

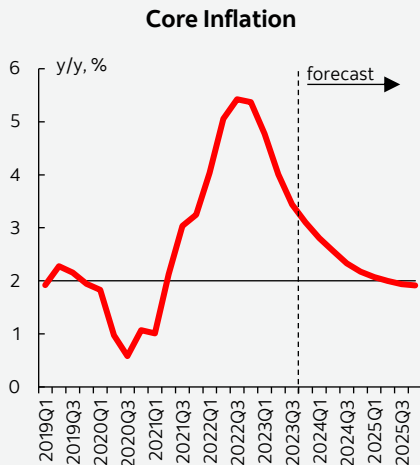
Contributors

Jean-François Perrault
SVP & Chief Economist
Scotiabank Economics
416.866.4214
jean-francois.perrault@scotiabank.com

René Lalonde
Director, Modelling and Forecasting
Scotiabank Economics
416.862.3174
rene.lalonde@scotiabank.com

Farah Omran
Senior Economist
Scotiabank Economics
416.866.4315
farah.omran@scotiabank.com

Chart 1



Sources: Scotiabank Economics, Statistics Canada.

Taking Stock of Inflation: Where Do We Go From Here

- While global inflation has come off its peaks, it remains above central banks' targets, including our own. Canadian core inflation, which best captures underlying inflation trends in the economy, has fallen from a peak of 5.4% in 2022Q3 to 4% in 2023Q2. We expect it to return to the 2% target by 2025Q2, implying a projected decline of 2 percentage points between now and then.
- We find around a third of this decline will be driven by domestic factors that are more within the Bank of Canada's control, while external factors account for the remaining two thirds. While smaller, a third is still a substantial part of the final stages of the fight against inflation, the success of which relies on the Bank of Canada's efforts.
- In this context, credibility in the Bank of Canada's 2% target matters more than ever. The Bank of Canada and Canadians cannot afford a further loss of credibility and de-anchoring of inflation expectations. This would make the Bank of Canada's task more difficult and result in worse inflation and economic outcomes.

The last two years have seen the world's central banks combat rates of inflation far in excess of their targets. They have raised interest rates considerably in an attempt to slow economic activity and bring inflation back to targets. While inflation has come off its peaks, it remains above central banks' targets, including our own. This note examines the drivers of the remaining decline of Canadian inflation towards its 2% target by 2025, and the short-term credibility implications for the Bank of Canada's success in reaching its target.

The Bank of Canada uses a number of "core" inflation measures that aim to abstract from monthly volatile price swings in order to better assess underlying price movements in the economy. As outlined in the Appendix, we test which of these core measures best captures underlying inflation trends and produces the most accurate forecast of headline inflation—the Bank of Canada's official target. We find core CPI excluding food, energy and the effect of indirect taxes is the best at forecasting total inflation while having the added benefit of being the most intuitive—making it easier to communicate and analysed by households and markets. As a result, we use that measure of core in this note.

Core inflation has fallen from a peak of 5.4% in 2022Q3 to 4% in 2023Q2. This decline so far has been attributable to a broad range of factors that are mostly external, including the decline in international oil prices over this time, the normalization of global supply chains and a decline in US inflation. We currently forecast core inflation to return to target by 2025Q2, implying a 2 percentage points decline required between now and then. We predict that around a third of this decline will be driven by domestic factors, while external factors account for the remaining two thirds. This implies a substantial part of the final stages of the fight against inflation falls on the Bank of Canada's shoulders. In this context, credibility in the Bank of Canada's 2% target matters more than ever—a further loss of credibility and de-anchoring of inflation expectations would make the Bank of Canada's task more difficult and result in worse inflation and economic outcomes.

NEARING THE FINISH LINE IN THE INFLATION FIGHT: WHAT ARE THE DRIVERS OF THE REMAINING DECLINE

This section decomposes the forecast path of core inflation into its components. In other words, we attempt to measure the contributions of the different drivers of inflation in our models to the projected decline in inflation towards its 2% target, splitting the

drivers into two categories: external and domestic, with supply related drivers, as measured by the Purchasing Managers Supplier Deliveries Index, evenly split between the two categories¹. The goal here is to assess how much of the remaining inflation reduction falls on the BoC’s shoulders via its ability to impact domestic drivers of inflation versus external drivers that are outside of its control.

Our July baseline [forecast](#) sees core inflation returning to the 2% target by 2025Q2, implying a projected decline of 2 percentage points between 2023Q2 and 2025Q2 (chart 1). Our results (summarized in table 1) imply around a third of this decline will be driven by domestic factors, while external factors account for the remaining two thirds.

External factors include US inflation, which is a proxy for international inflation imported into Canada, price of oil, and international supply constraints. Domestic factors include the output gap, the exchange rate, unit labour cost as a measure of domestic wage pressures, and domestic supply constraints.

In addition, we include the effect of the Bank of Canada’s July hike as a domestic driver of the projected decline in inflation, which we consider as insurance against a further upside surprises to inflation. Recall that back in July, we [wrote](#) about the material potential upside risks to the inflation outlook and the outsized costs they would have on households and the economy if they were to materialize. Given this, we expected the central bank to hike one more time in July, in contrast with our model’s pure response which did not view an additional hike as necessary and saw the policy rate falling faster than in our baseline scenario. We saw this additional hike and a higher for longer profile for the policy rate as a necessary insurance against upside risks to inflation materializing, which would risk a decline in credibility and a further deviation of inflation expectations from target, in turn requiring more hikes to achieve the needed slowdown to bring inflation back to target. We estimated that taking out this insurance policy results in an inflation outcome that is 0.1 percentage points lower in 2025 than if the BoC followed our model’s pure response and called it quits without hiking in July.

With a third of the remaining required decline in inflation expected to be driven by domestic factors, there is still a substantial part of the fight against inflation that falls on the Bank of Canada’s shoulders. In this context, credibility matters more than ever—if there is a loss of credibility whereby agents lose faith in the Bank of Canada’s 2% target and inflation expectations are de-anchored, inflation and economic outcomes would be significantly worse.

In the following section, we discuss the credibility implications for the BoC’s success in bringing inflation back to its 2% target.

CREDIBILITY, INFLATION EXPECTATIONS, AND THE IMPLICATIONS FOR THE INFLATION FIGHT

We estimate a Phillips curve in which inflation expectations are a function of the inflation target, past inflation and future inflation. As in [Lalonde 2005](#) and an earlier [note](#), we allow the weight on the inflation target to be time-varying, fluctuating between 0 and 1 depending on inflation’s recent and expected behaviour. The closer past and future inflation is to target, the closer the time-varying weight on the target is to 1 and the higher the probability agents assign to the Bank’s ability to meet its target in the next couple of years. Note that the time-varying weight says nothing about the Bank’s long-term credibility and success in bringing inflation to target. This is a time-varying weight on the inflation target in inflation expectations.

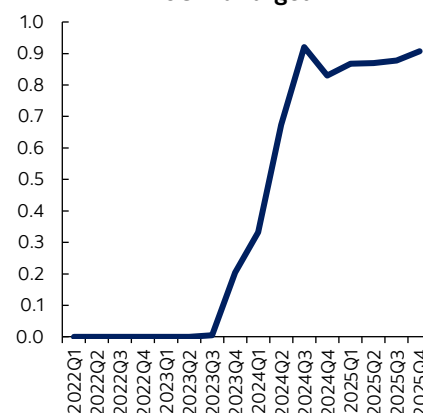
Up until 2023Q3, the time varying weight on the target was zero because inflation was so high that the BoC’s target lost its short-term credibility (chart 2). In 2023Q3, a couple of quarters after inflation began the process of normalizing down, the weight on the target started gradually

Table 1: Decomposing Decline in Core Inflation	
2023Q2 - 2025Q2	
External	
US Inflation	-1.1%
Oil	0.0%
Supply Constraints	-0.2%
Domestic	
Output Gap	-0.2%
Exchange Rate	0.0%
Unit Labour Cost	-0.2%
Supply Constraints	-0.2%
BoC Insurance Hike	-0.1%
Total	-2.0%

Source: Scotiabank Economics.

Chart 2

Time-Varying Weight on the BoC 2% Target



Sources: Scotiabank Economics.

¹ In assessing the proportion of supply related factors that is domestic versus external, we run a simple regression to estimate how much of the Canadian Supplier Deliveries Index is explained by its US counterpart which is used as proxy for international constraints. The residual of this estimation is considered to capture the share of the variations in the Canadian Index that are due to domestic factors. We find that pre-Covid, all the variations of the Canadian Index are captured by the residual, whereas in the post-Covid period half of the variation is explained by domestic factors, the residual, and the other half by external factors.

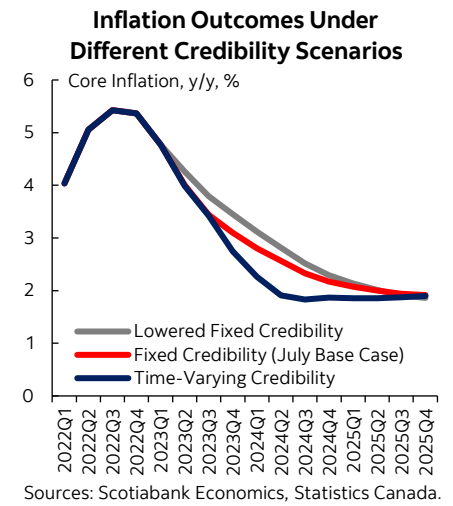
increasing as the BoC’s target began regaining some of its short-term credibility. We forecast the weight to hover around 0.9 by 2025, at which point inflation is forecast to have returned to its 2% target.

This increase in short-term credibility translates to better inflation outcomes than the July base case which features a Phillips curve with a fixed and exogenous weight on the 2% target. This can be seen in chart 3—during the period in which the time-varying weight on the target is increasing, inflation is falling faster (blue line) relative to the July base case (red line), despite having the same path for the policy rate. The grey line represents a case in which the fixed weight on the target is lower than in the July base case (by a third), and, as expected, this credibility loss results in worse inflation outcomes for the same policy rate path as expectations are less anchored to the 2% target.

When credibility is endogenous and while inflation is converging to the target, there is a credibility gain that further assists the BoC in its fight against inflation—this makes the BoC’s task of achieving the 2% target easier as it results in a lower rate of inflation for the same policy rate path.

On the other hand, if there is a loss of credibility, there will be an upside risk to the inflation outlook via a weakening of the transmission of monetary policy. This would imply worse inflation and economic outcomes, whereby inflation is higher for the same policy rate, or more aggressive monetary policy is required, and in turn, a harsher economic slowdown, to achieve the same inflation outcome. Given the substantial share of the remaining decline in inflation that relies on the Bank of Canada, a loss of credibility would have an outsized effect on the Bank of Canada’s ability to return inflation to its 2% target by 2025. Therefore, a more hawkish stance today to ensure inflation expectations are anchored could be seen as necessary insurance against loss of credibility and in turn worse inflation and economic outcomes.

Chart 3



APPENDIX: MEASURES OF CORE INFLATION—BACK TO BASICS:

Measures of core inflation include trim (which trims the tail-ends of the distribution of price changes), median (which corresponds to the price change at the 50th percentile of the distribution), and CPI excluding food, energy and the effect of indirect taxes.

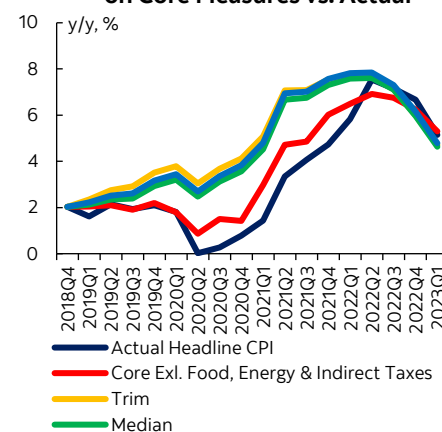
Back in June of 2021, during the runup of inflation, we [tested](#) which of these core measures is the best at capturing underlying inflation trends—i.e, which measure produces the most accurate forecast of total inflation, the target of the of the Bank of Canada. We found that CPI excluding food, energy and the effect of indirect taxes was the best at forecasting total inflation while having the added benefit of being the most intuitive—making it easier to communicate and analysed by households and markets. We repeat this exercise here during the rundown of inflation and find that this core measure continues to be the most accurate core measure in forecast headline inflation.

Similar to last time, we start by estimating Phillips curves for the different core inflation measures, linking the year-over-year inflation rates to measures of economic slack and other economic fundamentals. We use these Phillips curves to forecast core inflation. We then estimate a bridge equation linking each core measure to total inflation. This allows us to assess which of these core forecasts produce the most accurate forecast of total inflation. To do so, we run dynamic simulations in which core and total inflation are jointly forecast over history. This constitutes a harder-to-pass statistical test of the forecasts’ performance compared to an in-sample approach that depends on the observed total inflation.

Chart A1 shows the total CPI forecasts generated by each of the core forecasts (trim, median, the average of the two, and the CPI excluding food, energy, and the effect of indirect taxes) along with actual observed total CPI. While all core measures have similar forecasting performances during the rundown of inflation starting in 2022Q3, the total inflation forecast generated by the core CPI excluding food, energy and the effect of indirect taxes measure is the clear winner when comparing over the whole sample. Given this result, we use this measure of core inflation in this note.

Chart A1

Headline CPI Forecasts Based on Core Measures vs. Actual



Sources: Scotiabank Economics, Statistics Canada.

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