Real GDP (q/q ann. % change)	7.0	-1.6	-0.6	2.9	1.2	-0.4	-0.3	1.0	1.2	1.6	1.8	2.0	2.0
Real GDP (y/y % change)	5.7	3.7	1.8	1.9	0.5	0.8	0.8	0.4	0.4	0.9	1.4	1.7	1.9
Consumer prices (y/y % change)	6.7	8.0	8.6	8.3	7.7	6.5	5.3	4.5	3.8	3.2	2.6	2.3	2.3
Total PCE deflator (y/y % change)	5.7	6.4	6.6	6.3	5.9	5.1	4.2	3.7	3.2	2.7	2.2	2.0	2.0
Core PCE deflator (y/y % change)	4.7	5.3	5.0	4.9	4.9	4.3	3.7	3.2	3.0	2.8	2.6	2.4	2.3
Unemployment Rate (%)	4.2	3.8	3.6	3.6	3.7	3.9	4.1	4.3	4.5	4.6	4.7	4.8	4.8

* Average of 2 core measures published by the BoC. ** CPI ex. food, energy and indirect taxes. Sources: Scotiabank Economics, Statistics Canada, BEA, BLS, Bloomberg.

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SCOTIABANK'S FORECAST TABLES

December 8, 2022

Central Bank Rates

	2021	2022				2023				2024			
	Q4	Q1	Q2	Q3	Q4f	Q1f	Q2f	Q3f	Q4f	Q1f	Q2f	Q3f	Q4f
Americas						(%, end of period)							
Bank of Canada	0.25	0.50	1.50	3.25	4.25	4.25	4.25	4.25	4.00	3.50	3.00	3.00	3.00
US Federal Reserve (upper bound)	0.25	0.50	1.75	3.25	4.50	5.00	5.00	5.00	4.75	4.25	3.75	3.25	3.00
Bank of Mexico	5.50	6.50	7.75	9.25	10.50	10.75	10.75	10.75	10.25	9.75	9.25	8.50	7.50
Central Bank of Brazil	9.25	11.75	13.25	13.75	13.75	13.50	13.25	12.50	11.75	10.50	9.50	9.00	8.50
Bank of the Republic of Colombia	3.00	5.00	7.50	10.00	12.00	12.50	12.00	11.00	10.00	9.00	8.50	7.00	6.00
Central Reserve Bank of Peru	2.50	4.00	5.50	6.75	7.50	7.50	7.50	7.50	7.25	7.00	6.75	6.25	5.75
Central Bank of Chile	4.00	7.00	9.00	10.75	11.25	11.00	8.00	6.00	4.50	3.75	3.75	3.75	3.75
Europe													
European Central Bank MRO Rate	0.00	0.00	0.00	1.25	2.50	3.25	3.25	3.25	3.25	3.00	2.75	2.50	2.50
European Central Bank Deposit Rate	-0.50	-0.50	-0.50	0.75	2.00	2.75	2.75	2.75	2.75	2.50	2.25	2.00	2.00
Bank of England	0.25	0.75	1.25	2.25	3.50	4.25	4.25	4.25	4.25	4.00	3.75	3.50	3.25
Asia/Oceania													
Reserve Bank of Australia	0.10	0.10	0.85	2.35	3.10	3.45	3.55	3.55	3.50	3.30	3.15	3.00	2.85
Bank of Japan	-0.10	-0.10	-0.10	-0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
People's Bank of China	3.80	3.70	3.70	3.65	4.30	4.30	4.30	4.30	4.30	4.25	4.25	4.10	4.00
Reserve Bank of India	4.00	4.00	4.90	5.90	6.25	6.40	6.45	6.40	6.30	6.15	6.10	6.05	6.00
Bank of Korea	1.00	1.25	1.75	2.50	3.25	3.50	3.55	3.50	3.35	3.25	3.00	2.75	2.50
Bank of Thailand	0.50	0.50	0.50	1.00	1.30	1.60	1.75	1.85	1.85	1.90	1.85	1.80	1.75

Currencies and Interest Rates

	2021 Q4	2022 Q1	2022 Q2	2022 Q3	2022 Q4f	2023 Q1f	2023 Q2f	2023 Q3f	2023 Q4f	2024 Q1f	2024 Q2f	2024 Q3f	2024 Q4f
Americas						(end of period)							
Canadian dollar (USDCAD)	1.26	1.25	1.29	1.38	1.35	1.35	1.35	1.30	1.30	1.27	1.27	1.25	1.25
Canadian dollar (CADUSD)	0.79	0.80	0.78	0.72	0.74	0.74	0.74	0.77	0.77	0.79	0.79	0.80	0.80
Mexican peso (USDMXN)	20.53	19.87	20.12	20.14	19.72	20.42	20.54	20.79	20.57	20.74	20.85	21.38	21.45
Brazilian real (USDBRL)	5.58	4.74	5.26	5.42	5.29	5.38	5.41	5.49	5.38	5.47	5.39	5.31	5.23
Colombian peso (USDCOP)	4,080	3,771	4,155	4,609	4,847	4,880	4,958	5,026	5,026	5,026	5,026	5,026	5,026
Peruvian sol (USDPEN)	4.00	3.68	3.83	3.98	3.95	3.99	3.95	3.90	3.95	3.90	3.95	3.90	3.95
Chilean peso (USDCLP)	852	786	918	969	900	900	880	870	850	800	780	770	750
Europe													
Euro (EURUSD)	1.14	1.11	1.05	0.98	1.05	1.05	1.05	1.10	1.10	1.10	1.10	1.12	1.12
UK pound (GBPUSD)	1.35	1.31	1.22	1.12	1.20	1.20	1.20	1.25	1.25	1.25	1.25	1.28	1.28
Asia/Oceania													
Japanese yen (USDJPY)	115	122	136	145	135	135	135	130	130	130	130	125	125
Australian dollar (AUDUSD)	0.73	0.75	0.69	0.64	0.67	0.67	0.67	0.69	0.69	0.70	0.70	0.72	0.72
Chinese yuan (USDCNY)	6.36	6.34	6.70	7.12	7.20	7.15	7.14	7.05	6.90	6.80	6.80	6.70	6.70
Indian rupee (USDINR)	74.3	75.8	79.0	81.3	82.2	82.0	82.0	82.0	80.0	79.0	79.0	78.0	78.0
South Korean won (USDKRW)	1,189	1,212	1,299	1,431	1,400	1,380	1,350	1,330	1,330	1271	1271	1271	1271
Thai baht (USDTHB)	33.4	33.3	35.3	37.7	37.0	36.2	35.5	35.0	34.5	33.8	33.8	33.0	33.0
Canada (Yields, %)													
3-month T-bill	0.19	0.73	2.31	3.78	4.15	4.15	4.15	4.10	3.65	3.20	2.90	2.90	2.90
2-year Canada	0.95	2.29	3.15	3.79	3.80	3.65	3.40	3.25	3.10	3.00	2.90	2.90	2.90
5-year Canada	1.26	2.41	3.11	3.33	3.00	3.15	3.20	3.30	3.35	3.25	3.20	3.15	3.15
10-year Canada	1.42	2.40	3.22	3.17	2.75	2.85	3.00	3.25	3.45	3.45	3.50	3.50	3.55
30-year Canada	1.68	2.38	3.13	3.09	2.75	2.90	3.15	3.35	3.55	3.60	3.65	3.65	3.70
United States (Yields, %)													
3-month T-bill	0.06	0.55	1.73	3.21	4.30	4.80	4.80	4.80	4.50	4.00	3.50	3.00	2.75
2-year Treasury	0.73	2.33	3.09	4.28	4.35	4.15	3.90	3.65	3.30	3.10	3.00	3.00	3.00
5-year Treasury	1.26	2.46	3.04	4.09	3.70	3.60	3.50	3.40	3.20	3.15	3.15	3.10	3.10
10-year Treasury	1.51	2.34	3.01	3.83	3.50	3.25	3.30	3.40	3.45	3.50	3.55	3.60	3.60
30-year Treasury	1.90	2.45	3.18	3.78	3.50	3.45	3.50	3.55	3.60	3.65	3.70	3.75	3.75

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Scotiabank. SCOTIABANK'S FORECAST TABLES

December 8, 2022

The Provinces

(annual % change except where noted)

	CA	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC
Real GDP											
2010–19	2.3	1.1	2.1	1.2	0.7	1.9	2.3	2.2	2.3	2.6	2.9
2020	-5.1	-4.6	-1.6	-3.5	-2.7	-5.0	-4.7	-4.4	-4.8	-8.0	-3.0
2021	5.0	0.6	7.9	6.2	5.9	6.0	5.2	1.8	-0.9	4.8	6.1
2022f	3.6	0.5	2.6	2.4	2.2	3.6	3.5	3.6	5.2	4.7	2.6
2023f	0.8	1.0	1.2	0.7	0.6	0.6	0.5	0.6	1.8	1.6	0.5
2024f	1.5	1.2	1.4	1.2	1.0	1.2	1.6	1.1	1.3	1.7	1.5
Nominal GDP											
2010–19	4.0	3.7	4.2	3.0	2.8	3.9	3.6	3.9	3.5	3.7	4.5
2020	-4.5	-10.0	1.4	0.0	-1.6	-2.5	-2.9	-1.3	-7.6	-15.7	-0.7
2021	13.6	17.7	14.3	10.9	13.8	11.8	10.3	8.4	13.1	26.2	14.2
2022f	11.4	11.9	7.0	6.6	5.5	10.3	10.1	9.1	20.0	19.8	7.3
2023f	3.4	2.0	4.2	3.4	3.1	3.8	3.6	3.6	2.9	2.5	3.4
2024f	3.2	0.7	2.4	2.3	1.9	3.8	4.1	2.8	0.7	1.0	3.8
Employment											
2010–19	1.3	0.6	1.5	0.3	0.0	1.2	1.4	0.7	0.8	1.2	2.0
2020	-5.1	-5.7	-3.2	-4.7	-2.6	-4.8	-4.8	-3.3	-4.7	-6.6	-6.5
2021	4.8	2.8	3.6	5.4	2.5	4.1	4.9	3.3	2.5	5.1	6.7
2022f	3.6	3.6	3.5	3.3	3.2	3.2	3.8	3.2	3.3	4.4	3.2
2023f	0.9	1.2	0.8	0.9	0.9	0.8	0.9	0.8	1.1	1.3	0.6
2024f	1.3	1.6	1.3	1.3	1.3	1.2	1.2	1.3	1.6	1.6	1.2
Unemployment Rate (%)											
2010–19	6.9	13.3	10.6	8.7	9.3	7.1	7.0	5.5	6.4	6.2	6.1
2020	9.5	14.1	10.4	9.8	10.0	8.9	9.6	7.6	10.2	11.4	8.8
2021	7.4	12.9	9.2	8.4	9.0	6.1	8.0	6.3	8.1	8.7	6.3
2022f	5.3	10.9	7.4	6.6	7.2	4.3	5.7	4.6	4.7	5.8	4.7
2023f	5.8	11.0	7.9	7.1	7.7	4.9	6.2	5.2	5.0	5.9	5.5
2024f	6.3	11.2	8.4	7.6	8.1	5.4	6.7	5.7	5.2	6.1	6.1
Total CPI, annual average											
2010–19	1.6	2.0	1.6	1.7	1.8	1.5	1.9	1.8	1.8	1.7	1.6
2020	0.6	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	6.8	6.4	8.8	7.4	7.3	6.7	6.9	7.7	6.5	6.4	6.8
2023f	4.1	4.4	5.6	4.7	4.5	4.3	4.1	4.2	3.7	3.5	4.0
2024f	1.9	2.1	2.5	2.2	2.1	2.0	1.9	1.9	1.7	1.6	1.9
Housing Starts (units, 000s)											
2010–19	201	2.2	0.8	4.2	2.7	44	70	6.6	6.0	31	34
2020	218	0.8	1.2	4.9	3.5	54	81	7.3	3.1	24	38
2021	271	1.0	1.3	6.3	3.8	68	100	8.0	4.2	32	48
2022f	258	1.8	1.2	5.6	4.3	63	89	7.8	4.5	36	45
2023f	202	1.1	0.9	4.5	3.1	50	72	6.0	3.3	26	35
2024f	194	0.7	1.0	4.4	2.9	48	72	6.1	2.9	22	34
Motor Vehicle Sales (units, 000s)											
2010–19	1,816	33	7	52	42	441	738	56	54	239	199
2020	1,566	27	7	40	35	378	653	47	42	184	179
2021	1,668	29	8	45	38	404	665	49	43	196	199
2022f	1,532	25	7	35	34	366	628	42	40	182	178
2023f	1,698	27	7	40	37	404	696	46	44	204	195
2024f	1,864	29	8	45	40	443	765	51	48	222	215
Budget Balances, (CAD mn)											
2019*	-39,392	1,117	22	2	49	32	-8,672	5	-319	-12,152	-322
2020	-327,729	-1,492	-6	-342	409	-7,539	-16,404	-2,124	-1,127	-16,962	-5,468
2021	-90,200	-272	-27	351	488	-294	2,051	-704	-1,468	3,944	1,306
2022f	-36,400	479	-93	-506	774	-1,656	-12,900	-548	1,094	12,294	5,732
2023f	-30,600	-309	-52	-419	21	-1,277	-8,100	-440	-384	5,615	-4,128

* 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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TD Economics

Long-Term Economic Forecast

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December 14, 2022

United States

- After the strongest annual average growth in nearly 40 years (5.7%) in 2021, US economic growth is set to slow to a 1.9% pace in 2022. Looking into 2023, economic growth is expected to decelerate further, as monetary policy moves well into restrictive territory, pushing growth to a sub-trend pace through 2024. Growth is expected to average 0.9% in both 2023 and 2024, respectively.
- The labor market has continued to perform better than expected. Labor demand remains just off historic highs, while the pool of available workers continues to shrink as the participation rate has shown no improvement through 2022. This combined with a weaker pace of economic growth should give way to a slower pace of hiring – putting upward pressure on the unemployment rate. We now expect the unemployment rate to rise by 1.5%-pts between Q3-2022 and Q2-2024, reaching a peak of 5.1%, before gradually moving back to its long-run average of 4%.
- Inflation has slowed from its multidecade highs and we expect to see a meaningful deceleration through 2023. However, the core PCE deflator (the Fed's preferred measure of inflation) isn't expected to reach the FOMC's average 2% inflation target until the end of 2024.
- Monetary policy is expected to become far more restrictive than previously thought. We now project the Fed funds rate to reach 5% in early 2023 and remain at that level through the third quarter of 2023. As higher rates cool demand-side pressures and inflation moves meaningfully back towards 2%, we expect the Fed to cut interest rates back to a level more consistent with its neutral (2.25%) rate.

Canada

- The narrative for Canada is similar to the economic backdrop to the south. Near-term spending is likely to grow at a modest rate amid resilient job market conditions. However, high inflation and rising interest rates will increasingly take their toll on spending and hiring in 2023 and through 2024.
- The unemployment rate outlook reflects a peak of 6.5% that corresponds to 110 thousand job losses. There is a risk that Canadian employers may go further. Although the job market reflects tightness based on high vacancy and low unemployment rates, the degree of tightness is not as pronounced as its U.S. counterpart.
- Inflation has likely peaked in Canada and we expect further easing in price pressures in 2023 and 2024. This, in combination with higher interest rate sensitivity should provide a lower stopping level for the Bank of Canada on its rate hike cycle.
- We deem the peak overnight rate to be 4.5% in the first quarter of 2023. Both short-term and long-term bond yields are likely to decline over 2023 as the weak economic backdrop causes increasing expectation for policy rate cuts. We assume the rate is reduced back towards its neutral level starting at the end of 2023, with the rate reaching 2% by 2025.

U.S. Economic Outlook

Period-Over-Period Annualized Per Cent Change Unless Otherwise Indicated

Economic Indicator	Annual Average							Fourth Quarter / Fourth Quarter						
	22F	23F	24F	25F	26F	27F	28F	22F	23F	24F	25F	26F	27F	28F
Real GDP	1.9	0.9	0.9	1.7	1.9	1.8	1.8	0.5	0.5	1.3	1.9	1.9	1.8	1.8
Consumer Expenditure	2.8	1.4	0.9	1.5	1.8	1.8	1.9	2.1	0.7	1.1	1.6	1.8	1.8	1.9
Durable Goods	0.0	-0.5	0.6	1.9	2.3	2.3	2.3	2.4	-1.6	1.4	2.3	2.3	2.3	2.3
Business Investment	3.7	1.2	0.6	2.9	3.8	3.8	3.4	4.1	-0.2	1.6	3.3	4.1	3.5	3.4
Non-Res. Structures	-8.1	-5.6	-0.1	4.7	5.0	4.4	3.1	-7.3	-4.3	2.7	5.0	5.0	3.7	3.0
Equipment & IPP*	7.2	2.8	0.7	2.4	3.6	3.7	3.5	7.3	0.6	1.3	2.9	3.9	3.5	3.5
Residential Investment	-10.5	-16.2	6.3	8.5	2.6	0.7	0.5	-18.5	-6.9	10.4	6.5	1.1	0.6	0.5
Govt. Expenditure	-0.8	1.8	0.8	0.7	0.6	0.3	0.2	0.1	1.5	0.8	0.8	0.4	0.2	0.1
Final Domestic Demand	1.7	0.7	1.0	1.8	1.9	1.8	1.7	1.0	0.4	1.5	1.9	1.8	1.7	1.7
Exports	7.3	1.5	1.0	2.6	3.3	3.3	3.3	5.3	-0.7	1.8	3.0	3.3	3.3	3.3
Imports	9.0	-1.0	0.7	2.9	2.5	2.5	2.5	5.0	-2.3	2.7	2.6	2.5	2.5	2.5
Change in Private Inventories	131.4	89.1	65.4	68.9	68.9	68.9	68.9	---	---	---	---	---	---	---
Final Sales	1.2	1.1	1.1	1.7	1.9	1.8	1.8	0.9	0.7	1.3	1.9	1.9	1.8	1.8
International Current Account Balance ($Bn)	-1003	-943	-1009	-1012	-945	-909	-855	---	---	---	---	---	---	---
% of GDP	-3.9	-3.5	-3.7	-3.5	-3.2	-2.9	-2.6	---	---	---	---	---	---	---
Pre-tax Corporate Profits including IVA&CCA	6.7	-1.0	-5.2	-0.8	4.7	6.7	7.4	4.1	-4.4	-4.3	2.0	5.5	7.6	7.4
% of GDP	11.6	11.0	10.1	9.6	9.6	9.9	10.2	---	---	---	---	---	---	---
GDP Deflator (y/y)	7.0	4.0	2.2	2.2	2.4	2.3	2.3	6.5	3.0	2.0	2.3	2.4	2.3	2.3
Nominal GDP	9.1	4.9	3.2	4.0	4.4	4.2	4.1	7.0	3.6	3.4	4.3	4.4	4.1	4.1
Labor Force	1.9	0.8	0.5	0.4	0.4	0.3	0.3	1.6	0.8	0.5	0.4	0.4	0.3	0.3
Employment	4.1	1.1	-0.6	0.6	0.7	0.4	0.2	3.3	-0.1	-0.1	0.8	0.6	0.3	0.3
Change in Empl. ('000s)	5,935	1,734	-854	954	1,120	546	385	4,861	-205	-166	1,213	935	403	396
Unemployment Rate (%)	3.7	4.3	5.0	4.5	4.1	4.0	4.0	---	---	---	---	---	---	---
Personal Disp. Income	-0.5	5.3	4.1	4.3	4.4	4.4	4.3	3.2	4.9	3.8	4.4	4.4	4.3	4.2
Pers. Savings Rate (%)	3.2	2.8	3.5	4.4	4.9	5.3	5.7	---	---	---	---	---	---	---
Cons. Price Index (y/y)	8.1	4.7	2.3	2.1	2.3	2.3	2.2	7.5	3.6	1.9	2.2	2.3	2.2	2.1
Core CPI (y/y)	6.2	4.7	2.6	2.2	2.3	2.3	2.2	6.2	3.7	2.3	2.2	2.3	2.2	2.2
Core PCE Price Index (y/y)	5.0	3.8	2.3	2.0	2.0	2.0	2.0	4.8	3.1	2.0	2.0	2.1	2.0	2.0
Housing Starts (mns)	1.55	1.26	1.38	1.48	1.50	1.50	1.50	---	---	---	---	---	---	---
Real Output per hour (y/y)**	-1.5	0.0	1.6	1.0	1.2	1.6	1.7	-2.3	0.6	1.4	1.0	1.3	1.7	1.7

*Intellectual property products. F: Forecast by TD Economics as at December 2022.

**Non-farm business sector.

Source: Bureau of Labor Statistics, Bureau of Economic Analysis, Census Bureau, TD Economics.

Canadian Economic Outlook *Period-Over-Period Annualized Per Cent Change Unless Otherwise Indicated*	Annual Average							4th Quarter / 4th Quarter						
Economic Indicator	**22F**	**23F**	**24F**	**25F**	**26F**	**27F**	**28F**	**22F**	**23F**	**24F**	**25F**	**26F**	**27F**	**28F**
Real GDP	3.5	0.7	0.4	1.3	1.6	1.7	1.7	2.4	-0.1	0.9	1.5	1.6	1.7	1.7
Consumer Expenditure	4.8	0.8	0.3	1.0	1.4	1.6	1.7	3.0	0.0	0.7	1.2	1.5	1.6	1.7
Durable Goods	-3.1	-2.7	-0.5	0.7	1.4	1.6	1.7	-3.8	-1.4	0.2	1.0	1.5	1.6	1.7
Business Investment	8.2	2.4	1.7	2.1	1.8	1.7	1.7	6.6	1.4	2.0	2.0	1.8	1.7	1.7
Non-Res. Structures	11.6	3.8	1.8	2.2	1.9	1.7	1.7	10.3	1.6	2.2	2.0	1.8	1.7	1.7
Equipment & IPP*	4.7	0.9	1.5	2.0	1.8	1.7	1.7	2.7	1.2	1.8	1.9	1.8	1.7	1.7
Residential Investment	-10.3	-7.6	0.5	2.2	1.9	1.8	1.7	-11.8	-2.9	1.8	2.1	1.8	1.7	1.7
Govt. Expenditure	1.3	2.2	2.3	2.1	2.0	1.9	1.9	1.2	2.3	2.2	2.0	1.9	1.9	1.9
Final Domestic Demand	2.7	0.7	0.9	1.5	1.6	1.7	1.7	1.5	0.5	1.3	1.6	1.7	1.7	1.7
Exports	2.6	3.5	1.6	1.9	1.8	1.7	1.7	2.7	2.0	1.8	1.8	1.7	1.7	1.7
Imports	8.2	2.5	1.5	1.8	1.8	1.7	1.7	6.3	1.6	1.7	1.8	1.7	1.7	1.7
Change in Non-farm Inventories (2012 $Bn)	38.4	29.9	18.8	14.0	13.4	13.0	12.6	--	--	--	--	--	--	--
Final Sales	0.4	0.9	1.5	1.7	1.7	1.7	1.8	-0.5	1.2	1.7	1.7	1.7	1.8	1.8
International Current Account Balance ($Bn)	-12.0	-20.1	-18.2	-17.1	-16.2	-15.3	-14.3	--	--	--	--	--	--	--
% of GDP	-0.4	-0.7	-0.6	-0.6	-0.5	-0.5	-0.4	--	--	--	--	--	--	--
Pre-tax Corp. Profits	11.1	-8.8	1.4	2.4	2.8	3.0	3.2	0.7	-2.6	2.0	2.6	2.9	3.1	3.2
% of GDP	15.6	13.9	13.7	13.6	13.5	13.4	13.3	--	--	--	--	--	--	--
GDP Deflator (y/y)	7.6	1.4	2.3	2.1	2.0	2.0	2.0	4.9	2.3	2.2	2.0	2.0	2.0	2.0
Nominal GDP	11.3	2.1	2.7	3.4	3.6	3.7	3.7	7.3	2.2	3.1	3.5	3.7	3.7	3.7
Labour Force	1.3	0.9	0.4	0.7	0.8	0.7	0.7	0.7	0.7	0.5	0.8	0.7	0.7	0.7
Employment	3.6	0.2	-0.2	1.0	1.1	0.8	0.7	1.9	-0.5	0.3	1.2	1.0	0.7	0.7
Change in Empl. ('000s)	686	41	-31	190	216	160	145	374	-99	67	234	192	149	143
Unemployment Rate (%)	5.3	5.9	6.5	6.2	5.9	5.9	5.9	--	--	--	--	--	--	--
Personal Disp. Income	5.4	2.4	1.5	1.6	2.7	3.6	3.6	7.6	1.0	1.8	1.4	3.6	3.6	3.6
Pers. Savings Rate (%)	6.4	4.8	4.0	2.6	1.9	1.9	1.8	--	--	--	--	--	--	--
Cons. Price Index (y/y)	6.8	3.8	2.1	2.0	2.0	2.0	2.0	6.9	2.6	2.0	2.0	2.0	2.0	2.0
CPIX (y/y) **	5.6	3.8	2.2	2.0	2.0	2.0	2.0	5.9	2.8	2.1	2.0	2.0	2.0	2.0
BoC Inflation (y/y) **	4.4	3.3	2.1	2.0	2.0	2.0	2.0	5.4	2.2	2.0	2.0	2.0	2.0	2.0
Housing Starts ('000s)	262	228	208	216	222	223	223	--	--	--	--	--	--	--
Home Prices (y/y)	0.6	-10.7	3.9	3.5	2.9	2.8	2.8	-11.7	-1.5	3.8	3.3	2.8	2.8	2.8
Real GDP / worker (y/y)	-0.1	0.5	0.6	0.3	0.5	0.9	1.0	0.5	0.4	0.5	0.3	0.7	0.9	1.0

F: Forecast by TD Economics as at December 2022.
* Intellectual Property Products. ** CPIX: CPI ex. 8 most volatile components. *** BoC Inflation: avg. of CPI-trim, CPI-median, and CPI-common.
Home price measure shown is the CREA Composite Sale Price.
Sources: Statistics Canada, Bank of Canada, CMHC, CREA, TD Economics.

Interest Rate Outlook														
Interest Rates	Annual Average							End of Period						
	22F	23F	24F	25F	26F	27F	28F	22F	23F	24F	25F	26F	27F	28F
U.S. FIXED INCOME														
Fed Funds Target Rate (%)*	2.50	4.90	3.30	2.30	2.25	2.25	2.25	4.50	4.50	2.75	2.25	2.25	2.25	2.25
3-mth T-Bill Rate (%)	2.50	4.65	3.00	2.20	2.15	2.15	2.15	4.65	4.15	2.50	2.15	2.15	2.15	2.15
2-yr Govt. Bond Yield (%)	3.45	3.70	2.65	2.25	2.25	2.25	2.25	4.40	3.20	2.40	2.25	2.25	2.25	2.25
5-yr Govt. Bond Yield (%)	3.30	3.50	2.85	2.45	2.45	2.45	2.45	3.80	3.25	2.65	2.45	2.45	2.45	2.45
10-yr Govt. Bond Yield (%)	3.20	3.45	2.95	2.70	2.70	2.70	2.70	3.60	3.30	2.80	2.70	2.70	2.70	2.70
10-yr-2-yr Govt. Spread (%)	-0.25	-0.25	0.30	0.45	0.45	0.45	0.45	-0.80	0.10	0.40	0.45	0.45	0.45	0.45
CANADIAN FIXED INCOME														
Overnight Target Rate (%)	2.40	4.30	2.70	2.00	2.00	2.00	2.00	4.25	3.75	2.25	2.00	2.00	2.00	2.00
3-mth T-Bill Rate (%)	2.65	4.15	2.55	2.00	2.00	2.00	2.00	4.38	3.50	2.13	2.00	2.00	2.00	2.00
2-yr Govt. Bond Yield (%)	3.25	3.20	2.40	2.15	2.15	2.15	2.15	3.90	2.85	2.20	2.15	2.15	2.15	2.15
5-yr Govt. Bond Yield (%)	3.00	2.80	2.40	2.35	2.35	2.35	2.35	3.10	2.60	2.35	2.35	2.35	2.35	2.35
10-yr Govt. Bond Yield (%)	2.90	2.80	2.60	2.60	2.60	2.60	2.60	2.90	2.70	2.60	2.60	2.60	2.60	2.60
10-yr-2-yr Govt. Spread (%)	-0.35	-0.40	0.20	0.45	0.45	0.45	0.45	-1.00	-0.15	0.40	0.45	0.45	0.45	0.45

*Upper bound of target range. F: Forecast by TD Economics as at December 2022.
Annual averages are the average of the four quarterly end-of-period forecasts.
Source: Bank of Canada, Bloomberg, Statistics Canada, TD Economics.

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