



BANK OF CANADA
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Financial Stability in One Country?

Introduction

During the years since the global financial crisis, financial reforms have been moving forward on two distinct levels. The G-20 leaders' commitment to build a more stable and resilient global financial system is being advanced through an ambitious global reform agenda. At the same time, policy-makers in each country are implementing reforms intended to establish more stable and resilient systems in their respective jurisdictions.

Financial stability in each country is, of course, an essential ingredient of global financial stability: policies to achieve financial stability in different jurisdictions are in most cases highly complementary, as a stable global financial system is made up of stable national financial systems. But tensions do sometimes arise between these two objectives. At the root of these tensions is the pervasiveness of cross-border spillovers—both from the risks affecting financial stability and from some of the reforms designed to mitigate those risks.

In Canada—an open economy where the financial system is closely linked with those of the United States and other countries—we have a privileged vantage point on these issues. Our experience during the global financial crisis and its aftermath is a reminder that financial stability at the national level cannot be fully secured in the face of economic and financial shocks originating elsewhere. Financial instability speaks all languages and carries many passports.

Furthermore, financial reforms have important cross-border implications that need to be addressed to ensure that these reforms have their intended benefits. Thus, financial stability is a shared responsibility that must be advanced through international cooperation. Reforms agreed to at the global level need to be implemented fully and consistently in each jurisdiction.

In my remarks today, I am going to draw on Canada's experience of the past few years to illustrate these points. First, I will review how Canada fared during the financial crisis. Second, I will discuss the risks to Canada's financial stability that have emerged in the wake of the crisis. Third, I will focus on some important cross-border elements of the reform agenda.

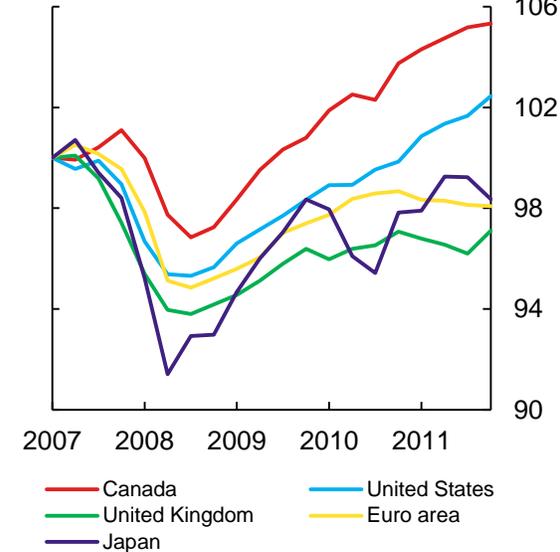
Canada and the crisis

It's now well known that Canada came through the financial crisis better than many other major advanced economies, with a relatively short and shallow recession and a relatively strong recovery. It is now over two years since Canada regained its pre-recession level of both real GDP and employment (**Chart 1**).

Chart 1: Canada has fared better than many other advanced economies

Real GDP

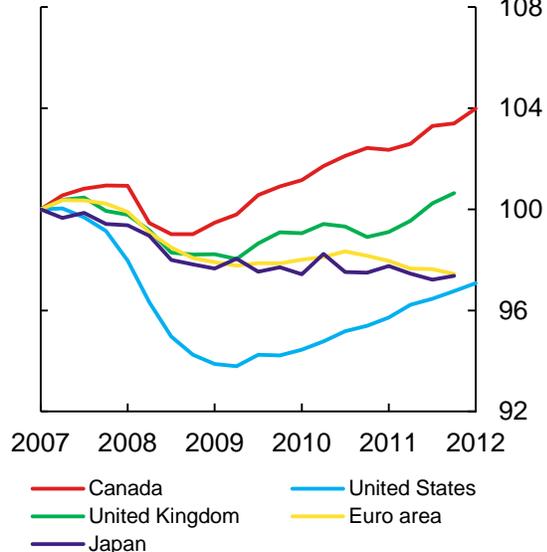
Index: 2007Q4 = 100, quarterly data



Sources: Statistics Canada, U.S. Bureau of Economic Analysis, U.K. Office for National Statistics, Eurostat, Cabinet Office of Japan and Bank of Canada calculations
Last observation: 2012Q3

Employment

Index: 2007Q4 = 100, quarterly data



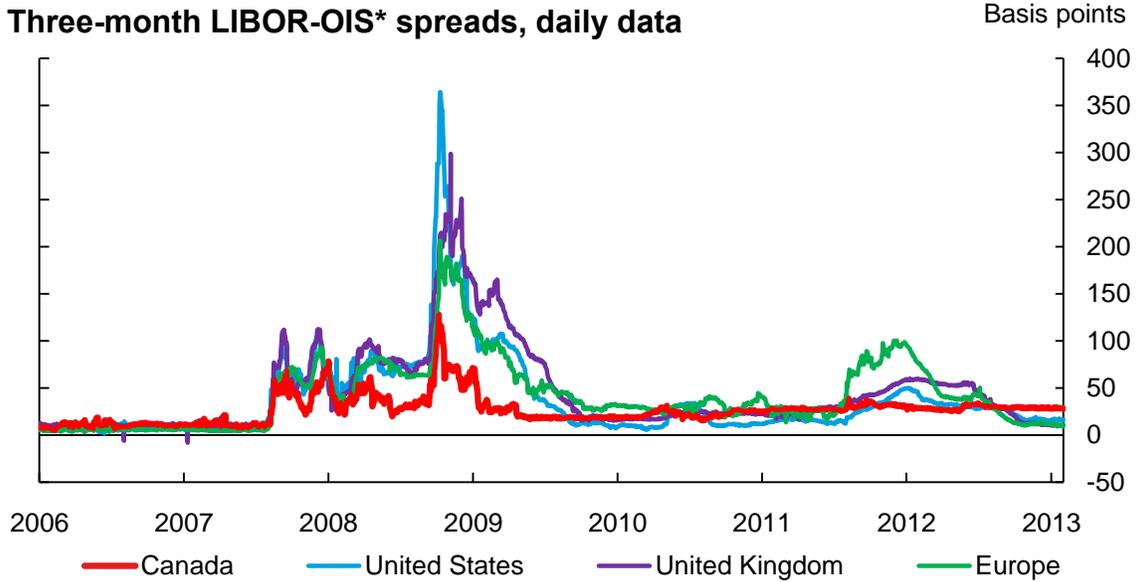
Sources: Statistics Canada, U.S. Bureau of Labor Statistics, U.K. Office for National Statistics, European Central Bank, Ministry of Health, Labour & Welfare of Japan, and Bank of Canada calculations
Last observations: Canada and U.S. 2012Q4; all others, 2012Q3

An important reason Canada fared better than other countries was that our financial system was more robust. Canada's banking system was rated "the soundest in the world" by *The Banker* magazine three years in a row, from 2008 to 2010. No Canadian financial institutions failed—or had to be rescued by taxpayers—during the crisis. Leading up to the crisis, our banks were less leveraged, less dependent on wholesale financing, and less exposed to the structured financial products that brought down some of their peers in other countries. This in turn reflected, at least in part, Canada's tougher regulatory standards and stricter supervision and oversight. Canada's established policy framework and strong fiscal position gave the authorities considerable room for manoeuvre when the crisis struck. These strengths, in turn, were the legacy of the harsh lessons Canada learned during the 1980s and 1990s from failures of two small banks and our own sovereign debt problem.

Nonetheless, Canada's financial stability came under stress during the crisis. Serious risks materialized, and had to be countered by timely and aggressive policy action. Liquidity conditions in Canada's core funding markets—although not as extreme as in other jurisdictions—became very tight: in the climate of fear following the failure of Lehman Brothers, many Canadian institutions had difficulty obtaining funding (**Chart 2**).

In response, the Bank of Canada provided substantial short-term liquidity support to the financial system: we made this support available to a broader group of institutions, for longer terms, and against a wider range of collateral than under normal conditions.

Chart 2: Funding conditions tightened during the crisis

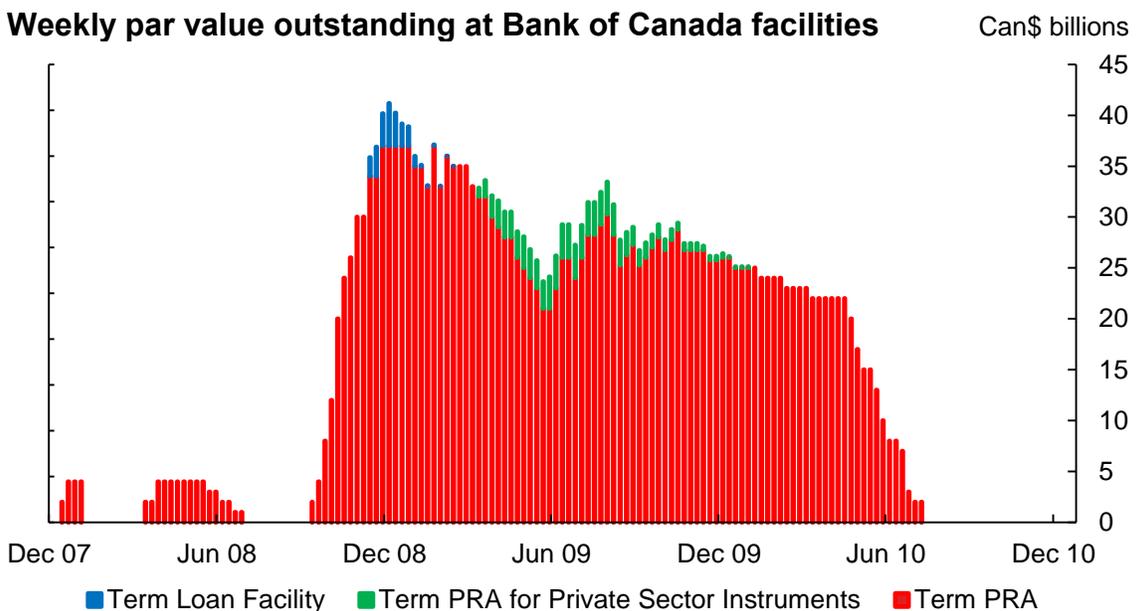


* For the United States, LIBOR; for the euro area, EURIBOR; for Canada, CDOR
Source: Bloomberg

Last observation: 1 February 2013

During this period, the Canadian government also provided longer-term funding to Canadian banks to prevent a severe credit crunch in the private sector (**Chart 3**).¹

Chart 3: The Bank of Canada provided substantial liquidity support

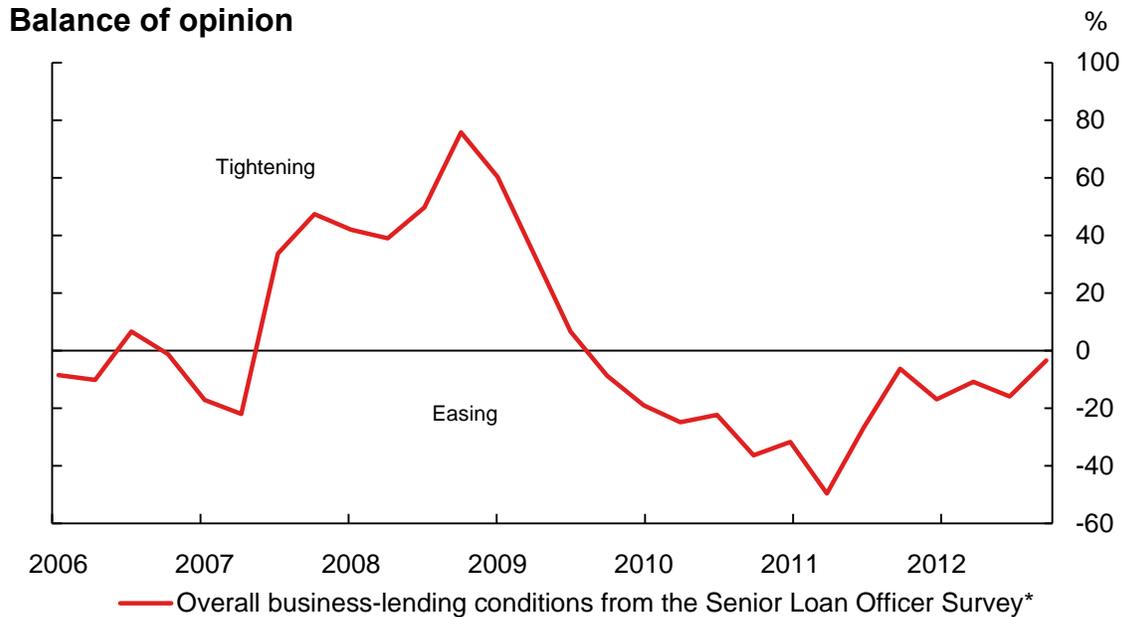


Source: Bank of Canada

Last observation: 30 December 2010

As a result of these actions, Canada’s core funding markets stayed open, and credit kept flowing to the private sector (**Chart 4**).

Chart 4: Canadian business-lending conditions tightened temporarily



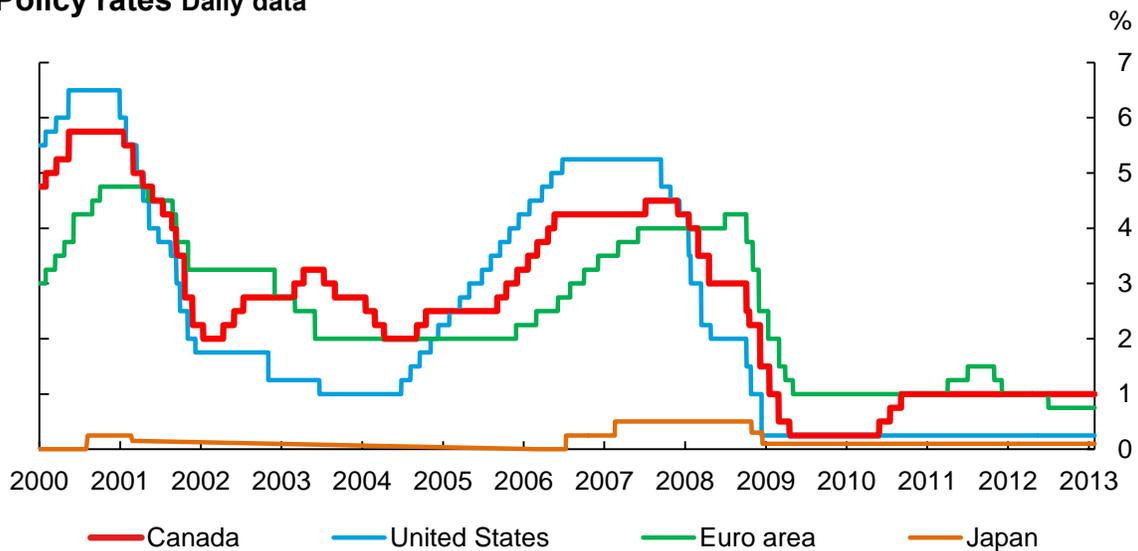
*Weighted percentage of surveyed financial institutions reporting tightened credit conditions minus the weighted percentage reporting eased credit conditions
Source: Bank of Canada Last observation: 2012Q4

As the global crisis gave way to the Great Recession, Canada’s economy suffered the consequences—mainly through a collapse in exports to the United States, which was in a deep recession. Canada lost output amounting to more than 4 per cent of real GDP and job losses equivalent to almost 2 1/2 per cent of our labour force. But an aggressive policy response helped to prevent a worse outcome. The Bank of Canada eased policy substantially in order to achieve its 2 per cent inflation target: it lowered the overnight policy rate to its lowest possible level (1/4 per cent) and took the unconventional step of making a conditional commitment to hold it there for more than a year (**Chart 5**).

Complementing this monetary policy response, the government introduced a broad-based fiscal stimulus package amounting to about 3 1/2 per cent of GDP. While the recession did put stress on the financial system—in particular, a tightening of credit conditions and an increase in loan losses—the short duration of Canada’s recession kept more serious threats to financial stability at bay.

Chart 5: Policy interest rates were cut to historic lows

Policy rates Daily data



Sources: Bank of Canada, U.S. Federal Reserve, European Central Bank and Bank of Japan

Last observation: 31 January 2013

Global Deleveraging and Canada's Unbalanced Expansion

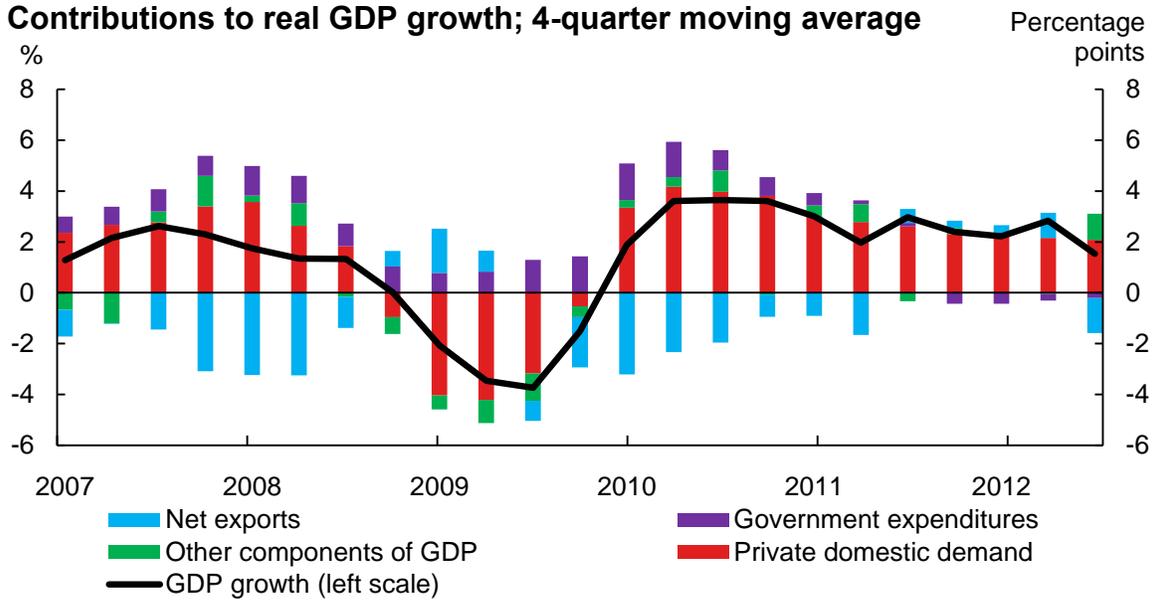
The years since the crisis have brought a different set of challenges to financial stability in Canada. History teaches us that recoveries after a financial crisis are slower than those following normal recessions—a pattern that has been well documented, in particular, by Harvard professors Carmen Reinhart and Kenneth Rogoff.² Typically, it takes output twice as long to return to its pre-recession level after a financial crisis as in a normal recovery, and potential output is permanently lower compared with its pre-crisis growth trajectory. This is because the legacy of a financial crisis is a lot of debt. Working off that debt—in other words, deleveraging—drags down the economy.

The recession following the recent global financial crisis has run true to form. In a world awash in debt, repairing the balance sheets of banks, households and governments can take years. In the United States and many other advanced economies, households are no longer the engine of growth that they were before the crisis, since they have been curtailing their spending to rebuild the wealth lost in the housing crash. While much progress has been made, household deleveraging has hobbled private sector growth. In many countries, financial institutions have also been restraining their lending because of the losses they incurred and the need to become less heavily leveraged. And a number of governments too have been restricting their spending and raising taxes, aiming to restore sustainable fiscal positions.

This process of deleveraging in other advanced economies creates significant challenges for Canada's financial stability. Specifically, the slow growth path resulting from deleveraging in our largest trading partner—the United States—creates a headwind to Canada's economy. This headwind has, in particular, been holding back Canada's exports, which are far from recovering from their plunge at the start of the recession. As a result, Canada has relied on domestic

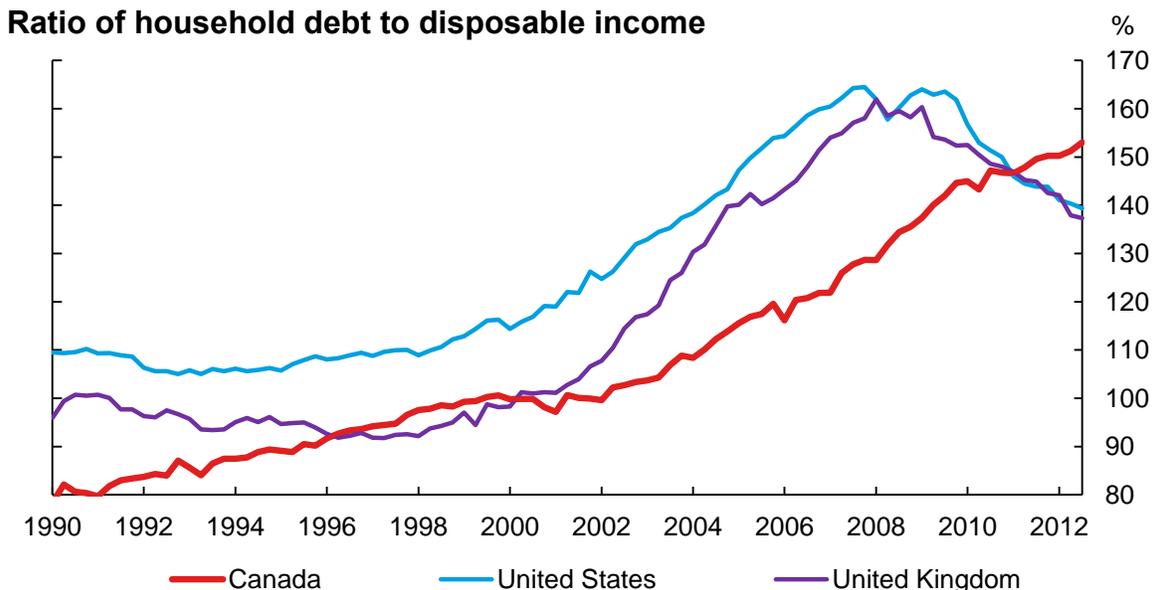
demand—mainly spending by households—to achieve even a modest rate of economic growth (**Chart 6**).

Chart 6: Canada's economic growth has been driven by domestic demand



Although it's better to have unbalanced growth than no growth, this pattern does pose certain risks. Consumers have taken advantage of the stimulative financial conditions, including low borrowing costs and easy availability of financing, that were put in place to counterbalance the external headwinds. In doing so, they have pushed household debt to levels that pose a significant risk (**Chart 7**).

Chart 7: Canadians are now more indebted than the Americans or the British

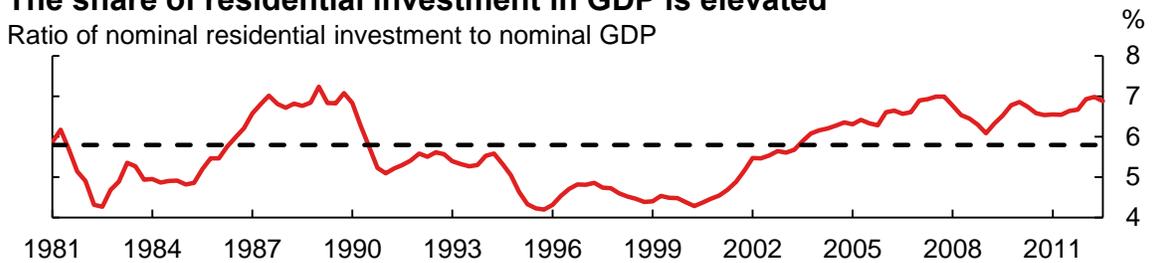


The proportion of households with stretched financial positions that leave them vulnerable to an adverse shock has grown significantly in recent years. These conditions are also reflected in stretched valuations in some segments of Canada’s housing market. Also, more houses are being built than are needed given demographic trends (**Chart 8**).

Chart 8: Imbalances in Canadian housing markets

The share of residential investment in GDP is elevated

Ratio of nominal residential investment to nominal GDP



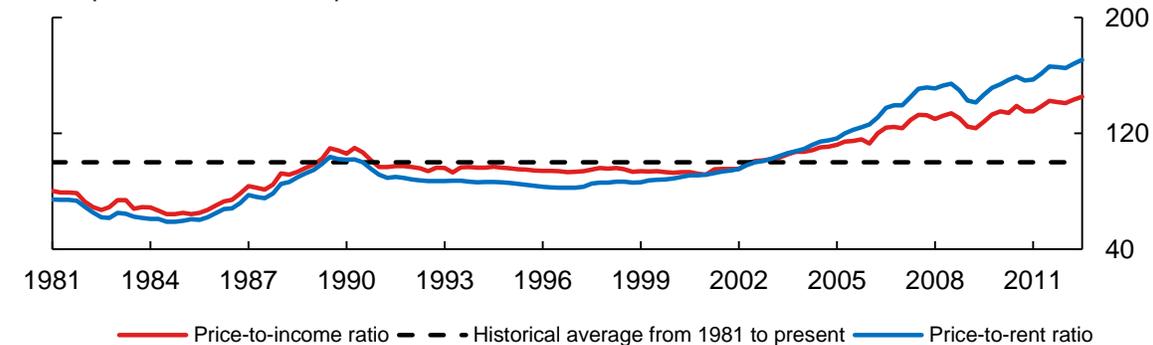
Note: The broken line indicates the historical average from 1975 to present.

Sources: Statistics Canada and Bank of Canada calculations

Last observation: 2012Q3

House prices in Canada are still high relative to disposable income and rents

House-price-to-income and price-to-rent ratios



Note: The historical average from 1981 to latest available data point is set equal to 100.

Sources: Teranet-National Bank, Statistics Canada, Canadian Real Estate Association and Bank of Canada calculations

Last observation: 2012Q3

These developments have led to a significant buildup of vulnerabilities in Canada’s household sector. The risk is that any shock to economic conditions could be amplified through a deterioration of housing market conditions and a retrenchment of household spending. These conditions could then be transmitted to the broader financial system through a worsening of the credit quality of loans. This could prompt a tightening of credit conditions and, in turn, set off a mutually reinforcing deterioration in real activity and financial stability.

While the Bank of Canada has characterized these household vulnerabilities as the most important domestic source of risk to Canada’s financial stability, the origins of this risk are only partly domestic: it is also an after-effect of the global crisis. The crisis gave rise to global deleveraging and weak growth that created headwinds to Canada’s economy. In the face of those headwinds, very stimulative monetary policy has been needed to achieve the inflation target. And that prolonged stimulative policy—“low for long”—creates significant risks to financial stability.

I've highlighted the risks associated with the household sector, but low-for-long interest rates can lead to risks elsewhere in the financial system. Periods of low interest rates may, in some circumstances, trigger a "search for yield" driving excessive risk-taking—often through investment strategies whose risks are not well understood.

Until recently, this tendency toward excessive risk-taking has been kept in check by the climate of fear in the post-crisis global financial system—and an acute awareness of some important tail risks. Market participants have been concerned about the euro area crisis, the fiscal cliff in the United States, and the possibility of a hard landing in China. In the past few months, extreme negative outcomes appear less likely, and market participants have regained confidence. While it is good news that the tail risks have diminished, it also means that it is now becoming even more important to monitor financial institutions' risk-taking behaviour.

The risks of household imbalances, as well as other risks associated with low for long, can be addressed in several ways. First, households, financial institutions and investors need to make prudent decisions. More normal times will return, and with them more normal interest rates and costs of borrowing. It is the responsibility of households to ensure that they can service tomorrow the debts they take on today. As for investors, they are responsible for managing the risks they face. Financial institutions also have a responsibility to make sure that their clients can service their debts and more broadly, that they understand the risks to which they are exposed.

Among the policy measures that can be used to address emerging financial system vulnerabilities, targeted prudential measures are often the best. The Canadian government has tightened regulations pertaining to government-backed insured mortgages four times—most recently in 2012.³ These changes involve more stringent requirements to qualify for mortgages, shorter amortization periods and lower maximum loan-to-value ratios for mortgages. In addition, the prudential regulator has recently issued guidelines for the mortgage underwriting standards of lenders. If such targeted prudential measures turned out to be insufficient, monetary policy could also be used, within a flexible inflation-targeting framework, as a complementary instrument to address financial imbalances. So far, though, that has not been necessary in Canada.

The growth of household credit has shown signs of moderating in recent months. The momentum in house price growth, sales of existing homes, and new construction has also moderated. Nonetheless, financial system risks associated with household imbalances remain elevated. And it is possible either that household spending could regain momentum or that a more sudden weakening could occur.

Think Globally, Act Locally

So far, I have been using Canada's experience during and after the global financial crisis to illustrate the cross-border dimension of the threats to financial stability. Now I would like to talk about the cross-border dimension of the reform agenda and how it intersects with national priorities and policy-making. Unprecedented in scope, the direction of reform is often agreed at the global

level, but where the rubber hits the road is usually at the national—and in some cases even provincial or state-level.

In this context, one salient feature of the financial reforms is that they will not only benefit the jurisdiction where they are implemented, but also other jurisdictions. If we look at the costs and benefits of the Basel III reforms to increase capital at financial institutions, we see that reforms impose costs on banks which may in part be passed on to their customers through wider spreads between deposit and lending rates—in turn generating some broader macroeconomic effects. At the same time, evidence suggests that higher capital standards reduce the frequency and severity of financial crises.

Research at the Bank of Canada indicates that, on balance, the benefits will far outweigh the costs: Basel III, by improving the safety and robustness of the Canadian and international financial systems, should yield a net economic benefit to Canada equivalent to about 13 per cent of GDP in present-value terms. But here is the key point: three-quarters of the prospective benefits for Canada arise from the decrease in the probability of financial crises in *other* countries—and only one-quarter from the reduced probability of a financial crisis in Canada itself.⁴ Similar logic would apply to the United States and other countries, but the arithmetic is particularly compelling for a smaller open economy like Canada.

These calculations go a long way in explaining why Canada is so committed to the global reform process—and to ensuring that reforms are fully implemented in all jurisdictions. Canada has already put in place Basel III capital standards. While there have been delays in some other jurisdictions, the largest financial institutions in the United States are already Basel III compliant, in terms of capital. We trust that other jurisdictions will continue to move forward to implement these agreed standards. To help ensure that they do—under the principle “trust but verify”—a robust peer-review mechanism has been established to track how jurisdictions are progressing in living up to their G-20 financial reform commitments.

All Financial Reform is Local

Some of the reforms taking place at the national level mainly involve the implementation of what has been agreed at the international level. Clearly, in putting these international standards in place, individual countries need to align them with their own financial structures and circumstances.

In some jurisdictions—the United States, the European Union and the United Kingdom—reform has also been proceeding somewhat independently of the global process. A prominent example in the United States is the Dodd-Frank Act which was passed into law in 2010 and is still in the process of being implemented through extensive rule making. Different approaches to achieving broadly similar objectives are being followed in the European Union, the United Kingdom and Japan.

While the various national reform agendas have essentially the same objectives as the global agenda—a safe and efficient financial system—there can be tensions between them, including conflicts, inconsistencies and overlaps, which can affect financial institutions and their clients operating across national borders.

Reforms of over-the-counter derivatives trades are a good example. The United States and Europe are taking a leadership position and pushing ahead with legislation in this area. Conflicts in national regulation may arise, in which the rules of one jurisdiction cannot be followed without contravening a requirement in another. For example, trade reporting rules proposed by the U.S. Commodity Futures Trading Commission may require data that could violate privacy and information laws in some other countries. Inconsistencies may occur when requirements apply to certain products or participants in one country, but not in others. Non-financial companies, for example, may or may not be exempt from central clearing obligations depending on the country. Even in the absence of such conflicts and inconsistencies, duplicate obligations across jurisdictions may increase compliance costs, undermining economic efficiency.

National legislation can also have extra-territorial effects. An example is the Volcker Rule banning proprietary trading by deposit-taking institutions, which is being introduced in the United States as part of the Dodd-Frank legislation. Under the regulations initially proposed, any foreign financial institution with operations in the United States would be required to comply with the proprietary trading ban on its worldwide operations. Here, the intention is to prevent institutions from shifting activities offshore in a bid to avoid the ban on proprietary trading. Moreover, U.S. government bonds were exempted from the rule, while other sovereign bonds were not. Thus, for example, Canadian financial institutions' trading in Canadian government bonds could be restricted under U.S. law.

These proposed regulations have raised concerns that U.S. law could dictate the structure of major financial institutions in many other jurisdictions. Other jurisdictions—including Canada—have objected, both because they do not wish to have U.S. law applied to the primarily domestic operations of their institutions, and also because they do not agree that the Volcker Rule is the only—or the most effective way to prevent excessive risk-taking in financial institutions.

An essential element of resolving potential tensions is mutual recognition: each jurisdiction should have a sufficiently strong regime that other jurisdictions can accept as broadly equivalent, eliminating the need to impose their own rules across borders.⁵ The foundation of mutual recognition is to have generally accepted global standards together with a robust peer-review mechanism to ensure that those standards are applied consistently across jurisdictions.

Collaborative Resolution

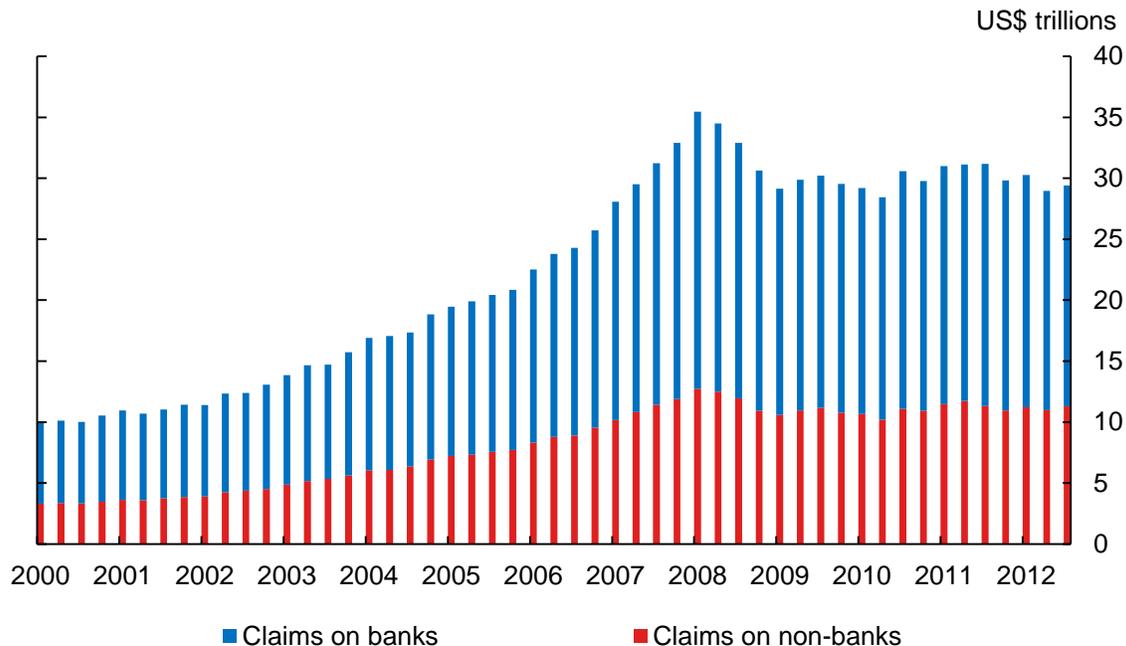
Given the interconnectedness of financial institutions, collaboration is a key element of implementing reforms. One area where collaboration is particularly important is in the resolution of systemically important financial institutions—those deemed “too big to fail.” Designing a clear framework for resolution has been a priority of the global financial reform agenda. Owing to the size and complexity of cross-border linkages in banking and financial markets, when a major financial institution or market is impaired in one country, shocks can quickly spread to the financial systems of other countries. During the crisis, differences in rules—and in interests—across jurisdictions impeded the resolution of financial institutions such as Lehman Brothers.

In this light, it is essential to have a clear basis for cross-border collaboration in the resolution process. For banks identified as globally systemically important (G-SIBs), crisis-management groups have largely been established to provide a forum for the ongoing exchange of information and the coordination of recovery and resolution measures. The G-SIBs are preparing “recovery and resolution plans” that would facilitate an orderly winding up of the institution if that becomes necessary. Achieving the most beneficial level of co-operation for cross-border resolution, however, is a challenge. While the establishment of the crisis-management groups is an essential element in the process, much remains to be done.

Financial Protectionism

The issues I have raised, the cross-border dimensions of both financial instability and reform, could have another unintended result: that of a more fragmented global financial system. This tendency—as reflected, for example, in the decline in cross-border financing since the crisis—stems naturally from the greater perceived risks of cross-border financial activities, together with regulations that seek to protect domestic financial systems (**Chart 9**).

Chart 9: Gross cross-border financing has receded from its pre-crisis levels



Source: Bank for International Settlements locational banking statistics, by residence

Last observation: 2012Q3

A reduction in cross-border interconnectedness may help to reduce contagion, but an unintended consequence could be excessive concentration and interconnectedness *within* countries. More generally, barriers to the movement of capital may carry a significant cost, in the form of lost economic efficiency and growth. From a global perspective, these considerations need to be balanced carefully.

If we look at the deleveraging of financial institutions, a necessary step as they repair balance sheets and meet new regulations, we see that *how* they deleverage can lead to fragmentation.

For instance, in the European Union, national regulators have discouraged banks from deleveraging through restricting credit in their own respective jurisdictions. Partly for this reason, a number of banks, particularly in the euro area, have been withdrawing from international activity. In part, this has also meant increasing banks' exposure to their own sovereigns—a major channel amplifying stress during the recent euro-area crisis.

A second source of fragmentation is the potential conflict between rules in different jurisdictions. To the extent that conflicting, duplicate and/or extra-territorial regulations make cross-border activity disproportionately costly, they may create incentives for financial institutions to concentrate their activities in their own jurisdictions.

Fragmentation can also occur from explicit financial protectionism. Some emerging market economies, for example, have sought to insulate their own financial systems from turbulent global financial conditions through a range of measures designed to constrain cross-border capital flows, including capital controls which in some cases are accompanied by foreign exchange market intervention. The adoption of such measures by a number of countries could result in a greater concentration of risk in national economies and ultimately undermine global economic growth.

Conclusion

The global reform agenda, which is critical to financial stability across countries, will need, by its very nature, to be underpinned by global cooperation. New standards agreed upon at the international level must be implemented at the national level. As we move past the policy-development phase, processes are being put in place to monitor implementation, including cross-country peer reviews of specific standards by the Financial Stability Board.

Domestic reform initiatives are equally important, but need to be harmonized in an integrated world. If conflicts and inconsistencies arise from the requirements of different jurisdictions, these initiatives may not succeed in establishing a safer global financial system.

Financial stability is necessary for sustainable economic growth. But it's a public good: its benefits are widely shared. Can it be achieved in one country alone? Not a chance. We're all in this together.

Endnotes

¹ Government support was provided through the Insured Mortgage Purchase Program (IMPP), which allowed the commercial banks to sell insured residential mortgages to the federal government-owned Canada Mortgage and Housing Corporation. This program made available a potential Can\$125 billion, although only about Can\$70 billion was used.

² C. Reinhart and K. Rogoff, "This Time Is Different: Eight Centuries of Financial Folly" (Princeton, N.J.: Princeton University Press, 2009).

³ See Bank of Canada, *Financial System Review*, Box 2, Table 2-A, "Mortgage Insurance Rules in Canada" (December 2012): 24.

⁴ Bank of Canada, "Strengthening International Capital and Liquidity Standards: A Macroeconomic Impact Assessment for Canada" Bank of Canada (August 2010).

⁵ One example of mutual recognition is the jurisdictional reciprocity for internationally active banks in the countercyclical capital buffer framework. See Basel Committee on Banking Supervision, "Guidance for national authorities operating the countercyclical capital buffer" (December 2010): 5.