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CHECK AGAINST DELIVERY

## Living with Low for Long

### Introduction

I would like to thank the Economic Club of Canada for this opportunity to reflect on the current economic and financial trends. I am sure many in this room would like me to stop at the title, “Living with Low for Long,” so you can go merrily into the Christmas holidays, content that I have just provided an early present of extraordinary guidance on future Canadian monetary policy. However, I am not bearing gifts today. Canadian monetary policy will continue to be set, as it has in the past, for overall Canadian conditions and guided by our 2 per cent inflation target.

In my remarks today, I will focus on the factors that have led to a low-interest-rate environment in major advanced economies, and the implications of this environment for financial stability and economic growth.

### Global Economic Outlook

Current turbulence in Europe is a reminder that the crisis is not over, but has merely entered a new phase. In a world awash with debt, repairing the balance sheets of banks, households and countries will take years. As a consequence, the pace, pattern and variability of global economic growth is changing, and Canada must adapt.

For the crisis economies, the easy bit of the recovery is now finished. Temporary factors supporting growth in 2010—such as the turn in the inventory cycle and the release of pent-up demand—have largely run their course. Fiscal stimulus is turning to fiscal drag and, for some countries, rapid consolidation has become urgent. Household expenditure can be expected to recover only slowly. This all implies a gradual absorption of the large excess capacity in many advanced economies.

This is not surprising. History suggests that recessions involving financial crises tend to be deeper and have recoveries that take twice as long. In the decade following severe financial crises, growth rates tend to be one percentage point lower and unemployment rates five percentage points higher.<sup>1</sup> The current U.S. recovery is proving no exception.

In such an environment, very low policy rates in the major advanced economies could be in place for a prolonged period—a possibility underscored by the recent extensions of unconventional monetary policies in the United States, Japan and Europe.

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<sup>1</sup> See C. Reinhart and V. Reinhart, “After the Fall,” *Macroeconomic Challenges: The Decade Ahead*, Federal Reserve Bank of Kansas City 2010 Economic Policy Symposium. Available at: <<http://www.kansascityfed.org/publicat/sympos/2010/reinhart-paper.pdf>>.

This tendency towards low-interest rates is being reinforced by structural forces. The global economy is rapidly becoming multi-polar, with emerging-market economies now driving commodity prices, representing almost one-half of all import growth, and accounting for about two-thirds of global growth.

This is an increasingly uneasy emergence. Growth strategies reliant on exports and excess national savings are unsustainable in the long term. In the near term, for many emerging economies, the limits to non-inflationary growth are approaching and the challenges of shadowing U.S. monetary policy are increasing.

With currency tensions rising, some fear a repeat of the competitive devaluations of the Great Depression. However, the current situation is actually more perverse. In the 1930s, countries left the gold standard in order to ease monetary policy, and the system became more flexible.

Today, the process is working in reverse. The international monetary system is sliding towards a massive dollar block. Over a dozen countries are now accumulating reserves at double digit annual rates, and countries representing over 40 per cent of the U.S.-dollar trade weight are now managing their currencies.

This death grip on the U.S. dollar is reducing the prospects for rebalancing global demand. As the Bank of Canada has argued elsewhere, the potential costs are huge—up to \$7 trillion in lost global output by 2015.<sup>2</sup>

Ultimately, excessive reserve accumulation will prove futile. Structural changes in the global economy will yield important adjustments in real exchange rates. If nominal exchange rates do not change, the adjustment will come through inflation in emerging economies and disinflation in major advanced economies.

This more wrenching adjustment has already begun, raising the risk of debt deflation and deficient global demand. At a minimum, this dynamic reinforces the low-interest-rate strategies of major advanced economies and may necessitate further rounds of quantitative easing.

So what does this mean for countries caught in the middle, like Canada? I will review three aspects:

- the effect of the second round of quantitative easing (QE2);
- the implications for Canadian monetary policy; and
- the potential financial stability implications of “low for long” interest rates.

### **QE2 and implications for Canada**

Last month, the Federal Reserve launched a new program to buy US\$600 billion in longer-term treasury securities by the end of the second quarter of 2011.<sup>3</sup>

It is doing so because, even though its policy rate has been effectively zero for two years, the Fed is still missing both legs of its dual mandate to foster price stability and

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<sup>2</sup> See M. Carney, “Restoring Faith in the International Monetary System,” speech delivered to Spruce Meadows Changing Fortunes Round Table, Calgary, Alberta, 10 September 2010. Available at: <<http://www.bankofcanada.ca/en/speeches/2010/sp100910.html>>.

<sup>3</sup> It will also reinvest maturing existing holdings amounting to about US\$250 billion to US\$300 billion.

maximum employment. Core inflation is at an all-time low and unemployment is unusually high. The spectre of large structural unemployment threatens.

QE2 is designed to support the economy through easier financial conditions. In theory, by putting downward pressure on longer-term U.S.-Treasury rates, the program stimulates interest-sensitive sectors of the economy such as housing and business investment. Portfolio rebalancing should encourage investors to shift towards riskier assets such as corporate debt and equities. This in turn increases financial wealth, which supports spending. In contrast, some financial investment may shift to harder assets such as commodities, which would reduce the disposable incomes of Americans.

The exchange rate is another important channel. As returns on U.S. assets fall, investors could seek alternative investments outside the country, weakening the currency, boosting exports and curbing imports.

Finally, and importantly, expectations of higher growth should help increase inflation expectations towards a range consistent with the Fed's mandate. This keeps real interest rates down, which encourages investment and spending.

Of course, the exact impact of the program is hard to discern as QE2 is not the only news in financial markets. Since the policy was first mooted by Chairman Bernanke in August, all the expected effects have been evident, supporting the Fed's rationale. Since the November announcement, U.S. financial conditions have improved only slightly, reflecting the conflicting forces of some better U.S. data, heightened risk aversion caused by the European turmoil, possibly revised expectations regarding the ultimate size of the program, and the announcement of a major new fiscal package. The overall impact of QE2 may be more modest than previous interventions when market dislocations were more severe.<sup>4</sup>

The Bank of Canada anticipated the Fed's latest move when we published our October projection (not hard to do, given the openness with which the Fed discussed its plans). Overall, we expect the net impact on Canadian GDP to be positive but small. This balances the impact of stronger U.S. growth on demand for Canadian goods and services, as well as on our terms of trade, with the possibility of further drag on non-commodity exports arising from the persistent strength of the Canadian dollar.

### **Canadian Monetary Policy**

While the Canadian economy is importantly affected by developments in its largest trading partner, Canadian monetary policy is set for overall Canadian conditions and is guided by our 2 per cent inflation target. Given that the United States was the epicentre of the financial crisis and that the Canadian financial system has continued to function well, it is not surprising that our two economies have performed very differently. It is entirely appropriate that our monetary policies have diverged somewhat.

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<sup>4</sup> Research suggests that the first round of quantitative easing in 2009 was successful in improving market functioning and lowering long-term rates by 30-100 basis points in the United States and up to 100 basis points in the United Kingdom. See J. Gagnon, M. Raskin, J. Remache, and B. Sack, "Large-Scale Asset Purchases by the Federal Reserve: Did They Work?" (Federal Reserve Bank of New York Staff Report No. 441, March 2010) and M. Joyce, A. Lasoosa, I. Stevens and M. Tong, "The Financial Market Impact of Quantitative Easing" (Bank of England Working Paper No. 393, August 2010).

Consider the responses to the extraordinary monetary and fiscal stimulus enacted in the wake of the crisis.

- Canadian output has now surpassed its pre-crisis peak (a situation unique in the G-7).
- Canadian final domestic demand has grown by 5.7 per cent since the trough of the crisis—more than twice the rate (2.6 per cent) in the United States.
- The Canadian economy recovered all of the jobs lost in the recession and added a further 23,700; the U.S. economy has recovered only one-tenth of jobs lost, while over 40 per cent of unemployed workers have now been out of work for more than half a year.
- Household credit has grown by about 7 per cent in Canada since the trough in GDP; in the United States, it has fallen by 3.5 per cent.
- The most recent rates of core inflation were 1.8 per cent in Canada versus 0.6 per cent in the United States.

It is not all good news. The weak links in the Canadian economy have been poor productivity growth and declining export competitiveness. As the Bank has emphasised in recent months, a rotation of demand from household expenditures to business investment and net exports will be important to a sustained Canadian expansion. In this regard, much remains to be done.

Since the spring, the Bank has unwound the last of its exceptional liquidity measures, removed the conditional commitment, and raised the overnight rate from 0.25 per cent to 1 per cent. Last week, the Bank maintained its target for the overnight rate at this level. This decision leaves considerable monetary stimulus in place, consistent with achieving the 2 per cent inflation target in an environment of significant excess supply in Canada. Any further reduction in monetary policy stimulus would need to be carefully considered.

Historically low policy rates, even if appropriate to achieve the inflation target, create their own risks. Aside from monetary policy, Canadian authorities will need to remain as vigilant as they have been in the past to the possibility of financial imbalances developing in an environment of still-low interest rates and relative price stability.

I would like to spend the balance of my time on the more general issue of how the perception of low rates for long could potentially distort behaviour in public, financial, corporate and household sectors.

### **Implications for Sovereigns**

In some countries, low interest rates may delay necessary fiscal consolidation.<sup>5</sup> By shifting their debt profile towards shorter-term financing, governments reduce interest rate payments. The substantial purchases of longer-term government bonds by foreign and domestic central banks could delay market signals about debt sustainability.<sup>6</sup> While low current interest rates create short-term fiscal flexibility, they expose budgets to any

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<sup>5</sup> This is why it is important to adhere to the Toronto G-20 commitment to halve deficits by 2013 and stabilize debt to GDP by 2016.

<sup>6</sup> Estimates of central bank ownership of U.S. Treasuries and U.K. gilts are both now over 40 per cent.

increase in policy rates and abrupt changes in private market sentiment. Countries would be wise to heed the lessons learned by Canada in the 1990s: the bond market is there until it is not.

### **Implications of Low for Long for the Financial Sector**

The conviction that interest rates will be low for long can lead to various types of risky behaviour in the financial sector.

As we have all just been reminded at great cost, an extended period of stability breeds complacency among financial market participants as risk-taking adapts to the perceived new equilibrium.<sup>7</sup> Indeed, risk appears to be at its greatest when measures of it are at their lowest. Low variability of inflation and output (reduces current financial value at risk and) encourages greater risk-taking (on a forward value-at-risk basis). Investors stretch from liquid to less-liquid markets and large asset-liability mismatches are stretched across credit and currency markets.

These dynamics helped compress spreads and boost asset prices in the run-up to the crisis. They also made financial institutions increasingly vulnerable to a sudden reduction in both market and funding liquidity.<sup>8</sup>

The crisis prompted a brutal reversal, culminating in the panic in the autumn of 2008.

The period ahead will be somewhat different. In particular, perceptions of macroeconomic risk are more volatile, which should help limit complacency.<sup>9</sup> Nonetheless, some of the risky dynamics associated with perceptions of an extended period of low interest rates could still be at work going forward.

For example, over the past year and a half, banks have used low short-term funding rates to rebuild capital by investing in long-term government bonds.<sup>10</sup> This strategy is effective to a point, provided complacency does not set in over the duration of low policy rates. Making consistent positive carry may diminish the sense of urgency with which banks reduce leverage or write down bad assets. Financial institutions may also take this game too far, underestimating the risks. This is a particular concern since banks have considerably shortened the term structure of their funding in the aftermath of the crisis. Banks would do well to remember that marginal adjustments of interest rates have non-negligible effects when leverage is high.

A prolonged period of low interest rates also has important implications for insurance companies and pension funds with their longer-term guaranteed returns or benefits. By reducing yields on assets and raising the net present value of liabilities, a sustained period

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<sup>7</sup> Either perceptions of risk or risk preferences could change. In the former case, complacency about actual risks can mean taking greater risks within the same risk budget.

<sup>8</sup> See M.K. Brunnermeier and L.H. Pedersen, "Market Liquidity and Funding Liquidity," *Review of Financial Studies*, 2009 22(6):2201-2238.

<sup>9</sup> An analysis of the factors driving the weekly rates of return on a wide range of assets suggests that, since the bankruptcy of Lehman Brothers in September 2008, a higher proportion of the overall variation in weekly asset returns can be explained by a common factor. See Bank of Canada, *Financial System Review*, December, 2010.

<sup>10</sup> The expectations channel is important because it determines the term spread, net-interest margin and forward-looking capitalization (accrual) of the banks. See T. Adrian and H.S. Shin, "Financial Intermediaries, Financial Stability and Monetary Policy," a paper prepared for the symposium, "Maintaining Stability in a Changing Financial System," Jackson Hole, Wyoming, August, 2008.

of low interest rates makes these guarantees harder to fulfill. To address potential shortfalls, funds could move into riskier assets in a search for yield and/or shorten their duration to limit asset-liability mismatches.<sup>11</sup>

The extent of these strategies will depend on accounting treatment of liabilities and regulatory arrangements. Some new proposals such as the recent International Accounting Standards Board's proposed amendments to accounting standards for insurance contracts (IFRS 4) could have far-reaching systemic implications. The Bank correspondingly welcomes the Chairman's recent decision to consider other options to improve the transparency and international comparability of insurance accounting.

### **Implications for the Corporate Sector**

Low rates for an extended period of time reduce the incentives for banks to enforce the terms of loans and for firms themselves to adjust.

Past experience has shown that low policy rates allow "evergreening," or the rolling-over of non-viable loans. The classic example was Japan in the 1990s when banks permitted debtors to roll over loans on which they could afford the near zero interest payments but not principal repayments. By evergreening loans instead of writing them off, banks preserved their capital, but this delayed necessary restructuring of industry. Moreover, the presence of non-viable (or "zombie") firms limited competition, reduced investment and prevented the entry of new enterprises.<sup>12</sup>

Here in Canada, the risk of such delayed adjustment is relatively modest at present since most Canadian corporate balance sheets are in outstanding shape. Corporate leverage declined in the third quarter of 2010—approaching its lowest level in two decades—and it remains significantly below that in the United States, the United Kingdom and the euro area. However, it is possible that a mild form of such behaviour could develop in some sectors such as homebuilding, where land values may be slow to adjust to new realities. At present, low carrying costs provide powerful incentives for developers to wait out the current softness.

Unfortunately, the best contemporary analogue to the Japanese zombie firms is probably the U.S. household sector. Problems with the foreclosure process, government programs and forbearance by lenders are all delaying the adjustments.<sup>13</sup> Absent more aggressive restructuring, the impact of negative equity on one-quarter of U.S. homeowners will weigh on consumption for the foreseeable future.

### **Implications for Households**

Encouraged in part by low interest rates, Canadian household credit has expanded rapidly during the recession and throughout the recovery. As a consequence, the proportion of households with stretched financial positions has grown significantly.

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<sup>11</sup> To some extent, insurance companies are sheltered from the immediate effects given the longer-term nature of their obligations as well as penalties on the withdrawals of existing plans that can be sizeable.

<sup>12</sup> "Low Interest Rates: Do the Risks Outweigh the Rewards?" Bank for International Settlements Annual Report 2009/2010, Chapter III.

<sup>13</sup> Governor Kevin Warsh of the Federal Reserve rightly notes: "The steep correction in [U.S.] housing markets, while painful, lays the foundation for recovery—far better than the countless programs that sought to subsidize and temporize the inevitable repricing," from the speech, "Rejecting the Requiem," delivered to the Securities Industry and Financial Markets Association, New York, New York, 8 November 2010.

In a series of analyses over the past year the Bank has found that Canadian households are increasingly vulnerable to an adverse shock and that this vulnerability is rising more quickly than had been previously anticipated.<sup>14, 15</sup>

While there are welcome signs of moderation in the pace of debt accumulation by households, credit continues to grow faster than income. In some regions, lower house prices have begun to weigh on personal net worth. Without a significant change in behaviour, the proportion of households that would be susceptible to serious financial stress from an adverse shock will continue to grow.

The Bank has conducted a partial stress-testing simulation to estimate the impact on household balance sheets of a hypothetical labour market shock. The results suggest that the rise in financial stress from a 3-percentage-point increase in the unemployment rate would double the proportion of loans that are in arrears three months or more. Owing to the declining affordability of housing and the increasingly stretched financial positions of households, the probability of a negative shock to property prices has risen as well.

Even if the growth in debt continues to slow, the vulnerability of Canadian households is unlikely to decline quickly given the outlook for subdued growth in income. In addition, private consumption is unlikely to be bolstered by gains in house prices going forward.

### **Lines of Defence**

Experience suggests that prolonged periods of unusually low rates can cloud assessments of financial risks, induce a search for yield, and delay balance-sheet adjustments. There are several defences.

The first line of defence is built on the decisions of individuals, companies, banks and governments.

The Bank's advice to Canadians has been consistent. We have weathered a severe crisis—one that required extraordinary fiscal and monetary measures. Extraordinary measures are only a means to an end. Ordinary times will eventually return and, with them, more normal interest rates and costs of borrowing. It is the responsibility of households to ensure that in the future, they can service the debts they take on today.

Similarly, financial institutions are responsible for ensuring that their clients can service their debts.

More broadly, market participants should resist complacency and constantly reassess risks. Low rates today do not necessarily mean low rates tomorrow. Risk reversals when they happen can be fierce: the greater the complacency, the more brutal the reckoning.

The second line of defence is enhanced supervision of risk-taking activities. Stress testing in major economies should focus on excessive maturity and currency mismatches, look for evidence of forbearance (such as ailing industries receiving a disproportionate share of loans or the loosening of standards for existing debtors) and analyse the impact of sharp moves in yield curves.

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<sup>14</sup> Bank of Canada *Financial System Review*, June 2010 and December 2009.

<sup>15</sup> This analysis was conducted using data from the *Canadian Financial Monitor* survey by Ipsos Reid Canada.

These efforts will be aided by the imposition of the new Basel III regulations. Measures, including a leverage ratio, new trading book rules and liquidity standards, will help curtail excessive leverage and maturity transformation.

The third line of defence is the development of and selected use of macro-prudential measures. In funding markets, the introduction of through-the-cycle margining can help curtail liquidity cycles.<sup>16</sup> In broader asset markets, counter-cyclical capital buffers can be deployed to lean against excess credit creation. Importantly, following the agreement of G-20 leaders in Seoul, the Basel Committee endorsed the Canadian-led proposal for this framework.<sup>17</sup>

In the housing market, the Canadian government has already taken important measures to address household leverage. These include a more stringent qualifying test that requires all borrowers to meet the standards for a 5-year fixed-rate mortgage as well as a reduction in the maximum loan-to-value ratio of refinanced mortgages and a higher minimum down payment on properties not occupied by the owner. In addition, the Bank of Canada's interest rate increases reminded households of the interest rate risks they face. These measures are beginning to have an impact.

Canadian authorities are co-operating closely and will continue to monitor the financial situation of the household sector.

These defences should go a long way to mitigate the risk of financial excesses. But the question remains whether there will still be cases where, in order to best achieve long-run price stability, monetary policy should play a supporting role by taking pre-emptive actions against building financial imbalances. As part of our research for the renewal of the inflation-control agreement, the Bank is examining this issue. While the bar for further changes remains high, the Bank has the responsibility to draw the appropriate lessons from the experience of others who, in an environment of price stability, reaped financial disaster.

## **Conclusion**

These are extraordinary times. A massive deleveraging has barely begun across the industrialised world.

Canada entered this crisis extremely well-positioned. Due to the sacrifice of Canadians and the foresight of successive governments, our public debt burden was the lowest in the G-7. Thanks to the courage of my predecessors, monetary policy had tremendous credibility. Due to the quality of public supervision and private risk management, our banks had one of the soundest capital bases in the world. And after more than a decade of success, our corporate balance sheets were in great shape.

By combining these strengths with decisive policy actions, we have managed well through the turmoil. But the challenges we face have only just begun.

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<sup>16</sup> See "The Role of Margin Requirements and Haircuts in Procyclicality," a report prepared by a study group chaired by David Longworth and published by the Committee on the Global Financial System of the Bank for International Settlements, 23 March 2010. Available at: < <http://www.bis.org/publ/cgfs36.htm> >.

<sup>17</sup> This is the result of work prepared by the Basel Committee on Banking Supervision's Macro-Variables Task Force, chaired by Mark Zelmer of the Bank of Canada. See Results of the December 2010 meeting of the Basel Committee on Banking Supervision, 1 December 2010. Available at: <<http://www.bis.org/press/p101201a.htm>>.



Cheap money is not a long-term growth strategy. Monetary policy will continue to be set to achieve the inflation target. Our institutions should not be lulled into a false sense of security by current low rates.

Households need to be prudent in their borrowing, recognising that over the life of a mortgage, interest rates will often be much higher.

The weight of the adjustment beyond our shores means that demand for our products is weak and competition fierce. We must improve our competitiveness. Recovery after a recession demands that capital and labour be reallocated. The surge in business investment that began this past summer can only be the start.

Now is not the time for complacency.

Thank you.