Monetary Policy **Report**

April 2024

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 strategy of the monetary policy 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 approach 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 with a press release followed by a press conference, and full updates to 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 strategy.
- Given the uncertainty about the maximum sustainable level of employment, the Bank will consider a broad range of labour market indicators. 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 "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 two preferred measures of core inflation are CPI-trim, which excludes CPI components whose rates of change in a given month are the most extreme, and CPI-median, which corresponds to the price change located at the 50th percentile (in terms of basket weight) of the distribution of price changes.

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).

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

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Monetary Policy Report

April 2024

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Overview

Consumer price index (CPI) inflation in Canada is easing as monetary policy works to reduce inflationary pressures. Core inflation is also coming down, although risks remain and it will take more time to see if this progress proves durable.

The global economy is expected to grow at around 3% this year and next. In the United States, economic growth has been surprisingly resilient. A strong job market is boosting consumer spending, and business investment is up due to increasing demand and government incentives. US growth is expected to slow later this year but to remain stronger than previously projected.

Inflation is easing in most advanced economies and is expected to return to central bank targets in 2025.

After stalling in the second half of 2023, economic growth in Canada has picked up. This largely reflects both strong population growth, which adds to the supply of workers, and a recovery in household spending. Labour market conditions continue to ease, and there is some evidence that wage growth has begun to moderate. Businesses are not raising prices as frequently, and inflation expectations are coming down slowly.

Canada's economy is expected to strengthen in 2024 but to remain in excess supply. Excess capacity starts to diminish in 2025 as demand growth remains solid and supply growth moderates.

There has been progress on most indicators of underlying inflation. Recent downward momentum in core inflation, if sustained, will pull inflation down further, but higher gasoline prices are expected to keep CPI inflation close to 3% into the second quarter of 2024. Inflation then eases below 2.5% in the second half of the year and returns to target near the end of 2025.

Global economy

Inflation continues to move lower in most advanced economies but is still above central bank targets. Further easing in inflation is expected to be gradual because inflation in services prices remains high.

Global growth is expected to remain at around 3% over the projection horizon. The outlook for global growth is revised up from the January Report (**Box 1**). The surprising strength of the US economy accounts for a substantial portion of the increase (**Table 1**).

Table 1: Projection for global economic growth

	Share of real global GDP* (%)	Projected growth† (%)			
		2023	2024	2025	2026
United States	16	2.5 (2.5)	2.7 (1.7)	1.8 (1.2)	2.2
Euro area	12	0.5 (0.4)	0.4 (0.5)	1.2 (1.6)	1.7
Japan	4	1.9 (2.0)	0.8 (0.7)	0.7 (1.1)	0.5
China	18	5.2 (5.2)	4.7 (4.5)	4.4 (4.5)	3.9
Oil-importing EMEs‡	34	3.9 (3.7)	3.5 (3.1)	3.7 (3.6)	4.0
Rest of the world§	16	1.2 (1.2)	1.7 (1.5)	2.7 (1.5)	2.5
World	100	3.1 (3.0)	2.8 (2.5)	3.0 (2.7)	3.1

* Shares of gross domestic product (GDP) are based on International Monetary Fund (IMF) estimates of the purchasing-power-parity valuation of country GDPs for 2022 from the IMF's October 2023 *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, 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).

Sources: National sources via Haver Analytics, and Bank of Canada calculations and projections

Box 1

Changes to the economic projection since the January Report

Global outlook

The outlook for global growth is stronger over the projection than in the January Report.

Growth in US gross domestic product (GDP) has been revised up significantly. The upward revision is due to a broad-based increase in the outlook for near-term growth in domestic demand. It is also because the rate of immigration into the United States has been higher than expected. Over the projection, the stronger rate of immigration contributes to a more rapid increase in the supply of labour, which boosts both potential output and demand growth in the United States (see the **Appendix**, page 26).

Factors that support the upward revision in the demand outlook over the near term include:

- stronger growth in labour income, supported by more-persistent gains in employment and higher wage growth than previously anticipated
- easier-than-expected financial conditions
- a larger and more persistent response to investment incentives from the federal government

Overall, US growth is expected to be 1.0 percentage point higher in 2024 and 0.6 percentage points higher in 2025 than in the January Report.

Growth in both the emerging-market economies and rest-of-the-world groupings has been revised up. The upward revisions reflect:

- more resilient economic activity in the near term and easier-than-expected financial conditions in emerging-market economies
- a stronger outlook for potential output growth, partly led by a more robust investment outlook in both regions

Together, these revisions leave global output growth 0.3 percentage points higher in both 2024 and 2025.

Canadian outlook

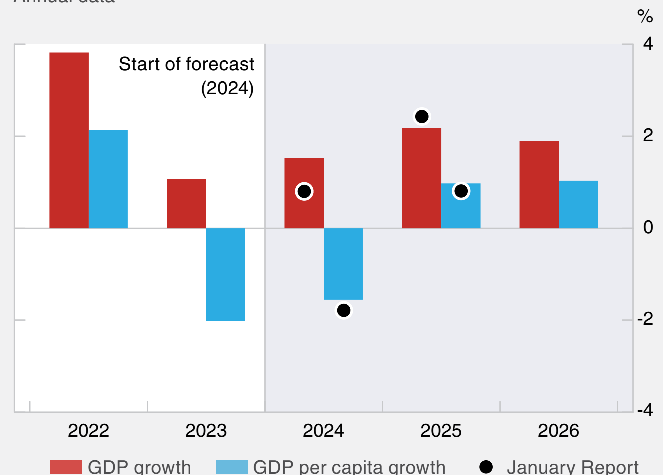
The outlook for growth in Canada has been revised up, and inflationary pressures have been easing somewhat faster than anticipated in the January Report.

- An upward revision to population leads to higher GDP and higher potential output. Canada's population growth is revised up for both 2023 and 2024 because of the larger-than-expected number of non-permanent residents arriving in the country. Population growth in 2025 has been revised down significantly, reflecting the government's recently announced plan to limit the number of temporary residents in Canada.
- Potential output growth has been revised up by 0.4 percentage points in 2024 and down by 0.3 percentage points in 2025. Overall, the level of potential output is roughly unchanged by the end of 2025. Details on the Bank of Canada's assessment of potential output growth are provided in the **Appendix**.
- The outlook for GDP growth is revised up in 2024 and is broadly unchanged in 2025. **Table 2** and **Table 3** show the revisions to the forecast. The upward revision is mainly due to stronger population growth. Growth in GDP per capita is similar to that in the January Report (**Chart 1-A**).
    - Growth in consumption spending is stronger over the near term largely because of higher population growth.
    - Export growth is revised up because of stronger foreign demand.
    - Economic activity is supported by new fiscal measures announced in recent provincial budgets.

(continued...)

Chart 1-A: Growth in GDP per capita is broadly unchanged since January

Annual data



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

Box 1 (*continued*)

The outlook for consumer price index (CPI) inflation has been revised down by 0.2 percentage points in 2024 and is roughly unchanged in 2025.

- Despite a partial offset from higher energy prices, CPI inflation has come in lower than expected in the January Report.
- Inflation in goods excluding food and energy has been lower than expected. Growth in input costs has weakened further, and this is being passed through to consumer prices.
- Inflation in CPI components such as communications has been lower than expected, and some of this softness is anticipated to persist over the near term.

Strong US growth

Economic growth in the United States has slowed due to the effect of past increases in interest rates. Nonetheless, GDP growth remains robust—it is expected to average 2½% in the first half of 2024, reflecting several tailwinds:

- Consumption spending is supported by strong gains in real income resulting from solid growth in wages and employment. Rising financial wealth has bolstered spending. At the same time, low-income households have increasingly been relying on revolving credit.
- Business investment is boosted by strong consumer demand as well as federal government incentives in the *Inflation Reduction Act* and the *CHIPS and Science Act*.
- Government spending is robust, particularly at the state and local levels, where it is closely tied to tax revenues. Strong federal government spending is widening the budget deficit.

Growth is projected to experience a modest slowdown to 1½% in the second half of 2024 as some of these tailwinds dissipate. Consumption growth is anticipated to slow, largely because labour income growth has moderated from last year's rapid pace, and households' credit limits are expected to become more binding. In addition, the pace of spending on investment by businesses is expected to ease due to the fading effect of government incentives and slowing consumer demand.

Growth in the US economy is then anticipated to increase toward the middle of 2025 and rise to about 2¼% in 2026 as growth in consumption strengthens in response to lower interest rates.

US growth is projected to be significantly stronger than in the January Report—primarily due to an increase in potential output (see **Box 1,** page 3, and the **Appendix**, page 26). Overall, by the end of 2025, the level of GDP in the United States is expected to be around 1¾% higher than estimated in the January Report.

Slowing US inflation

Inflation in the United States has continued to slow, with growth in the personal consumption expenditures (PCE) price index reaching 2.5% in February—down from its mid-2022 peak of 7.1% (**Chart 1**).[1] Over recent months, easing inflation in the prices of non-energy goods and services has been the main driver of the decline in total inflation.

Slowing inflation in core goods prices reflects both demand and supply factors. Past increases in interest rates and a gradual shift in spending patterns back toward in-person services have slowed demand. At the same time, supply disruptions from the COVID-19 pandemic have been resolved.

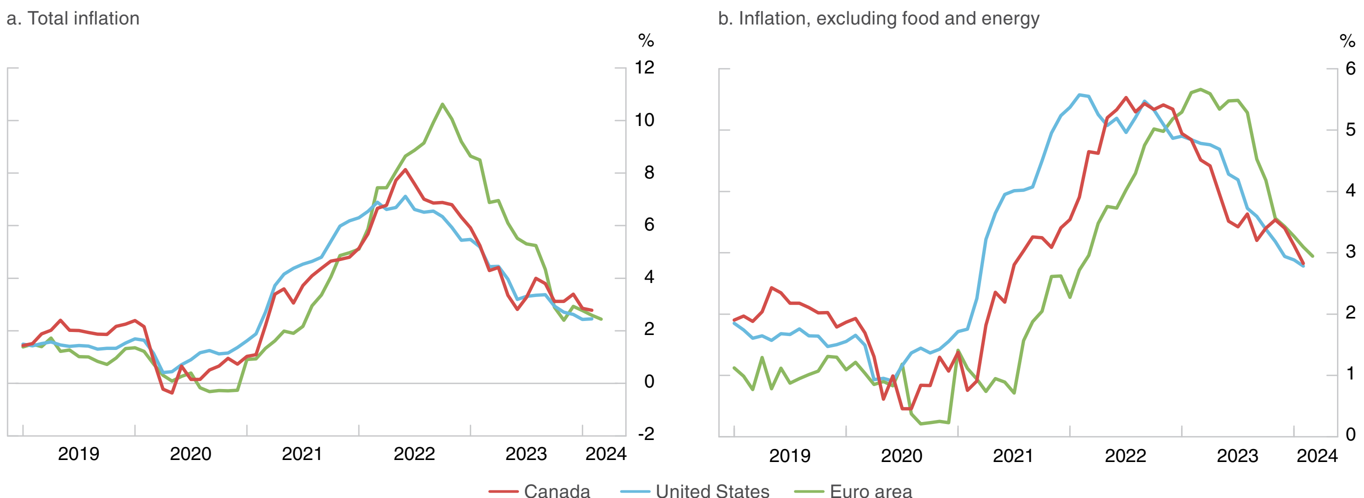
However, inflation in core services remains elevated at 3.9% despite a gradual easing in recent months. While growth in rental prices for new tenants has slowed, it will take time for that improvement to feed through to shelter services price inflation. In addition, cost pressures in other services are decreasing slowly. Wage inflation remains elevated, while productivity growth in the services sector has been flat.

Further slowing in US inflation is expected to be uneven. Inflation in energy prices is picking up and is expected to temporarily boost total inflation in the coming months. In addition, the effect of past supply disruptions, which has pulled down inflation in goods prices, has largely run its course. As a result, future easing in inflation will likely be driven by the evolution of services prices. Three-month measures of inflation also reinforce the idea that there will be bumps in the road. The three-month inflation rate in the core PCE price index is currently around 3½%, above its annual pace of 2.8%.

Inflation is projected to reach the US Federal Reserve's target in 2025.

Chart 1: Inflation is slowing

Year-over-year percentage change, monthly data



Note: Inflation rate calculations are based on the Harmonised Index of Consumer Prices for the euro area, the personal consumption expenditures price index for the United States and the consumer price index for Canada.

Sources: Statistics Canada, US Bureau of Economic Analysis and Eurostat via Haver Analytics, and Bank of Canada calculations

Last observations: Euro area, March 2024; others, February 2024

1 CPI inflation in the United States is elevated at 3.2%. Inflation in the US CPI is currently higher than inflation in the US PCE price index. This is because shelter price inflation carries a bigger weight in the CPI measure than in the PCE measure, and shelter price inflation in the United States is relatively strong. The US CPI measure is constructed in a similar way to Canada's CPI. The US Federal Reserve's inflation target is for 2% inflation in the PCE price index.

Weak euro area growth

Growth in the euro area remains weak. Past increases in interest rates, along with tight credit conditions and subdued economic sentiment, have weighed on demand. In addition, export growth has been soft because of weakness in some key trading partners and challenges with international competitiveness.

Growth in the euro area is anticipated to pick up gradually toward the middle of 2024. Lower inflation and improving economic sentiment are expected to contribute to the strengthening economic outlook. Lower interest rates support a further pickup in growth in the latter part of the projection.

Inflation in the euro area has continued to slow, reaching 2.4% in March. The decline has largely reflected easing inflation in energy and, more recently, food prices. In addition, inflation in core goods prices has fallen. The impact of the supply bottlenecks and the energy shocks associated with Russia's invasion of Ukraine have eased. Past increases in interest rates and subdued economic confidence are also weighing on demand and feeding through to lower inflation.

Going forward, euro area inflation is expected to moderate further, although at a more gradual pace. As the labour market moves into better balance and wage growth slows, services prices—which become the main driver of inflation in the future—are expected to ease only slowly. Inflation is projected to reach the European Central Bank's 2% target in 2025.

Headwinds to activity in China

Economic activity in China has been restrained by ongoing deleveraging in China's property sector, which is weighing on consumer confidence. In addition, businesses in some sectors face an uncertain regulatory environment. However, fiscal and monetary policies are expected to provide a temporary boost to growth. Falling export prices are also helping to lift exports.

Growth is projected to slow from more than 5% in the past year to near 4% in the latter part of the projection. Growth in business investment is expected to weaken, partly in response to a shrinking workforce and continued weakness in the property sector. High levels of public debt are expected to increasingly constrain growth in public spending.

Financial conditions eased

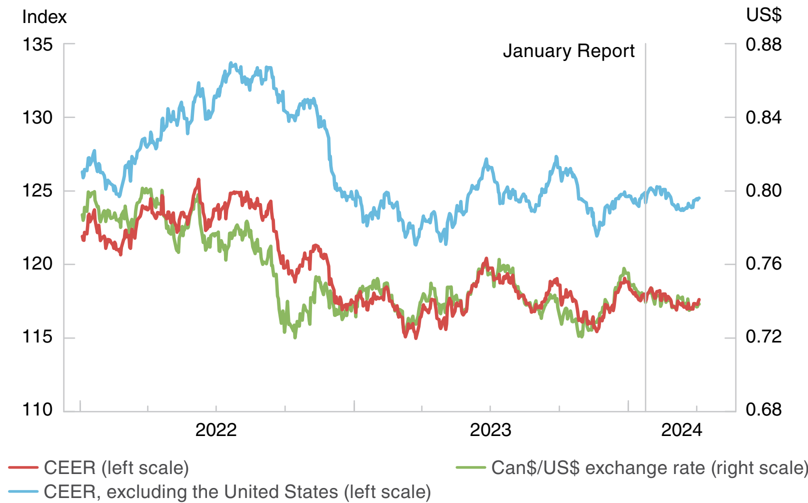
Global financial conditions have eased since the January Report as the economic outlook has improved. Risk premiums have fallen, and equity prices have risen as markets have perceived the risks of a recession to have lessened.

This easing in financial conditions has occurred even though markets expect fewer US policy rate cuts in 2024 and government bond yields have increased.

These developments have also occurred in Canada, leading to an easing in domestic financial conditions. The Canadian dollar is roughly unchanged since the January Report (**Chart 2**).

Chart 2: The value of the Canadian dollar is largely unchanged from the January Report

Canadian exchange rates, daily data



Note: CEER is the Canadian Effective Exchange Rate index—a weighted average of bilateral exchange rates for the Canadian dollar against the currencies of Canada's major trading partners.

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

Last observation: April 4, 2024

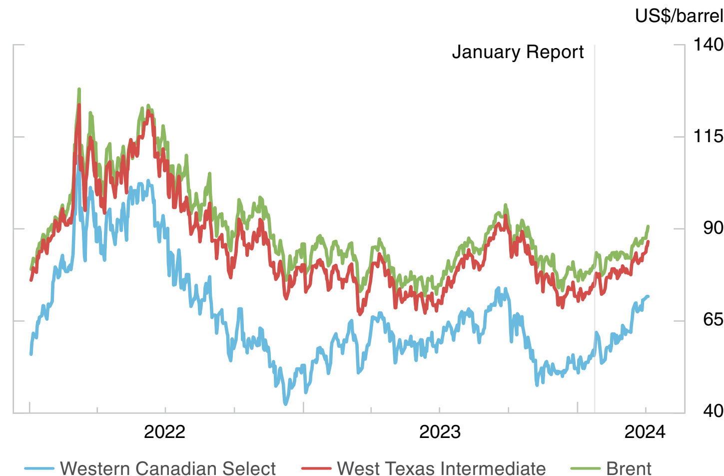
Increased oil prices

Brent oil is trading above the US$80 price assumed in the January Report (**Chart 3**). Two main factors have supported oil prices in recent months:

- Members of the Organization of the Petroleum Exporting Countries (OPEC) and some non-OPEC oil producers announced their intention to extend their voluntary production cuts through at least the middle of 2024.
- The ongoing conflict in the Middle East and Russia's war on Ukraine, along with the rerouting of tankers away from the Red Sea, have all contributed to a persistent risk premium on oil prices.

Chart 3: Oil prices have increased since the January Report

Daily data



Sources: Kalibrate Canada Inc., NYMEX and Intercontinental Exchange via Haver Analytics

Last observation: April 4, 2024

As a result, the per-barrel price of Brent oil has averaged around $85 since the January Report and is assumed to be at this level over the projection horizon (**Box 2**).

Box 2

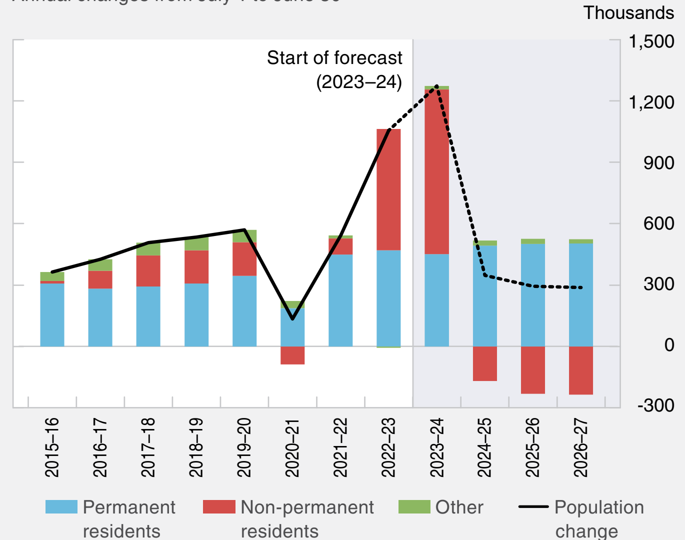
Key inputs to the projection

The Bank of Canada's projection is conditional on several key inputs and assumptions about their future path. The Bank regularly reviews these assumptions and adjusts the economic projection accordingly. The key inputs to the Bank's projection are as follows:

- Over the projection horizon, the per-barrel prices for oil in US dollars are assumed to be $85 for Brent, $80 for West Texas Intermediate and $65 for Western Canadian Select. These prices are all $5 higher than in the January Report.
- By convention, the Bank does not forecast the exchange rate in the *Monetary Policy Report*. The Canadian dollar is assumed to remain at 74 cents US over the projection horizon, close to its recent average and unchanged from the assumption in the January Report.
- Potential output growth in Canada is expected to slow from 2.5% in 2024 to about 1.6% on average over 2025 and 2026. Relative to the January Report, potential output growth has been revised up by 0.4 percentage points in 2024 and down by 0.3 percentage points in 2025. Details about the Bank's outlook for potential output growth are provided in the **Appendix** (page 26).
- The latest estimate for population growth in 2024 is close to 3%. Population growth is projected to average 1% in 2025 and 2026.[1] These estimates are based on population trends as well as the federal government's recently announced targets for non-permanent residents (see the **Appendix** and **Chart 2-A**). The government targets are taken as given, although at this point there are few details about how these targets will be achieved. Population growth is about 0.5 percentage points higher in 2024, but by the end of 2025 its level is roughly in line with the projection in the January Report.

Chart 2-A: Growth of population of non-permanent residents declines in line with government targets

Annual changes from July 1 to June 30



Note: *Non-permanent residents* includes temporary foreign workers, international students and asylum seekers. *Other* includes natural changes to population (births and deaths), emigrants and returning emigrants.

Sources: Statistics Canada; Immigration, Refugees and Citizenship Canada; and Bank of Canada calculations

- Growth in real gross domestic product is estimated to be about 2¾% in the first quarter of 2024. As a result, the Bank estimates that the output gap is between -0.5% and -1.5% in the first quarter, which is roughly unchanged compared with the estimate for the fourth quarter of 2023.
- The projection incorporates all information from provincial and federal budgets that have been tabled at the time of writing. This includes new budgets from the provinces.
- The nominal neutral interest rate in Canada is estimated to be in the range of 2¼% to 3¼%, up 25 basis points from the January Report. The economic projection assumes that the neutral rate is at the midpoint of this range. Details about the Bank's annual assessment are provided in the **Appendix**.

1 These population estimates are for people aged 15 years and older. The recent estimate of historical population growth is benchmarked to Statistics Canada's quarterly population estimates. The projection over 2024 and 2025 combines information provided by Statistics Canada's Centre for Demography and the Bank of Canada's assumption that flows of permanent and non-permanent residents will evolve according to the announced federal government targets.

The spread between prices for West Texas Intermediate and Western Canadian Select oil has narrowed recently. The smaller spread partly reflects the anticipated start of commercial operations for the Trans Mountain Expansion project, which is expected in the coming months.

The Bank of Canada's commodity price index excluding energy has risen slightly since the January Report, mostly due to increases in the prices of livestock and gold.

Canadian economy

Inflation is slowing as monetary policy works to reduce inflationary pressures. CPI growth was 2.8% in February, and core measures of inflation are now close to 3%. Key indicators of underlying price pressures are improving, but most have not yet fully normalized.

After essentially no growth in the second half of 2023, GDP is estimated to rebound in early 2024. Quarterly GDP growth is likely to be volatile around 2%. On an annual average basis, growth is 1.5% in 2024, supported by strong population growth. It then averages about 2% in 2025 and 2026 (**Table 2** and **Table 3**).

Growth in GDP per capita is expected to be negative in the first half of 2024, although it improves throughout the year and into early 2025. The pickup is driven by easing financial conditions, the fading effects of past increases in interest rates, and improving business and consumer confidence.

Potential output growth is robust in 2024. This reflects strong immigration, which more than offsets the ongoing weakness in productivity growth. Moderate excess supply in the Canadian economy is expected to remain through 2024. It starts to diminish in early 2025 as demand growth remains solid and supply growth moderates. The economy is expected to return to balance in 2026.

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

	2023	2024	2025	2026
Consumption	0.9 (1.2)	0.6 (0.3)	0.8 (0.9)	1.1
Housing	-0.9 (-0.9)	0.4 (0.4)	0.6 (0.5)	0.5
Government	0.5 (0.5)	0.7 (0.6)	0.7 (0.5)	0.4
Business fixed investment	-0.1 (0.1)	0.0 (-0.1)	0.3 (0.3)	0.2
Subtotal: final domestic demand	0.5 (0.9)	1.7 (1.2)	2.4 (2.2)	2.2
Exports	1.9 (1.6)	1.0 (0.3)	1.1 (1.3)	0.4
Imports	-0.3 (-0.3)	-0.6 (-0.1)	-1.0 (-0.9)	-0.6
Inventories	-1.0 (-1.2)	-0.6 (-0.6)	-0.3 (-0.2)	-0.1
GDP	1.1 (1.0)	1.5 (0.8)	2.2 (2.4)	1.9
Memo items (percentage change):				
Range for potential output	1.4–3.2 (1.4–3.2)	2.1–2.8 (1.0–3.2)	1.1–2.4 (1.0–3.2)	0.9–2.2
Real gross domestic income (GDI)	-1.0 (-1.0)	1.4 (0.3)	0.7 (1.4)	1.6
CPI inflation	3.9 (3.9)	2.6 (2.8)	2.2 (2.2)	2.1

* 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

Table 3: Summary of the quarterly projection for Canada*

	2023		2024			2023	2024	2025	2026
	Q3	Q4	Q1	Q2		Q4	Q4	Q4	Q4
CPI inflation (year-over-year percentage change)	3.7 (3.7)	3.3 (3.3)	2.8 (3.2)	2.9		3.3 (3.3)	2.2 (2.4)	2.1 (2.1)	2.1
Real GDP (year-over-year percentage change)	0.5 (0.5)	0.9 (0.7)	1.0 (0.2)	1.2		0.9 (0.7)	2.1 (1.6)	2.2 (2.7)	1.9
Real GDP (quarter-over-quarter percentage change at annual rates)†	-0.5 (-1.1)	1.0 (0.0)	2.8 (0.5)	1.5					

* Details on the key inputs to the base-case projection are provided in **Box 2**. Numbers in parentheses are from the projection in the previous Report.

† Over the projection horizon, 2024Q1 and 2024Q2 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

Ongoing excess supply will help inflation return to target. Inflation is expected to fall gradually, passing below 2.5% in the second half of 2024 before reaching 2% in 2025. However, there is a meaningful risk that inflation could adjust more slowly. Inflation remains elevated for many services prices, especially for rent and mortgage interest costs.

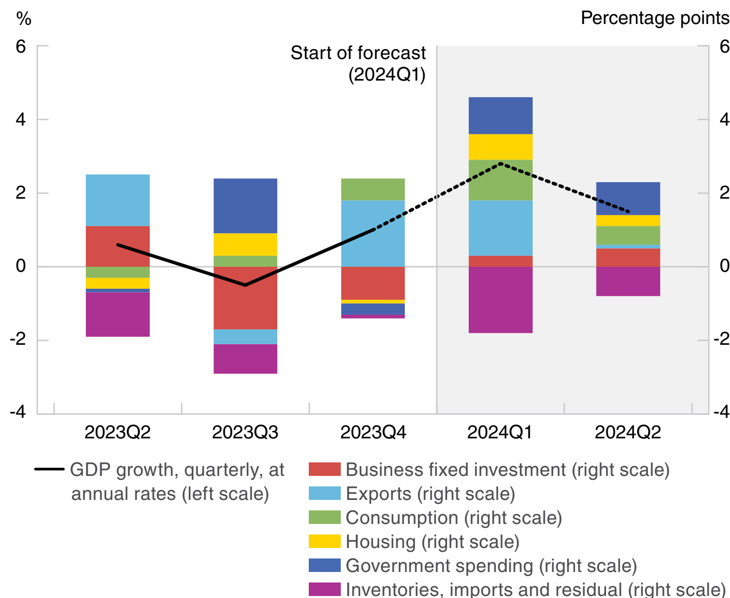
Economic growth picking up

GDP grew by roughly 1% in the fourth quarter, after contracting in the third quarter of 2023. Economic growth is on track to rise to roughly 2% on average over the first half of the year (**Chart 4**).

Growth in consumer spending is anticipated to average 1½% over the first half of 2024, driven mainly by strong population growth. In contrast, growth in consumption on a per capita basis continues to be negative. Spending

Chart 4: Real GDP is expected to pick up

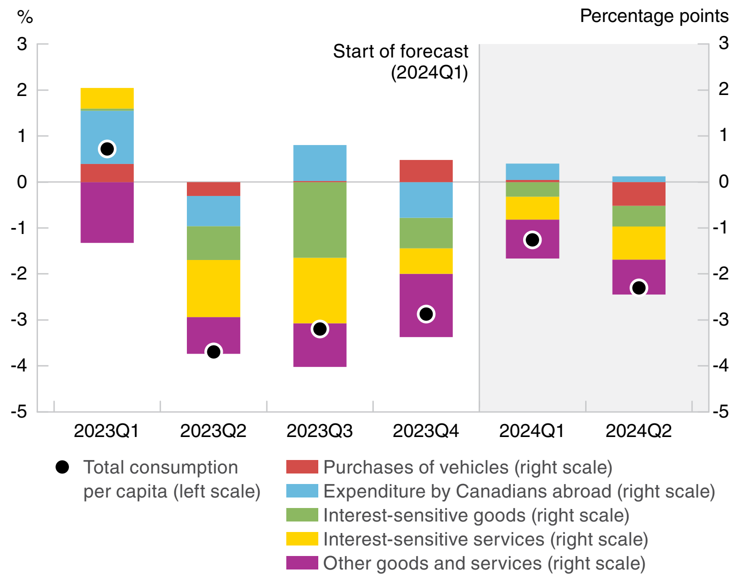
Contribution to real GDP growth, quarterly data



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

Chart 5: Growth of consumption per capita has been negative

Contribution to real consumption per capita growth (aged 15 and over), quarterly data



Note: Data for the population aged 15 and over are from Statistics Canada's quarterly estimates of population. For more information about what is included in the consumption categories, see T. Chernis and C. Luu, "Disaggregating Household Sensitivity to Monetary Policy by Expenditure Category," Bank of Canada Staff Analytical Note No. 2018-32 (October 2018).

Sources: Statistics Canada and Bank of Canada calculations

Last data plotted: 2024Q2

continues to be weak in categories sensitive to higher interest rates, such as furniture, food at restaurants and accommodation (**Chart 5**). But per capita spending growth becomes less negative in the first half of 2024 as the impact of past increases in interest rates diminishes. Residential investment is on track to strengthen in the first half of 2024 due to strong housing demand from population growth in an environment of tight supply.

Growth in government spending is projected to pick up from 2½% in the second half of 2023 to roughly 3½% in the first half of 2024. Growth is boosted by the return to work of Quebec public sector workers following the ratification of new collective agreements. Recently announced measures in provincial budgets are also expected to bolster demand starting in the second quarter of 2024.

Export growth is expected to be volatile in the first half of the year, impacted by cold weather disruptions and the timing of gold shipments. In addition, the start of commercial operations for the Trans Mountain Expansion project is expected to add roughly one-quarter of a percentage point to GDP growth in the second quarter. Business investment growth is expected to pick up modestly after a period of contraction.

Economy in excess supply

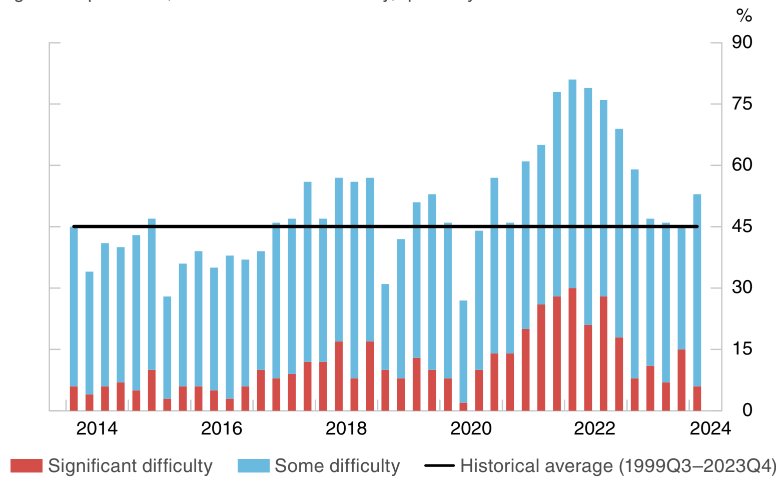
GDP growth is expected to remain roughly in line with potential output growth over the first half of 2024. Growth in potential output is estimated to expand robustly, at around 2½%, driven by the arrival of a large number of newcomers. As a result, the output gap is expected to remain between -0.5% and -1.5% in the first half of 2024. Businesses report an easing in capacity constraints compared with one year ago (**Chart 6**).

Labour market conditions are continuing to ease. Job creation has been slower than the increase in the working-age population (**Chart 7**). The unemployment rate has risen gradually to 6.1% in March. Both an increase in the length of time it takes for the unemployed to find a job and an increase in the job separation rate account for its rise. The job vacancy rate has declined to near pre-pandemic levels, and businesses report that labour shortages are below their historical average. Lastly, there are some signs that wage growth is beginning to ease.

Overall, the evidence suggests that the economy is in excess supply.

Chart 6: Capacity pressures for businesses have eased compared with one year ago

Percentage of respondents, Business Outlook Survey, quarterly data



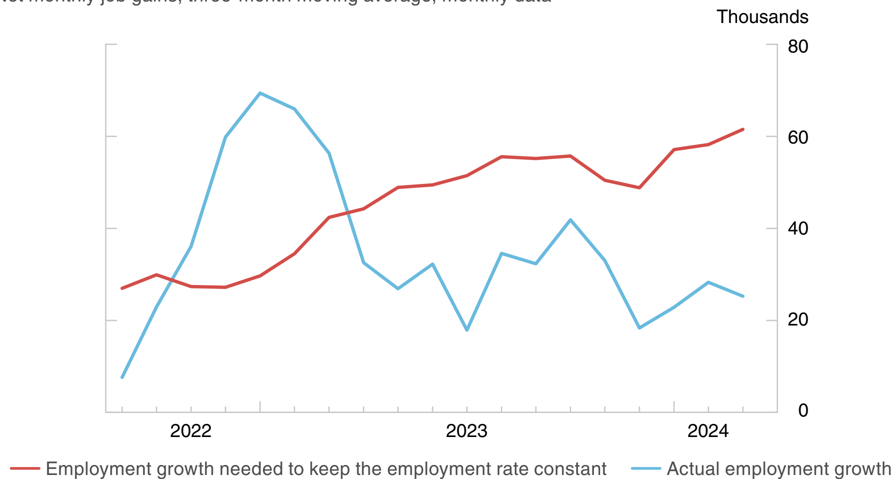
Note: This chart shows the percentage of respondents to the Business Outlook Survey reporting some or significant difficulty meeting an unexpected increase in demand or sales.

Source: Bank of Canada

Last observation: 2024Q1

Chart 7: Job creation has been slower than growth in the working-age population

Net monthly job gains, three-month moving average, monthly data



Note: *Employment growth needed to keep the employment rate constant* is calculated by multiplying the net monthly change in the size of the working-age population in the Labour Force Survey by the previous month's employment rate.

Sources: Statistics Canada and Bank of Canada calculations

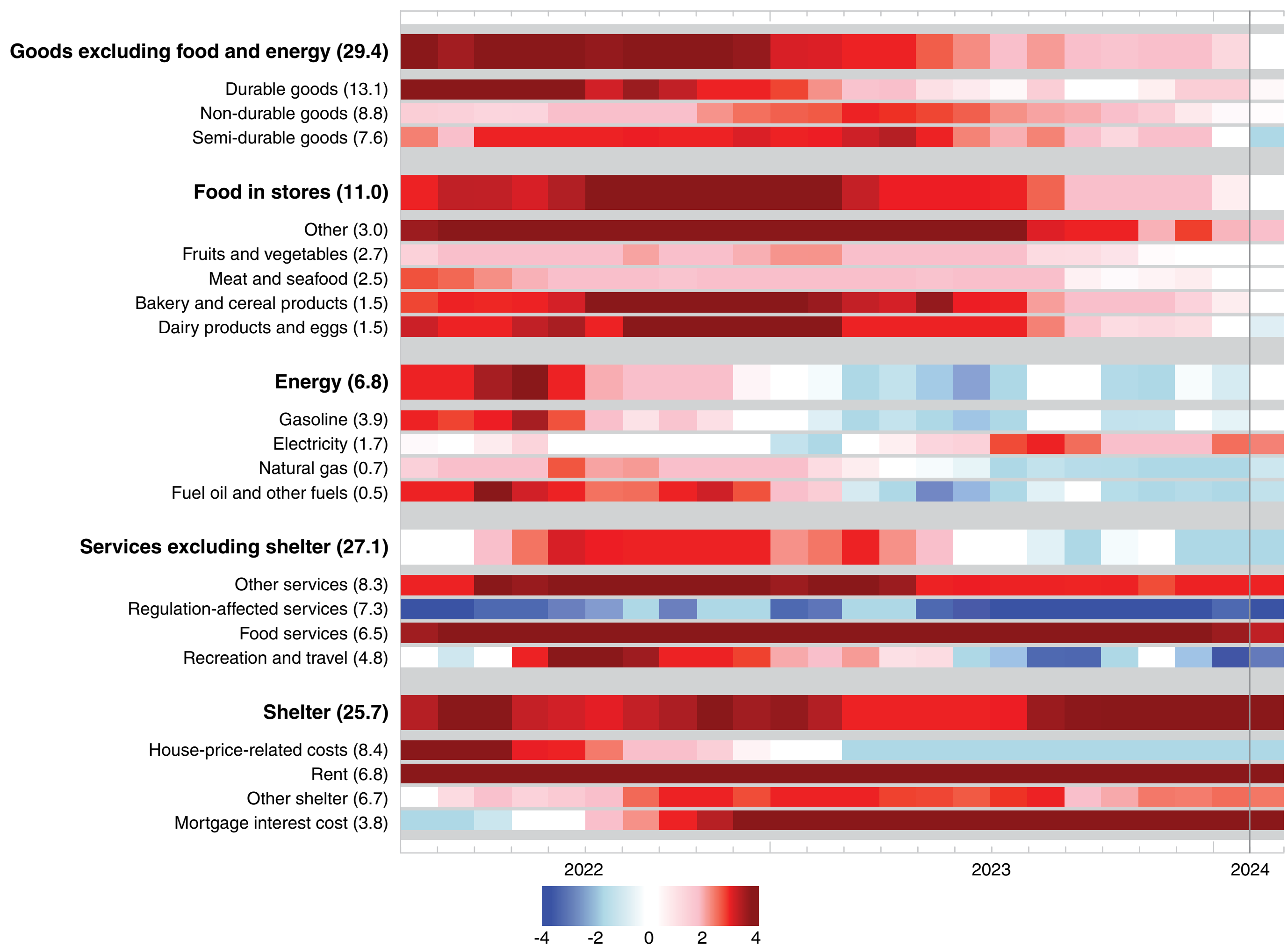
Last observation: March 2024

Inflation slowing but still elevated

CPI inflation declined from 8.1% in June 2022 to under 3% in January and February of this year. Inflation is now easing across most major categories, though the pace is uneven. The heatmap in **Figure 1** summarizes inflation across components of the CPI. Specifically, it assigns colours to show how far each component is from its historical average. It uses red for components that have relatively high inflation, blue for those with relatively low inflation and white for those that are close to their historical average.

- Inflation in the prices of goods excluding food and energy has declined broadly, helped by falling import prices, past declines in energy prices and slowing demand growth.
- Inflation in prices for food in stores has now slowed to roughly 2½%. Inflation in energy prices has fallen and is now in line with its historical average.

Figure 1: The decline in CPI inflation has been broad-based, although some components are persistently high

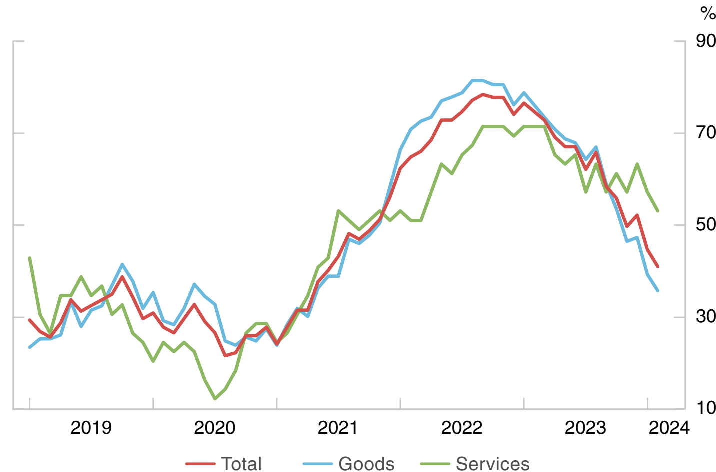


Note: The heatmap shows the distance of each CPI component's year-over-year inflation rate from its historical average. The colour is white when a component's inflation rate is close to its average, and is a varying shade of red (blue) when the rate is above (below) the average. Because the historical range of inflation varies widely across CPI components, each inflation rate plotted in the heatmap is standardized by subtracting its mean and dividing by its standard deviation. This standardization is conducted using data from 1996–2019, except for *Regulation-affected services* and *Other services*, where available data begin in 2004 and 2008, respectively. Note that *Regulation-affected services* includes prices that are affected by government regulations either directly (e.g., child care services) or indirectly (e.g., telephone services). Values in parentheses are CPI weights (in percent). Due to rounding, weights within categories may not add up to their respective totals.

Last observation: February 2024

Chart 8: Elevated inflation is becoming less broad-based

Share of CPI components with price growth above 3% over the past 12 months, monthly data



Sources: Statistics Canada and Bank of Canada calculations
Last observation: February 2024

- Inflation in prices for services excluding shelter is being pulled down by a sharp fall in regulation-affected services, which include communications prices. This is being partially offset by inflationary pressures from other components within this broader category (for example, food in restaurants and other services).
- Shelter services price inflation remains high at 7%, driven by increasing mortgage interest costs and strong growth in rent.[2]

Overall, the easing in inflation has been broad-based across CPI components, with a declining share of prices rising by more than 3%. However, this share remains somewhat above its historical average, largely due to services prices (**Chart 8**).

CPI-trim and CPI-median are now 3.2% and 3.1%, respectively. The strength in the price growth in many services is holding up core inflation. Momentum in CPI-trim and CPI-median has recently slowed, with annualized growth on a three-month basis of 2.3% and 2.1%, respectively (**Chart 9**). Core inflation should slow further in the coming months if three-month rates remain below the year-over-year rates.

While three-month rates of core inflation can provide a timelier assessment of near-term inflationary pressures, they are also more volatile. This is why monetary policy ultimately focuses on the year-over-year rate of change in prices.

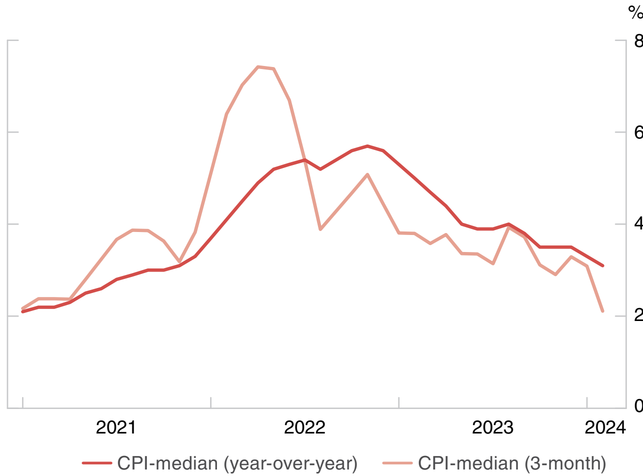
In the second quarter of 2024, inflation is expected to remain around 3% (**Chart 10**). On one hand, inflation for goods excluding food and energy is projected to continue to decline. On the other hand, communications prices are not expected to fall as much as in previous quarters. In addition, gasoline prices have increased in recent weeks due to factors such as the rise in global oil prices.

2 *Shelter services* excludes utilities other than water. This differs slightly from Statistics Canada's definition of shelter, which includes those utilities.

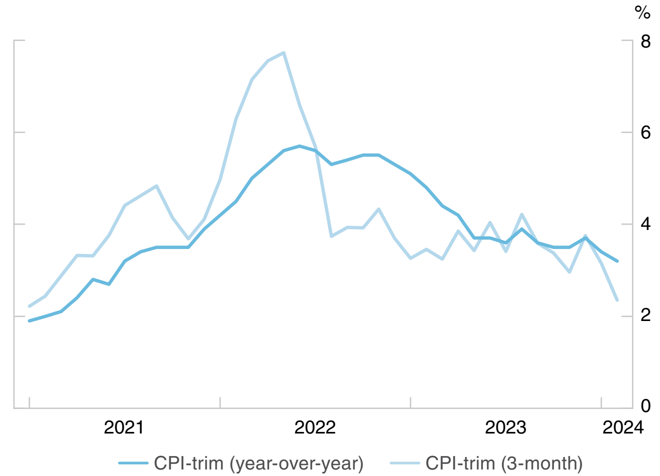
Chart 9: Core inflation is easing

Measures of core inflation, monthly data

a. CPI-median



b. CPI-trim



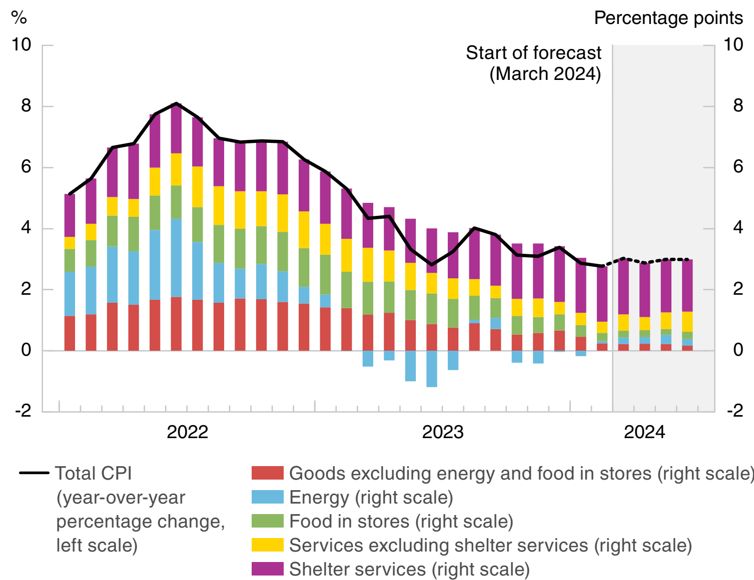
Note: More information about the CPI measures the Bank of Canada uses can be found on the Bank's website. Three-month rates are seasonally adjusted annual rates.

Sources: Statistics Canada and Bank of Canada calculations

Last observation: February 2024

Chart 10: CPI inflation is expected to remain close to 3% over the near term

Contribution to CPI inflation, monthly data



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

Last data plotted: June 2024

Inflation expectations and wage growth have eased

As inflation eases toward the 2% target, inflation expectations are anticipated to decline. Businesses' pricing behaviour is also expected to normalize further and wage growth to moderate. Progress has been made across these indicators, although some show more progress than others.

Inflation expectations easing

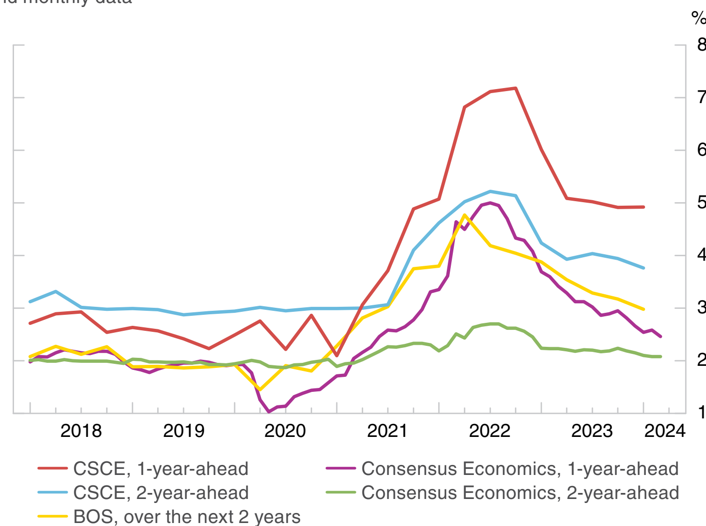
Near-term inflation expectations moderated over the first quarter of 2024 but remain elevated (**Chart 11**).

- Firms' short-term inflation expectations have declined to around 3%.
- Professional forecasters have eased their outlooks to close to 2.5%.
- In contrast, consumers' near-term inflation expectations have not declined significantly over the last year and remain well above their pre-pandemic levels.

Long-term expectations have remained consistent with inflation at the 2% target.

Chart 11: Most measures of near-term inflation expectations have come down

Quarterly and monthly data



Note: CSCE is the Canadian Survey of Consumer Expectations; BOS is the Business Outlook Survey. Consensus Economics' forecasts for the next year (based on monthly data) and the next two years (based on a combination of monthly and quarterly data releases) are transformed into fixed-horizon forecasts by the weighted average of fixed-date forecasts. *1-year-ahead* refers to inflation expectations for the next 12 months. *2-year-ahead* refers to inflation expectations for the period 13 to 24 months from now.

Sources: Consensus Economics, Bank of Canada and Bank of Canada calculations

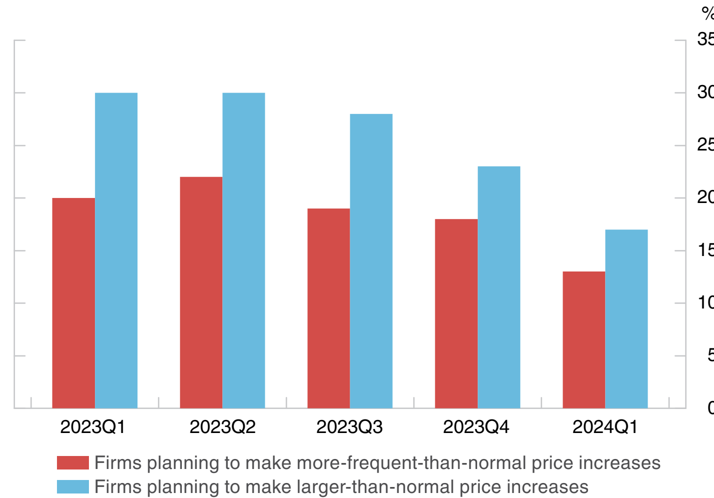
Last observations: Consensus Economics, March 2024; CSCE and BOS, 2024Q1

Normalizing price-setting behaviour

Businesses' price-setting behaviour is normalizing. Data on around 100,000 CPI goods and services prices show that the frequency of price changes rose during the pandemic and is now down from its peak (**Box 3**). Moreover, fewer businesses are planning unusually large price increases over the next 12 months (**Chart 12**).

Chart 12: The number of businesses that are planning unusually large or frequent price increases has steadily declined

Share of respondents, quarterly data



Note: *Firms planning to make more-frequent-than-normal price increases* is the percentage of firms responding to the Business Leaders' Pulse that are experiencing or expecting price increases that are more frequent than normal. Firms without regular pricing frequency are excluded from the frequency data. *Firms planning to make larger-than-normal price increases* is the percentage of firms responding to the Business Leaders' Pulse that are experiencing or expecting larger-than-normal price increases.

Source: Bank of Canada

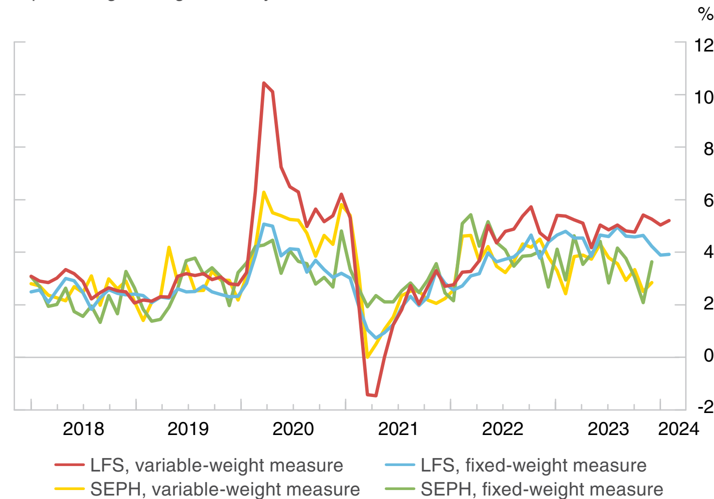
Last observation: February 29, 2024

Signs of softening wage growth

Wage growth is showing some signs of moderating. Most measures of wage growth have declined since the fourth quarter of 2023. The range of measures is now around 3½% to 4½%, as opposed to around 4% to 5% at the time of the January Report (**Chart 13**). However, for such wage growth to become compatible with the 2% inflation target, productivity growth would need to increase substantially.

Chart 13: Most measures of wage growth have declined modestly

Year-over-year percentage change, monthly data



Note: LFS is the Labour Force Survey; SEPH is the Survey of Employment, Payrolls and Hours. The LFS fixed-weight measure is constructed using 2019 employment weights.

Sources: Statistics Canada and Bank of Canada calculations

Last observations: LFS, March 2024; SEPH, January 2024

Box 3

Analyzing businesses' price-setting behaviour

Examining how businesses set their prices can provide insight into underlying inflationary pressures.

To better assess whether inflation is firmly on the path back to 2%, Bank of Canada staff analyzed the behaviour of prices of around 100,000 individual goods and services.[1, 2] By tracking how often and by how much Canadian retailers change their prices, staff can construct quantitative measures of businesses' price-setting behaviour. This work complements the Bank's business surveys, which provide insights into businesses' plans and expectations for price changes over the next 12 months.

Results of this recent analysis confirm that price-setting behaviour changed significantly throughout the COVID-19 pandemic and subsequent economic recovery. The analysis also indicates that businesses' pricing practices are normalizing.

Price-setting behaviour changed significantly

In the years leading up to the pandemic, the frequency of price changes was relatively stable. But in the early stages of the pandemic, businesses started to raise their prices more often (**Chart 3-A**). The frequency of price increases reached its peak in early 2022, before starting to ease in 2023.

One potential explanation for the rise in the frequency of price increases was the greater upward pressure on businesses' production costs. As demand recovered while supply remained constrained, businesses found it easier to pass on these cost increases in the form of higher prices.

Then as supply disruptions resolved, cost pressures eased and excess demand lessened, businesses raised their prices less frequently. Price decreases also became more frequent in this environment.

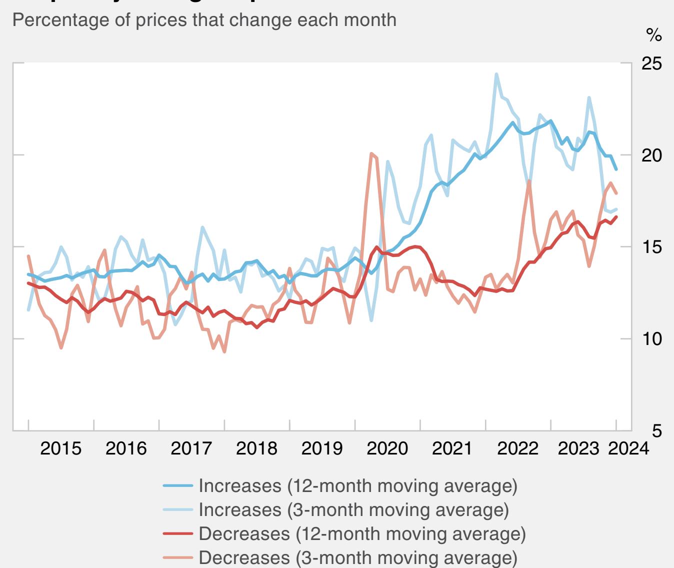
The increase in the frequency of price changes may also be partly due to changes in recent years in the methodology used to sample the price data. Statistics Canada modified some of its price-collection practices, including relying more on scanner data and looking more at online rather than in-store prices. These adjustments may have increased the likelihood that price changes would be detected. Technological advances may also be making it possible for retailers to raise and lower their prices more frequently.

Bank staff recognize the potential bias that could come from the change in sampling methodology or from other changes that could affect the frequency of price adjustments in either direction. Because of this, their analysis focuses on the *relative frequency of price increases and decreases* as a summary indicator of pricing behaviour (**Chart 3-B**).[3] This measure, which tracks inflation closely, reached its historical high in June 2022, coinciding with the recent peak for inflation in consumer price index (CPI) components excluding shelter. Although both the size and frequency of price changes have experienced large swings since the pandemic began, detailed analysis suggests that the frequency of changes has been more important in explaining recent inflation dynamics.

(continued...)

Chart 3-A: Businesses started to raise their prices more frequently during the pandemic

Percentage of prices that change each month



Sources: Statistics Canada and Bank of Canada calculations
Last observation: January 2024

1 Although this dataset is intended to provide a close approximation of the official consumer price index (CPI) database, it does not contain all the data from which the CPI is produced. In particular, it excludes shelter prices, which are seen as less relevant for examining corporate price-setting practices.

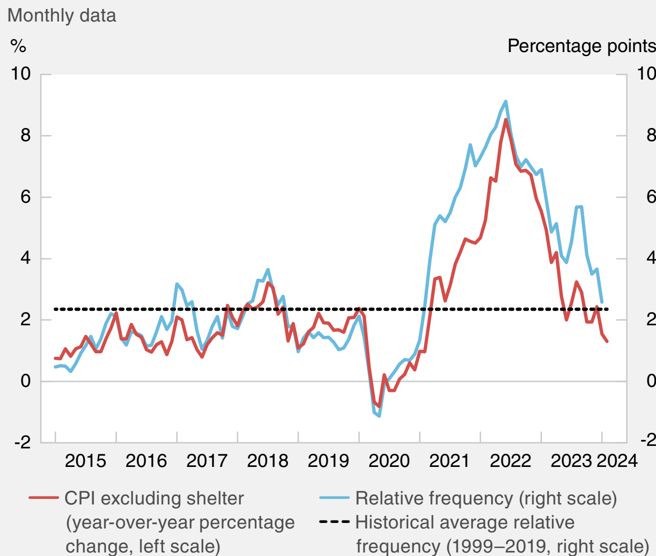
2 For more details, see O. Bilyk, M. Khan and O. Kostyshyna, "Pricing behaviour and inflation during the COVID-19 pandemic: Insights from consumer prices microdata," Bank of Canada Staff Analytical Note No. 2024-6 (April 2024).

3 The relative frequency of price increases and decreases is defined as the percentage of prices that are increasing minus the percentage of prices that are decreasing.

Box 3 (*continued*)

Chart 3-B: Relative frequency of price changes has moved in line with actual inflation

Monthly data

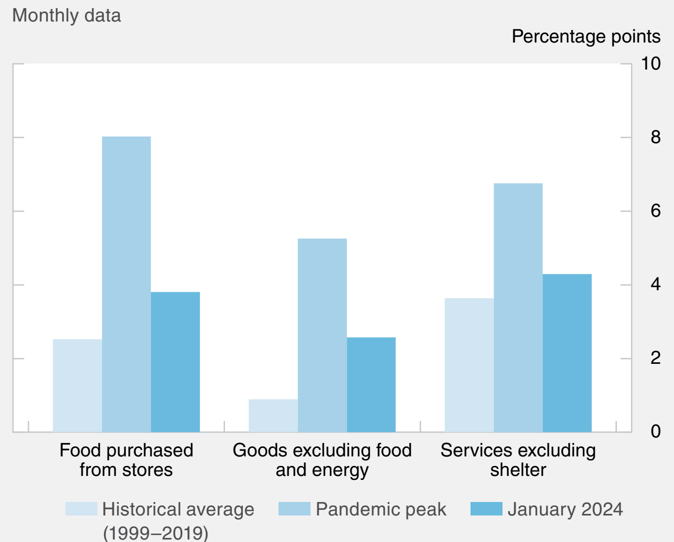


Sources: Statistics Canada and Bank of Canada calculations

Last observation: CPI excluding shelter, February 2024; Relative frequency, January 2024

Chart 3-C: Relative frequency of price changes has declined from its peak

Monthly data



Sources: Statistics Canada and Bank of Canada calculations

Last observation: January 2024

How close are we to normal pricing behaviour?

The relative frequency of price changes has declined significantly from its peak during the pandemic, nearing historical average levels (**Chart 3-B**). Further normalization appears possible, however. This is most evident for goods excluding food and energy, the category with the largest remaining gap relative to its historical average (**Chart 3-C**).[4]

Pricing behaviour is normalizing and should continue to do so in the coming months, with the economy expected to remain in excess supply and growth in input costs slowing. These findings are broadly consistent with the Bank's business surveys, which show that fewer businesses are planning unusually large or frequent price increases over the next year.

4 Note that the gap for total inflation is very small as of January 2024, partly because the relative frequency of price increases and decreases for energy (not shown in **Chart 3-C**) is very negative. Progress in non-energy categories has been significant but not as pronounced.

Economic growth projected to strengthen

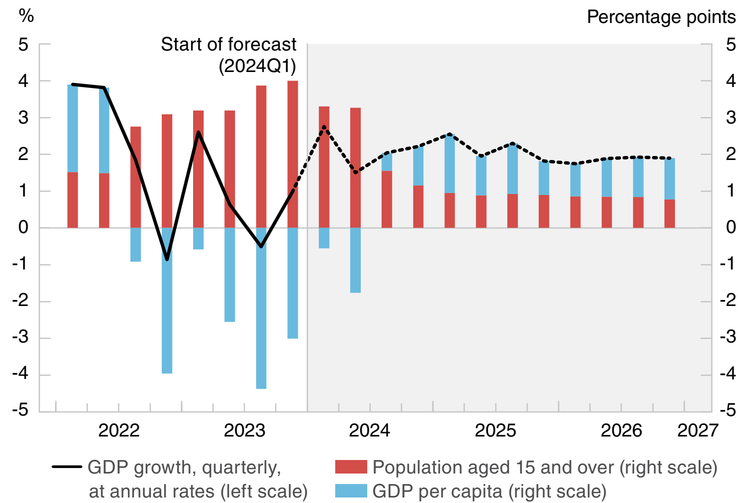
GDP growth is anticipated to strengthen from about 2% in the first half of 2024 to a peak of 2½% in early 2025 (**Chart 14**). This growth profile is underpinned by an increase in GDP per capita, which comes about due to an easing in financial conditions and a rise in confidence. GDP growth eases over the rest of 2025 and into 2026 to around 2%, somewhat above the projected growth of potential output.

The outlook for GDP growth is revised up, mainly due to stronger-than-expected population growth in 2024. In addition, government spending is revised up, while stronger US demand points to higher export growth (**Box 1**).

Potential output is estimated to have expanded in the first quarter of 2024 by roughly 2¾%, driven by the recent increase in the number of newcomers to Canada. It is projected to then slow to around 1½% in 2025 and 2026. This slowdown is due to a rapid reduction in arrivals of new non-permanent

Chart 14: GDP per capita growth picks up

Contribution to real GDP growth, quarterly data



Note: Data for the population aged 15 and over are from Statistics Canada's quarterly estimates of population.

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

residents, in line with the federal government's recently introduced targets for this group. A modest pickup in labour productivity growth partially offsets the slowdown in population growth. The projection reflects the results of the Bank's latest annual assessment of the drivers of potential output (**Appendix,** page 26).

As a result, excess supply is expected to remain in the -0.5% to -1.5% range through 2024 and then slowly dissipate in 2025 and 2026.

Growth in consumption per capita to recover

Consumption growth is expected to be boosted by population growth in the first half of 2024 and is then to ease through the rest of the year. Consumption growth slows because population growth declines from more than 3% in the first half of the year to 1½% in the second half. This is partially offset by growth in consumption per capita, which recovers from about -2% at the beginning of the year to close to zero by the end of the year. The anticipated improvement in per capita consumption growth comes as the drag from debt-servicing costs diminishes.

Overall consumption growth is then expected to gradually rise over 2025 and stabilize around 2% in 2026. Spending growth continues to increase as the impact of debt-servicing costs on income growth declines more, the net worth of households rises and confidence improves.

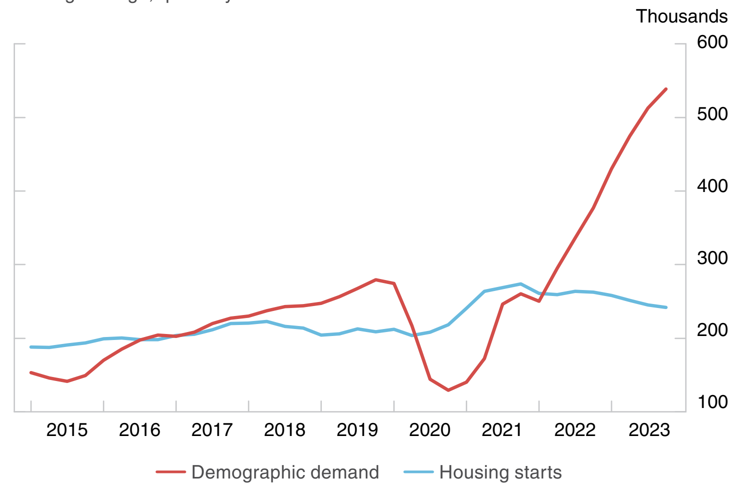
Robust growth in residential investment

Growth in residential investment is expected to rise over the second half of 2024 and expand to around 8% through 2025. It then slows to 5% in 2026. Housing activity, including new construction, is driven by the recent strength in population growth and an ongoing shortfall in housing supply that is not expected to close over the projection horizon (**Chart 15**). Support for residential investment also comes from easing financial conditions and the waning effects of past increases in interest rates. The supply of new housing construction is supported by recently announced government policies.

Tight supply leads to moderate growth in house prices over the next two years. Price growth is then expected to slow as new construction picks up and population growth eases.

Chart 15: Housing starts have been well below demographic demand

Four-quarter moving average, quarterly data



Note: *Demographic demand* is a measure of demand for housing based on the number of new households per quarter.

Sources: Canada Mortgage and Housing Corporation, Statistics Canada and Bank of Canada calculations

Last observation: 2023Q4

Business investment and export growth to pick up and then moderate

Growth in business investment is expected to pick up further in the second half of 2024. Capital expenditure plans include more spending on projects tied to electric vehicles, petrochemicals, and oil and gas. Business investment growth is expected to then moderate over 2025 and 2026.

Spending is underpinned by the diminishing impact of past increases in interest rates, easing financial conditions and the overall growth of the economy. Business investment is also supported by the increased population as companies spend more to ensure new workers have the equipment and tools to do their jobs.

Exports are being supported by strong demand from the United States. Export growth is anticipated to be temporarily boosted to around 4½% in the second half of 2024. This is because:

- Energy export growth surges as the newly opened Trans Mountain Expansion pipeline increases export capacity.
- Motor vehicle export growth starts to ramp up as the retooling of auto sector plants is partly completed.

Export growth is then expected to decline slowly through 2025 and average around 1% in 2026.

Growth in imports is expected to pick up in the second half of 2024 to around 5%. The increase is driven largely by the import of parts and materials needed to ramp up motor vehicle production. Import growth then moderates to around 2% over 2025 and 2026, in line with growth in domestic demand.

Inflation projected to reach target in 2025

In the second half of 2024, inflation is projected to ease to below 2.5%, led by slower price growth for shelter and food.

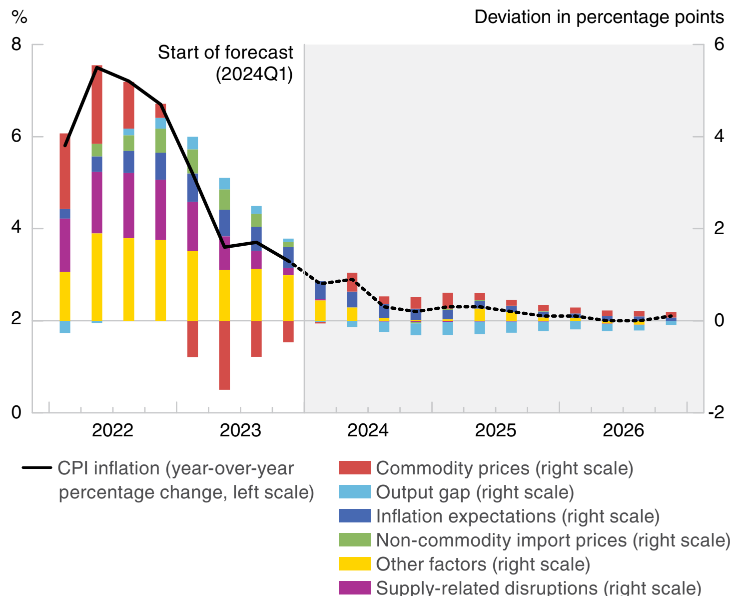
Shelter services price inflation is anticipated to moderate as growth in mortgage interest costs diminishes. It does so as financial conditions ease and the impact of additional households renewing and taking on new mortgages decreases. However, shelter services price inflation is expected to remain elevated, due to still-high mortgage interest costs and rental price inflation. Food price inflation is expected to moderate further, driven by past declines in global prices for agricultural products.

In contrast, inflation in prices for goods excluding food and energy and inflation in prices for services excluding shelter are both expected to remain stable. The latter reflects two offsetting forces. On one hand, inflation in many services prices is expected to moderate as labour market pressures ease and growth in labour costs slows. On the other hand, the deflation in communication prices is projected to moderate.

Inflation is projected to return to the 2% target in 2025 due to the impact of ongoing excess supply (**Chart 16**). Labour costs are projected to moderate further as wage growth continues to slow, bringing it in line with inflation and modest productivity growth. Moreover, with demand pressures in check, businesses will find it more difficult to pass on their cost increases to consumers. In this environment, inflation expectations decline further, consistent with the 2% inflation target.

Chart 16: CPI inflation is forecast to return to target in 2025

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



Note: *Non-commodity import prices* includes the impact of the Can$/US$ exchange rate. *Other factors* could include underestimated demand pressures, such as from large imbalances in the housing market, or previously unobserved factors, such as greater pass-through from oil or import prices and atypical pricing behaviour by firms. The impact of the carbon price on year-over-year inflation is roughly 0.1 percentage point over the projection horizon and is included in *Commodity prices*. Numbers may not add to total due to rounding.

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

Risks to the inflation outlook

The Bank considers the outlook in the base-case scenario to be the most likely outcome for inflation. There are both upside and downside risks to this outlook. Overall, the Bank views the risks to inflation to be balanced. With inflation continuing to be above target, the Bank is more concerned about the upside risks.

Progress has been made on most indicators of underlying inflation, which suggests the risk of inflation remaining too high has diminished. At the same time, economic activity has been stronger than expected, lessening the risk of a sharp slowing in the economy.

The projection for real GDP growth depends heavily on the assumed path of population growth (**Box 2**). The federal government recently announced plans to reduce arrivals of new non-permanent residents. However, details of how these plans will be implemented have yet to be announced, so there is some uncertainty about the outlook for population growth. While this matters a lot for real GDP growth, it will have a much smaller impact on inflation. This is because higher population affects both overall supply and demand. Nonetheless, rapid changes in population can have implications for some components of the CPI.

Main upside risks

There are three upside risks to the outlook for inflation: higher house prices, elevated cost pressures and geopolitical developments.

Housing prices could rise sharply

House prices could increase more than anticipated due to strong demand, which would boost inflation by raising shelter costs. The base case includes a moderate increase in house prices, somewhat higher than the forecast in the January Report. But house prices could rise faster than forecast if easing financial conditions or population growth leads to stronger-than-expected demand for housing while supply remains constrained. Sustained expectations for large increases in housing prices could amplify this risk.

Elevated cost pressures could remain

In the projection, labour costs are expected to moderate, with wage growth slowing as inflation eases and productivity growth improves. However, it is unclear whether this recent softening in wage growth will continue. At the same time, productivity growth has continued to trend lower. If wage growth does not slow, or if productivity remains weak, firms will continue to face elevated cost pressures. In turn, this could lead to higher inflationary pressures. This is particularly relevant for some services components of the CPI, where inflation remains elevated.

Geopolitical tensions could worsen

New international trade disruptions stemming from global tensions and conflicts, including wars in the Middle East and in Ukraine, could impact global commodity prices and impede the supply of traded goods. If these disruptions persist or worsen, they could delay the return of inflation back to target by increasing production costs and prolonging elevated inflation expectations.

Main downside risks

As in the January Report, a more pronounced slowdown in the Canadian economy is the main downside risk to inflation.

Monetary policy could have a larger impact

The effects of past increases in interest rates on economic activity and inflation could be larger than in the base case. Given upcoming mortgage renewals and record-high levels of household debt, Canadians could become more cautious and cut back consumption spending more than projected. In turn, slowing demand combined with tight financial conditions could make Canadian businesses less willing to invest or to hire new workers.

Global growth could be weaker

Global activity could be weaker than in the base case. This could occur if central banks in the United States and Europe need to keep monetary policy tighter than assumed to bring inflation back to target. In China, high debt levels and challenges with managing credit risk may further weaken lending and growth. This could lower global demand and reduce the prices of commodities and tradable goods. Canadian economic growth and inflation would be pulled down if these risks were to materialize.

Goods price inflation could slow more than expected

Inflation in the prices of intermediate and final goods could weaken more than expected. Goods price inflation has slowed significantly since the middle of 2022. There is a risk that inflation for many goods prices could ease even further. Goods inflation could be affected if the prices of China's exports fall by more than currently assumed and those price changes are then passed on to consumers. Demand for goods, which remains elevated compared with pre-pandemic levels, could also soften more than anticipated. This could put additional downward pressure on goods prices. This is particularly the case in the United States.

Appendix: Potential output and the nominal neutral rate of interest

Potential output growth in Canada is estimated to rise temporarily in 2024, mostly due to strong population growth, while productivity growth remains weak (**Table A-1**). Compared with the April 2023 Report, the Bank's estimate of potential output growth has been revised up in 2024, and down in 2025 and 2026. The Bank's estimate of the neutral rate has been revised up.[3]

Table A-1: Projection for potential output growth
Projected growth† (%)

	2023	2024	2025	2026	2027
Canada	2.3	2.5 (2.1)	1.7 (2.1)	1.5 (2.2)	1.7
United States	2.3 (1.8)	2.3 (1.8)	2.2 (1.8)	2.1 (1.7)	2.1
Euro area‡	1.3	1.2	1.1	1.1	1.1
Japan	0.6	0.6 (0.7)	0.7 (0.8)	0.7	0.7
China	4.6 (4.7)	4.3 (4.5)	4.1 (4.3)	3.9 (4.2)	3.8
Oil-importing EMEs§	3.6 (3.5)	3.9 (3.7)	4.1 (3.7)	4.1 (3.9)	4.1
Rest of the world◊	1.9 (1.3)	2.1 (1.7)	2.1 (1.7)	2.0 (1.8)	2.0
World	2.9 (2.7)	3.0 (2.8)	3.0 (2.8)	2.9 (2.8)	2.9

† Numbers in parentheses are projections used in the April 2023 Report and are reported only when different from the current projection.

‡ Croatia joined the euro area on January 1, 2023. The current projection and historical data include the change in membership.

§ The oil-importing emerging-market economies (EMEs) grouping excludes China. It is composed of large EMEs from Asia, Latin America, the Middle East, 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 calculations and projections

3 For more details, see T. Devakos, C. Hajzler, S. Houle, C. Johnston, A. Poulin-Moore, R. Rautu and T. Taskin, "Potential output in Canada: 2024 assessment," Bank of Canada Staff Analytical Note (forthcoming); and F. Adjalala, F. Alduino Alves, H. Desgagnés, W. Dong, D. Matveev and L. Simon, "Assessing the US and Canadian neutral rates: 2024 update," Bank of Canada Staff Analytical Note (forthcoming).

Canadian potential output growth to strengthen in 2024, then slow

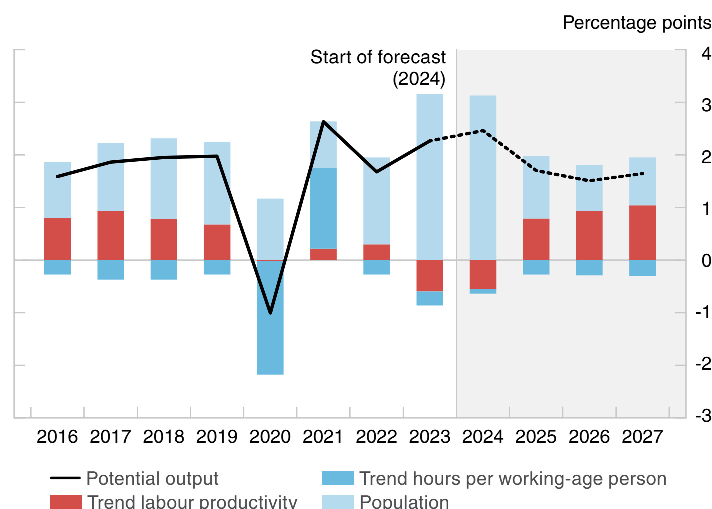
Potential output refers to the maximum sustainable level of output that is consistent with inflation at the 2% target. It is influenced by structural factors such as demographic change, education, innovation, technology and the stock of capital.

In Canada, growth of potential output is expected to increase from 2.3% in 2023 to 2.5% in 2024 and to stabilize at just above 1½% over the period 2025–27 (**Chart A-1**, **Table A-2**).

The growth of trend labour input is estimated to contribute 3.0 percentage points to potential output growth in 2024. Its contribution then falls to about 0.9 percentage points in 2025 and to around 0.6 percentage points in 2026 and 2027. The initial rise in trend labour input growth reflects the sharp increase in the population due to the expanding number of permanent and non-permanent residents arriving in 2023 and 2024. The subsequent slowdown mainly reflects slower growth in the number of newcomers, which is consistent with the federal government's recently announced targets for non-permanent residents.

Chart A-1: Potential output growth is expected to moderate

Annual contribution to potential output growth



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

Table A-2: Comparison of Canadian potential output estimates relative to April 2023

Annual rates (%)

	Annual growth	Trend labour input growth	Trend labour productivity growth	Range for growth	Revisions to the level (percent)
2023	2.3 (2.3)	2.9 (1.5)	-0.6 (0.8)	1.4–3.2	0.8
2024	2.5 (2.1)	3.0 (1.3)	-0.5 (0.8)	2.1–2.8	1.2
2025	1.7 (2.1)	0.9 (1.2)	0.8 (0.9)	1.1–2.4	0.8
2026	1.5 (2.2)	0.6 (1.2)	0.9 (1.0)	0.9–2.2	0.1
2027	1.7	0.6	1.0	1.1–2.4	—

Notes: Estimates from the April 2023 assessment appear in parentheses. The range for potential output growth represents the methodological range implied by the risk scenarios presented in T. Devakos, C. Hajzler, S. Houle, C. Johnston, A. Poulin-Moore, R. Rautu and T. Taskin, "Potential output in Canada: 2024 assessment," Bank of Canada Staff Analytical Note (forthcoming).

Trend labour productivity (TLP) growth is estimated to have fallen in 2023, pulling potential output growth down by 0.6 percentage points. This weakness in TLP growth is expected to continue in 2024. Large increases in the size of the working-age population as well as modest business investment have led to a decline in the stock of capital per worker in 2023 and 2024. With population growth expected to normalize in 2025 and beyond, and investment to pick up, trend labour productivity growth is expected to gradually improve.

Compared with the estimate in the April 2023 Report, potential output growth is revised up by 0.4 percentage points in 2024, and revised down by 0.6 percentage points on average in 2025 and 2026.[4] The positive revision in 2024 reflects the arrival of more newcomers to Canada than previously expected. This is moderated by downward revisions to capital deepening and trend total factor productivity growth.

To capture long-term structural shifts in the economy, trend total factor productivity growth has been revised down from the April 2023 assessment. Going forward, the contribution to total factor productivity growth from the mining, oil and gas sector and the manufacturing sector is expected to slow, while the contribution of the services sector is likely to remain stable.[5]

Estimates of potential output are highly uncertain because some of its components are unobservable and difficult to forecast. To reflect this uncertainty, a range is constructed around the midpoint estimates. The outlook for potential output is subject to both upside and downside risks. In particular, this reflects uncertainty around the:

- future pace of international migration
- strength of investment
- impact of other structural factors (for example, changes in the composition of the labour force due to a higher number of non-permanent residents)

Steady growth in global potential output

Growth of global potential output is projected to remain broadly stable near its 2023 rate of 3% over the projection horizon.[6]

In the United States, potential output growth is estimated to have risen from 2.0% in 2022 to 2.3% in 2023 due to an increase in trend labour input growth, driven by strong net immigration. Potential output growth is expected to remain at 2.3% in 2024 before gradually easing as the pace of immigration slows. TLP growth remains broadly stable at around 1.3% over the projection—close to its average over the past two decades.

Potential output growth slows in China due to a slowdown in investment growth linked to ongoing weakness in the property sector. Meanwhile, foreign direct investment is expected to weaken as countries diversify their supply chains. In contrast, potential output growth continues its steady rise in oil-importing emerging-market economies. Investment is expected to strengthen in these economies as domestic monetary conditions ease and as some

4 These revisions include the effects of developments throughout 2023, many of which were already incorporated in the January 2024 projection. For example, the impacts of historical revisions to the national accounts data on potential output were incorporated in the January Report. **Box 1** discusses the revisions relative to January.

5 For more details, see D. Brouillette, T. Devakos and R. Wheesk, “Total factor productivity growth projection for Canada: A sectoral approach,” Bank of Canada Staff Analytical Note (forthcoming).

6 For more details, see A. A. Benmoussa, R. Dastagir, E. Ekanayake, J.-D. Guénette, H. Lao, J. Rolland-Mills, A. Spencer and L. Xiang, “Assessing global potential output growth: April 2024,” Bank of Canada Staff Analytical Note (forthcoming).

countries diversify their supply chains away from China. Labour input growth is expected to increase due to steady improvement in trend labour force participation.

In the euro area, potential output growth moderates from 1.3% in 2023 to around 1.1% over 2024–27. This reflects declining trend labour input growth due to population aging. Potential output growth in the euro area is lower than in the United States because of a weaker outlook for trend labour input growth and a lower rate of labour productivity growth.

Overall, the Bank is projecting a higher rate of growth for global potential output than in the April 2023 Report. This is due to several factors.

First, an upward revision to capital deepening raises potential output growth in emerging-market economies and rest-of-the-world regions.[7] This is because private and public investment are proving to be stronger than anticipated, partly due to increased investment as countries diversify their supply chains. A stronger outlook for non-oil investments in Saudi Arabia also provides a boost. The upward revision to capital deepening accounts for most of the change in the outlook for global potential output growth, given these regions' large share of global GDP. An upward revision to trend labour input growth is also a major contributor to the upward revision in growth in emerging markets.

Second, population growth in the United States is forecast to be faster than assumed in the April 2023 Report due to a more rapid pace of immigration. The labour force participation rate is also stronger, partly because of a larger share of foreign-born workers, who tend to have higher participation rates than workers born in the United States. As a result, trend labour input is higher and is projected to grow considerably faster than previously assumed. US potential output growth is therefore revised up by about 0.5 percentage points on average from 2023 to 2026.

Third, potential output growth in China is lower due to downward revisions to population growth rates and lower productivity. The weaker outlook for productivity is due to reduced foreign direct investment and policy uncertainty that impacts innovation and technology diffusion.

Overall, annual global potential output growth is about 0.2 percentage points higher on average from 2023 to 2026.

Higher neutral rate of interest

The nominal neutral interest rate is defined as the real neutral rate plus 2% for inflation. The real neutral rate is the rate to which the policy rate would converge in the long run, when output is sustainably at its potential and inflation is at target (i.e., after all cyclical shocks have dissipated). It is a medium- to long-term equilibrium concept.

The Bank estimates that the nominal neutral rate in Canada has risen to lie within a range of 2.25% to 3.25%, which is 25 basis points higher than in the April 2023 assessment. The midpoint estimate consists of a 2% inflation target and a 0.75% real neutral rate. This increase reflects the impacts of an upward revision to the US neutral rate and changes in key Canadian domestic factors.

7 See **Table 1** for more information about countries considered to belong to the emerging-market economies grouping and in the rest-of-the-world grouping.

Because Canada is a small open economy, its neutral rate of interest is influenced by global economic conditions. The Bank uses an estimate of the neutral rate for the United States as a proxy for the global neutral interest rate. The nominal US neutral rate is currently estimated to be within a range of 2.25% to 3.25%. The current estimate of the neutral rate is 25 basis points higher than in the April 2023 Report and is largely explained by the stronger US potential output growth driven by higher population and productivity growth. To a lesser extent, higher government debt has also contributed to the higher neutral rate.

For Canada, stronger average growth in trend labour input exerts upward pressure on the Canadian neutral rate. Population growth matters, not only because of its impact on growth in the labour force but also because of how it affects the composition of borrowers and savers. A fast-growing population increases the proportion of young borrowers relative to middle-aged and older savers, and this puts upward pressure on the neutral rate. However, offsetting this pressure is weaker growth in TLP.

Like potential output, the neutral rate is unobservable and can be inferred only by assessing the evolution of observed data. Considerable uncertainty surrounds its estimation. This reflects the uncertainty around the factors that drive it, such as potential output and the balance between savings and investment.