Tiff Macklem: Promoting growth, mitigating cycles and inequality – the role of price and financial stability

Remarks by Mr Tiff Macklem, Senior Deputy Governor of the Bank of Canada, presented to the Brazil-Canada Chamber of Commerce, São Paulo, Brazil, 12 March 2012.

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Introduction

Good afternoon and thank you for the kind invitation to speak to the Brazil-Canada Chamber of Commerce.

The climates and geographies of Brazil and Canada couldn't be more different. Yet our countries have much in common.

We are both resource- and land-rich – Canada is the world's second-largest country, Brazil the fifth largest. We are both among the world's top 10 oil producers. We share a democratic system of government and market-based economies. And our monetary policies are both anchored by an inflation target with a flexible exchange rate.

In recent years we both faced a global financial crisis that emanated from beyond our borders. We weren't immune but came through it better than most.

Among G-7 countries, Canada had the shortest recession and one of the strongest recoveries. The recession in Canada lasted three quarters and our GDP is now 3.3 per cent above its pre-recession peak. Even more impressive is the recovery in Brazil, which returned to growth after just two quarters. Your GDP is now 8.2 per cent above its pre-recession peak.

Globally, the cost of the crisis has been enormous. The ensuing recession was the worst the world has seen since the 1930s and the most globally synchronous in history. Almost 28 million jobs disappeared. Output losses to the global economy amounted to at least US$4 trillion. The recoveries in the United States and the euro area are the weakest since the Great Depression and risks are elevated. These global headwinds continue to challenge the Brazilian and Canadian economies.

The devastation wrought by the crisis has focused attention on rising levels of income inequality in most advanced countries. The ensuing recession inflicted the greatest hardship on the most vulnerable. And this comes against the background of a disquieting trend. Not only have lower- and middle-income households borne a disproportionate share of the cost of the Great Recession, they reaped less than their proportional share of the income gains during the Great Moderation. Those gains were skewed to higher-income households.

The growing disparity between rich and poor has prompted young people and business leaders, workers and the unemployed, and academics and policy-makers alike to ask some fundamental questions – first, about the role and structure of the financial system and, more recently, about capitalism itself. From the supporters of the Occupy Wall Street movement to the editors at the *Financial Times*, the market economy is under acute scrutiny.

In my remarks today I want to address these concerns. I have three main messages.

First, markets work better than anything else at delivering opportunity and prosperity. Second, an efficient and resilient financial system is an essential enabler to growth and inclusion. But, third and critically, markets only work well within sound policy frameworks. All markets – and financial markets in particular – need clear rules, diligent oversight, and consistent enforcement of the rules. Systemic crises are not the inescapable product of capitalism, and inequality is not the necessary by-product of growth.

Central banks play an important role in supporting well-functioning markets by promoting both price and financial stability. These are essential public goods that sustain growth and mitigate cycles and inequality.

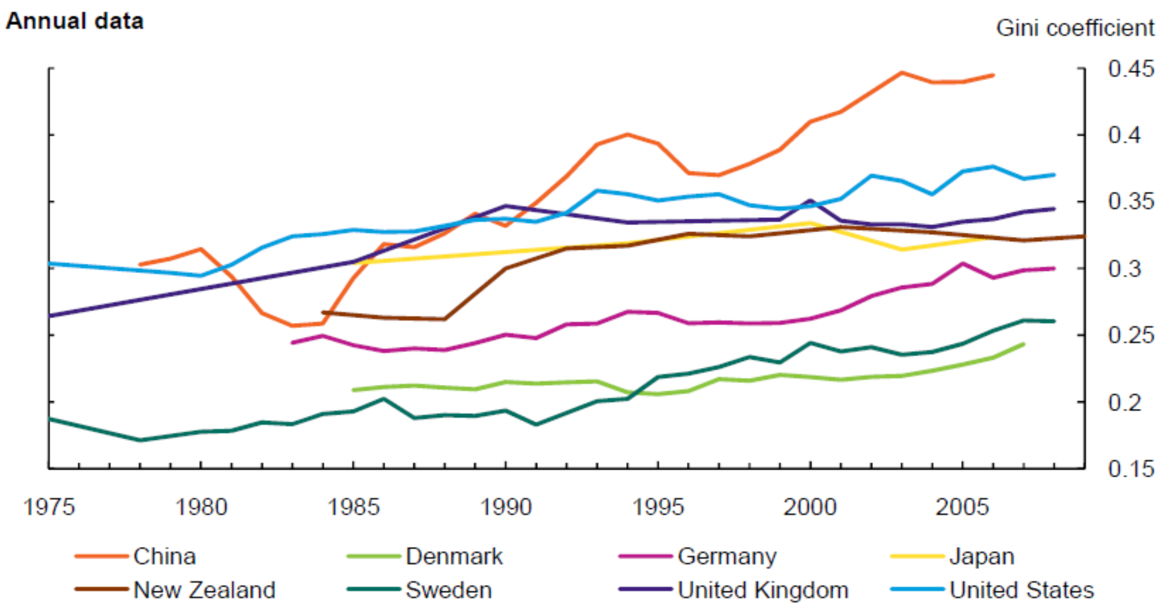
Growth, cycles and inequality

Over the past quarter century, steady advances in transportation, communication, and information technologies, underpinned by the widespread adoption of market-based economic policies, have globalized and expanded economies everywhere, especially those of Brazil, India and China. Never in history has economic integration involved so many people, such a variety of goods, and so much capital.

This has dramatically narrowed the gap between rich and poor countries, lifted hundreds of millions of people out of poverty and created the potential for hundreds of millions more to share in the benefits. The shrinking disparity between the United States and China is particularly striking. In 1990, GDP per capita in the United States was almost 30 times higher than in China; by 2010, this ratio had fallen to just 6 times.

However, at the same time as inequality between countries has been declining, the gap between rich and poor within many countries has increased (***Chart 1***). Countries as diverse as China, Denmark, Germany, Japan, New Zealand, Sweden, the United Kingdom and the United States have all seen inequality rise, as measured by their Gini coefficients.[1] Again, to use the example of the United States and China, from the mid-1980s to the late 2000s, the Gini coefficient in the United States increased from 0.33 to 0.37, while inequality in China increased from 0.29 to 0.44.

Chart 1: Income inequality has risen in most countries



Note: Where possible, reported Gini coefficient is after taxes and transfers of the working age population. Estimates for China are from Chen et. al (2010), "The Trend of the Gini Coefficient in China," BWPI Working Paper 109 (available online). Linear interpolation is used for missing values.
Sources: OECD and Chen et. al (2010)

[1] The most common measure of inequality, the Gini coefficient, ranges between 0, when everyone has exactly the same income, to 1, when only one person holds all the income.

Among advanced countries, income inequality in the United States is at the high end of the range and has trended upward since the early 1980s. In 1981, the income share of the wealthiest 5 per cent of U.S. households was 16.5 per cent. By 2010, this share had increased to 21.3 per cent. Over the same period, the income share of the bottom 20 per cent shrank from 4.1 per cent to 3.3 per cent. With the onset of the crisis in 2007, the decline accelerated as rising unemployment affected workers at the lower end of the income distribution, particularly younger and less-educated workers. The last time inequality in the United States was so severe was during the 1920s.

In short, market forces have been a powerful mechanism for creating wealth and narrowing the income gaps between countries. At the same time, however, globalization, combined with technological change, is concentrating wealth in fewer hands within many countries.

Brazil and Canada

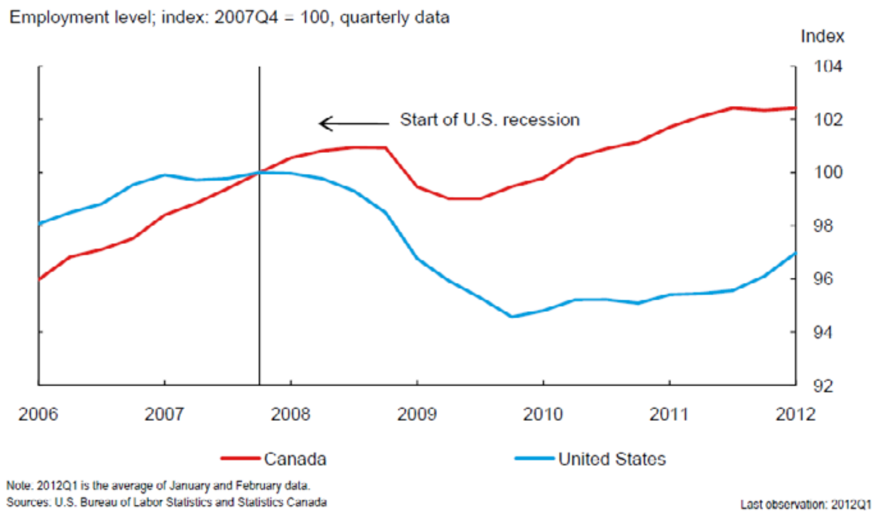
Let me turn now to Brazil and Canada. The economic record of our countries in recent years provides an important counter-example to those questioning capitalism. In the face of the global crisis, neither country was obliged to bail out its banks. Our policy frameworks performed well under stress. And our economies proved resilient in the face of a global crisis.

To an important degree, this outcome reflects the guidance we took from our own past mistakes in the 1980s and 1990s. Learning from bitter experience, Canada and Brazil put in place robust economic frameworks to support markets, including flexible inflation-targeting regimes, prudent fiscal policies, sound financial sector regulation and proactive oversight.

In Canada we tend to compare our economic performance with that of the United States, for obvious reasons. Our financial systems and economies are highly integrated. So when the United States plunged into recession in the autumn of 2007, Canada was affected through trade, financial, and confidence channels. But with our well-regulated financial system, a credible monetary policy framework and a record of fiscal prudence, monetary and fiscal stimulus proved highly effective in dampening the cycle and spurring the recovery.

This resilience had a profound impact on the relative performance of our labour market. The United States lost 8.6 million jobs in the recession and, despite the recent improvement in job creation, only about half of those jobs have been regained. In Canada, on a proportional basis we lost about 40 per cent of the jobs that were lost in the United States. Moreover, by early 2011 all of these had been recouped and employment is now 1.5 per cent above its level at the start of the recession in Canada (and 2.4 per cent above its level at the start of the recession in the United States) (***Chart 2***).

Chart 2: Canada has more than fully recovered all jobs lost



Note: 2012Q1 is the average of January and February data.
Sources: U.S. Bureau of Labor Statistics and Statistics Canada

In Canada, as elsewhere, low-income workers were hit hardest by the recession. But with a less-severe contraction in employment and a faster recovery, they fared far better than those in the United States. The unemployment rate for U.S. workers with less than a high school education almost doubled, rising from 10 to 19 per cent. And for younger workers aged 16 to 19, the rise in unemployment was even bigger, increasing from 15 to 26 per cent. By comparison, in Canada the unemployment rate among youth and the least educated rose by 4 to 5 percentage points (***Chart 3 a***, ***b***).

Similarly, while Canada has not escaped the trend toward higher levels of inequality, inequality in Canada is substantially lower than it is in the United States (***Chart 4***). Over the past quarter century, economic growth in Canada and the United States has been virtually the same, averaging close to 2.6 per cent. But Canada has achieved this comparable rate of growth with less inequality.

I won't presume to lecture you on the history of the reforms instituted here in Brazil, but I will suggest that the world needs to hear more about Brazil's success story. The impact of the changes put in place more than ten years ago is both impressive and instructive. As the Brazilian economy became more open to the rest of the world and more market oriented, annual economic growth rose from about 2.4 per cent in the early 2000s to 7.5 per cent by the end of the decade. Brazil's exports of goods and services, as a share of GDP, increased from 6.6 per cent in 1996 to 11.2 per cent in 2010.[2]

The most remarkable measure of success is that this step-up in growth was achieved with a declining rate of inequality – proof positive that economic growth isn't inevitably shadowed by a widening gap between rich and poor. Inequality peaked in Brazil in the 1980s as the economy endured a series of crises, culminating in hyperinflation. But by the 1990s, growth and equality began to improve. With market-based reforms starting in the 1990s, combined with Brazil's move to inflation targeting and a flexible exchange rate in 1999, fiscal reforms that put public finances on a sustainable track early in the 2000s, and social programs tied to education and health, this virtuous cycle accelerated (***Chart 5***). The decline in inequality has been significant, with the Gini coefficient falling from 0.60 to below 0.55. This combination of faster growth and declining inequality helped lift some 20 million Brazilians out of poverty between 2004 and 2009. Moreover, the potential to raise millions more out of poverty remains.

Indeed, broader cross-country evidence suggests that lower inequality may in turn be good for sustaining growth. Based on the historical experiences of a broad sample of countries, recent research at the International Monetary Fund (IMF) suggests that for a country with median inequality (i.e., with a Gini coefficient of 0.40), a 10-percentile decrease of the Gini (to 0.37) increases the expected length of a growth spell by 50 per cent.[3] Extrapolating from this study for the case of Brazil, these point estimates suggest that the decline in the Gini coefficient from 0.60 to 0.55 would be associated with a better than 75 per cent increase in the expected length of a growth spell, all other factors being equal. This bodes well for the future in Brazil.

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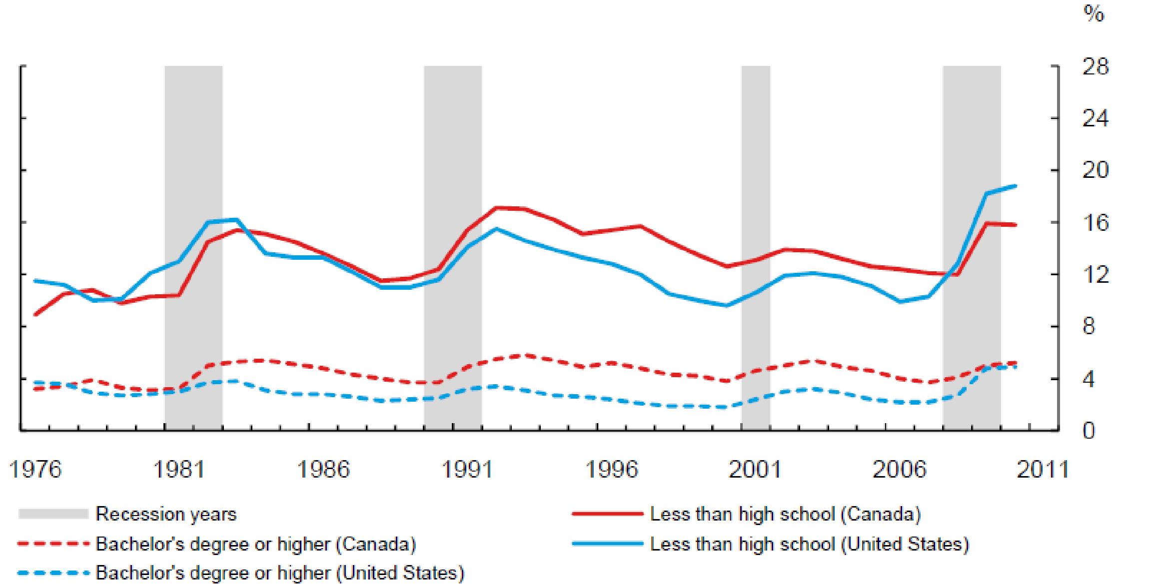
2 These figures are taken from the World Bank *World Development Indicators* database.

3 A. Berg and J. Ostry, "Inequality and Unsustainable Growth: Two Sides of the Same Coin?" Staff Discussion Note No. SDN/11/08, International Monetary Fund, 2011; and A. Berg, J. Ostry and J. Zettelmeyer, "What Makes Growth Sustained?" Working Paper No. WP/08/59, International Monetary Fund, 2008.

Chart 3: The most vulnerable groups fared better in Canada than in the United States during the recession

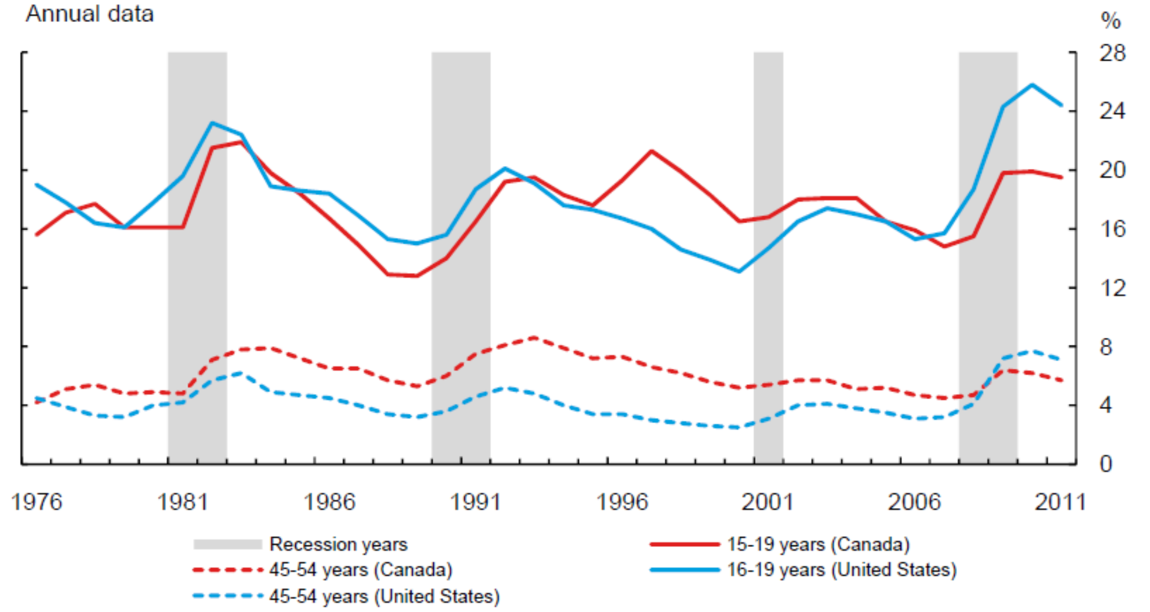
a. Unemployment rate by educational attainment
Annual data



Sources: U.S. Census Bureau and Statistics Canada

Last observation: 2010

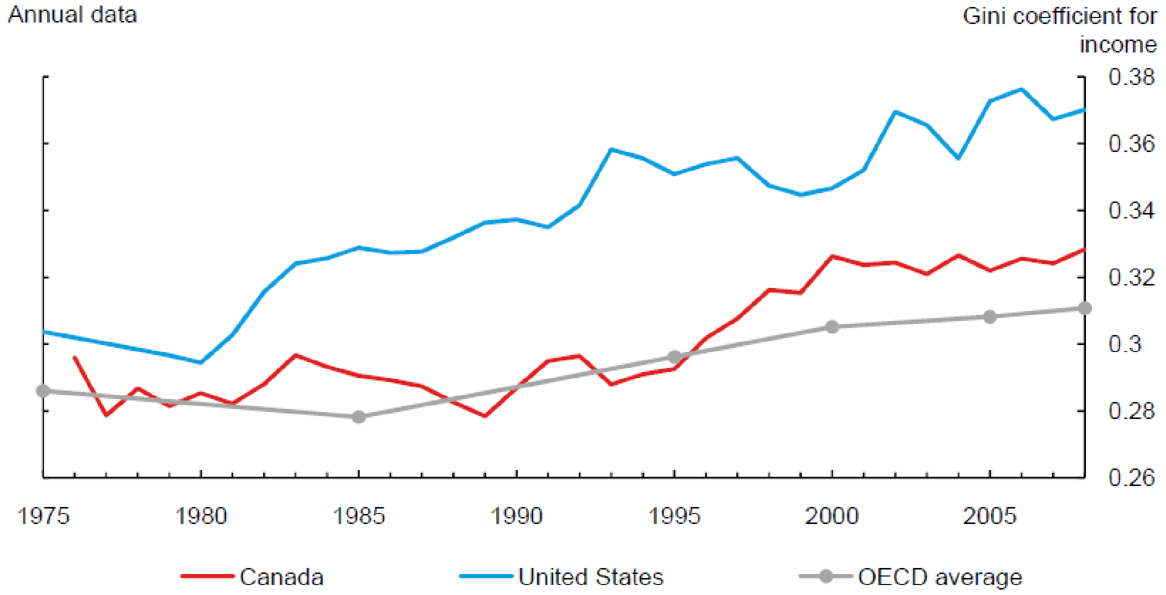
b. Unemployment rate by age
Annual data



Sources: U.S. Bureau of Labor Statistics and Statistics Canada

Last observation: 2011

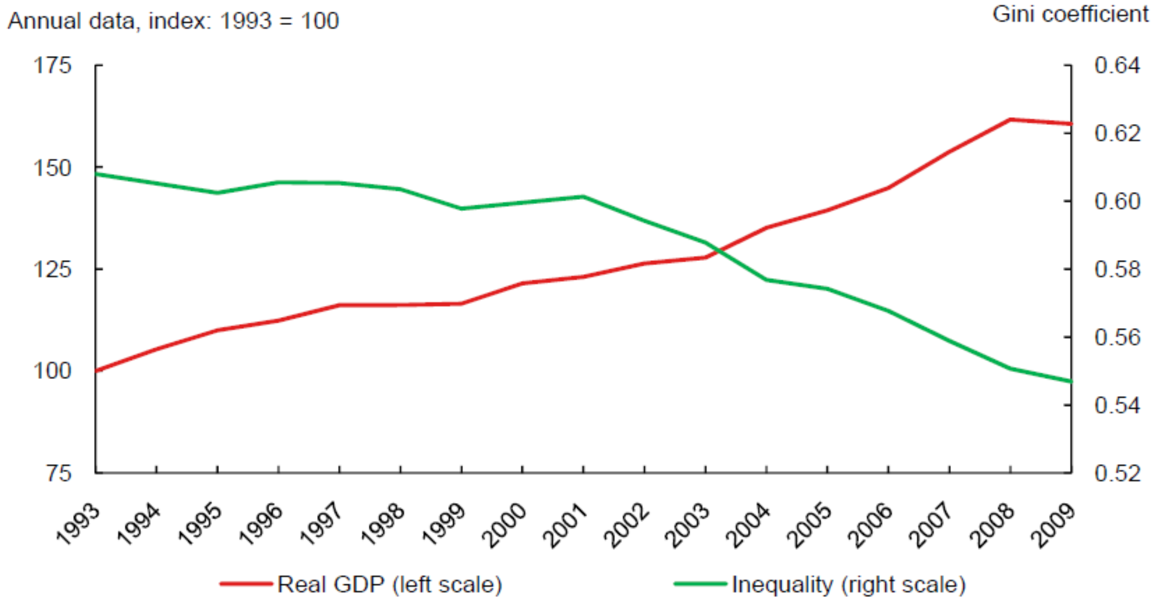
Chart 4: As in most OECD countries, inequality has increased in Canada and the United States



Note: Gini coefficient is for income after taxes and transfers of the working-age population. Linear interpolation is used for missing values.
Source: OECD

Last observation: 2009

Chart 5: Since the late 1990s, the pace of real GDP increases in Brazil has stepped up while inequality has decreased



Note: Linear interpolation is used for missing values.
Source: World Bank

Last observation: 2009

What can central banks do?

How economies enter the virtuous circle of growth that both reduces inequality and is more sustainable is a complex subject involving a broad range of factors and the full array of policy frameworks, including education, health, openness to trade, foreign investment, financial development, and fiscal, labour market and environmental policies. Needless to say, these step well beyond the mandates and expertise of central banks. But within this matrix, central banks have two limited but important roles to play: promoting price and financial stability.

Price stability

Low, stable and predictable inflation promotes growth, mitigates economic cycles and protects the purchasing power of money.

In 1991 the Government and the Bank of Canada adopted an inflation-targeting regime, which was renewed again in 2011 for another five years. Canadians have benefited in a number of important ways from this regime. An improved inflation environment has allowed consumers and businesses to manage their finances with greater certainty about the future purchasing power of their savings and income. Interest rates have also been lower in both nominal and real terms across a range of maturities. More broadly, low, stable and predictable inflation has helped to encourage more stable economic growth in Canada and lower and less-variable unemployment (***Table 1***).

The reduced cyclical variability in unemployment has particularly benefited more vulnerable households. Unemployment rates for younger workers and those with less education are considerably more variable than those for well-educated, prime-age workers (***Table 2***). More stable economic growth in Canada in the 20 years since we began inflation targeting has reduced the cyclical fluctuations in unemployment for workers across all age and educational categories, but the largest declines in variability have been experienced by younger and less-educated workers. Mitigating cycles is good for equality.

Inflation control also offers a more direct benefit to lower-income households. Inflation is a tax on cash, and the proportion of household assets held in cash decreases as income rises.[4] As a result, the burden of inflation borne by low-income households is significantly higher than for the wealthy.

High and unstable inflation also imposes particular hardships on those individuals whose incomes do not keep pace with rising prices, especially people on fixed incomes, such as pensioners.

Recent research at the Bank of Canada and elsewhere suggests that when inflation increases from 2 per cent to 5 per cent, average consumption by the poor declines by about 1.4 per cent, about four times the decline that occurs among the wealthy. And the drop in consumption among the elderly is about 1.8 times larger than that experienced by the young.[5]

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[4] D. Kessler and E. Wolff, “A Comparative Analysis of Household Wealth Patterns in France and the United States,” *Review of Income and Wealth* 37 no. 3 (1991): 249–66; A. Kennickell and M. Starr-McCluer, “Household Saving and Portfolio Change: Evidence from the 1983–1989 SCF Panel,” Finance and Economics Discussion Series 18, Division of Monetary Affairs, Federal Reserve Board, Washington D.C., 1996; A. Erosa and G. Ventura, “On Inflation as a Regressive Consumption Tax,” *Journal of Monetary Economics* 49, no. 4 (2002): 761–95; S. Cao, C. Meh, J.V. Rios-Rull and Y. Terajima, “Inflation, Demand for Liquidity and Welfare,” forthcoming paper, Bank of Canada (2012); C. Meh, J.V. Rios-Rull and Y. Terajima, “Aggregate and Welfare Effects of Redistribution of Wealth under Inflation and Price-Level Targeting,” 2010. *Journal of Monetary Economics* 57 (6), 637–52.

[5] S. Cao, C. Meh, J.V. Rios-Rull and Y. Terajima, “Inflation, Demand for Liquidity and Welfare,” forthcoming paper, Bank of Canada, 2012; A. Erosa and G. Ventura, “On Inflation as a Regressive Consumption Tax,” *Journal of Monetary Economics* 49, no. 4 (2002): 761–795.

Table 1: Canada's Economic Performance, 1975-2011

	Average (%)			Standard deviation		
	1975M1 to 1991M1	1991M2 to 2011M12	1995M1 to 2011M12	1975M1 to 1991M1	1991M2 to 2011M12	1995M1 to 2011M12
CPI: 12-month increase[1]	7.1	2.0	2.0	2.9	1.2	0.9
Real GDP growth[2]	3.0	2.6	2.6	3.6	2.5	2.6
Unemployment rate[3]	8.9	8.2	7.6	1.7	1.6	1.1
3-month interest rate[4]	10.9	4.1	3.5	3.0	2.1	1.8
10-year interest rate[5]	10.7	5.6	4.9	2.0	1.9	1.4

1. Year-over-year percentage change in total CPI

2. Annualized quarter-over-quarter growth rate for quarters within the time period

3. Unemployment data start in 1976M1, owing to the introduction of a new labour force survey at that time.

4. The 3-month interest rate refers to the 3-month prime corporate rate (Statistics Canada, Table 176-0041, series v121812).

5. Owing to data limitations, the 10-year interest rate before June 1982 refers to yields on government bonds with terms over 10 years (Statistics Canada, Table 176-0041, series v121758); after June 1982, it is based on the 10-year government bond yield (Statistics Canada, Table 176-0041, series v121790).

Table 2: Volatility of Unemployment,1976-2011, by Education Level and Age

	Unemployment rate – standard deviation		
	1976M1 to 1991M1	1991M2 to 2011M12	1995M1 to 2011M12
Education			
Less than high school	2.2	1.7	1.5
High school	1.9	1.6	1.2
Some college	1.5	1.5	1.0
Bachelor's degree or higher	0.9	0.6	0.6
Age			
15-18 years	2.8	1.9	1.9
20-24 years	2.6	2.2	1.5
25-34 years	1.9	2.0	1.3
35-44 years	1.4	1.4	1.0
45-54 years	1.2	1.2	0.9
55+ years	1.3	1.4	0.9

Note: Unemployment data start in 1976M1, owing to the introduction of a new labour force survey at that time. All unemployment figures are for both genders. Monthly data have been seasonally adjusted using the U.S. Census Bureau X-12 procedure. "Some college" includes those with some post-secondary education, including a certificate or diploma.

Financial stability

Low, stable and predictable inflation promotes growth and can help mitigate cycles and inequality. However, the financial crisis has been a stark reminder that low inflation is no guarantee of financial stability.

The causes of the financial crisis are many and complex. Its epicentre was the U.S. subprime-mortgage market, the growth of which was fuelled, in part, by rising levels of inequality as lower- and middle-income Americans took on more debt to compensate for stagnating incomes and wealthy investors searched for yield.[6]

The consequences have been severe and will be with us for years to come. History suggests that recessions following financial crises tend to be deeper, and the recoveries shallower. On average, the loss of output in a recession after a financial crisis is two to three times the loss in a normal recession. And typically, it takes output twice as long to return to its pre-recession level after a financial crisis than after a normal recovery.

Sadly, the recoveries in the United States and Europe show no signs of escaping this lesson from history. Both are experiencing the weakest recoveries since the Great Depression. The resulting unemployment, particularly long-term unemployment, is exacerbating inequality. In the United States and the euro area combined, more than 11 million workers have been out of work for more than a year.

The other side of the coin is that an efficient and resilient financial system is essential to growth, and financial development has proven an important ingredient to reducing inequality.

A well-functioning financial system is a key enabler to growth, channelling savings to productive investments, and helping households and businesses manage risks. Increasingly, cross-country evidence also suggests that financial development eases inequality by reducing transactions costs. This provides the opportunity to accumulate assets and smooth consumption, make financing accessible to local entrepreneurs, and promote inclusion in the formal economy. Recent research finds that financial development, measured as the ratio of private credit to GDP, both raises growth and reduces inequality. For the poorest quintile, 60 per cent of the benefit of financial development comes from overall economic growth and 40 per cent from greater income equality.[7] In short, there is a virtuous circle of financial development, growth and reduced inequality.

This points to the imperative of a dynamic and robust financial system.

The excesses and abuses in the financial system that led to the crisis have been a lightning rod for public discontent.

Understandably so.

But the answer is not to dismantle the financial system. It must be rebuilt. That process is well under way.[8]

The G-20 financial reform agenda, launched in the depth of the recession, is suitably sweeping. Its key elements include:

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6 R. Rajan, *Fault Lines*: *How Hidden Fractures Still Threaten the World Economy* (Princeton, N.J.: Princeton University Press, 2010).

7 S. Jahan and B. McDonald, "A Bigger Slice of a Growing Pie," *Finance & Development* (September 2011): 16–19; R. Levine, "Finance and Growth: Theory and Evidence," in *Handbook of Economic Growth*, edited by P. Aghion and S. Durlauf, vol. 1 (Elsevier, 2005): 865–934; and T. Beck, A. Demirgüç-Kunt, and R. Levine, "Finance, Inequality, and Poverty: Cross-Country Evidence," National Bureau of Economic Research Working Paper No. 10979, Cambridge, 2004.

8 T. Macklem, "Raising the House of Reform," speech to the Rotman Institute for International Business, Toronto, Ontario, 7 February 2012.

- capital and liquidity buffers to make banks safer;
- broadening the span of regulation and oversight so that all systemically important financial institutions, markets and products are included;
- stronger infrastructure so that core financial markets continue to function in periods of stress; and
- credible and effective resolution regimes for all financial institutions so that no institution is too big to fail.

Many of these reforms are now being implemented. Others are still in the policy development stage.

These reforms are not without costs. Higher capital and liquidity standards will raise the cost of funds. But the benefits of reducing the frequency and severity of crises are much larger. Under conservative assumptions, a cost-benefit analysis by the Bank of Canada suggests that strengthened international liquidity standards and a 2-percentage-point increase in bank capital ratios globally would generate net gains to Canada in present-value terms of about 13 per cent of GDP, equivalent to about $200 billion.[9] The gains for the world economy are even greater, reflecting the higher historical frequency of crises globally. The cumulative net present value gain of these higher global standards is equivalent to more than 35 per cent of global GDP.[10]

Conclusion

Let me conclude.

Markets work better than anything else. They have proven over time to be the best generator of prosperity. But markets need to be guided by sound policy frameworks with clear rules that must be enforced with consistency and transparency. Effective inflation control, combined with well-regulated financial systems, are critical ingredients to sustained economic growth and shared prosperity.

The forces of globalization and technological change that have propelled global growth and driven rising inequality within many countries are not likely to abate. We need to harness these sources of growth while increasing opportunity for all our citizens. Brazil is showing the world how.

Thank you.

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[9] Bank of Canada (2010), Report on "*Strengthening International Capital and Liquidity Standards: A Macroeconomic Impact Assessment for Canada*". See also M. Carney, "Bundesbank Lecture 2010: The Economic Consequences of the Reforms," speech delivered in Berlin, Germany, 14 September 2010.

[10] Basel Committee on Banking Supervision (BCBS) 2010 – An assessment of the long-term economic impact of stronger capital and liquidity requirements (LEI report) http://www.bis.org/publ/bcbs173.htm.

Also Basel Committee on Banking Supervision/Financial Stability Board 2010 – Assessing the Macroeconomic Impact of the Transition to Stronger Capital and Liquidity Requirements – (MAG report) http://www.bis.org/publ/othp10.htm.