BANK OF CANADA
BANQUE DU CANADA

Financial System Review

Highlights—December 2009

Risk Assessment*

Conditions in the international financial system have improved considerably since June in response to the forceful actions taken by policy-makers around the world. There are early signs of a global economic recovery and confidence in the stability of financial institutions is returning, with pressures in bank funding markets easing further. Investor confidence has also begun to build, as evidenced by the rise in the market value of many risky assets. Stress on the financial system will likely decline further as the global economy continues to recover.

The purpose of the *Financial System Review* (FSR) is not to discuss the most likely outcomes of current trends, but rather to provide an assessment of downside risks that could cause stress in the Canadian financial system, even if they are low-probability events.

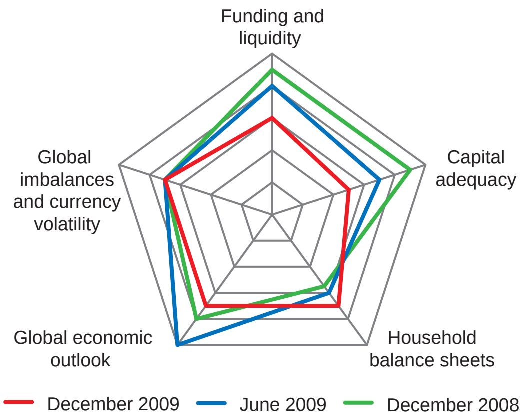
In the December 2008 and June 2009 issues of the FSR, five key sources of risk to the stability of the financial system were identified. These continue to be the key short-term risks facing the Canadian financial system. The analysis below explores how those risks have evolved over the second half of 2009, with **Table 1** and **Figure 1** summarizing the assessments of the Bank of Canada's Governing Council.

The overall level of the vulnerability of Canada's financial system to an adverse shock occurring in the near term is judged to have declined modestly since the June FSR. Should the recovery in the financial system and in the global economy proceed largely as expected, the Governing Council anticipates that, over the medium term, vulnerabilities associated with global financial and economic imbalances and household indebtedness will emerge as the most prominent risks to the Canadian financial system.

Table 1: Changes in the key risks to the Canadian financial system

Risk	Direction over the past six months
1. Funding and liquidity	decreased
2. Capital adequacy	decreased
3. Household balance sheets	increased
4. Global economic outlook	decreased
5. Global imbalances and currency volatility	unchanged
Overall risk	**modestly lower**

Figure 1: Risk assessment



Note: Each rung indicates a certain perceived risk level: the further away from the centre, the more elevated the perceived risk.

* This section represents the collective judgment of the Bank of Canada's Governing Council on the key risks and vulnerabilities bearing on the stability of the Canadian financial system.

Key Risks

Funding and liquidity

While the crisis of confidence that disrupted the global financial system in late 2008 was not as severe in Canada as elsewhere, it still resulted in heightened counterparty risk and in strains in domestic wholesale funding markets. These have now largely subsided, with both the short-term and long-term funding costs of Canadian banks declining markedly and with access to market-based financing improving. Canada's major banks have also increased their stock of highly liquid assets and their reliance on more stable sources of funding, thus reducing their exposure to further liquidity shocks and bolstering their ability to provide credit during periods of stress. However, much of this buildup in liquid assets is the result of liquidity support from the Bank of Canada and the Government of Canada to restore the flow of credit.

Funding and liquidity constraints remain a source of vulnerability for the Canadian financial system, since pressures could reappear relatively quickly should a negative shock occur, such as a renewed downturn in the global economy or a loss in investor confidence. However, the overall vulnerability of the Canadian financial system to this source of risk is judged to have declined since the June FSR.

Capital adequacy

Diminished uncertainty about the global economic recovery, together with the improvement in financial conditions, has reduced the likelihood of further material stress in the global and Canadian banking sectors. In addition, Canadian banks have increased their capital positions and decreased their leverage further, thereby enhancing their ability to absorb unexpected loan losses.

In the June FSR, concerns were expressed that market participants might exert pressure on banks to maintain capital ratios that are higher than necessary, thus potentially slowing the improvement in credit conditions. These concerns persist and, in fact, have been reinforced by uncertainty regarding forthcoming changes to the global capital regulatory framework. Overall, the Bank judges that the level of risk related to capital adequacy has decreased.

Household balance sheets

The vulnerability of Canadian households to a deterioration in economic conditions has risen in recent years, as aggregate household debt has increased in relation to income. There is thus a risk that a shock to economic conditions could be transmitted to the broader financial system through a deterioration in the quality of loans to households.

With the household debt-to-income ratio at historically high levels, this risk remains a key source of vulnerability. The Bank has conducted a stress-test simulation to gauge financial stress in a scenario of sustained growth in household indebtedness in relation to income and an environment of rising interest rates over the medium term. This exercise underlines important risk-management challenges for individual households and financial institutions alike. When borrowing funds, especially in the form of mortgages, households need to assess their ability to service these debt obligations over their entire maturity, taking into account likely changes in both income and interest rates and the risks surrounding this outlook. Financial institutions need to carefully consider the aggregate risk to their entire portfolio of household exposures when evaluating even an insured mortgage, since a household defaulting on an insured mortgage would likely be unable to meet its other debt obligations.

The Bank judges that the likelihood of system-wide stress arising from substantial loan losses on Canadian household portfolios remains relatively low at the moment, particularly given the near-term prospects for growth. However, the likelihood of this risk materializing in the medium term is judged to have risen since June as a result of higher levels of household indebtedness.

Global economic outlook

The risk of a further material and protracted deterioration in global economic activity that was outlined in the June FSR has not materialized. As outlined in the October 2009 *Monetary Policy Report*, recent indicators point instead to the start of a global recovery.

The world economy is judged to remain vulnerable to additional negative shocks, given that growth is expected to remain subdued for some time and that the uncertainty surrounding this outlook remains elevated. However, the likelihood of a renewed global economic downturn and the magnitude of this risk for the Canadian financial system are judged to have diminished since June.

Global imbalances and currency volatility

While there were many causes of the financial crisis, large and unsustainable current account imbalances across major economies were integral to the buildup of vulnerabilities in many asset markets. There is a risk of a disorderly adjustment in exchange rates if the structural causes of these disequilibria are not properly addressed. In particular, there needs to be a timely and sustained rotation of global demand away from excess consumption in the United States and towards internally generated sources of demand in the developing countries of Asia.

The size of global imbalances has declined since June and, while this can be partly attributed to cyclical factors, there are also signs that necessary structural adjustment is under way. However, the orderly resolution of current account imbalances could be hindered by the sharp deterioration in the structural fiscal positions of a number of countries and by projections of a substantially worse fiscal path over the medium term. Should concerns over fiscal sustainability mount, the result could be a renewed increase in risk premiums and volatility across a broad range of assets and currencies, as well as higher debt costs for both the public and private sectors. While Canada's fiscal position remains relatively strong, Canadian businesses, financial institutions, and households could be adversely affected if higher borrowing costs facing countries with large deficits were to mute the global recovery, or if there are rapid shifts in exchange rates.

On balance, the Bank judges that the risk to the Canadian financial system arising from global imbalances remains elevated and is roughly unchanged since June.

Policy Actions And Assessment

The unprecedented actions taken by authorities around the world have helped to further mitigate systemic risk and to improve liquidity and funding conditions since June. While central banks continue to provide liquidity support to their respective financial systems, the need for this support has declined in many countries. Domestically, the Bank of Canada discontinued two of its less-used extraordinary liquidity facilities at the end of October.

Policy-makers worldwide remain committed to multilateral work aimed at a fundamental reform of financial sector regulation that will address the causes of the recent crisis and enhance the resilience of the financial system. Canadian authorities are actively contributing to this international work to raise global standards.

The Bank judges that the overall level of level of vulnerability of the Canadian financial system to an adverse shock occurring in the near term has declined modestly since the June FSR. At the same time, several medium-term risks have intensified. First, mounting concerns over the fiscal positions of many countries could trigger a disorderly adjustment of global imbalances. Second, future increases in asset prices could outpace the improvement in underlying fundamentals if the current environment of low interest rates leads market participants to resume imprudent or risky practices. Third, maintaining the momentum on global regulatory reform may become increasingly difficult as economic and financial conditions improve.

Although global conditions are the primary source of the medium-term concerns outlined above, the realization of these risks would have significant adverse spillover effects on the Canadian financial system, including higher risk premiums and volatile movements in asset prices. An additional source of vulnerability in Canada is the potential for system-wide stress arising from substantial losses on household loan portfolios. This risk will rise over the medium term if household indebtedness continues to increase.

Reports

In light of recent events, there is now widespread recognition among policy-makers of the need to pay greater attention to the forces contributing to the buildup of systemic risk. This involves more explicit monitoring of the interlinkages across the financial system and of feedback between the financial system and the real economy, with a view to mitigating the buildup of financial imbalances. The reports in this section of the FSR provide an overview of some specific topics relevant to implementing such a macroprudential approach.

As highlighted by the recent crisis, confidence in the ability of financial institutions to meet their obligations is of paramount importance for the stability of the financial system. **Liquidity Standards in a Macroprudential Context** examines ongoing international work to introduce global standards for the management of liquidity risk at financial institutions and discusses several issues related to the design and application of these standards.

Since financial institutions and market-makers rely on a subset of core markets to obtain the funds they need to perform their intermediation role, the continuous operation of these markets, even in times of stress, is essential to the stability of the financial system. **Improving the Resilience of Core Funding Markets** discusses the importance of core funding markets to the liquidity of the Canadian financial system and outlines a range of policies designed to foster their resilience.

Since the onset of the crisis, securitization markets, which had become an important source of funding in certain sectors of the economy, have been affected by a significant decline in trading and issuing activity. **Reform of Securitization** examines some weaknesses in the securitization process, as well as a range of options to address them and to restart securitization markets on a sounder basis.

Towards a Stress-Testing Model Consistent with the Macroprudential Approach summarizes the first steps taken at the Bank to incorporate two channels of contagion into the macrofinancial model it uses to gauge the resilience of the financial system to adverse macroeconomic shocks: the network effects resulting from interlinkages among banks and liquidity risk arising from asset "fire sales."