BANK OF CANADA
BANQUE DU CANADA

Monetary Policy Report

January 2022

Canada's inflation-control strategy

Inflation targeting and the economy

- The objective of Canada's monetary policy is to promote the economic and financial well-being of Canadians. Canada's experience with inflation targeting since 1991 has shown that the best way that monetary policy can achieve this goal is by maintaining a low and stable inflation environment. Doing so fosters confidence in the value of money and contributes to sustained economic growth, a strong and inclusive labour market and improved living standards.
- In 2021, the Government of Canada and the Bank of Canada renewed the flexible inflation-targeting framework for a further five-year period, ending December 31, 2026.[1]
- The inflation target was renewed at the 2% midpoint of the 1%–3% control range, with inflation measured as the 12-month rate of change in the consumer price index (CPI).
- The Government and the Bank agreed that the best contribution monetary policy can make to the economic and financial well-being of Canadians is to continue to focus on price stability. The Government and the Bank also agreed that monetary policy should continue to support maximum sustainable employment, recognizing that maximum sustainable employment is not directly measurable and is determined largely by non-monetary factors that can change through time.
- Further, the Government and the Bank agreed that because well-anchored inflation expectations are critical to achieving both price stability and maximum sustainable employment, the primary objective of monetary policy is to maintain low, stable inflation over time.

Inflation targeting is *symmetric* and *flexible*

- Canada's inflation-targeting approach is *symmetric*, which means the Bank is equally concerned about inflation rising above or falling below the 2% target.
- Canada's inflation-targeting framework is also *flexible*. Typically, the Bank seeks to return inflation to target over a horizon of six to eight quarters. However, the most appropriate horizon for returning inflation to target will vary depending on the nature and persistence of the shocks buffeting the economy.
- The 2021 agreement with the Government specifies that the 2% inflation target remains the cornerstone of the framework.
- The agreement further notes that the Bank will continue to use the flexibility of the 1%–3% control range to actively seek the maximum sustainable level of employment, when conditions warrant. The Bank will also continue to leverage the flexibility inherent in the framework to help address the challenges of structurally low interest rates by using a broad set of policy tools. The Bank will use this flexibility only to an extent that is consistent with keeping medium-term inflation expectations well anchored at 2%.

Monetary policy tools

- Because monetary policy actions take time to work their way through the economy and have their full effect on inflation, monetary policy must be forward-looking.
- The Bank normally carries out monetary policy through changes in the target for the overnight rate of interest (the policy rate). The Bank also has a range of monetary policy tools it can use when the policy rate is at very low levels. These tools consist of guidance on the future evolution of the policy rate, large-scale asset purchases (quantitative easing and credit easing), funding for credit measures, and negative policy rates. The potential use and sequencing of these tools would depend on the economic and financial market context.
- All of the Bank's monetary policy tools affect total demand for Canadian goods and services through their influence on market interest rates, domestic asset prices and the exchange rate. The balance between this demand and the economy's production capacity is, over time, the main factor that determines inflation pressures in the economy.

Communications

- Consistent with its commitment to clear, transparent communications, the Bank regularly reports its perspectives on the economy and inflation. Policy decisions are typically announced on eight pre-set days during the year, and full updates of the Bank's outlook are published four times each year in the *Monetary Policy Report*.
- The Bank is committed to explaining when it is using the flexibility of the inflation-targeting framework.
- Given the uncertainty about the maximum sustainable level of employment, the Bank will consider a broad range of labour market indicators.[2] The Bank will also systematically report to Canadians on how labour market outcomes have factored into its policy decisions.

Monitoring inflation

- In the short run, the prices of certain CPI components can be particularly volatile and can cause sizable fluctuations in CPI inflation.
- In setting monetary policy, the Bank seeks to look through such transitory movements in CPI inflation and focuses on a set of "core" inflation measures that better reflect the underlying trend of inflation. In this sense, these measures act as an operational guide to help the Bank achieve the CPI inflation target. They are not a replacement for CPI inflation.
- The Bank's three preferred measures of core inflation are CPI-trim, which excludes CPI components whose rates of change in a given month are the most extreme; CPI-median, which corresponds to the price change located at the 50th percentile (in terms of basket weight) of the distribution of price changes; and CPI-common, which uses a statistical procedure to track common price changes across categories in the CPI basket.

1 For more details, see *Joint Statement of the Government of Canada and the Bank of Canada on the Renewal of the Monetary Policy Framework* (December 13, 2021); *Monetary Policy Framework Renewal—December 2021;* and T. Macklem, "*Our Monetary Policy Framework: Continuity, Clarity and Commitment*" (speech to the Empire Club of Canada, Toronto, December 15, 2021).

2 See, for example, the range of indicators that the Bank is using to track the recovery of the labour market from the effects of the COVID-19 pandemic.

The *Monetary Policy Report* is available on the Bank of Canada's website at bankofcanada.ca.

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Monetary Policy Report

January 2022

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Overview

A robust economic recovery continued throughout the second half of 2021 in Canada and abroad. Taking into account the faster-than-expected growth and strong job gains, the Bank judges that economic slack is now essentially absorbed.

The Omicron variant of COVID-19 emerged in late autumn, triggering household cautiousness and public health measures. These are temporarily slowing economic activity globally. The economic impacts of Omicron in Canada will likely be limited by high vaccination rates and the continuing adaptability of businesses and households (**Box 1**).

Disruptions to global supply chains have broadened and become more pronounced, pushing inflation higher in most advanced and emerging-market economies (EMEs). In response to inflationary pressures, some central banks have already raised their policy interest rates, and others have signalled they plan to do so.

Key messages

- The Canadian economy had strong momentum heading into 2022.
- A wide range of measures and indicators suggest that economic slack is now absorbed. Estimates of the output gap are consistent with this evidence.
- Public health measures and widespread worker absences related to the Omicron variant are slowing economic activity in the first quarter of 2022, but the economic impact is expected to be less severe than previous waves.
- With the virus and related supply disruptions expected to fade, consumer spending is anticipated to rebound and exports and business investment are projected to grow solidly.
- The impacts from global and domestic supply disruptions are currently exerting upward pressure on prices. Inflationary pressures from strong demand, supply shortages and high energy prices should subside during the year. Inflation is expected to decline relatively quickly to about 3% by the end of 2022.
- Over the medium term, increased productivity is expected to boost supply growth, and demand growth is projected to moderate. Inflation is expected to decline gradually through 2023 and 2024 to close to 2%.
- The Bank views the risks around this inflation outlook as roughly balanced. However, with inflation above the top of the Bank's inflation-control range and expected to stay there for some time, the upside risks are of greater concern.

Box 1

Key inputs to the projection

The Bank of Canada's projection is always conditional on several key assumptions, and changes to them will affect the outlook for the Canadian economy. The Bank regularly reviews these assumptions and assesses the sensitivity of the economic projection to them. The key inputs into the Bank's projection are as follows:

- Vaccination rollouts are progressing in many regions around the world. It is assumed that most global public health restrictions and physical distancing measures will be lifted over the course of 2022. Some of these measures are expected to remain in place longer in emerging-market economies because of lower rates of vaccination.
- Most public health restrictions in Canada are expected to be eased in the first quarter of 2022. Pandemic-related effects on demand—notably, consumer caution and reluctance to travel—are assumed to diminish gradually over the projection horizon.
- As in the October projection, spending on household consumption is assumed to be boosted by an additional $40 billion as individuals draw down a portion of their extra savings accumulated during the pandemic.
- The projection incorporates information from all available provincial and federal budgets.
- Oil prices are assumed to remain near recent levels. The per-barrel prices in US dollars are assumed to be $80 for Brent, $75 for West Texas Intermediate and $65 for Western Canadian Select, as in the October Report.
- By convention, the Bank does not forecast the exchange rate in the *Monetary Policy Report*. The Canadian dollar is assumed to remain at 79 cents US over the projection horizon, close to its recent average and just below the 80 cents US assumed in the October Report.
- The pandemic is having both temporary and lasting effects on the supply side of the Canadian economy.[1]
  - The Bank's assessment of the growth of potential output, a longer-term concept, looks through the short-lived effects of factors such as containment measures, supply chain disruptions and labour market mismatches. As in the October Report, potential output growth is assumed to average about 1.6% per year over 2021–23. However, the level of potential output is raised by 0.3% due to positive historical revisions to investment, capital stock and gross domestic product (GDP). Despite these revisions, the level of potential output at the end of 2023 is projected to remain about 0.8% below the pre-pandemic estimate.[2]
  - The projection assumes that several short-term factors are adversely affecting the supply of goods and services. First, supply chain disruptions are having a large, temporary impact on supply. Second, the mismatch between employers' needs and unemployed workers' skills—exacerbated by the unevenness of the pandemic shock—is contributing to the temporary rise in long-term unemployment. Together, these two effects are assumed to reduce supply, with a peak impact of 2.0% in the fourth quarter of 2021, slightly more severe than was estimated in October. These effects are anticipated to remain elevated in the first half of 2022 and to dissipate over the rest of the year. Third, measures taken to contain the Omicron variant coupled with elevated worker absences due to the rise in cases are expected to decrease supply temporarily in the first quarter of 2022 (see **Chart 8** on page 16).
  - Estimates of overall supply growth can be obtained by combining the estimates of the temporary effects of these short-term factors with the assessment of potential output.
- GDP grew at a strong pace amid increased supply disruptions in the fourth quarter of 2021. The Bank estimates that the output gap—the difference between GDP and supply—was about -0.75% to 0.25% in the fourth quarter, smaller than the estimate of -2.25% to -1.25% for the previous quarter.
- The neutral nominal policy interest rate is defined as the real neutral rate plus 2% for inflation. The neutral real rate is defined as the rate consistent with both output remaining sustainably at its potential and inflation remaining at target, on an ongoing basis. It is a medium- to long-term equilibrium concept. For Canada, the economic projection is based on an assumption that the nominal neutral rate is at the midpoint of the estimated range of 1.75% to 2.75%. This range was last reassessed in the April 2021 Report.

1 As in recent reports, the Bank distinguishes in the near term between supply and potential output to account for the relatively short-lived nature of some of the decrease in supply caused by public health measures, supply chain disruptions and labour market mismatches.

2 Estimates of the level of potential output in 2023 were not constructed as part of the January 2020 projection. The pre-pandemic estimate referred to in the text is calculated by extending the January 2020 projection for potential output by two years, i.e., through 2023. It uses the estimate for potential growth in 2021 that was provided in the January 2020 Report.

Global economy

Global economic activity recovered strongly in 2021. In the United States, the recovery has been robust, and the economy is now experiencing excess demand and particularly elevated inflation. Other regions have also made important progress, although most are still operating somewhat below capacity.

Inflation has risen around the world and is projected to peak by the first quarter of 2022 in most regions. High energy and food prices, as well as strong demand for goods amid widespread supply shortages and bottlenecks, have driven inflation up. Supply shortages are expected to dissipate gradually by the end of 2022. However, significant uncertainties remain about the resolution of these shortages, and the Omicron variant may lead to more disruptions in the near term.

The recovery is expected to continue over the projection horizon, despite some near-term weakness because of the emergence of the Omicron variant. Global growth is projected to moderate from 6¾% in 2021 to about 3½% in 2022 and 2023 (**Table 1**). The US economy is expected to continue growing at a robust pace, albeit with some moderation as policy support eases. Growth in China is expected to be restrained by weakness in the property sector and strict COVID-19 policies. Overall, the global growth outlook is weaker than it was in the October Report (**Box 2**).

Table 1: Projection for global economic growth

	Share of real global GDP* (%)	Projected growth† (%)			
		2020	2021	2022	2023
United States	16	-3.4 (-3.4)	5.6 (5.6)	3.7 (3.9)	2.5 (2.7)
Euro area	12	-6.5 (-6.5)	5.2 (5.3)	4.0 (4.5)	2.6 (1.9)
Japan	4	-4.5 (-4.7)	1.7 (2.5)	2.7 (3.0)	1.0 (0.1)
China	18	2.2 (2.3)	8.1 (7.9)	3.8 (5.3)	5.3 (5.9)
Oil-importing EMEs‡	33	-2.5 (-2.5)	8.1 (7.4)	3.5 (4.0)	3.7 (3.9)
Rest of the world§	16	-3.5 (-3.5)	4.9 (4.8)	3.3 (4.1)	2.5 (2.0)
World	100	-2.2 (-2.2)	6.8 (6.5)	3.6 (4.3)	3.4 (3.4)

* GDP shares are based on International Monetary Fund (IMF) estimates of the purchasing-power-parity valuation of country GDPs for 2020 from the IMF's October 2021 *World Economic Outlook*. The individual shares may not add up to 100 due to rounding.

† Numbers in parentheses are projections used in the previous Report.

‡ The oil-importing emerging-market economies (EMEs) grouping excludes China. It is composed of large EMEs from Asia, Latin America, the Middle East, emerging Europe and Africa (such as India, Brazil and South Africa) as well as newly industrialized economies (such as South Korea).

§ "Rest of the world" is a grouping of other economies not included in the first five regions. It is composed of oil-exporting EMEs (such as Russia, Nigeria and Saudi Arabia) and other advanced economies (such as Canada, the United Kingdom and Australia).

Source: Bank of Canada

Box 2

Changes to the economic projection since the October Report

Global GDP outlook

Growth in China and emerging-market economies (EMEs) was a positive surprise for 2021. However, downward revisions to the outlook in most major regions over the projection horizon more than offset this growth. Overall, the level of global gross domestic product (GDP) has been revised down by 0.3% at the end of 2023 relative to the October Report. The following factors explain the revisions to the outlook:

- In response to the emergence of the Omicron variant of COVID-19, travel and public health restrictions are tighter than anticipated in all regions in early 2022. However, a large part of these effects should be temporary, and they are expected to dissipate in the second half of 2022 and in 2023.
- China's outlook has been revised down, reflecting a greater negative impact from the ongoing correction in the property sector.
- Monetary policy in the United States is expected to be less accommodative than previously anticipated because of the need to respond to higher-than-expected inflation.

Canadian GDP outlook

The level of GDP in Canada at the end of 2021 has been revised up due to stronger estimated growth in the fourth quarter. This improved forecast offsets historical data revisions that revealed a sharper contraction in the second quarter. Taken together, these revisions resulted in a lower estimate of GDP growth in 2021 by half a percentage point, to about 4½%.

GDP growth has been revised down by about a quarter of a percentage point in both 2022 and 2023, leaving the level of real GDP roughly ½% lower at the end of 2023. The following factors explain the revisions to the outlook:

- The Omicron variant and related containment measures temporarily reduce economic activity in the first quarter of 2022.
- Recent data and fiscal updates from provincial and federal governments suggest that growth in government spending is easing earlier than expected.
- Supply constraints will have larger and more broad-based negative implications on economic activity over 2022.
- The growth profiles for exports and business investment are revised down. This is due in part to the downward revision to the projection of US growth.

Canadian CPI inflation outlook

Consumer price index (CPI) inflation is expected to be higher than projected in October. The outlook for CPI inflation in 2022 is revised up by about three-quarters of a percentage point to 4.2% and remains unchanged in 2023 at 2.3%. This upward revision mainly reflects larger impacts from various supply issues, notably those affecting shelter costs and food prices.

Some tightening of global financial conditions

Government bond yields have risen in recent months in many countries, including Canada and the United States. This partly reflects market participants' anticipation that policy interest rates will be raised earlier than previously expected. Despite this recent tightening, financial conditions remain broadly accommodative. Corporate bond spreads and the Can$/US$ exchange rate are close to their levels at the time of the October Report. However, global equity prices have recently declined owing to the combination of higher expected interest rates and increased geopolitical tensions.

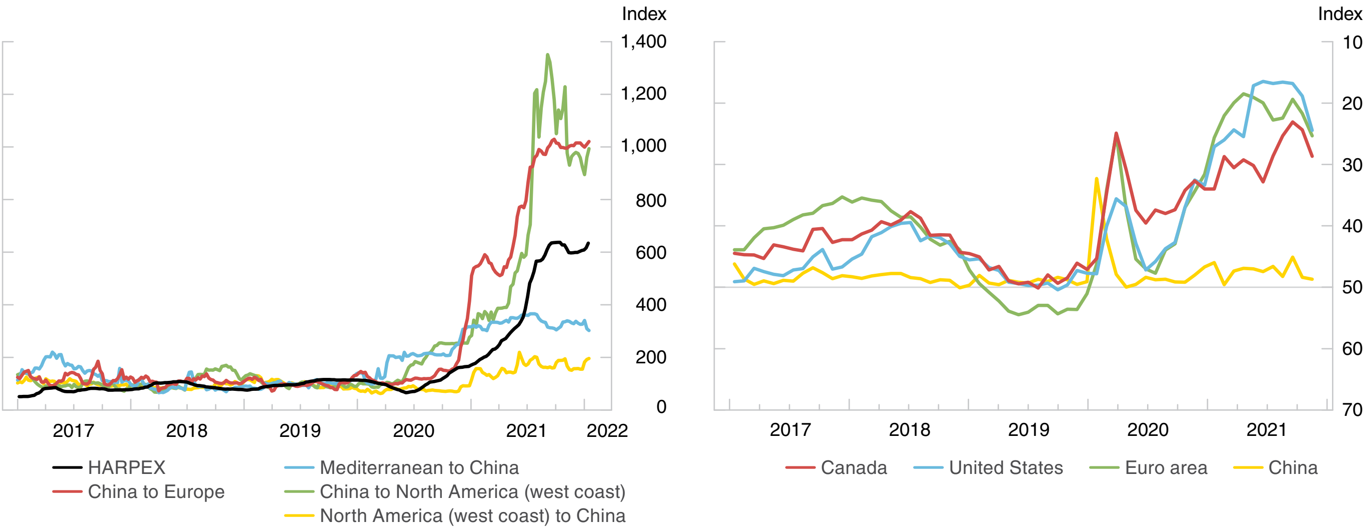
Recent strong growth to moderate in the United States

Gross domestic product (GDP) growth rebounded at the end of 2021 after a period of soft activity associated with the spread of the Delta variant at the end of the summer. The labour market tightened considerably in the fourth quarter, as demonstrated by the decline in the unemployment rate and the

Chart 1: Transportation costs and the share of firms that report worsening delivery times have likely peaked but remain high

a. Transportation costs, index 2019 = 100, weekly data

b. PMI: Manufacturing suppliers' delivery times, monthly data



Note: All series in panel a are from the Freightos Baltic Index except the HARPEX (Harper Petersen Charter Rates Index). The Freightos Baltic Index provides market ocean freight rates for different trade lanes. The HARPEX reflects the worldwide price development on the charter market for container ships. The Purchasing Managers' Index (PMI) is a diffusion index of business conditions. For suppliers' delivery times, an inverted index is used to show that a reading less than (greater than) 50 indicates an increase (decrease) in delivery times compared with the previous month.

Sources: IHS Markit and HARPEX via Haver Analytics and Freightos Baltic Index via Bloomberg Finance L.P.

Last observations: HARPEX, January 21, 2022; Freightos Baltic Index, January 23, 2022; PMI, December 2021

elevated number of job vacancies. Aggregate measures of wage growth have increased, particularly in industries that reopened quickly, such as leisure and hospitality.

Bottlenecks at ports and global shortages of various goods will likely continue to curb production and push prices up. However, shipping costs seem to have plateaued, and some progress has been made on alleviating congestion at ports (**Chart 1**). Supply disruptions are anticipated to decline over 2022.

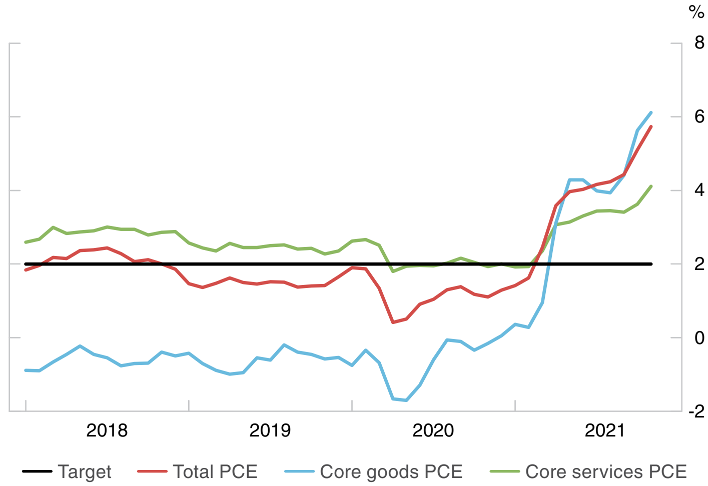
US GDP growth is projected to moderate from 5½% in 2021 to about 3¾% in 2022 and 2½% in 2023, as policy stimulus is withdrawn. Consumption is anticipated to remain solid in 2022 and 2023, supported by a strong labour market and households spending some of the savings they accumulated during the pandemic. The projection also incorporates the Bipartisan Infrastructure Law and other spending on research and development totalling US$1.5 trillion over eight years starting in 2022.

Total and core measures of US personal consumption expenditures (PCE) inflation remain high and are expected to peak at 5.7% and 5.0%, respectively, in the first quarter of 2022.[1] Past increases in energy prices and continued supply bottlenecks amid high demand for goods have been important contributors to inflationary pressures (**Chart 2**). The effects of energy and supply shortages are anticipated to decline, gradually leading to a moderation in inflation over the course of the year. However, with the economy expected to remain in excess demand, PCE inflation is anticipated to stay above 2% over the projection horizon, reaching 2.4% at the end of 2023.

1 Total US consumer price index inflation is expected to peak at 7.1% in the first quarter.

Chart 2: Supply shortages amid strong demand are boosting prices of US goods

Year-over-year percentage change, monthly data



Note: PCE is personal consumption expenditures. "Total PCE" is the PCE price index, which reflects changes in the prices of goods and services purchased by consumers in the United States. "Core goods PCE" and "core services PCE" exclude food and energy.

Source: US Bureau of Economic Analysis via Haver Analytics Last observation: November 2021

Euro area recovery to continue amid new restrictions

Growth in the euro area is estimated to have slowed in late 2021, following the reintroduction of targeted restrictions in many countries in response to rising COVID-19 cases. The new wave of health and travel restrictions will likely be short-lived and the recovery is expected to continue, with growth gradually moderating in 2022 and 2023.

Euro area inflation, as measured by the Harmonised Index of Consumer Prices (HICP), reached 5% in December. Most components of HICP have risen over the past year. However, a large part of the increase in inflation reflects high energy prices and past changes to the German value-added tax. Inflation is expected to ease over the projection horizon as the effects of these two factors dissipate.[2]

Property sector weakness weighs on Chinese growth

Growth in China is expected to slow to only 3¾% in 2022 as the property sector continues to adjust. Strict containment measures—particularly in light of the Omicron variant—continue to be a drag on the economy. Past tightening of regulations in the property sector has prompted a decline in housing activity that will likely be an important drag on growth in 2022. As a result, some property developers are experiencing financial distress. Other regulatory changes in a wide range of sectors, including technology and education, are also projected to weigh on domestic demand.

In response to the economic slowdown, Chinese authorities have modestly increased policy support. Growth is projected to recover to about 5¼% in 2023 as the drag on growth from the property sector diminishes. Uncertainty about both the impact of China's "zero-COVID" policy and the fragility of the property sector remains high. Either of these factors could dampen growth by more than expected over the projection horizon.

2 Energy prices in the euro area could continue to rise in the near term due to geopolitical tensions.

Lower vaccination rates and policy tightening in emerging-market economies

After a strong recovery in 2021, growth is expected to slow in 2022 and 2023 in oil-importing EMEs and in the rest-of-the world group. Many countries have tightened monetary policy in response to increased inflationary pressures. Higher interest rates will weigh on economic activity, particularly in Latin America, Russia and emerging Europe. Growth in some EMEs may also be affected by low vaccination rates and renewed measures to contain COVID-19 outbreaks.

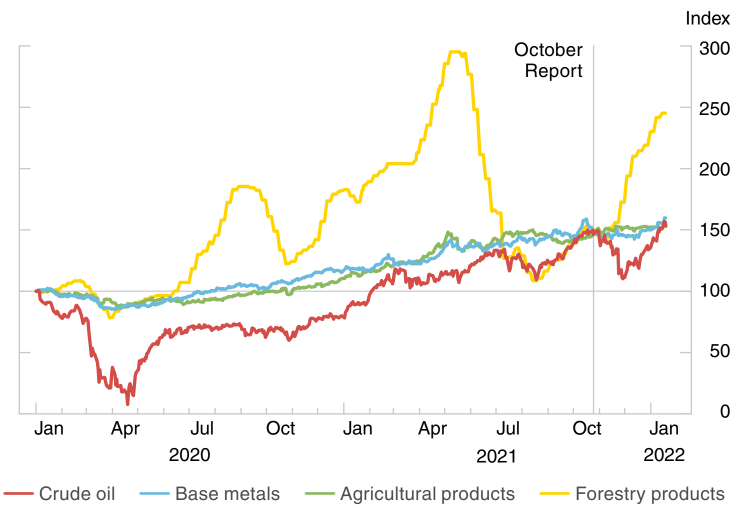
High and volatile commodity prices

Oil prices have experienced significant volatility since the October Report (**Chart 3**). They initially fell sharply as the emergence of the Omicron variant increased uncertainty. With the economic impacts of Omicron now looking less severe than initially feared, prices have recovered. Concerns about global energy supply and heightened geopolitical tensions have also contributed to the rebound in oil prices. Over the projection horizon, the per-barrel prices of Brent, West Texas Intermediate and Western Canadian Select oil are assumed to be US$80, US$75 and US$65, respectively, the same levels as in the October Report (**Box 1**).

Prices could stay above the flat oil price assumption if global energy shortages were to continue. Oil prices could also fall below this assumption if members of the Organization of the Petroleum Exporting Countries (OPEC) and some non-OPEC oil producers, including the United States, were to significantly increase production. The severity and persistence of the Omicron variant also remains a downside risk.

Chart 3: Commodity prices remain high

Index: January 3, 2020 = 100, daily data



Note: All series plotted are components of the Bank of Canada commodity price index. The crude oil index is a weighted average of the benchmarks for West Texas Intermediate, Western Canadian Select and Brent.

Source: Bank of Canada

Last observation: January 21, 2022

Lumber prices have surged since the October Report, largely reflecting the combination of strong demand from the North American housing sector and floods in British Columbia that have hindered rail and road transportation. Prices of base metals and agricultural products are marginally stronger than in October. Markets expect these non-energy commodity prices to stay elevated over the projection horizon. This is because of reduced supply—notably due to high energy input costs—and strong global demand.

Canadian economy

The Canadian economy experienced a strong rebound through the second half of 2021. Economic growth surged as the easing of public health measures boosted consumption of services, and exports bounced back due to growing foreign demand.

The unexpected arrival of the highly infectious Omicron variant is causing renewed hardship for many. It also serves as a reminder that the evolution of the pandemic remains uncertain. The sharp increase in the number of cases and the imposition of related public health measures are slowing activity at the start of 2022, but robust growth should resume in the second quarter. The combination of high vaccination rates and improved adaptability of businesses and consumers limits the downside economic risks from this wave of the pandemic.

Labour conditions are strong. The labour market had recovered to pre-pandemic levels by the end of 2021. The employment rate has fully recovered when accounting for demographic change, firms are having difficulty finding workers, and wage growth is rising. Omicron is leading to some temporary job losses in hard-to-distance sectors and to a spike in worker absences more broadly, but these effects are expected to be short-lived.

Faced with robust demand, many Canadian businesses are experiencing challenges due to supply constraints. Transportation bottlenecks, labour shortages and difficulty sourcing key inputs are resulting in reduced hours of operation, production slowdowns and delayed or cancelled sales. The overall effects of these supply disruptions are estimated to have been larger, broader and more persistent than initially anticipated. Exports and business investment have been particularly affected, as has consumer spending on some durable goods such as motor vehicles.

The outlook is for strong growth over the projection horizon as demand remains robust and supply recovers from the effects of the pandemic, with disruptions expected to ease gradually through 2022. Overall, growth is forecast to be around 4% in 2022 and 3.5% in 2023, supported by household spending on services, exports and investment (**Table 2**). This growth forecast is slightly weaker than in the October Report (**Box 2**).

Consumer price index (CPI) inflation is forecast to remain close to 5% over the first half of 2022. This is due to supply constraints coinciding with high energy prices and rising food costs. CPI inflation is anticipated to ease to about 3% by the end of 2022 as these pressures dissipate. Inflation is then expected to decline to around 2¼% by the second half of 2023 and remain close to the target in 2024.

Table 2: Contributions to average annual real GDP growth
Percentage points*†

	2020	2021	2022	2023
Consumption	-3.5 (-3.4)	2.9 (2.7)	3.3 (3.4)	2.3 (2.5)
Housing	0.3 (0.3)	1.3 (1.3)	-0.7 (-0.4)	0.0 (0.1)
Government	0.3 (0.1)	1.3 (1.7)	0.4 (0.7)	0.5 (0.3)
Business fixed investment	-1.2 (-1.3)	0.0 (0.2)	0.7 (0.8)	0.7 (0.9)
Subtotal: final domestic demand	-4.1 (-4.3)	5.5 (5.9)	3.7 (4.5)	3.5 (3.8)
Exports	-3.1 (-3.2)	0.4 (0.8)	1.8 (1.9)	0.8 (1.1)
Imports	3.7 (3.8)	-2.1 (-2.3)	-2.0 (-2.4)	-1.3 (-1.7)
Subtotal: net exports	0.6 (0.7)	-1.7 (-1.5)	-0.2 (-0.5)	-0.5 (-0.6)
Inventories	-1.7 (-1.6)	0.8 (0.7)	0.5 (0.3)	0.5 (0.5)
GDP	-5.2 (-5.3)	4.6 (5.1)	4.0 (4.3)	3.5 (3.7)
Memo items (percentage change):				
Range for potential output	0.8–2.0 (0.8–2.0)	0.8–2.2 (0.8–2.2)	0.4–2.2 (0.4–2.2)	1.0–3.0 (1.0–3.0)
Real gross domestic income (GDI)	-6.2 (-6.3)	8.8 (9.0)	4.5 (3.6)	2.8 (3.5)
CPI inflation	0.7 (0.7)	3.4 (3.4)	4.2 (3.4)	2.3 (2.3)

* Numbers in parentheses are from the projection in the previous Report.

† Numbers may not add to total due to rounding.

Sources: Statistics Canada and Bank of Canada calculations and projections

Strong momentum heading into 2022

Growth was robust in the second half of 2021, at around 5½%. It is expected to moderate to about 2% in the first quarter (**Table 3** and **Chart 4**). The Omicron variant and its related supply disruptions are expected to temporarily weigh on hard-to-distance services such as travel and indoor dining, with the effects mitigated by governments extending their support programs. Elevated worker absences due to the rise in cases are anticipated to temporarily affect a broader range of industries. Strong growth is expected to resume later in the first quarter.

Table 3: Summary of the quarterly projection for Canada*

	2021			2022		2020	2021	2022	2023
	Q2	Q3	Q4	Q1		Q4	Q4	Q4	Q4
CPI inflation (year-over-year percentage change)	3.4 (3.4)	4.1 (4.1)	4.7 (4.8)	5.1		0.7 (0.7)	4.7 (4.8)	3.0 (2.1)	2.2 (2.5)
Real GDP (year-over-year percentage change)	11.8 (12.7)	4.0 (4.7)	3.2 (3.4)	2.4		-3.1 (-3.1)	3.2 (3.4)	4.2 (4.6)	2.7 (3.0)
Real GDP (quarter-over-quarter percentage change at annual rates)†	-3.2 (-1.1)	5.4 (5.5)	5.8 (4.0)	2.0					

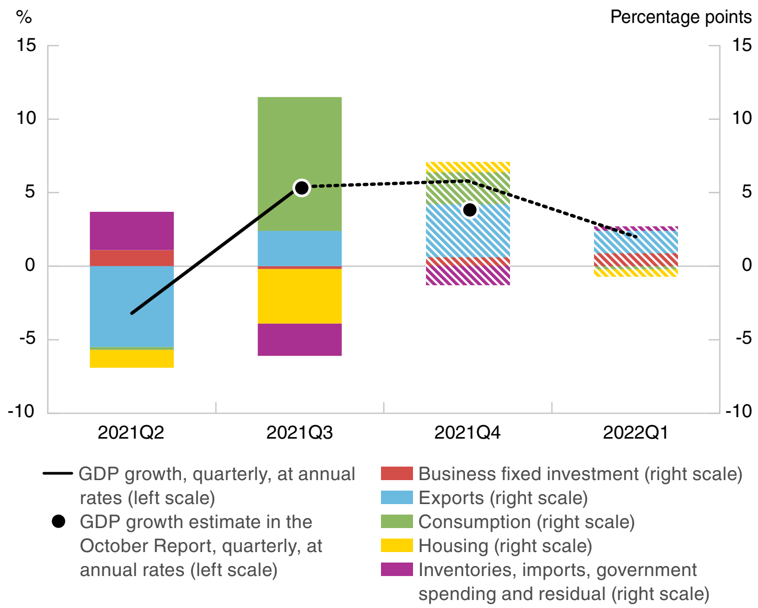
* Details on the key inputs to the base-case projection are provided in **Box 1**. Numbers in parentheses are from the projection in the previous Report.

† Over the projection horizon, 2021Q4 and 2022Q1 are the only quarters for which some information about real GDP growth was available at the time the projection was conducted. For longer horizons, fourth-quarter-over-fourth-quarter percentage changes are presented. They show the Bank's projected growth rates of CPI and real GDP within a given year. As such, they can differ from the growth rates of annual averages shown in **Table 2**.

Sources: Statistics Canada and Bank of Canada calculations and projections

Chart 4: The economy showed strong momentum heading into 2022

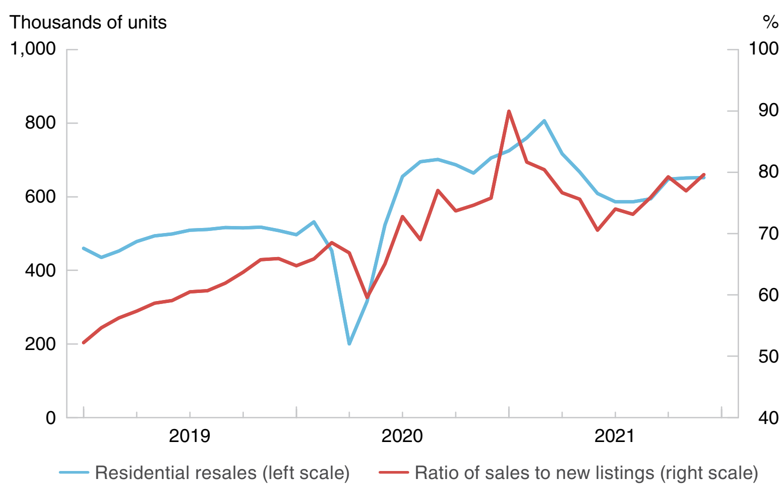
Contribution to real GDP growth, quarterly data



Sources: Statistics Canada and Bank of Canada calculations and estimates
Last data plotted: 2022Q1

Chart 5: Housing market activity has strengthened again in recent months

Seasonally adjusted, monthly data



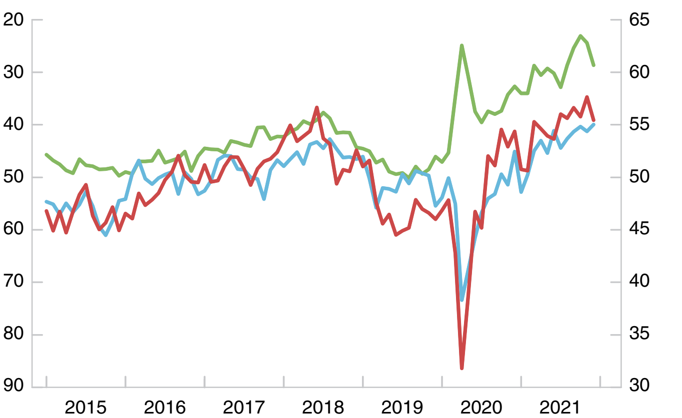
Note: Residential resales are seasonally adjusted at annual rates.
Source: Canadian Real Estate Association
Last observation: December 2021

Housing market activity has strengthened again in recent months, led by a rebound in resales (**Chart 5**).[3] Low borrowing rates and high disposable incomes are continuing to contribute to elevated levels of housing activity in the first quarter. At the same time, other factors that support demand, such as population growth, are also now picking up.

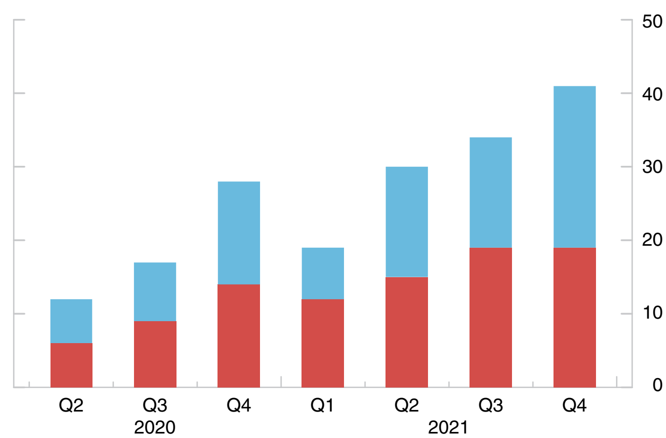
3 For more information on housing market activity in recent years, see M. Khan and Y. Xu, "Housing Demand in Canada: A Novel Approach to Classifying Mortgaged Homebuyers," Bank of Canada Staff Analytical Note No. 2022-1 (January 2022).

Chart 6: Supply disruptions are leading to delivery delays and weighing on production

a. Canadian manufacturing PMI: selected indexes of production conditions, seasonally adjusted, monthly data



b. Number of firms reporting supply chain bottlenecks, Business Outlook Survey, quarterly data



Note: The Purchasing Managers' Index (PMI) is a diffusion index of business conditions. For suppliers' delivery times, an inverted index is used to show that a reading less than (greater than) 50 indicates an increase (decrease) in delivery times compared with the previous month. Services firms reporting supply chain bottlenecks include firms in the retail and wholesale trade sectors affected by delays sourcing products and, to a lesser extent, firms in the transportation, warehousing, construction and hospitality sectors. Mentions of raw material constraints, transportation difficulties and logistics issues are counted as supply chain bottlenecks. The Business Outlook Survey samples about 100 firms.

Sources: IHS Markit via Haver Analytics and Bank of Canada

Last observations: PMI, December 2021; BOS, 2021Q4

Supply constraints continue to weigh on spending and production. This can be seen, for example, in delays in the delivery of key inputs used by manufacturers (**Chart 6**). Despite these near-term challenges, solid foreign demand and improving business confidence should continue to support robust growth in business investment and exports.

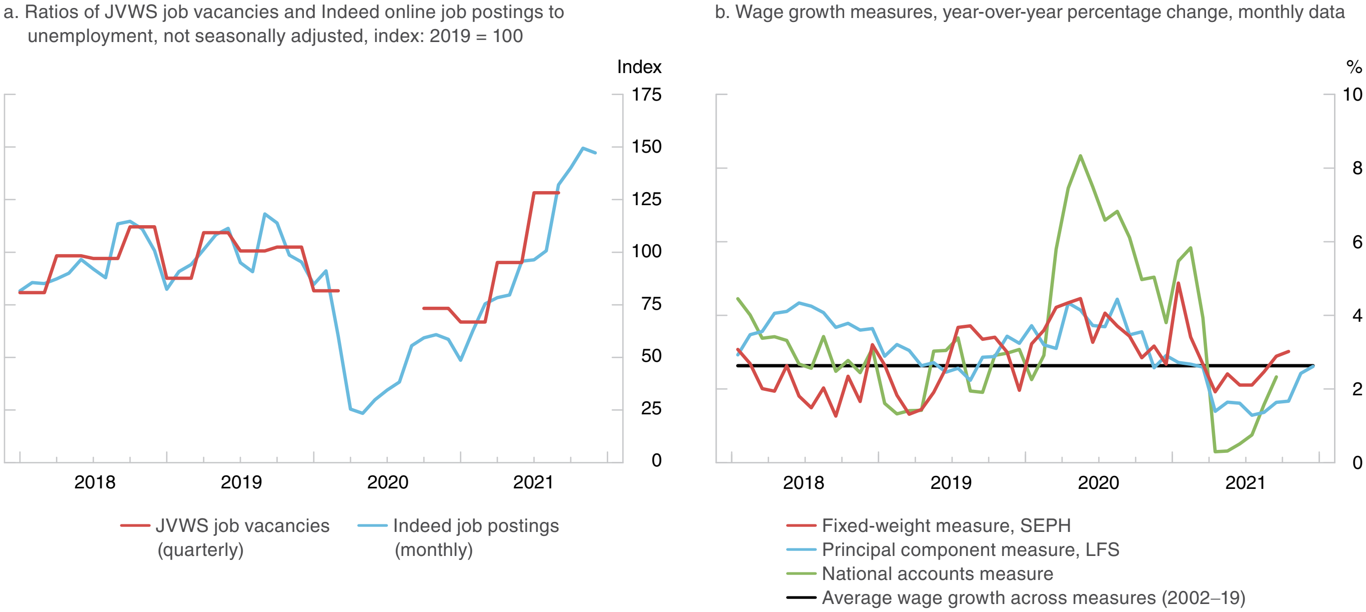
Labour markets tightened

Employment growth has been robust in recent months. The unemployment rate is only 0.3 percentage points higher than it was in February 2020. Labour force participation rates are at or above pre-pandemic levels for most age groups, and job postings are at near-record levels. The Omicron wave is weighing temporarily on employment in hard-to-distance sectors. The expected short duration of restrictions should limit the impact on the labour market.

In the Bank's Business Outlook Survey (BOS) for the fourth quarter of 2021, about 40% of firms reported that labour shortages are restricting their ability to meet demand—a level not seen since 2007. Moreover, most of these firms expect the shortages to persist until at least 2023.

Wage growth is picking up, partly due to the need to attract employees (**Chart 7**). Given a greater number of job openings, many workers can more easily find higher-paying jobs that better fit their skills, and this should boost productivity.

Chart 7: Wage growth is picking up amid high job vacancies



Note: JVWS is the Job Vacancy and Wage Survey; LFS is the Labour Force Survey; SEPH is the Survey of Employment, Payrolls and Hours. Due to data limitations at the onset of the pandemic, JVWS job vacancies data are unavailable for the middle quarters of 2020. The LFS principal component measure is calculated using the estimated common trend of annual growth for wages based on employees' job status (full or part time), job permanency (permanent or temporary), industry of employment and occupation. The national accounts wage measure is constructed as total wages and salaries at a monthly frequency from the Canadian System of Macroeconomic Accounts divided by total hours worked from SEPH.

Sources: Statistics Canada, Indeed and Bank of Canada calculations

Last observations: LFS and Indeed, December 2021; SEPH, October 2021; national accounts wage measure, September 2021; JVWS, 2021Q3

Labour productivity growth has been weak amid broader labour market gains. Supply shortages, restrictions on the number of customers being served and slack in hard-to-distance services, such as travel, are likely contributing to this weakness. As pandemic-related supply disruptions abate and business investment strengthens, labour productivity growth should increase.

Economic slack absorbed

The absorption of economic slack in the second half of 2021 was faster than expected in the October Report. At that time, output and employment growth were projected to be strong, but the recovery has been even more robust. This is due to a surge in services consumption, strong growth in exports and the addition of almost 800,000 jobs since May. At the same time, supply has been revised down since October because of further bottlenecks and shortages related to the pandemic (**Chart 8** and **Box 1**). Businesses have also reported that they increasingly face capacity constraints as they try to meet elevated demand.

Consequently, a broad set of measures—including labour market indicators, surveys on business sentiment and measures of core inflation—suggest that economic slack is now absorbed (**Box 3**). Taking the respective demand and supply pressures into account, the Bank estimates that the output gap narrowed to between -0.75% and 0.25% in the fourth quarter of 2021.

Box 3

Economic slack in the fourth quarter of 2021

Estimates of the degree of slack in the overall economy are inherently uncertain. This is particularly true given the significant and unprecedented disruptions to supply and demand brought on by the pandemic. Consequently, a wide range of measures and indicators should be considered when estimating slack. These include the state of the labour market, responses to surveys on business sentiment, measures of core inflation and estimates of the economy-wide output gap.

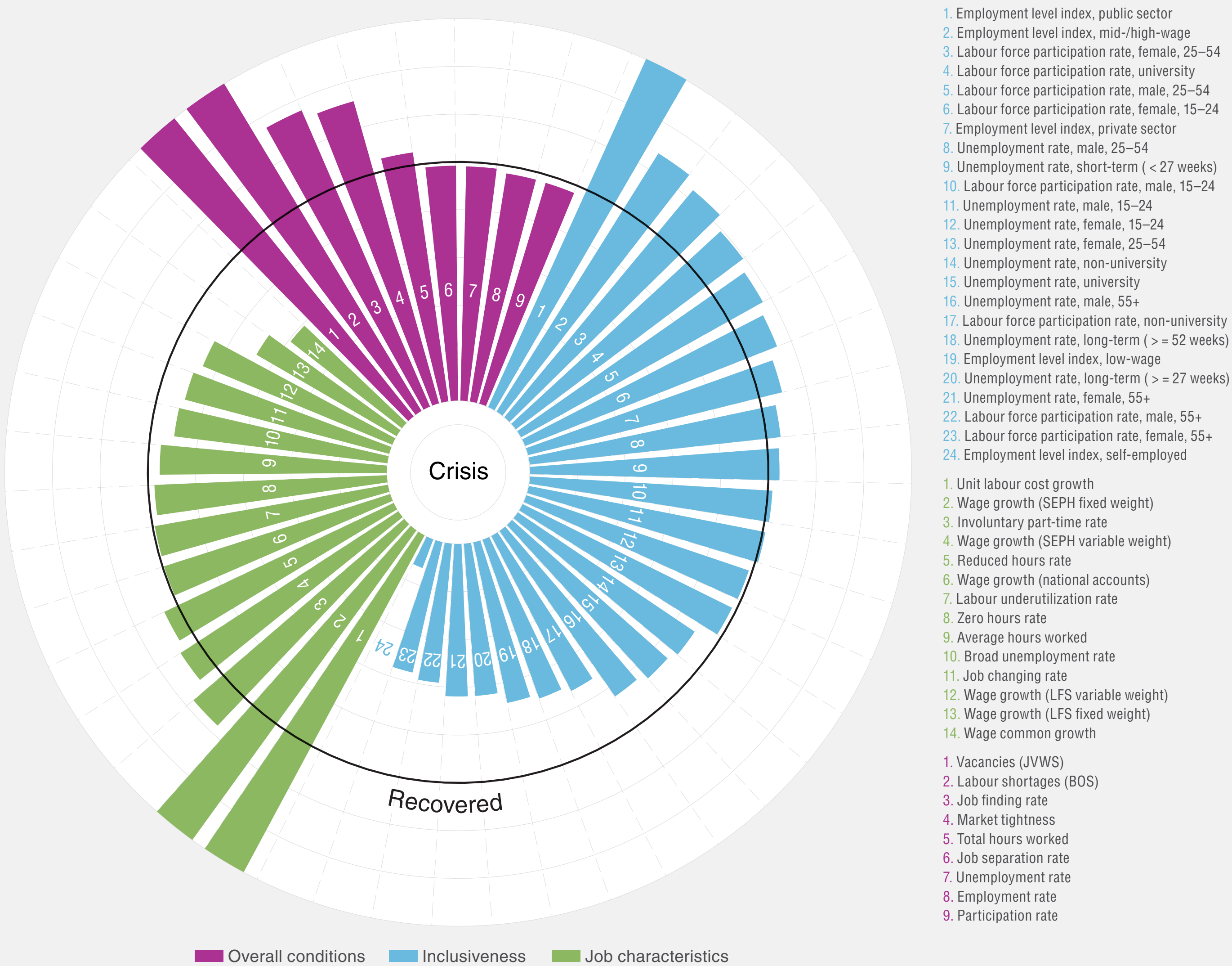
Labour market

Overall, labour market indicators suggest that slack in this market is absorbed (**Chart 3-A**). Aggregate measures

(continued…)

Chart 3-A: Indicators suggest that labour market slack is absorbed

Progress bars for selected labour market measures



Note: This chart illustrates the extent to which measures of labour market health have recovered. The recovery is depicted as progress bars, where the current value of a measure is compared with its pandemic trough and a benchmark value (2019 monthly average). When a bar reaches the ring labelled "Recovered," the measure has fully recovered. When a bar is near the circle labelled "Crisis," the measure is near its pandemic trough. LFS is the Labour Force Survey; SEPH is the Survey of Employment, Payrolls and Hours; BOS is the Business Outlook Survey; JVWS is the Job Vacancy and Wage Survey. For details, see the Bank's web page on the labour market recovery from COVID-19.

Sources: Statistics Canada, Indeed, Bank of Canada and Bank of Canada calculations

Last observations: LFS and Indeed, December 2021; SEPH, October 2021; BOS, 2021Q4; JVWS and National Accounts, 2021Q3; national accounts wage measure, September 2021

Box 3 (*continued*)

such as the employment, participation and unemployment rates are close to their pre-pandemic levels.[1] The job vacancy rate is near a series high, suggesting that labour market conditions are tight. Measures of inclusiveness have also improved with the return of employment rates to pre-pandemic levels for youth, as well as for women after accounting for changes in the population. In addition, respondents to the Business Outlook Survey report that labour shortages are at their highest level in more than a decade.

Some segments of the labour market have yet to fully recover:

- Employment of workers in low-wage occupations has continued to lag.
- The proportion of long-term unemployment remains high.
- Some measures of year-over-year wage growth have not quite fully rebounded.

Business capacity pressures

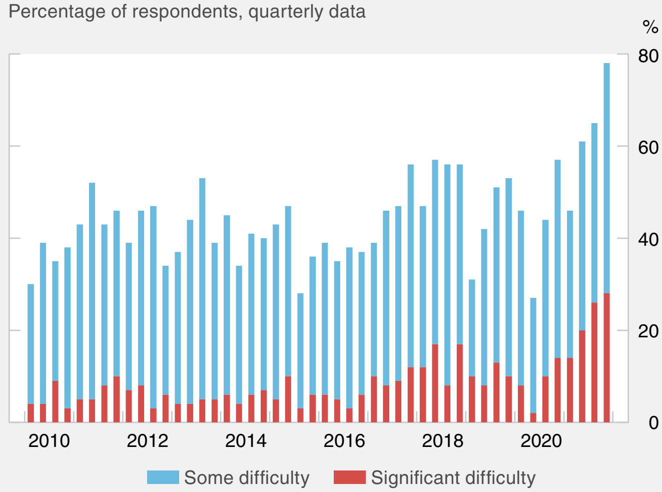
Canadian businesses across a wide range of sectors report that they are facing capacity constraints. The fourth-quarter 2021 Business Outlook Survey shows that more than three-quarters of respondents would have difficulty meeting an unexpected increase in demand—a survey high (**Chart 3-B**). In many cases, labour shortages are contributing to these capacity constraints. Private sector surveys show similar results. While survey respondents continue to point to supply disruptions as playing an important role, many businesses also cite strong demand. Capacity pressures are being reported not only by businesses that have seen their revenues grow over the course of the pandemic but also by those that have not.

Measures of core inflation

Rates of core inflation also suggest that economic slack is absorbed. In normal circumstances, core inflation staying persistently at 2% would be consistent with no economic slack. The Bank's three preferred measures of core inflation—CPI-common, CPI-median and CPI-trim—currently sit at 2.1%, 3.0% and 3.7%, respectively. The price distortions caused by the pandemic make it more difficult to use measures of core inflation as a proxy for slack. For example, the impact of supply chain disruptions abroad may be pushing up CPI-trim and CPI-median; as a result, there may appear to be more excess demand in the domestic economy than there

Chart 3-B: Reports of capacity pressures are increasingly widespread in the Business Outlook Survey

Percentage of respondents, quarterly data



Note: Percentage of respondents to the Business Outlook Survey reporting some or significant difficulty meeting an unexpected increase in demand or sales. See the *Business Outlook Survey—Fourth Quarter of 2021* for more details.

Source: Bank of Canada Last observation: 2021Q4

actually is. CPI-common, which puts more weight on services and consequently on domestic conditions, has also been affected. Nevertheless, all three measures have moved up over the past year to above 2%, suggesting that the economy is at full capacity.

Output gap

Estimates of the output gap bring together the Bank's assessment of both labour market slack and how labour productivity differs from its trend. While labour market slack is absorbed, supply disruptions and pandemic-related restrictions have weighed on labour productivity. Moreover, investment has been weak since the beginning of 2020.

The Bank takes these factors, as well as the latest upward revision to quarterly growth at the end of 2021, into account when estimating the output gap. The Bank estimates the output gap—the difference between gross domestic product and supply—to be between -0.75% and 0.25% in the fourth quarter of 2021. It is important to note that the complexity of recovery makes estimates of the output gap more uncertain than normal.

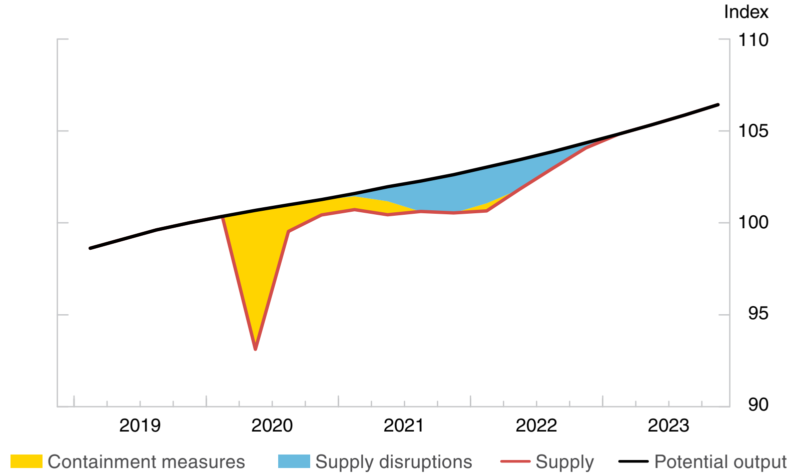
Assessment of economic slack

The job market is tight, businesses face historically high capacity constraints, and measures of core inflation are above 2%. The Bank's estimate of the economy-wide output gap is consistent with these indicators. Taken together, these factors support the Bank's assessment that, overall, slack is absorbed in Canada.

1 The labour market at the end of 2019 can be characterized as having had no slack.

Chart 8: Supply disruptions are expected to dissipate gradually over 2022

Index: 2019Q4 = 100, quarterly data



Note: "Supply disruptions" includes the short-term effects on supply of supply chain disruptions and labour market mismatch. The area labelled "Containment measures" in 2022Q1 also includes the effects on supply of worker absences due to the rise in COVID-19 cases. See **Box 1** for details.

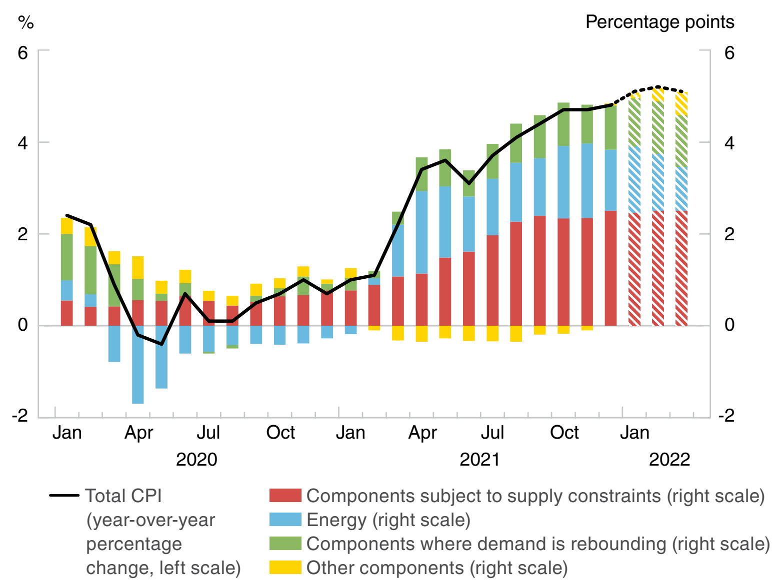
Sources: Bank of Canada calculations, estimates and projections

CPI inflation elevated

CPI inflation is forecast to average close to 5% in the first half of 2022. Inflation is elevated because of higher prices for durable goods, energy and food (**Chart 9**).

Chart 9: Supply constraints and energy prices are pushing up inflation

Contribution to CPI inflation, in percentage points, monthly data



Note: "Components subject to supply constraints" includes motor vehicles, durable goods, food purchased in stores (excluding fruits and vegetables), and home repair and replacement costs. "Components where demand is rebounding" includes hard-to-distance services, transportation and travel-related services, food and alcohol in restaurants, rented accommodation and semi-durable goods.

Sources: Statistics Canada and Bank of Canada calculations and estimates Last data plotted: March 2022

Durable goods prices are being pushed up by global supply chain disruptions, while Canadian energy prices are higher because of elevated global oil and natural gas prices. At the same time, last year's drought and ongoing supply challenges are contributing to higher food prices (**Box 4**). The result is that goods price inflation has reached nearly 7%, well above the previous 10-year average of roughly 1% (**Chart 10**). Taken together, energy prices and components subject to supply constraints are currently adding nearly 4 percentage points to inflation.

Box 4

Upward pressure on food prices to persist

As consumers face rising prices at grocery stores, food price inflation is making headlines. Prices for food purchased in stores are up nearly 6% year over year (**Chart 4-A**).

Food categories with the strongest price inflation include:[1]

- beef, bacon and chicken—up 12%, 19% and 6%, respectively
- breakfast cereals, prepared fruits and prepared vegetables—up about 6%
- potato chips and other snacks and margarine—up about 7% and 18%, respectively

Several factors contribute to this recent increase in food prices.

First, domestic prices for agricultural commodities, which closely follow global prices, have recently increased significantly (**Chart 4-B**). This is due to unfavourable weather conditions in many growing areas of the world, including the drought in Western Canada. Because producing livestock and many processed foods requires these agricultural commodities, the higher input costs are passed along to consumers.

Second, supply chain disruptions have adversely affected food processors' productivity and unit costs. In addition, food processors have slowed production lines to implement health measures to protect their workers.

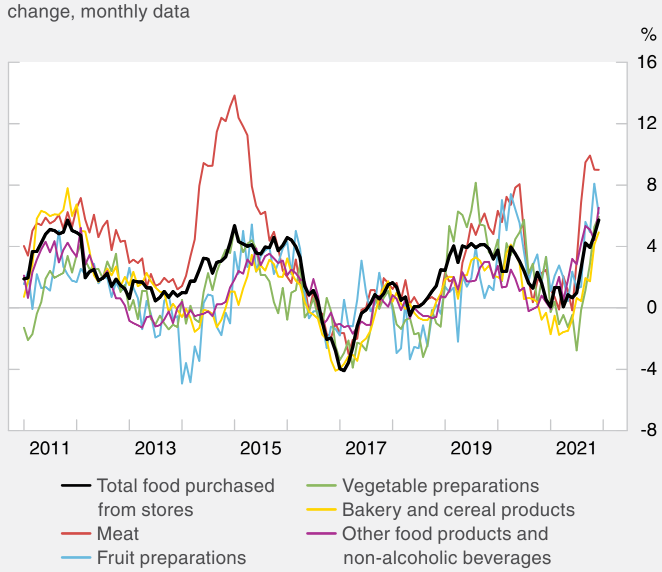
Third, higher energy costs are putting upward pressure on distribution costs. These and other such cost increases are contributing to, for example, the recent administrative increase in milk prices paid to farmers.

These increases in food prices will likely continue. As a result, the Bank of Canada expects that food price inflation will be above its historical average over 2022.

1 These food categories are either shown or included in a grouping in **Chart 4-A**.

Chart 4-A: Food price inflation is at a 10-year high

CPI inflation of food purchased from stores, year-over-year percentage change, monthly data

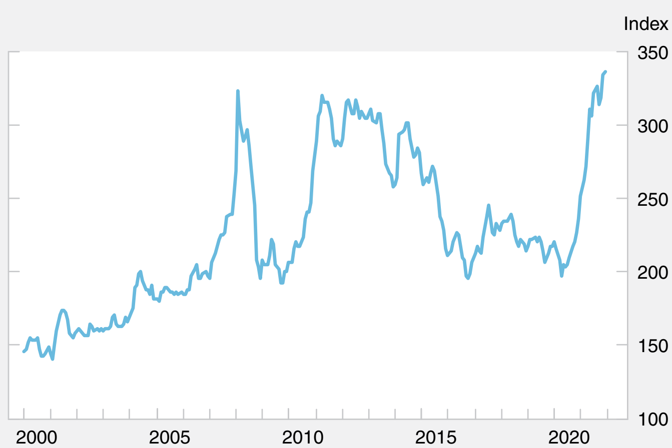


Sources: Statistics Canada and Bank of Canada calculations

Last observation: December 2021

Chart 4-B: Agricultural prices have increased significantly

Index: January 1972 = 100, monthly data



Note: The series plotted is the agricultural products component of the Bank of Canada commodity price index.

Source: Bank of Canada

Last observation: December 2021

Services price inflation, which is affected by both domestic and external forces, has risen to nearly 3.5%. The increase is led by escalating construction costs due to higher prices for building materials and labour shortages. As a result of these factors, price pressures have broadened across CPI components (**Chart 10**). Close to 55% of CPI components are now growing at more than 3%, well above the historical average of 30%.

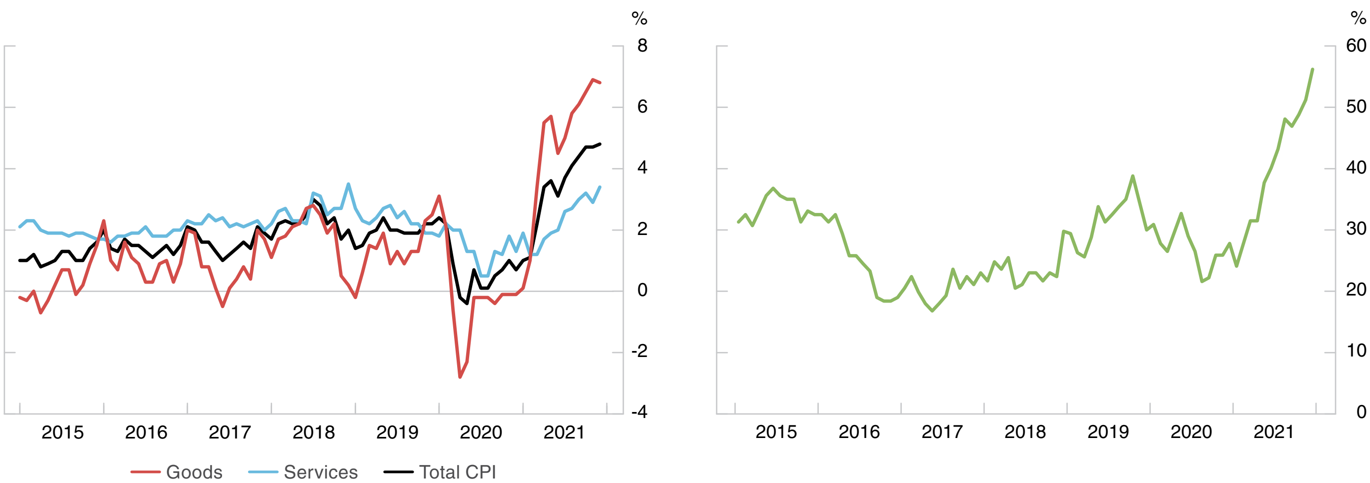
Core measures of inflation have edged higher since October, with CPI-trim and CPI-median at 3.7% and 3.0%, respectively (**Chart 11**). CPI-common has remained more muted at 2.1% because it attaches less importance to some components that have seen the largest price changes, such as motor vehicles. In contrast, some components with high weights—such as local transportation and health care goods—have experienced less intense price pressures.

Chart 10: Price pressures are affecting a large share of CPI components, particularly goods

Monthly data

a. CPI inflation of goods and services, year-over-year percentage change

b. Share of CPI components growing above 3% on a year-over-year basis

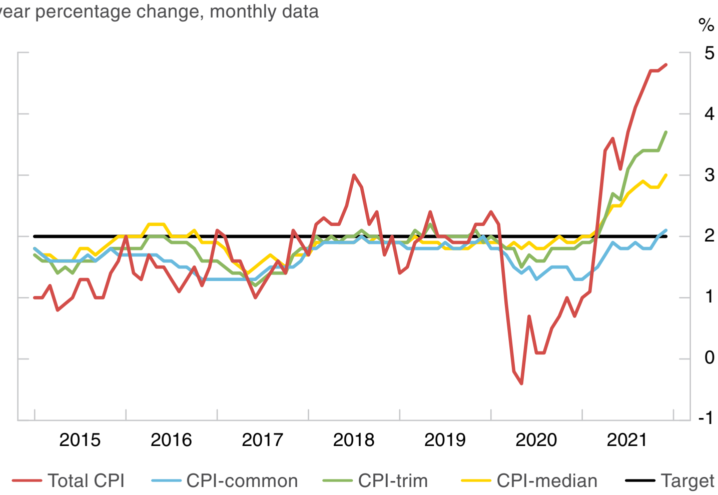


Sources: Statistics Canada and Bank of Canada calculations

Last observation: December 2021

Chart 11: Inflation measures are elevated

Year-over-year percentage change, monthly data



Sources: Statistics Canada and Bank of Canada calculations

Last observation: December 2021

Strong growth over the projection horizon

Economic growth is projected to be robust and more balanced, averaging 3¾% over 2022 and 2023, supported by strong domestic and foreign demand (**Table 2**). As supply shortages ease and COVID-19 restrictions are removed, GDP will grow faster than employment, and output per worker will rise. Together with robust business investment and higher immigration, this increase in labour productivity will increase supply growth and should support economic growth without putting additional pressure on inflation.

Consumption-led recovery

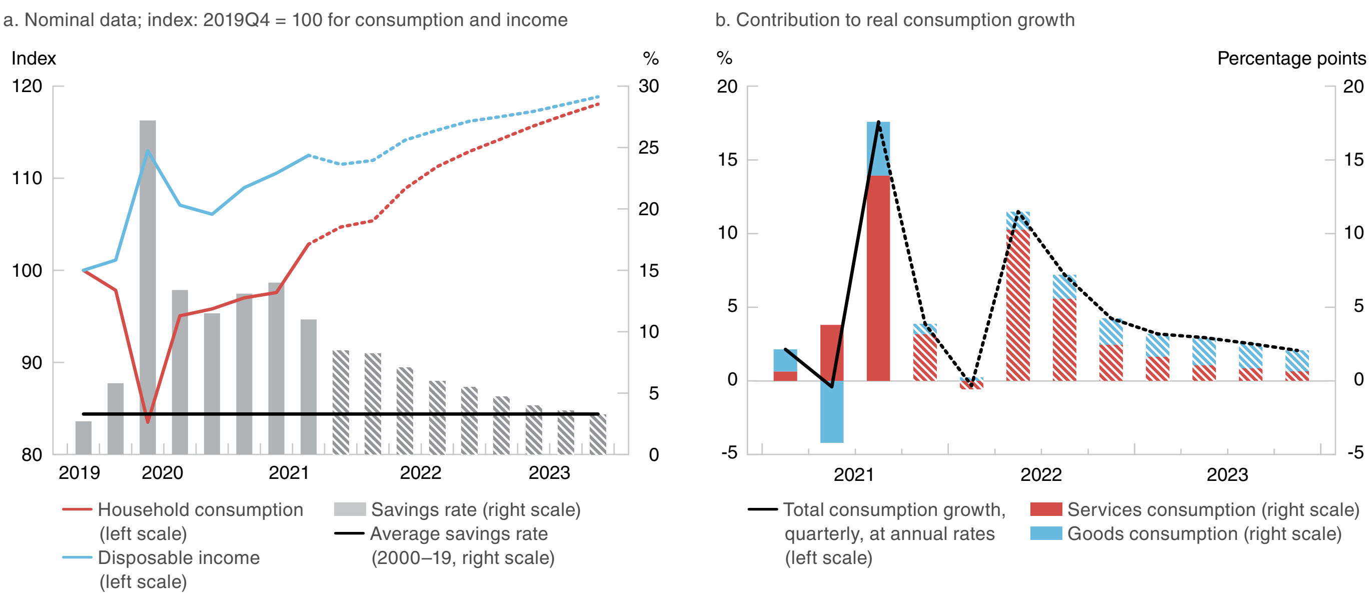
Consumption growth is forecast to be strong over the projection horizon, supported by job gains (**Chart 12**). Consumption should also be boosted by improving confidence and some spending of accumulated savings.

Beyond the first quarter of 2022, spending on hard-to-distance services is expected to increase further as cautiousness around the pandemic fades. Purchases that have been delayed—for goods such as motor vehicles and appliances—will also increase as supply disruptions ease.

Housing market activity is anticipated to remain elevated but ease from its current levels. Resales should be dampened by the fading of the pandemic-induced boost in demand, reduced support from accumulated savings, and borrowing rates that are now above their pandemic lows. Meanwhile, the easing of supply chain disruptions should support residential construction over 2022. The resulting growth in supply combined with easing demand should help rebalance housing markets and contribute to a moderation in house price growth.

Chart 12: Consumption growth is forecast to be strong, largely driven by services

Quarterly data



Sources: Statistics Canada and Bank of Canada calculations and projections

Foreign demand to support solid export growth

Export growth is projected to be robust in 2022, boosted by solid foreign demand and elevated commodity prices (**Chart 13**). It then moderates, along with US growth, in 2023. Goods exports, excluding energy, will also be supported by the dissipation of global supply disruptions.

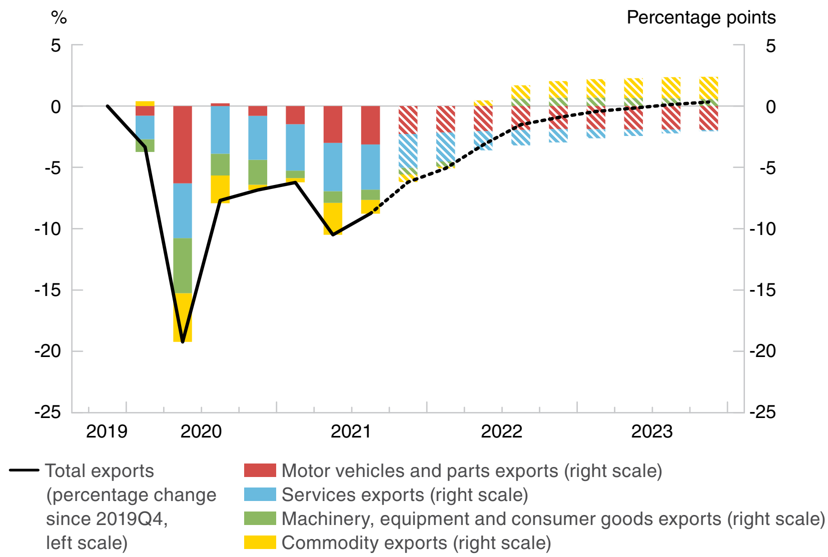
Services exports are anticipated to strengthen as international travel recovers. The recovery is expected to take time given the slow return of international tourism. Over the long term, the overall level of international travel may also be negatively affected by new ways of working and efforts to address climate change.

Relatively high prices for oil and natural gas are projected to support energy exports. Growth in energy exports is expected to be strong in 2022. It then eases in 2023 as expansions of oil sands production slow. With the addition of the Trans Mountain Expansion, transportation capacity should be sufficient to accommodate rising oil exports for several years.

As supply chain issues ease, strong domestic demand and firms' desire to invest and rebuild inventories should support the recovery in goods imports.

Chart 13: Foreign demand and elevated commodity prices should support the recovery in exports

Contribution to the deviation of real total exports from the 2019Q4 level, in percentage points, quarterly data



Sources: Statistics Canada and Bank of Canada calculations and projections

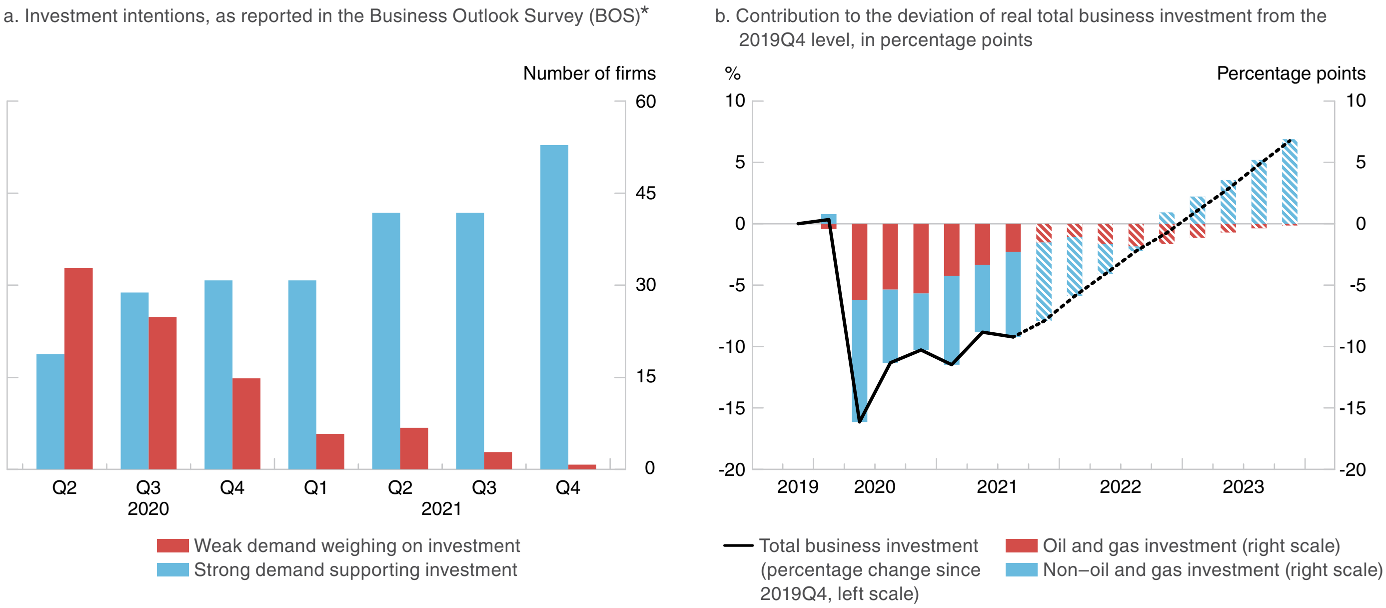
Business investment to strengthen

Robust business investment is expected after a period of pandemic-related weakness (**Chart 14**). Outside the oil and gas sector, firms are expected to increase their investment in the face of growing domestic and foreign demand, improved business confidence, limited production capacity and the gradual easing of supply constraints. The BOS for the fourth quarter of 2021 revealed broad-based strength in investment intentions.

Investment in the oil and gas sector is anticipated to increase but remain below pre-pandemic levels. Despite relatively elevated price levels, long-term investments, such as those in the oil sands, will likely remain subdued given high uncertainty about future demand. In contrast, shorter-term investments, such as conventional oil and gas wells, are expected to rise.

Chart 14: Business investment is anticipated to strengthen

Quarterly data



* Firms citing strong (weak) demand as drivers (impediments) to investment over the next 12 months. The Business Outlook Survey samples about 100 firms.

Sources: Statistics Canada, Bank of Canada and Bank of Canada calculations and projections

Last observation: BOS, 2021Q4

Inventory investment is projected to contribute to growth as businesses rebuild their inventories following unprecedented drawdowns in 2020 and ongoing delivery delays.

CPI inflation to decline in the second half of this year

As pandemic-related forces fade, inflation is forecast to ease over the second half of 2022 and into early 2023 (**Chart 15**). Upward pressure from supply shortages is expected to diminish over 2022. Under the assumption that oil prices remain flat, the boost from higher gasoline prices should also fade in the coming quarters. This expected easing can be seen in the evolution of annualized quarter-over-quarter inflation rates, which fall from around 4¾% in the first quarter of 2022 to about 2¼% by the fourth quarter of 2022. Year-over-year inflation is projected to decline from about 5% in early 2022 to about 3% by the end of 2022 as these pressures dissipate. Inflation is then expected to decline to around 2¼% by the second half of 2023 and remain close to the target in 2024.

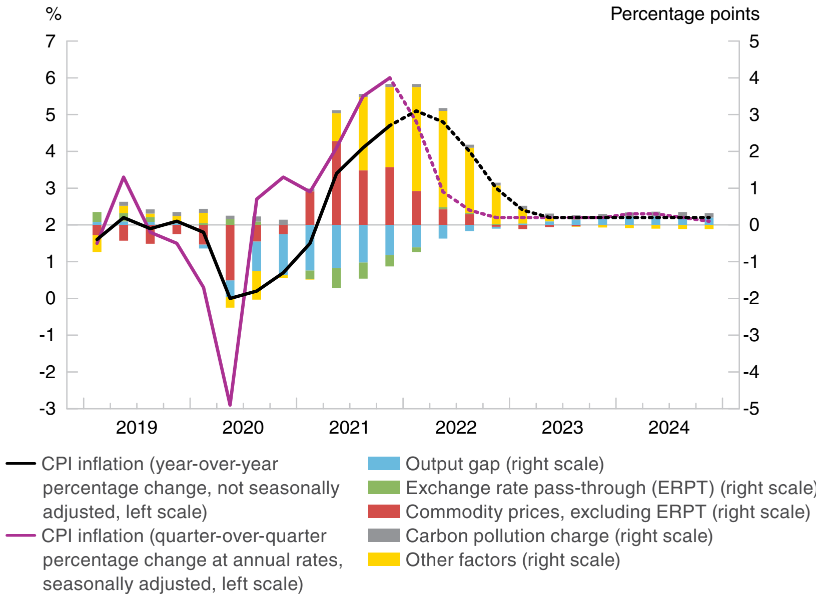
Businesses and consumers view price pressures as elevated over the next two years. Most respondents to both the BOS and the Canadian Survey of Consumer Expectations for the fourth quarter of 2021 anticipate inflation to be above 3% on average over the next two years.

Despite this rise in expected inflation, longer-term inflation expectations remain well anchored (**Chart 16**). Most firms that responded to the recent BOS expect inflation to return close to the 2% target in one to three years.

Private sector forecasters have increased their expectations for inflation over the next year, but their longer-term expectations have remained stable. The October 2021 Consensus Economics forecast continues to show an average of 2% over the next 10 years. In addition, while the 5- and 10-year Canadian break-even inflation rates are now somewhat above pre-pandemic levels, they are well aligned with the 2% inflation target.

Chart 15: CPI inflation is forecast to ease as pandemic-related forces fade

Contribution to the deviation of year-over-year inflation from 2%, quarterly data

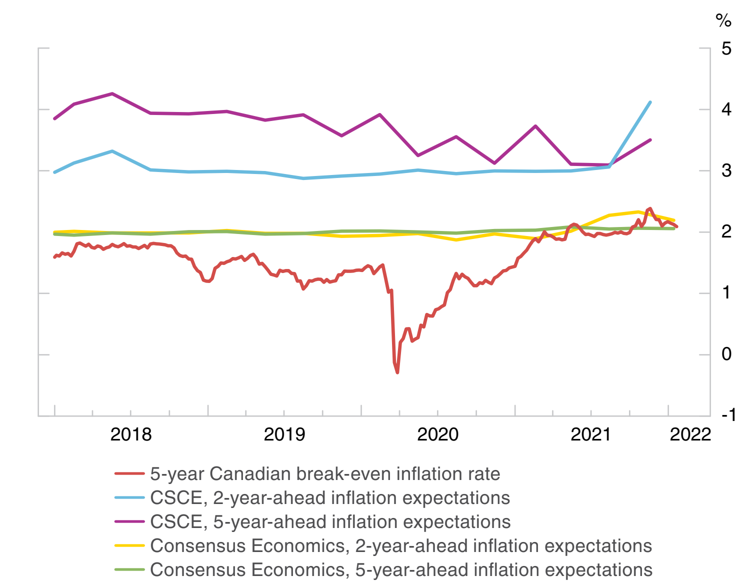


Note: "Other factors" includes, in particular, the impacts of various supply-related disruptions on inflation, such as the effects of semiconductor shortages on motor vehicle prices, of shipping bottlenecks on goods prices, and of unfavourable weather conditions on food prices. Numbers may not add to total due to rounding.

Sources: Statistics Canada and Bank of Canada calculations, estimates and projections

Chart 16: Long-term inflation expectations remain well anchored

Canadian break-even inflation rate (weekly average of daily data) and inflation expectations (quarterly data)



Note: CSCE is the Canadian Survey of Consumer Expectations. The 5-year Canadian break-even inflation rate is the difference between the yields of a nominal bond and a real return bond of the same maturity, both issued by the Government of Canada. Break-even inflation rates provide a signal about the expected path of inflation as perceived by market participants, but they are also affected by fluctuations in inflation risk and liquidity premiums. Consensus Economics provides inflation forecasts for the next 10 years. These forecasts are transformed into fixed-horizon forecasts (2-year, 5-year) by weighted average.

Sources: Bloomberg Finance L.P., Consensus Economics, Bank of Canada and Bank of Canada calculations

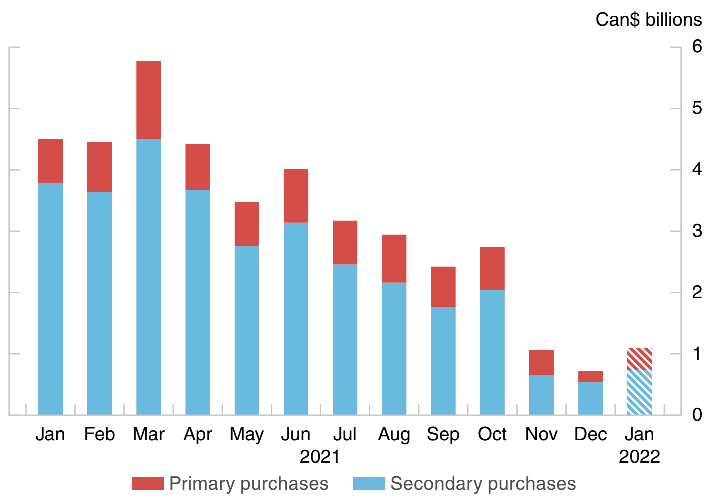
Last observations: Consensus Economics, January 2022; CSCE, 2021Q4; break-even inflation rate, January 21, 2022

Evolution of the Bank of Canada's balance sheet

In November 2021, in light of the progress made in the economic recovery, the Bank ended its program of quantitative easing (QE) and entered the reinvestment phase. In this phase, the Bank purchases Government of Canada bonds solely to replace maturing bonds and maintain the stimulus provided by previous QE purchases. At present, this requires approximately $4 billion to $5 billion in purchases per month (or about $1 billion per week) across both the primary and secondary markets (**Chart 17**). These purchases keep the Bank's holdings of Government of Canada bonds roughly constant at around $435 billion. This amount currently represents 87% of the Bank's total assets. The rest of the balance sheet largely reflects assets acquired early in the pandemic to keep markets functioning. Most of the assets acquired then have already matured and rolled off the Bank's balance sheet, and the remainder will do so over time.

Chart 17: The pace of the Bank of Canada's government bond purchases declined through 2021

Notional purchases of Government of Canada bonds in primary and secondary markets, weekly average



Note: The bars represent purchases of Government of Canada nominal bonds measured at par value. January 2022 purchases represent the weekly average in the month up to January 20.

Source: Bank of Canada

Last observation: January 20, 2022

Risks to the inflation outlook

Uncertainty around the projection remains unusually high. The outlook continues to depend on how the COVID-19 pandemic evolves, most notably the spread of variants. The pandemic will continue to weigh on confidence and disrupt supply for some time, posing both upward and downward risks to inflation. While high vaccination rates in Canada have diminished the likelihood of a severe downturn, the reopening of the economy remains complex. Pervasive supply constraints will need to unwind. Moreover, the work routines and spending habits of households are shifting. Consequently, the evolution of supply and demand and its effects on inflation are particularly uncertain.

Some of the risks identified in previous reports have been partially incorporated into the projection. For example, the base-case scenario includes a short-lived negative impact from the Omicron variant as well as more widespread inflationary pressures from supply-side disruptions.

While the upside and downside risks to the Bank's inflation projection are viewed as roughly balanced, the upside risks are of greater concern. Until inflation moves significantly lower, there is an elevated risk that Canadians will start to believe that inflation will stay high over the long term. Higher inflation expectations could in turn lead to more pervasive labour costs and inflationary pressures and could become embedded in ongoing inflation.

Drawing from a larger set of risks, this section presents a selection of those identified as most important for the projected path of inflation.

(i) More persistent effects of the pandemic on confidence (↓)

The emergence of the Omicron variant is a reminder that the evolution of the pandemic remains uncertain. The pandemic's effects on business sentiment, household confidence and economic activity may be more severe and persistent than assumed in the projection. For instance, COVID-19 variants could induce a longer-lasting drag on confidence and delay the recovery in hard-to-distance service sectors.

(ii) More persistent supply bottlenecks and cost pressures (↑)

The spread of COVID-19 variants could further disrupt manufacturing and shipping activities, causing longer-lasting shortages of goods and labour. It could also delay the rebalancing of consumption from goods to services. A continued preference for goods consumption would exacerbate congestion in already stretched supply chains. Moreover, repeated disruptions to business operations may lead firms to adjust their supply chains in ways that could increase costs. More persistent labour shortages could also result in greater wage pressures. Taken together, these effects would lead to more persistent inflationary pressures.

(iii) Reversal of growth in goods prices (↓)

Pandemic-induced shifts in consumption patterns and disruptions in supply have pushed prices of goods higher. The base-case scenario assumes that these price increases faced by consumers do not reverse. However, the rebalancing of consumption from goods to services could occur faster than assumed in the projection. Combined with an expansion of transportation capacity and efforts to improve logistics, these developments could resolve supply chain disruptions faster than expected and cause some prices to decline. If this occurred, inflation would be weaker than projected. For example, in a scenario with a 30% reversal of these pandemic-induced effects on prices, inflation falls more quickly, declining to slightly below 2% in 2023.

(iv) Stronger household spending in Canada (↑)

The projection continues to include some degree of caution around consumption. However, over time, a reduction in pandemic-related uncertainty could boost confidence by more than expected. Consequently, households could spend more of their accumulated savings. Consumption and residential investment would then be stronger than projected and would contribute to greater inflationary pressures.

(v) Sharp deterioration of global economic and financial conditions (↓)

With high levels of global indebtedness and elevated equity valuations, a pullback in risk appetite could trigger a sharp tightening of global financial conditions. Increased inflationary pressures and the associated uncertainty surrounding how soon advanced economies will reduce monetary policy stimulus could trigger capital outflows, especially from some EMEs. Such outflows would create financial stress, leading to slower growth. In addition, efforts by Chinese authorities to address vulnerabilities and engineer a soft landing in the property sector could weigh on growth more than expected. These shocks could have negative spillover effects on the global economy and would be transmitted to the Canadian economy through weaker exports, lower commodity prices and a deterioration in the terms of trade.