



BANK OF CANADA
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Halifax Regional Chamber of Commerce
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Economic Progress Report: Inflation in Canada—Well Behaved and Well Controlled

Introduction

Thank you for inviting me to speak with you today.

The Bank of Canada's mandate is to promote Canada's economic and financial welfare. We fulfill this mandate in a number of ways, but we are probably best known for conducting monetary policy. We set our key policy interest rate with a goal of keeping inflation low, stable and predictable because that is the best way to promote sustained growth in employment and living standards.

Eight times a year, my colleagues and I on the Bank's Governing Council announce the setting for our policy interest rate. As you will likely have heard, we announced yesterday that we left our policy rate unchanged at 1.75 percent. Today, I would like to give you a sense of the thinking that led to our decision. I will also say a few words about the inflation process in the Canadian economy.

To better understand how the Bank made its decision yesterday, you should know that four of our eight annual decisions are based on a projection for the Canadian and global economies produced by Bank staff.¹ On those four dates, we use that projection as a basis for the forecast in the *Monetary Policy Report* that we publish with the announcement. On the other four dates, we base our decision largely on how the Canadian and global economies have evolved relative to the previous forecast.

Yesterday's announcement was one of the latter group. Before making our decision, we looked closely at how the economic data have been unfolding since the announcement in July. So, let us take a look at our last forecast and review what has happened over the past eight weeks.

¹ You can find a detailed description of the [decision-making-process](#) on the Bank's website.

I would like to thank Patrick Sabourin for his help in preparing this speech.

The July forecast

Our July forecast painted a mixed picture. The outlook for the global economy was clearly weakening. At the same time, Canada's economic rebound from a soft patch around the end of last year was stronger than we had expected.

Globally, the big issue in July was the ongoing trade war between the United States and China. Rising tariffs and the related uncertainty about global trade policy were taking more of a toll on both trade and business investment than we had previously thought, causing commodity prices to fall. Meanwhile, we saw that growth in the US economy was slowing to a sustainable pace, as we had expected.

Another global highlight was that many other central banks had either lowered their own policy rates to stimulate their economies or said they were prepared to do so, if necessary. These moves, along with the deteriorating global outlook, led to lower bond yields and borrowing costs in many economies, including here in Canada. Looking at all of these factors, we forecast in July that the global economy would be weaker, but there would not be a US or global recession.

In contrast to the weakening global outlook, however, most indicators for the Canadian economy in July were positive. Growth had rebounded more strongly than we had earlier forecast, driven by factors that were not likely to last—for example, a surge in oil production.

Still, a strong job market and rising wages were supporting growth in Canadian household consumption. This growth, along with the lower interest rates I just mentioned, led us to anticipate that the housing market would stabilize this year and would finish working through the dampening effects of various local housing measures, primarily in the greater Vancouver and Toronto areas, and the B-20 mortgage stress-test rules. All told, we projected that the economy would grow at a pace of 2.3 percent in the second quarter and that inflation would be close to our 2 percent target. Global trade tensions continued to cloud the outlook and represented the biggest risk to our forecast.

That is a quick review of how we saw things in July. Now let's look at how things have evolved since then.

Recent developments

Economies outside Canada

The first thing to note is that the main themes from July have not changed. We still see ongoing weakness in the global economy and resilience in the Canadian economy.

However, a few key aspects of the storyline have changed. Internationally, the US–China trade war has gotten worse. Escalating tariffs and uncertainty are reducing global trade and investment by more than we had forecast. The volume of global trade has now shrunk for a third straight quarter. Growth in major economies is slowing as manufacturing output and business investment weaken.

Specifically, recent data point to slower momentum than anticipated in both China and the euro area, with the risk of a recession rising in Germany. The US

economy continues to moderate but remains solid, supported by consumer and government spending.

Financial markets have continued to react to this weaker outlook, and more central banks have taken measures to stimulate their economies. Bond yields are lower, and the yield curve is inverted in many countries. An inverted yield curve means that short-term interest rates are higher than long-term rates. This is the opposite of how the yield curve normally looks because longer-term lending is usually considered riskier. Historically, an inverted yield curve has been viewed as a sign of a future recession, especially in the United States. Today, with interest rates so low to begin with, an inverted curve is more likely a sign that investors foresee weaker long-term growth.

The Canadian economy

In contrast to the global economy, Canadian economic data since July have surprised on the upside. Last week, we received the national accounts report for the second quarter. It showed the economy grew at a pace of 3.7 percent, much stronger than we had forecast.

Among the highlights from the report was labour income, which grew by 7 percent, reflecting continuing growth in employment and hours worked and a notable pickup in wages. That rise in income, along with the lower interest rates I mentioned earlier, helped support unexpected strength in housing. In fact, most people renewing a five-year fixed-rate mortgage today are paying a lower interest rate than they did five years ago. Housing is once again contributing to growth, with resales and starts catching up to underlying demand. High levels of household debt remain the main risk to Canadian financial stability, but with tighter mortgage rules in place, the quality of the stock of household debt should continue to improve.

However, consumption was surprisingly soft in the quarter, particularly given the increase in labour income. And the national accounts data suggest that some of the economy's strength will be temporary. Exports were very strong, but much of that came from a sharp rebound in shipments of crude oil and transportation equipment. Imports were surprisingly weak, and companies are still carrying high levels of inventories. Business investment contracted sharply after a strong first quarter, likely reflecting, in part, the impact of the escalating trade war.

The stronger second-quarter growth means that the economy was operating close to its productive capacity, or potential—a concept I will explain in a minute. And inflation has been very close to our 2 percent target.

Inflation and the Phillips curve

Now, let me spend a few minutes on the relationship between inflation and economic growth.

This issue has been in the news lately because inflation rates in the United States, the euro area and Japan have stayed low, even though their economies had been strengthening, at least until recently. In particular, there has been much

debate about the continued existence of what economists call the Phillips curve. This is the idea that there is a close link between economic growth and inflationary pressures.²

Because of the persistently low inflation experienced in several major countries, some observers have gone so far as to declare the Phillips curve dead. Here at home, though, our experience has been different. As the title of my speech says, inflation in Canada has been well behaved.

Before looking at the evidence that supports this claim, I would like to explain why this relationship is an important part of the Bank of Canada's approach to conducting monetary policy.

As I said at the beginning of this speech, the primary objective of the Bank's monetary policy is to achieve low, stable and predictable inflation. Like many other central banks that also practise inflation targeting, we adjust our policy interest rate to try to bring overall demand and supply into balance so that all of our productive resources are fully utilized. At this point, our labour force would be fully employed, and the economy overall would be using all of its productive capacity.³ This is what we mean when we say the economy is operating at its potential output.⁴ The concept of potential output is important because inflation should be close to our 2 percent target when the economy is operating at that level.

When there is a difference between the economy's potential output and what is actually being produced, we say there is an output gap. If we project that strong growth is likely to push the economy above potential—creating a positive output gap and causing inflation to increase above our target—we may raise interest rates to cool demand growth.⁵ And the reverse is true if weak growth is set to pull the economy below its potential, thus creating a negative output gap. So, by adjusting our policy interest rate, we influence demand for output and employment, aiming to close the output gap and achieve our inflation target.

To be sure, other factors beyond the output gap can affect inflation, measured by the consumer price index (CPI). Exchange-rate movements can affect inflation because they directly affect the price of imported goods and services consumed by households. And, because Statistics Canada calculates CPI inflation using

² There are a few different ways to define the Phillips curve. In this speech, I am talking about the relationship between inflation and the economy's output gap, not the relationship between inflation or wage growth and unemployment (which is related to the size of the output gap).

³ In practice, the concept of full employment does not imply that the unemployment rate would be zero because some workers are always transitioning between jobs for various reasons.

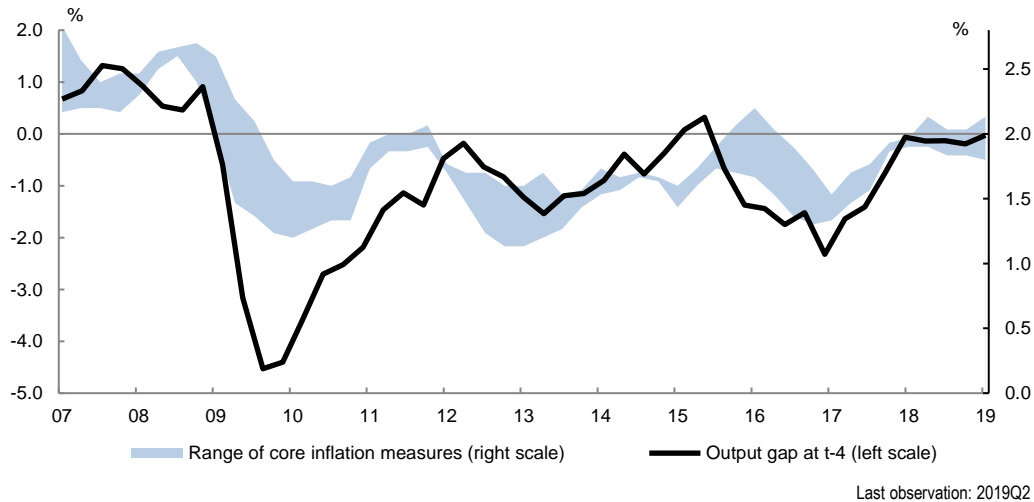
⁴ For more on this topic, see L. Schembri, "[The \(Mostly\) Long and Short of Potential Output](#)" (remarks to the Ottawa Economics Association and CFA Society Ottawa, Ottawa, Ontario, May 16, 2018).

⁵ Monetary policy is transmitted both through its effect on interest rates and its effect on the exchange rate. So, for example, a rise in the policy interest rate tends to appreciate the value of the Canadian dollar, making our exports more expensive and imports less expensive. This reduces the demand for Canadian-produced goods and services.

prices for a basket of goods and services that a typical family buys, swings in specific prices—such as for gasoline—can have a large impact.⁶

So, to help us see the underlying trend of inflation, we rely on a number of measures of core inflation that filter out most of the impact of these shocks. As a result, these core measures are less volatile than total CPI inflation and do a better job of capturing persistent, underlying movements in prices. In 2016, Bank staff evaluated various core measures in detail, which led us to announce that we would pay particular attention to three of them.⁷

Chart 1: Range of core inflation measures and the output gap



The behaviour of these three core measures in recent years offers some compelling evidence for the relevance of the Phillips curve in Canada.⁸ Think back to 2014–15, when the price of oil plunged, growth slowed, and the economy slipped below its potential output. Over that period, core inflation was well below 2 percent. As the Canadian economy adjusted to the oil price shock, the output gap began to close rapidly in 2017. By the second half of that year, core inflation moved back up toward our target, responding to the closing of the gap with a bit of a lag. Since then, our preferred measures of core inflation have been hovering around 2 percent. This is consistent with our estimate that the economy has been operating close to potential output throughout most of that period.

⁶ Of course, no household is average. You might buy a different set of goods and services every month. However, CPI is the best indicator of inflationary pressure available to us.

⁷ The three measures are called CPI-trim, CPI-median and CPI-common. You can find more information in [Renewal of the Inflation-Control Target Background Information—October 2016](#)

⁸ The question remains why the Phillips curve relationship between inflation and the output gap seems to hold more strongly in Canada than in other major jurisdictions, especially since the global financial crisis. The wide range of possible explanations include, for example, better anchored inflation expectations in Canada or less underlying slack in the labour market because the Great Recession that followed was less severe in Canada.

Today, the Bank is publishing an updated evaluation of our core inflation measures that shows that they continue to perform well.⁹ They are less volatile than CPI inflation and strongly linked to the output gap, with a lag.

This evidence of a close correlation between underlying inflation and the output gap bolsters our confidence in our inflation projections and in our framework for conducting monetary policy.

The latest data show that total inflation remained right at the 2 percent target in July. This is a bit stronger than we expected, mainly because of temporary factors, including higher prices for air travel, mobile phones and some food items. Our core inflation measures were also around 2 percent in July, which is consistent with the idea that the economy's output gap is essentially closed.

Our decision

So, with all that as background, let me conclude by talking about the Bank's decision yesterday.

My colleagues and I began our discussions by recognizing that the data indicate the Canadian economy is operating close to full potential, the unemployment rate is near historic lows and inflation—our primary responsibility—is right on target. The economy has clearly gotten past its earlier soft patch, the labour market has been strong and housing markets have begun to rebound. Although household debt levels remain high, mortgage underwriting rules are helping to contain financial vulnerabilities. This solid starting point means the economy has a welcome degree of resilience to possible negative economic developments.

That said, we agreed that the data show some areas of concern. Among these is the weakness in consumption. It is difficult to square the softness in consumption with the strength in labour income. And, of course, we are concerned about the drop in business investment, which is likely linked to ongoing trade war and related uncertainty. So, we continue to expect that economic activity will slow in the second half of the year.

Given Canada's reliance on international trade, we agreed that the trade war remains our primary concern and the biggest risk to our forecast. Trade policy uncertainty has been weighing on business investment and exports for a couple of years now. And things could certainly get worse internationally, which would deliver a complex shock to our economy affecting both supply and demand.

In this uncertain environment, central banks have been conducting monetary policy appropriate to their own circumstances and outlooks. This has contributed to lower bond market yields and reduced borrowing costs in Canada. The Bank of Canada will continue to conduct monetary policy appropriate to our own circumstances. We will continue to ground our decisions in our policy framework,

⁹ See H. Lao and C. Steyn, "A Comprehensive Evaluation of Measures of Core Inflation for Canada: An Update." Bank of Canada Staff Discussion Paper No. 2019-9. Note that these measures do not perfectly filter any relative price shocks. For example, the auto component of the CPI is idiosyncratic and relatively volatile; thus, one-time changes in auto prices can affect core inflation measures. It has a larger effect on CPI-median and CPI-trim than on CPI-common.

setting interest rates to achieve our inflation target, mindful of the implications for financial vulnerabilities. Our current policy setting of 1.75 percent, which is 50 basis points below the US policy rate, continues to support the economy.

To sum up, as I said earlier, Canada's economy is operating close to potential and inflation is on target. However, escalating trade conflicts and related uncertainty are taking a toll on the global and Canadian economies. In this context, the current degree of monetary policy stimulus remains appropriate. As the Bank works to update its projection in light of incoming data, Governing Council will pay particular attention to global developments and their impact on the outlook for Canadian growth and inflation.

I hope I have been able to shed some light on the Bank's rate-setting process. I thank you for your attention and look forward to answering your questions.