Economics

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When enough is enough: How to judge where the Bank of Canada sees it

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When will the Bank of Canada decide that enough is enough, put away their interest rate hike weapon, and even start easing up on rates? That seems like an easy question to answer: they're simply looking for 2% inflation. But in practice, they act today to shape inflation down the road. So to anticipate interest rate changes, we need to understand the keys to the central bank's forecasts for the CPI, particularly for deviations from 2% that would be persistent.

That used to be self-evident. For decades, the Bank largely ascribed accelerations or decelerations in trend inflation to whether real GDP would run above or below its estimate for Canada's non-inflationary potential: the so-called "output gap." While its Monetary Policy Report still speaks in such terms, the reality is that the output gap hasn't been a useful tool, or a guide to forecasting BoC rate decisions, since the fall of 2021. Understanding what has replaced it is therefore key for financial market participants.

R.I.P for the "Output Gap"

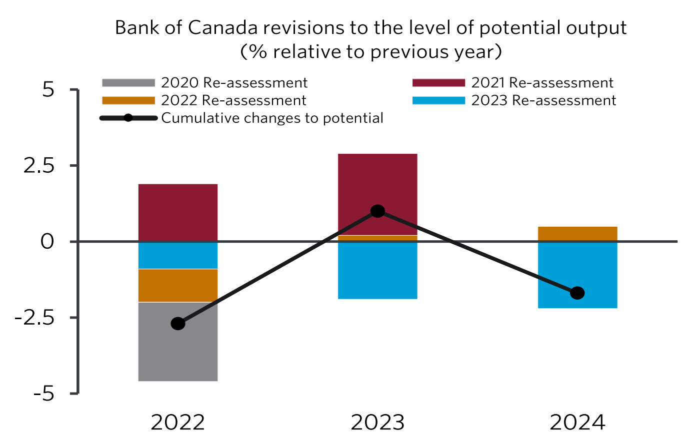
Measuring the economy's non-inflationary potential GDP, and therefore the output gap, was always challenging, but those challenges went off the chart in 2021. While real GDP was still well below its pre-COVID trend, or model based estimates of potential, labour markets were looking quite tight and workers were getting hard to find. It made no sense to claim that the economy had so much near-term headroom for non-inflationary output gains with so few workers left to add to the mix.

Productivity was lagging well behind expectations in 2021, reflecting pandemic-period supply chain shocks, and the need to shift workers from still-troubled services into booming goods industries. All of that meant that inflation pressures were brewing well before the traditional output gap measure was closed.

To alert markets that the Bank might need to tighten policy ahead of what the traditional output gap would suggest, the BoC deducted a "supply" hit from potential GDP in October 2021, which then had actual GDP much closer to non-inflationary capacity, and more consistent with the observed labour market tightness. But there was no clear way of measuring this "supply" headwind to productivity, and little understanding of how long it would persist. Some of the missing productivity was easy to see in disruptions due to worker illness or parts shortages, some would relate to weak capacity use in services like theatres, but in other sectors, the source was harder to identify, and even tougher to forecast.

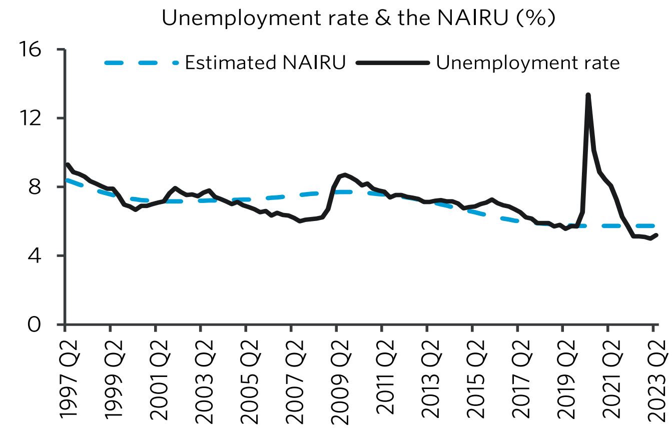
The result was that the BoC has had to make repeated, large adjustments to potential GDP, some up, some down (Chart 1) to reflect unexpected swings in productivity and the uncertainty of how well these forces have been captured in their estimate of potential year after year. That may be why the BoC further cut potential earlier this year despite visible improvements in supply chains in the prior year. All of this has meant that the starting point for the output gap, and subsequent growth rates, no longer gave stable guidance on whether the economy was overheating and likely to push inflation up or down. An inflation targeting central bank, and financial market participants, needed a new signpost to follow.

Chart 1: Large revisions to BoC potential GDP measure



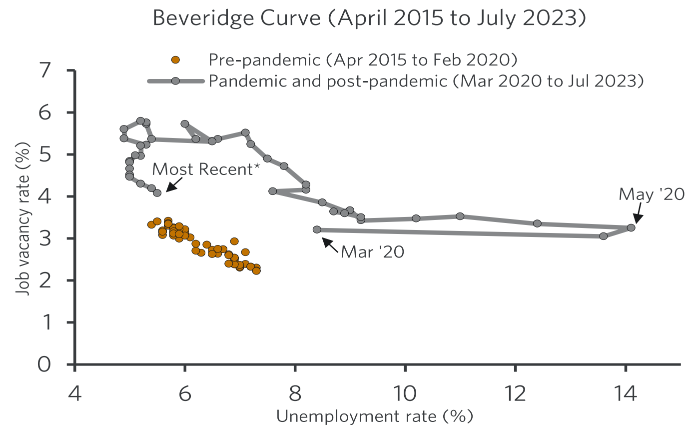
Source: Bank of Canada, CIBC

Chart 2: Jobless rate was below NAIRU in recent quarters



Source: Cusbert (2017), Statistics Canada, CIBC

Chart 3: Unemployment and vacancy rates now normalizing towards pre-pandemic levels



*Most recent reflects July unemployment rate and projected July job vacancy rate.

Source: Statistics Canada ,CIBC

All eyes on the labour market

The answer was for policy makers to shift their attention to what had set off the alarm bells in late 2021: the labour market. We might not be able to compare GDP to a stable estimate for potential, but we can look at unemployment, job vacancies rates and wages to sense if the labour market is in excess demand or supply. While they may briefly lag GDP, they are less volatile and seldom revised. In a signal that such measures were taking over as a steering mechanism, the MPR started to publish a rich constellation of labour market indicators and how they compared to pre-pandemic levels.

That still left a problem on the communications side. While some central banks publish their outlook for the unemployment rate, and even estimates for NAIRU — the lowest jobless rate that won't accelerate inflation — the BoC has been gun shy about saying that too few people are unemployed to hit their inflation target. The jobless rate forecast is nowhere to be found in its MPR, and its new flower chart of job market conditions provides little indication about the extent of price pressures from an overheated labour market. So the Governor continues to speak about the economy being in "excess demand" — a measure tied to GDP and the ever-changing output gap — to avoid having to say we are at a below-NAIRU unemployment rate, while admitting they want to see a cooler labour market.

Without a published estimate for NAIRU from the BoC, we and market participants have to take a do-it-yourself approach and estimate where it might lie. As in the US, it's been lower in recent decades owing to demographic changes (fewer young entrants who tend to experience more frequent or longer job searches), shifting industry mixes (a smaller share of Canadian employment in seasonal industries) and other factors.

Following the approach adopted by Cusbert (2017), we estimated the NAIRU over the 1997-2019 period in a model that ties accelerations or decelerations in prices and unit labour costs (i.e. whether wages tended to rise faster than productivity would explain) to the level of labour market slack, and then statistically smoothed the resulting estimates (Chart 2). The huge shocks in prices during the pandemic coming from sources other than labour market tightness necessitate cutting the estimates off before 2020, so we're essentially assuming a flat trend since then in the absence of any other plausible approach.

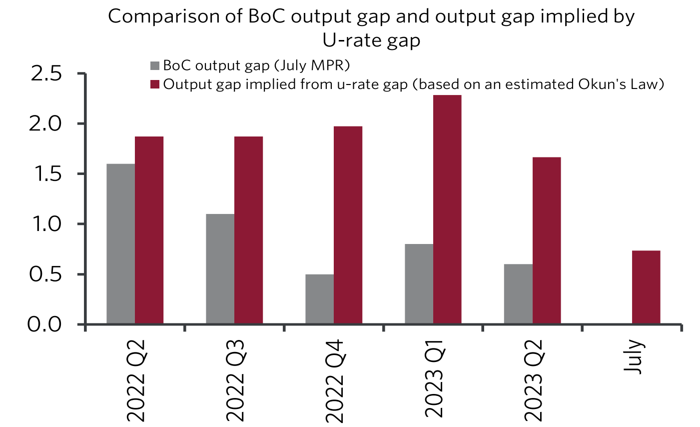
A NAIRU rate of 5.7% seems consistent with the relative stability in inflation in the last years of the prior cycle, and we even spent a bit of time at a slightly lower jobless rate without evidence of wage-price pressures. One difference between then and now is that the job vacancy rate has been persistently higher at any given unemployment rate (Chart 3). That additional source of potential pressure on wages has been normalizing, however, and seems to be closing the gap to its roughly 3% pre-pandemic vacancy rate at about the same pace as the unemployment rate is moving back to its pre-pandemic level.

A narrowing job market gap

Using NAIRU as a guide to measure excess demand in the labour market, we can better explain why inflation has been so stubborn in the past year, despite having seen the Bank of Canada's output gap measure showing less excess demand in GDP terms at some points over that period. We translated the gap between the actual unemployment rate, which got as low as 5%, and the NAIRU rate into the equivalent in GDP-gap terms, essentially measuring how much lower demand for goods and services would have to be to raise the jobless rate to NAIRU.

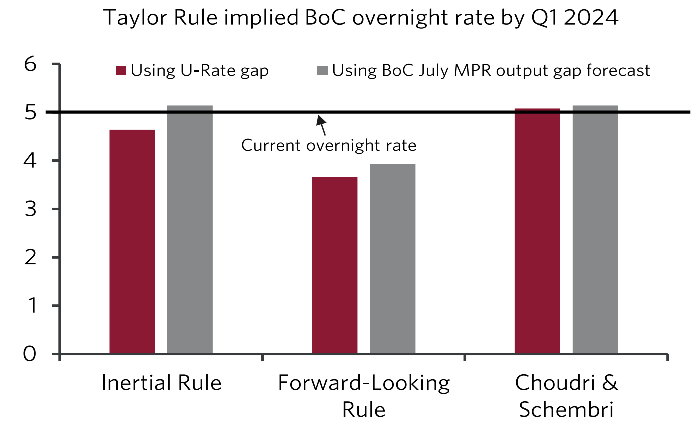
That measure of excess demand was around 2% of GDP, as opposed to the BoC's output gap measure which narrowed when GDP growth decelerated in the latter half of 2022 (Chart

Chart 4: Using U-rate gap, excess demand was high, but shrinking fast to July



Source: Bank of Canada, CIBC

Chart 5: Three Taylor Rules agree: further rate hikes not necessary



Source: Knotek II et al (2016), Choudri and Schembri (2013), Bank of Canada, CIBC

4). Essentially, inflation stayed troublesome because the slowing in output growth failed to cool labour demand.

But 2022's bad news on the labour-market gap has turned into brighter news in 2023, in the sense that when inflation is the issue, weakness is a virtue. By July, the unemployment rate had moved up to 5.5%, more than half way to closing the gap to NAIRU, and dramatically shrinking the estimate for the overheating in GDP terms. A couple more quarters of soft job gains and an upward creep in unemployment rate should do the trick, or perhaps even less if job vacancies further ease and help cool wage pressures.

Enough is enough?

If we are fated to creep up above a 6% jobless rate by early 2024, what should that mean for what the Bank of Canada does now, and next year? That's still a complex question, because the answer will depend on what other factors (at home and abroad) weigh on the outlook for growth and employment, but we can look at how typical central bank behaviour in an inflation-targeting approach would steer policy in light of the likely evolution of the labour market gap and inflation.

To do so, we consider three alternative versions of the so-called Taylor rule, which provide mostly descriptive guides for how much interest rates need to change based on an initial starting point to the degree to which actual inflation and measures of slack diverge from their targets. Of course, the inflation target is 2%, but we can look for differences in the results using the BoC's output gap versus the labour-market gap as the measure of slack. An "inertial Taylor rule" has rates adapt slowly to changes in the inflation and output or u-rate gaps, Bernanke's "forward looking" Taylor rule replaces the current gaps with those forecast for three quarters ahead, and the Choudri-Schembri approach estimates the response rates to inflation and output/labour market gaps based on those that best fit prior Bank of Canada and FOMC decisions.

Two results stand out. First, the quick progress we're making on bringing the unemployment rate back to NAIRU, should it continue towards a 6% plus jobless rate early next year, has these Taylor Rules suggesting an unchanged or lower interest rate by Q1 2024 regardless of the measure of slack. Second, using the NAIRU approach, would entail no further rate hikes in 2023 and rates lower than current 5% levels by Q1 2024 in two out of the three (Chart 5). If the Bank hikes in September, it would be doing so in the face of a job market outlook that suggests its not necessary.

Of course, for that result to hold, one has to buy into CIBC's forecast for the jobless rate to reach a bit above 6% early next year. In September, the Bank of Canada has to make its call without the benefit of the August labour market data. Our point here is that labour market indicators, not the ever-vacillating measure of the output gap, will and ought to be the key to whatever choice it makes.

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