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CHECK AGAINST DELIVERY

Renewing Canada's Monetary Policy Framework

Over the past twenty years, Canadians have enjoyed a more stable and prosperous economic environment. Even during the recent crisis, the Canadian economy proved more resilient and recovered faster than our advanced-economy peers. The strength and relative stability of our economy have been due, in part, to Canada's inflation-targeting regime, which was first adopted in 1991. Earlier this month, the Government of Canada and the Bank of Canada jointly announced the renewal of the target for five more years—re-affirming its important role in enhancing the well-being of Canadians.

In my remarks today, I will discuss what went into this decision, while addressing three important issues that the crisis brought into sharp relief. I will conclude by providing a brief summary of how we apply this framework to today's circumstances.

Canada's Monetary Policy Regime Has Proved its Worth in Both Turbulent and Tranquil Times

The effectiveness of Canada's inflation-targeting regime is well established. Since its adoption, inflation has averaged 2 per cent, as measured by the consumer price index (CPI), and its standard deviation has fallen by roughly two-thirds, compared with the 1970s and 1980s. Greater price stability has allowed Canadians and their businesses to manage their finances with greater confidence. Interest rates have also been lower in both nominal and real terms across a range of maturities. As a consequence of these developments, low, stable and predictable inflation has encouraged more solid economic growth and lower and less-variable unemployment.

The global economic and financial crisis of 2008–09 delivered the largest shock in decades, putting the regime to an unprecedented test.

It passed.

The experience re-affirmed the strength of Canada's monetary policy framework, including the value of the regime's inherent flexibility. Nonetheless, the Bank has

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sought to draw the appropriate lessons from the debacle, particularly from the experiences of others for whom price stability proved insufficient to prevent economic and financial disaster.

Our work has provided important insights into the management of our regime, as well as potential lessons for other countries where trying circumstances have raised questions regarding their monetary policy frameworks.

What Is the Optimal Level of Inflation?

There is an ongoing debate regarding the “right number” for the inflation target. We have been targeting 2 per cent total CPI inflation, in recognition of the benefits of a slightly positive inflation rate in facilitating economic adjustments, and of the potential operational challenges associated with a lower target rate.[1]

Targeting an inflation rate lower than 2 per cent is intuitively appealing, since achieving the target still causes the price level to double roughly every 35 years, which may contribute to money illusion and more generally complicate inter-temporal decision-making. A lower inflation target could also further reduce the costly distortions associated with inflation, such as those stemming from difficulties in distinguishing between absolute and relative price changes, the cost of infrequent price and wage adjustments, and the disincentives to hold money. The Bank’s research has generally found that the further benefits from reducing these distortions imply an optimal rate of inflation closer to, or even slightly below, zero.

In a perfect world, we would pursue those gains through a lower inflation target. But we do not live in a perfect world. Even the models that we employ to quantify the additional benefits of a lower inflation target—models that aspire to an economist’s utopia—disagree on how material those benefits would be. Moreover, these models have typically abstracted from the very real-world costs and risks associated with very low rates of inflation, the most important of which is the risk associated with the zero lower bound (ZLB) on interest rates. At this level, conventional monetary policy can no longer be used to stimulate the economy—a risk that was brought into stark relief during the recent crisis.

The lower the inflation target, the lower the “equilibrium” nominal policy interest rate will be, and thus the greater the likelihood that shocks will push interest rates to the ZLB during “normal” times. Research at the Bank and elsewhere suggests that encounters with the ZLB should be quite rare with a 2 per cent inflation target, but may be more than four times more likely with a 1 per cent target and at least 16 times more likely with a zero per cent target. Indeed, with a target below 2 per cent, it is likely that the ZLB will be encountered through the ordinary course of the business cycle.

The costs of hitting the ZLB depend on the effectiveness, reliability and costs of available unconventional policy instruments. While these unconventional tools—

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[1] The lower the inflation target, the more likely it is that some nominal wages will occasionally need to decline to facilitate economic adjustment. If workers are reluctant to accept these declines, the process of real adjustment in the labour market will be impeded, inhibiting the efficient functioning of the economy. In other words, a positive inflation target “greases the wheels” of the economy.

conditional commitments, quantitative easing and credit easing—have provided additional stimulus, the magnitudes of the benefits and of the costs associated with their use will only be known over time. These costs could include financial market distortions, difficulties in unwinding large holdings of securities, and in the extreme, potential compromises to the political independence and credibility of the central bank.

With these risks now better appreciated, some have suggested that central banks ought to target an inflation rate higher than 2 per cent. There are essentially two arguments. First, a higher inflation target might reduce the frequency and severity of encounters with the ZLB.[2] Second, a higher inflation target may be a way out from the burden of excessive debt in those countries struggling with deleveraging.[3]

To the Bank of Canada, these are siren calls. Moving opportunistically to a higher inflation target would risk de-anchoring inflation expectations and destroying the hard-won gains that have come from the entrenchment of price stability in these economies. This is especially risky if a very sudden and large inflation "surprise" is needed, as might be the case given the relatively short duration of government debt portfolios in many of these countries. Moreover, if inflation is both higher and more uncertain, a higher inflation risk premium might result, prompting an increase in real rates that would exacerbate unfavourable debt dynamics.

Could Targeting the Price Level Be Superior?

So in our view, moving to a higher inflation target would be risky. However, for foreign countries with high levels of indebtedness and that are already at the ZLB, there might be other mechanisms to achieve higher nominal price paths, while maintaining long-term inflation expectations.

The Bank's research suggests that targeting a path for the level of prices might work. In contrast to an inflation-targeting regime where bygones are bygones, under price-level targeting (PLT), monetary policy would seek to make up for past deviations in order to restore the price level to a predetermined path. For example, following a period of below-target inflation, policy would seek a period of above-target inflation in order to ensure that average inflation corresponds to targeted inflation (the desired rate of change in the price level) over time. The more the price level were to undershoot the target, the more the central bank would need to stimulate the economy to make up the undershoot, and the more inflation expectations would thus be expected to rise and real interest rates to fall, supporting spending and prices. This "automatic" provision of added stimulus could be particularly useful when conventional monetary policy is exhausted at the ZLB, while the rise in near-term inflation expectations would be self-limiting by design, unwinding as the price level approached the desired path.

PLT may merit consideration as a temporary unconventional policy tool in countries faced with extraordinary circumstances, notably those with policy at the

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[2] O. Blanchard, G. Dell'Ariccia and P. Mauro, "Rethinking Macroeconomic Policy," IMF Staff Position Note SPN/10/03, 2010.

[3] K. Rogoff, "Inflation Is Now the Lesser Evil," *Project Syndicate*, December 2008.

ZLB and with a heavy burden of debt.[4] However, it is not clear that it would help much under the current circumstances faced by the crisis economies. This is because the trend in the price level in these countries since the onset of the global crisis has not, in fact, been all that weak.[5] So while PLT may help combat future disinflationary pressures in these countries, it is unlikely to be effective in providing additional stimulus now.

Accordingly, some have proposed a related framework that could better harness the power of expectations in getting these economies back on track right now—nominal GDP level targeting. In this case, the central bank would seek to make up for the undershoot in the trend in the value of national output.[6] That undershoot has been dramatic, reaching 10 per cent in the United States and 11 per cent in the United Kingdom—or nearly 2 trillion dollars combined—relative to the level that would have been attained with trend growth.[7] Those gaps are set to widen even further ahead, with real growth projected to remain slow and the inflation rate to fall. Committing to restore the level of nominal GDP to its pre-crisis trend could lend the powerful boost to expectations needed to reduce real debt burdens and more generally provide added stimulus to the economy through lower real interest rates.

There are, without question, risks to this approach. For PLT or nominal GDP level targeting to be effective, the expectations channel has to work in practice the way it does in theory. This requires that people be forward-looking, fully conversant with the implications of the regime and trust policy-makers to live up to their commitment. As Bank research has shown, if these conditions do not fully hold, these approaches could in fact prove destabilizing to the economy and damaging to the central bank's credibility.[8]

Moreover, there are reasons why central banks have preferred to support employment and output by targeting price stability, rather than more directly through an approach like nominal GDP targeting. Central banks can neither determine the appropriate path for these real variables nor control them over the long run, and pretending they can could have negative consequences for economic stability and central bank credibility.

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[4] See C. Evans, "Monetary Policy in a Low-Inflation Environment: Developing a State-Contingent Price-Level Target", Remarks delivered to the Federal Reserve Bank of Boston's 55th Economic Conference, Boston, Mass: 16 October 2010.

[5] In the third quarter, the level of the headline and core PCE price indexes in the United States stood 0.6 per cent and 1.3 per cent respectively below the level that would have been attained with 2 per cent inflation since the onset of the recession in the fourth quarter of 2007. The level of the headline CPI in the United Kingdom in the third quarter stood 5.5 per cent above the level that would have been attained had inflation met the United Kingdom's 2 per cent target since the onset of the recession in the first quarter of 2008.

[6] See J. Hatzius and S. Stehn. "The Case for a Nominal GDP Level Target," *US Economics Analyst*, Goldman Sachs Global ECS Research, Issue No: 11/41, 2011, and C. Romer, "Dear Ben: It's Time for Your Volker Moment," *The New York Times*, 29 October 2011.

[7] Assuming nominal GDP had grown at a 4½ per cent annual rate in the United States and United Kingdom from the level prevailing just prior to the onset of recession in these countries.

[8] Bank research, using ToTEM and other models, suggests that, as the proportion of agents with forward-looking expectations declines toward 50 per cent, the advantages of PLT over inflation targeting appear to diminish quickly. S. Murchison, "Consumer Price Index Targeting," Bank of Canada Working Paper (forthcoming).

Indeed, one of the major insights over the past three decades of monetary policy practice has been that targeting employment can create an incentive for surprise inflation, which in turn leads to higher unemployment. The best contribution monetary policy can make to sustainable job creation is low, stable and predictable inflation.

The Bank found that the potential benefits of adopting PLT are less valuable under ordinary circumstances, relative to the current inflation-targeting regime. But the risks that the regime might not be well understood or fully credible look no less daunting. Accordingly, the Bank could not comfortably endorse the adoption of a PLT regime as Canada's monetary policy framework. As is the case with unconventional monetary policy tools, however, the experience of others may provide valuable insights for Canada in the future.

How to Address Financial Imbalances?

The global economic and financial crisis has made it clear that a central bank pursuing price stability without due regard for financial stability risks achieving neither. Even though Canada did not experience a home-grown financial crisis, it is necessary for the Bank to understand better the lessons painfully learned elsewhere.

As we have all been reminded at great cost, low, stable and predictable inflation and low variability in activity can breed complacency among financial market participants, as risk-taking adapts to the perceived new equilibrium. Indeed, risk appears to be at its greatest when measures of it are at their lowest. The tendency to overreach is particularly marked if there is a perceived certainty about the stability of low interest rates. In short, complacency can lead to extremes and, ultimately, crisis.

The first line of defence against a buildup of financial imbalances is responsible behaviour by individuals and institutions. The more people recognize that they will bear the consequences of their actions, the fewer the problems that will arise.

Next comes effective "microprudential" regulation and supervision. Canada has a strong track record in this area, and our experience is being reflected in major international reforms of regulatory and supervisory frameworks for banks.

This approach is being enhanced by the adoption of a system-wide perspective. The Government of Canada has already made three timely and prudent adjustments to the terms of mortgage finance. Additional measures, such as the counter-cyclical capital buffer and through the cycle margining, are under development.

These defences will go a long way to mitigate the risk of financial excesses, but in some cases, monetary policy may still have to take financial stability considerations into account. This is most obviously the case when financial imbalances affect the near-term outlook for output and inflation.

In some exceptional circumstances where imbalances pose an economy-wide threat and/or where the imbalances themselves are being encouraged by a low interest rate environment, monetary policy might itself be the appropriate tool to support financial stability. Monetary policy has a broad influence on financial markets and on the leverage of financial institutions that cannot easily be

avoided. This “bluntness” makes monetary policy an inappropriate tool to deal with imbalances that matter only to a specific sector, but a potentially valuable tool in addressing imbalances that may eventually have economy-wide implications. Furthermore, a general understanding that monetary policy will be used to counteract pre-emptively the buildup of such imbalances is likely to enhance the stabilizing impact of this approach.

But this last point should not be overstated. The paramount goal of monetary policy in Canada has been, and remains, price stability. The primary tools to deal with financial stability are micro- and macroprudential regulation and supervision. Macroprudential tools are not a substitute for monetary policy in controlling inflation, and monetary policy cannot substitute for proper micro- and macroprudential supervision and regulation in maintaining financial stability.

Confirming Canada’s Flexible Inflation-Targeting Regime

Armed with these insights, the Bank and the Government have renewed the inflation-targeting regime that has served Canada so well over the past two decades. The core elements of the regime remain unchanged. The Bank will continue to conduct monetary policy aimed at keeping inflation, as measured by the total consumer price index (CPI), at 2 per cent, with a control range of 1 to 3 per cent around this target.

The inflation target is symmetric, which means that the Bank is equally concerned about inflation rising above or falling below the 2 per cent target. The Bank continues to use core inflation as an operational guide for its monetary policy because it is an effective indicator of the underlying trend in CPI inflation. Core inflation, along with other measures of inflationary pressures, is monitored to help achieve the target for total CPI inflation; it is not a replacement for the latter.

A flexible exchange rate is also a core element of Canada’s monetary policy framework. A floating Canadian dollar plays a key role in the transmission of monetary policy and allows the Bank to pursue an independent monetary policy. It also helps to absorb shocks to the economy.

The inflation-targeting framework has always been flexible. Typically, the Bank seeks to return inflation to target over a horizon of six to eight quarters. However, over the past twenty years, there has been considerable variation in the horizon, in response to varying circumstances and economic shocks. This flexibility is required because, when taking monetary policy actions to stabilize inflation at target, the Bank must also manage the volatility that these actions may induce in the economy. These trade-offs will differ depending on the nature and persistence of the shocks buffeting the economy.

There are limits to this flexibility. The Bank’s scope to exercise it is founded on the credibility built up through its demonstrated success in achieving the inflation target. This reinforces the importance of continuing the Bank’s relentless focus on achieving the 2 per cent inflation target over time.

Conclusion

Let me conclude with a quick illustration of how we are applying the framework under current circumstances. As recently as July, markets were expecting the near-term withdrawal of monetary policy stimulus in Canada. At that point, the policy interest rate had remained near historic lows for the better part of a year, even after Canada had recovered both all of the jobs and all of the output lost during the recession. This degree of stimulus was in part necessitated by the considerable external headwinds facing the Canadian economy, including weak U.S. activity and the persistent strength of the Canadian dollar. Since then, the Canadian economy has been hit by major shocks. The global economic outlook has weakened considerably and financial market volatility has increased, owing in particular to the ongoing European sovereign debt crisis. European authorities have announced important plans to provide time to refound their monetary union, but acute strains persist. At this point, the crisis appears barely contained.

In Canada, total CPI inflation is near the top of the target range, and preliminary evidence suggests that economic growth in the second half of the year will be slightly stronger than the Bank had projected in the October *Monetary Policy Report*. However, as outlined in the October *Report*, a weaker external outlook is expected to dampen growth in Canada through financial, confidence and trade channels. Domestic demand is expected to remain the primary driver of growth in Canada, but these shocks from abroad imply more subdued growth in household expenditures and less vigorous growth in business investment. As a result, the Bank continues to expect excess supply in the economy to persist well into 2013. This, along with the reversal of earlier sharp increases in food and energy prices, is expected to push total CPI inflation toward the bottom of the target range by the middle of next year.

In this environment, the Bank judges it appropriate to maintain the considerable monetary stimulus in place. This stimulus has been further enhanced by the sharp fall in global risk-free yields, which is providing further support to the Canadian economy through our well-functioning financial system. The Bank will continue to monitor carefully economic and financial developments in the Canadian and global economies, together with the evolution of risks, and set monetary policy consistent with achieving the 2 per cent inflation target over the medium term.

In a perfect world, there would be no further shocks, and those that have hit us would have precisely the effects that we anticipate. Then again, in a perfect world, these shocks wouldn't have happened in the first place. We make monetary policy in the real world, where shocks are a fact of life. That is why the Bank responds with a flexible approach, taking decisions guided by considered analysis and informed judgment rather than mechanical rules. It is our job to anticipate potential shocks, analyse their impact on economic activity and inflation in Canada, and set monetary policy consistent with achieving the 2 per cent inflation target over time. This ultimately remains the best contribution that monetary policy can make to the economic well-being of Canadians.