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BoC and its core inflation measures: A relationship on the rocks

By Matthieu Arseneau and Alexandra Ducharme

Summary

- Deputy Governor Rhys Mendes recently admitted the Bank of Canada may have misled markets by overemphasizing CPI-median and CPI-trim as “preferred” core inflation measures.
- The BoC has shown a lack of consistency in its use of core indicators over the past five years. It appears that the Bank has alternated between different measures to support policy decisions already in motion—highlighting the broader communication challenges these frequent reversals have created.
- As acknowledged by Deputy Governor Mendes, the renewal of the inflation targeting regime in 2026 is the ideal moment to assess the framework regarding core inflation. This is a crucial exercise that the central bank must not take lightly in order to stabilize its communication for years to come.
- In our view, to restore clarity and confidence, the Bank should commit to a simple exclusion measure as most central banks do, accompanied by diffusion indices, and stick with this framework in the years ahead.

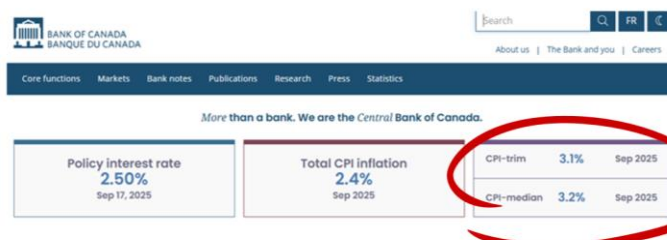
Still searching for clarity

Core inflation measures, which remove certain volatile components and temporary phenomena from the headline price index, are vital tools for a central bank and are thus heavily tracked by markets. In Canada, the central bank officially “prefers” to look at CPI-trim and CPI-median. However, in a recent speech ([link](#)), Bank of Canada’s Deputy Governor Rhys Mendes stated that:

“We’ve long labelled one or more measures of core inflation as our ‘preferred’ measures. And we’ve said these preferred measures are ‘an operational guide to help the Bank achieve its inflation target.’ At times, this language may have led markets to place more emphasis on the preferred core measures than we do.”

In hindsight, there were early indications for this turnaround. The Bank of Canada had added coverage of the CPIX¹ and CPIXFET² in its monetary policy report last July. In the Summary of Governing Council deliberations for the September decision to lower rates, it was indicated that, in the Bank’s view, inflation was closer to 2.5% than the 3.0% indicated by the CPI-trim and CPI-median.

Still, we are surprised that the Bank seems surprised that the market has continued to focus on these measures. After all, the Bank presents these two measures on the front page of its website and continues to explicitly identify CPI-trim and CPI-median as its preferred measures of core inflation in the mandate section of its website.



This preference is also reflected in its economic projections, where the forecasts provided for the core CPI consist of the average of the CPI-trim and the CPI-median.

Table 4: Summary of the quarterly projection for Canada*

	2025		2024		2025	2026	2027
	Q1	Q2	Q3	Q4	Q4	Q4	Q4
CPI inflation (year-over-year percentage change)	2.3 (2.1)	1.7	2.0	2.0	1.9 (1.9)	2.0 (2.4)	2.1 (2.1)
Core inflation (year-over-year percentage change)†	2.8 (2.5)	3.1	3.2	2.9	2.6 (2.6)	2.9 (2.1)	2.3 (2.1)
Real GDP (year-over-year percentage change)	2.3 (1.7)	1.2	0.7	0.5	2.3 (1.8)	0.5 (1.9)	1.6 (1.7)
Real GDP (quarter-over-quarter percentage change at annual rates)‡	2.0 (2.0)	-1.6	0.5	1.0			

* See details on the [key inputs to the projection](#). Numbers in parentheses are from the January Report.

† Core inflation is the average of CPI-trim and CPI-median.

In short, the emphasis markets have placed on these measures largely reflects the Bank of Canada’s own communication choices. The confusion continued following Mendes comments with Bloomberg asking economists to provide projections for CPI-trim and CPI-median. Moreover, several economists in the country continued to focus only on these figures when analysing the September inflation data.

Date	Time	Country/Region	Event	Peri.	Surv.	Actual	Prior	Revised	Surpr.	R	S
10/21	08:30	Canada	CPI NSA MoM	Sep	-0.1%	0.1%	-0.1%	---	1.77	89.47	
10/21	08:30	Canada	CPI YoY	Sep	2.2%	2.4%	1.9%	---	1.56	94.74	
10/21	08:30	Canada	CPI Core - Median YoY	Sep	3.0%	3.2%	3.1%	3.2%	0.72	18.42	
10/21	08:30	Canada	CPI Core - Trim YoY	Sep	3.0%	3.1%	3.0%	---	0.32	15.79	
10/21	08:30	Canada	Consumer Price Index	Sep	164.8	164.9	164.8	---	0.41	31.58	

The publication of the October Monetary Policy Report seemed like a good opportunity for the central bank to further clarify its position, but the occasion was not seized. Instead, the Bank reiterated that the CPI-trim and CPI-median were its “preferred” core inflation measures but stated that they can “sometimes [...] give misleading signals”, in which case a broader set of measures could be used. To us, this shows a clear lack in transparency, which should be a priority for the Bank given the importance of expectations in the achievement of the inflation

¹ CPI excluding eight of the most volatile components and indirect taxes

² CPI excluding food and energy and indirect taxes

mandate. Indeed, in 2017, a working paper published by Sharon Kozicki, now Deputy Governor, stated that

“Effective communications help markets understand the central bank’s objectives and the tools the bank will use to achieve them, thus improving the transmission of monetary policy”

Groundhog Day

The Bank of Canada’s recent disavowal of CPI-median and CPI-trim feels like history repeating itself. In 2016, these two indices were identified, along with the CPI-comm, as the Bank’s preferred core inflation measures. Yet since early 2021, the Bank has repeatedly shifted the indicators it chooses to highlight in its communications, a pattern we flagged in a special report published at the end of 2023 ([link](#)).

BoC: The messaging on inflation remains unclear

Timeline of core inflation measures put forward by the BoC in its Monetary Policy Report

JAN 21	• CPI-COMM • CPI-MEDIAN • CPI-TRIM	OCT 25	• CPI-MEDIAN • CPI-TRIM • CPIX • CPIXFET
APR 21	• CPIXFET • CPIX • CPIW • MEANSTD	JUL 25	• CPI-MEDIAN • CPI-TRIM • CPIX • CPIXFET
JUL 21	• CPI-COMM • CPI-MEDIAN • CPI-TRIM	APR 25	• CPI-MEDIAN • CPI-TRIM
OCT 21	• CPI-COMM • CPI-MEDIAN • CPI-TRIM	JAN 25	• CPI-MEDIAN • CPI-TRIM
JAN 22	• CPI-COMM	OCT 24	• CPI-MEDIAN • CPI-TRIM
APR 22	• CPI-COMM	JUL 24	• CPI-MEDIAN • CPI-TRIM
JUL 22	• CPI-COMM	APR 24	• CPI-MEDIAN • CPI-TRIM
OCT 22	• CPI-MEDIAN • CPI-TRIM	JAN 24	• CPI-MEDIAN • CPI-TRIM • CPIX • CPIXFET
JAN 23	• CPI-MEDIAN • CPI-TRIM • SERVICES EX-SHELTER	OCT 23	• CPI-MEDIAN • CPI-TRIM SERVICES EX-SHELTER • CPIX • CPIXFET
APR 23	• CPI-MEDIAN • CPI-TRIM • CPI-TRIM SERVICES EX-SHELTER	JUL 23	• CPI-MEDIAN • CPI-TRIM • CPI-TRIM SERVICES EX-SHELTER • CPIX • CPIXFET

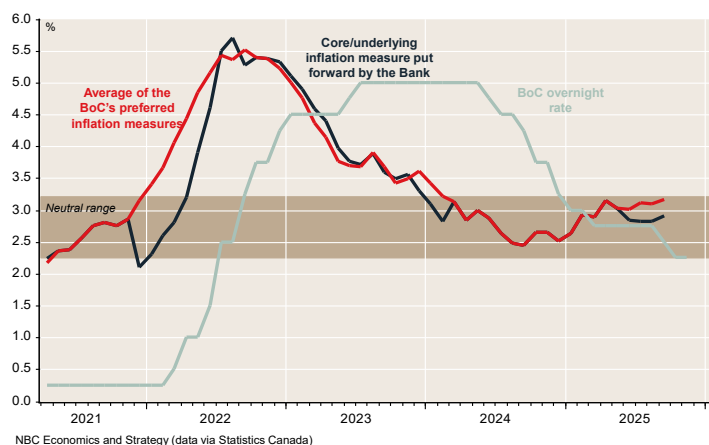
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What’s more, it appears that the Bank has alternated between different core indicators to support policy decisions already in motion, rather than applying them in a consistent manner as a tool for setting the policy rate (see chart below). Indeed, in 2022, the Bank openly favoured CPI-common while its policy rate was well below the neutral range despite inflation being on the run-up. Back then, the messaging was that inflation was transitory, and that the CPI-common was the better measure to reflect domestic price increases. Conveniently, CPI-common was also the lowest of the Bank’s three preferred core measures. However, during the summer of 2022, the CPI-comm presented methodological inconsistencies that we highlighted in a

special report ([link](#)) and it became evident that underlying inflation was higher than what the Bank had evaluated. The Bank acknowledged these flaws, and this indicator was eventually dropped, leaving only the CPI-trim and CPI-median as their preferred measures. Inflation then started to cool, and the Bank had to justify having its policy rate to a very restrictive level. It did so by proposing a new measure, CPI-trim excluding shelter, which was higher than the standard services excluding shelter inflation measure (the argument was that services excluding shelter was brought downwards by the cost of childcare). This was followed by a period in which the central bank seemed to lose confidence in its core measures and began to constantly alternate the core inflation measures it put forward. At the onset of the 2024 easing cycle, the BoC appeared comfortable with the lower readings of its preferred core CPI measures. More recently, however, as it sought to resume rate cuts while those same measures remained near the upper end of the target range, the Bank shifted its focus to a broader—and lower—set of CPI indicators.

Canada: The measures should not vary depending on the context.

Average of the BoC’s preferred inflation measures and core inflation measure put forward by the Bank

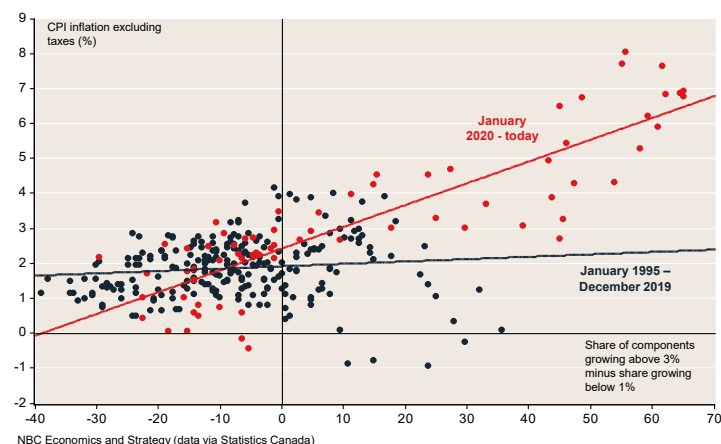


The problem within the problem

The Bank’s frequent change of heart are only part of the problem. Constantly introducing new indicators also leaves little time to evaluate their individual reliability and performance. For example, recently, on top of bringing back the classic CPIX and CPIXFET, the Bank has also incorporated a new diffusion indicator. Essentially, a regression line is drawn between the diffusion in the variation of the components making up the CPI and the annual rate of inflation excluding taxes. Using this regression, the Bank then looks at the current price diffusion to estimate a so-called level of underlying inflation. While we acknowledge the importance of the diffusion of price increases, we’d be hesitant to draw a regression line through such a scatter plot given the evolving relationship between the data. In fact, looking at the correlation between January 1995 and December 2019 shows an almost flat relationship, indicating little to no correlation between inflation and the diffusion of its components. The slope really accentuates after 2020, with the post-COVID high inflation readings. One could argue that this may have improved the performance of the regression and brought its results closer in line with level suggested by other measures of core inflation, but we need to think about potential large revisions that will happen with new data coming in. This is exactly the dynamics that led to the failure -and retirement- of the cpi-common back in 2022.

Canada: Beware of the diffusion approach

Regression of CPI inflation exc. taxes on the % of components growing above 3% minus % growing below 1%



Time for a breakup?

As shown, the Bank's relationship with core inflation measures has been uneasy over the past five years. The numerous U-turns underscore how frequently the Bank has adjusted the indicators it highlights in its communications—a pattern we first noted in our 2023 report ([link](#)). We showed that specific inflation data seemed to be used as communication tools rather than as indicators for the conduct of monetary policy. This is problematic. Back in 2001, the year the BoC opted for CPI excluding the 8 most volatile components as a core measure (CPI-X), a staff reports stated that:

"The methodology used to extract core inflation from public inflation rates must not change frequently or be perceived by the public as obscure or under the control of the monetary authorities."

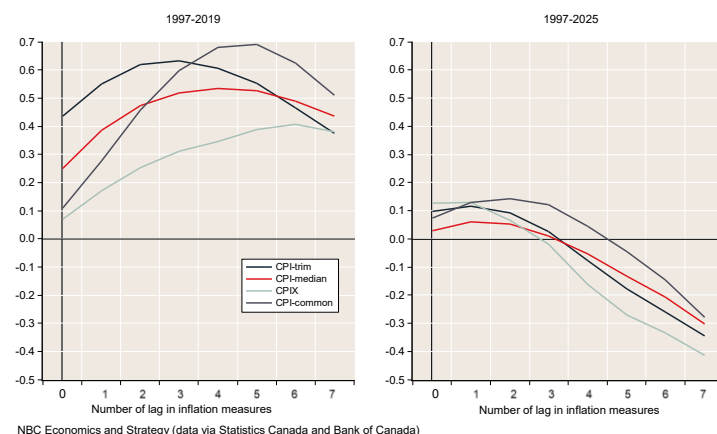
We believe this is crucial. It is not enough to make the right decisions; the bank must have effective communication and a well-understood analytical framework. Recently, the cost of frequently presenting different core CPI indicators largely offset the benefits for the Bank.

We would like to make our recommendations to the central bank for its deliberations over the coming months regarding core inflation measures. As we pointed out in a report published in early 2024 ([link](#)), the Bank's two preferred core CPI measures underestimated Canada's progress in curbing inflation at the time. Contrary to what many claimed, the rise in mortgage interest cost (MIC), over which the central bank has direct influence, affected the CPI-median and CPI-trim. In his latest speech, Mendes referred to this flaw, and admitted that the Bank is evaluating whether it should revise its preferred measures and new alternative measures of core inflation to pre-exclude mortgage interest costs.

We doubt that the solution lies in maintaining the two currently preferred measures and simply removing MIC from the components used for the calculation. Indeed, these measures might have lost their comparative advantage altogether. One of the factors that appealed to the Central Bank in 2016 when it preferred its new core inflation measures over the CPIX was the fact that they were more closely correlated with the output gap. Interestingly, the last five years have completely eroded this advantage.

CPI-median and CPI-trim don't have stronger correlation with output gap

Correlation between the core measures and the output gap over 1997-2019 and 1997-2025



In addition to evaluating their correlation with the output gap, the Bank of Canada benchmarks potential core CPI measures based on their persistence, volatility, ability to filter out sector-specific shocks and the transparency of their methodology. Some avenues suggested by Mendes in his most recent speech are concerning regarding this last point. He first referred to a potential new measure: multivariate core trend inflation. This model, which is calculated in the United States by the Federal Reserve of New York, but isn't regularly cited by the Fed, gives results that "look promising", according to Mendes, but its methodology bears a similar complexity to the CPI-common. Artificial intelligence (clustering algorithm technique) is also considered, but results were not presented. We'll trust it when we see it.

For the sake of simplicity and flexibility, we recommend that the Bank once again favours an exclusion core measure, such as CPIX or CPIXFET, as the vast majority of central banks do, and remove mortgage interest costs (MIC) in the latter case. The Bank has previously expressed concern that exclusion-based measures could be distorted—upward or downward—by temporary price shocks. Yet, excluding a component that clearly skews the picture is relatively straightforward, whereas doing so with the current core measures, or those proposed by the Deputy Governor, is far more complex. Rather than relying on a single measure of core inflation, the analysis could be complemented with diffusion indices to assess whether inflationary pressures are broad-based—without resorting to regression adjustments to fit an inflation level.

As acknowledged by Deputy Governor Mendes, the renewal of the inflation targeting regime in 2026 is the ideal moment to propose an analytical framework that will remain constant for years to come. Since the last assessment of core inflation measures in 2019 ([link](#)), observers have been left with limited clarity on which indicators underpin the Bank's reaction function.



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