



**Remarks by Pierre Duguay**  
**Deputy Governor of the Bank of Canada**  
**to CFA Québec**  
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### **Managing Risks to Financial System Stability**

Good afternoon. I'm very pleased to be here today. When I was offered the opportunity to speak to you, early this year, I thought this would be the perfect occasion to promote the Bank of Canada's work on financial system stability, to share our assessment of some of the risks and vulnerabilities facing the system, and to underscore the necessity of striving continuously to identify emerging risks, to understand the possible consequences, and to implement measures to contain the impact, should they materialize.

The recent dislocations in credit markets have brought these issues into sharp focus. Among other things, the market turbulence has highlighted the critical role that confidence and liquidity play in financial markets. Confidence in the ability of the financial system to withstand shocks is essential if savers are to be encouraged to put their money into investments, and liquidity is a prerequisite to trade and price discovery in financial markets.

The recent events also drove home the fact that shocks never materialize in quite the manner that we expect. Certainly, many of the individual sources of the recent turbulence in global financial markets had been apparent for some time, prompting warnings from numerous stakeholders, including the Bank of Canada. Among the concerns expressed was a fear that, in their quest for higher yields, global investors might have underpriced risk and rushed into products whose complexity made it extremely difficult for them to judge the risk exposure they were assuming. But while these key sources of vulnerability had been correctly identified, no one anticipated the extent of the strains that developed in the interbank money markets.

With this as background, I'd like to explore a few of these issues from the Bank of Canada's perspective. I've organized my thoughts around five general questions. First: Just what do we mean by financial system stability, and why does it matter? Second: What is the Bank of Canada doing to foster stability? Third: What lessons are we learning from the recent turbulence? Fourth: What is being done at home and at the international level? And fifth: What can you, as chartered financial analysts, do to help? I will then close with a few words about Canada's current economic situation.

### **Promoting Financial System Stability**

To begin, let me focus on what I mean by financial system stability and why it matters. The financial system is composed of financial institutions such as banks, caisses populaires, pension funds, and insurance companies; financial markets such as debt and

equity markets; and settlement arrangements such as the payments and securities settlements systems. The financial system provides the channels through which savings become investments, money and financial claims are transferred and settled, and, ultimately, risk is allocated.

A key role of the financial system is to provide insurance against adverse economic outcomes by allocating risk to those who are most willing and most able to bear it. The result is a more effective allocation of capital which, in turn, can contribute to more productivity-enhancing investments and improved living standards.

But for the financial system to perform this important role, households and firms must have confidence in its ability to withstand shocks. This is a crucial point, because problems in one area of the system can quickly spread, as recent events have vividly demonstrated. Thus, to help the financial system perform its role efficiently, public authorities and market participants themselves put a great deal of effort into finding ways to strengthen the system. And since shocks can never be fully anticipated in advance, we must strengthen the shock absorbers in the system, while still allowing room for innovation. This involves such elements as a secure system for large-value payments, deposit insurance, bankruptcy laws, central bank provision of liquidity, and sound risk-management practices, including capital cushions and prudential regulation.

Let me be very clear, the goal of these shock absorbers is not to prevent losses, but to absorb them without impairing the effective functioning of credit markets and the financial system in general. And because the best levees can break down in a hurricane, we need strong crisis management that will mitigate the fallout from financial shocks without weakening the incentives for prevention of such breakdowns.

One method that is increasingly being used to gauge the robustness of the financial system is the conduct of simulations to identify vulnerabilities to extreme shocks. Such stress testing of the Canadian financial system was undertaken recently through the International Monetary Fund's Financial Sector Assessment Program. The Bank of Canada used its models to design a macroeconomic scenario involving a disorderly resolution of global imbalances and to assess the possible impact on corporate default probabilities by sector. Major Canadian banks were then asked to estimate the losses they might incur under such a scenario, and their results were assessed by the central bank, the Office of the Superintendent of Financial Institutions (OSFI), and the IMF against results obtained from their own less complex models. The results generated by sophisticated internal models used by banks were broadly in line with those generated by the Bank of Canada and the Fund. They showed that major Canadian banks have enough capital to withstand a severe macroeconomic shock. This is useful information, but such simulations do not tell the whole story. For instance, they ignore important feedback from market participants. Factoring these effects is no easy task, but it is a prerequisite to a full assessment of risk in the financial system. This is an active area of research at central banks, including the Bank of Canada, as well as at international organizations such as the IMF.

### **The Bank of Canada's Contribution**

Now, let me talk more specifically about the Bank of Canada's role in helping to maintain a robust financial system, the second of my five points. Promoting financial system stability is a common goal for a number of public and private sector bodies, both nationally and internationally. In Canada, the public sector responsibility is shared among a number of agencies including the central bank, the Department of Finance, OSFI, the Canada Deposit Insurance Corporation, Quebec's *Autorité des marchés financiers*, and provincial securities commissions.

As Canada's central bank, our key functions in the area of financial system stability are to provide liquidity to facilitate the settlement of financial transactions and to ensure that the risks of a systemic disruption in the payments and settlements systems are virtually eliminated. The Bank also contributes to financial stability by providing an environment of low, stable, and predictable inflation through monetary policy. We use our key position at the centre of Canada's financial system, our membership in international bodies – such as the International Monetary Fund (IMF), the Bank for International Settlements, and the Financial Stability Forum – and our extensive research capabilities to foster the safety, soundness, and efficiency of the financial system in Canada and internationally. For example, the Bank has been an active promoter of improved transparency in domestic markets and of IMF reform – including strengthened IMF surveillance – internationally.

The promotion of financial system stability is complementary to our conduct of monetary policy in two ways: First, because monetary policy works through financial markets; and second, because financial turbulence may affect aggregate demand and require a monetary policy response. For example, a reassessment of default risk that increases risk premiums and results in tighter credit conditions may require a lower policy rate than would have otherwise been the case.

We communicate our research and analysis of trends and developments in the financial system, including policy and infrastructure developments, as well as our assessment of systemic risks and vulnerabilities, in our semi-annual *Financial System Review* (FSR). The next issue of the FSR will be published on 6 December and will examine, among other things, recent developments in the market for asset-backed commercial paper, as well as the current debate around credit-rating agencies. The FSR will be available on our website on that date.

### **Lessons from the Events of Last Summer**

That's a quick overview of the work that we do to strengthen financial system stability. Now, let me go on to the third question that I raised in my introduction, which relates to the lessons we've learned from this year's turbulence in global financial markets. While the turbulence is not over, it is not too early to begin to probe its causes and effects and start to draw lessons as to how we can strengthen the ability of the financial system to deal with stress.

The recent turbulence was triggered by greater-than-expected losses on U.S. subprime mortgages, which unexpectedly spread around the world because these mortgage loans

were re-packaged into opaque structured products funded, in many cases, by short-term asset-backed commercial paper. Liquidity evaporated in the market for structured products as investors shunned them. A flight to the safety and liquidity of government securities ensued, and credit spreads increased. Many commercial banks were affected, with the impact coming from such sources as their direct holdings of these structures, their commitments to provide funding to conduits, their difficulty in securitizing loans, and the fact that companies began to fall back on their bank lines of credit. At the same time, many banks became reluctant to make loans to one another because of uncertainties around counterparty risk and about their own future funding needs. The effect was to increase the cost and reduce the availability of credit, both in Canada and globally.

In Canada, the ABCP problem took on a unique characteristic since non-bank sponsors had issued paper with restrictions on the back-up lines of credit which prevented their access to these lines. This prompted a call for a standstill (known as the Montreal Proposal) to effect an orderly workout for most of these ABCP conduits. The standstill period has been extended to 14 December and it has been reported that progress is being made in the negotiations to convert short-term paper into medium-term tradable financial instruments.

Although some dislocation continues, it appears that the financial system has thus far weathered the turbulence reasonably well. Canadian and global banks have had large enough capital cushions to withstand the shock and support an expansion of their balance sheets. Canadian banks have been able to issue medium-term paper and capital-eligible subordinated debt to meet existing and future funding needs. However, it is clear that there is now a greater awareness of risk – an awareness that was slow in developing, despite numerous warnings of the possibility of a sudden repricing of risk in credit markets. And this repricing is being hampered by a lack of liquidity in markets for some structured products because of the complexity and opacity of these new products.

In a sense, we are witnessing the growing pains of an immature segment of the market, a segment that did not exist five to seven years ago. So, there are lessons to be learned and corrections to be made. Most of the corrections will undoubtedly be driven by market participants themselves, who will seek greater disclosure and greater standardization of structured products, and who will adopt stronger risk-management practices, including lesser reliance on credit ratings.

The recent market events have made crystal clear just how crucial disclosure is to financial markets. To operate efficiently, markets need information. At the heart of the summer's market turbulence were structured products that were so complex and opaque that even some sophisticated investors couldn't understand exactly what they were buying. This lack of transparency led to a breakdown when investors started to question the value of the assets backing the securities that they owned. So, it is in the interest of market participants to make sure that all parties to a transaction have access to all the necessary information. Investors must demand greater transparency where it is now lacking. Vendors of financial instruments will then need to structure them in such a way that market players can clearly see what they are buying and what leverage is embedded in the instrument. In this way, market discipline will be more effectively exercised.

Credit-rating agencies can help with this by being more forthcoming about the assumptions on which they based their ratings, and by adjusting their ratings promptly when circumstances require.

The role credit-rating agencies played in the recent market turmoil has generated a great deal of debate. Bank of Canada research to be published in next month's FSR notes that there are some natural self-correcting market forces at work, which should help to ensure that rating agencies improve their rating process in the future. There may still be a useful role for regulators in fostering an industry-led code of conduct and in reconsidering the role that ratings play in various regulations. But they should avoid any knee-jerk response to calls for stricter regulations for rating agencies. Allowing market forces to chart the route to the desired outcome is generally preferable to burdensome regulation, which may have the unintended consequence of absolving the regulated entity from responsibility for its ratings.

One important lesson from recent developments is just how vital liquidity is in a market-based financial system. We saw very clearly this summer how banks may be called upon to fill the gap by providing credit when there is a sudden erosion of market liquidity. This is because only banking institutions, including credit unions and caisses populaires centrals, can provide liquidity throughout the financial system, since only these institutions have direct access to the ultimate source of liquidity: the central bank. But the modern financial system has evolved in such a way that, today, financing is increasingly done through securities markets. And the recent turbulence has shown that sudden re-intermediation when liquidity dries up can have implications that had not been anticipated.

The provision of liquidity through regular operations – the Bank of Canada's standing liquidity facility to direct clearers, our supply of settlement balances in the Large Value Transfer System, and our open-market buyback operations with primary dealers – has been effective in keeping the overnight rate close to target.

However, liquidity further out the maturity spectrum was more problematic, owing in part to the precautionary build-up of liquidity by financial institutions. This raises the question of whether some market failures might be better dealt with if the central bank had a facility that would provide liquidity at terms longer than overnight, collateralized with a possibly wider range of securities. The types of market failure that such a facility would be designed to deal with would obviously need to be very carefully considered to avoid weakening the incentive for preventative risk and liquidity management by market participants. That being said, it is the case although term money market spreads remain wider than usual, they have narrowed considerably, and the market is functioning. Indeed, liquidity has returned in the market for bankers' acceptances.

### **What is Happening Abroad?**

Since the recent market turbulence has been felt around much of the globe, you won't be surprised to hear that the issues that I've highlighted thus far are being actively discussed at a global level. And this brings me to my fourth point, which is the international perspective. The global community – market participants, regulators, and policy-makers

alike – are all examining the causes and effects of this summer’s events and attempting to distil lessons from them.

Important work has already begun through a number of international bodies, including the Financial Stability Forum (FSF). The FSF has been asked by the G-7 finance ministers and central bank governors to establish a working group to identify weaknesses that merit attention from policy-makers, and to recommend actions to enhance market discipline and institutional resilience. The working group, which includes Canada’s Superintendent of Financial Institutions, is looking into a number of issues. First is the financial institutions risk management practices including liquidity management, stress testing, and assessment of counterparty risk. Second, the FSF group is also probing valuation and risk disclosures, including the role of credit-rating agencies. Third, it is re-examining the principles and practices of prudential oversight, particularly with respect to off-balance-sheet exposures. And fourth, it is exploring issues related to the authorities’ capacity to respond to market turbulence, including the tools available to central banks and supervisors in times of distress. Numerous other bodies – IOSCO, the Basle Committee on Banking Supervision, the OECD, BIS, the G-20, and the IMF – are also addressing many of these issues.

Market participants, including financial institutions, hedge funds, and rating agencies are also assessing the need for changes in light of recent events. For example, the Institute of International Finance has established a committee to review a host of issues, including risk management, the use of off-balance-sheet vehicles, the valuation of complex products, and transparency.

### **What Can CFAs Do?**

To this point, I’ve talked about the efforts that are being made at the institutional and international levels to understand the reasons behind the recent market turbulence and draw lessons for the future. Now, for my fifth and final question, I’ll turn to you, my audience, and ask: What can chartered financial analysts do to help?

As I said earlier, disclosure is a very important principle in financial markets, one that seems to have been lost in the period leading to the latest turbulence in credit markets. But effective disclosure goes beyond making information available. It involves ensuring that the information is understood by investors. This is an area where you can play an important role. Investors must demand greater transparency where it is now lacking, and credit-rating agencies will have to be more forthcoming about the basis on which their ratings are assigned. But all of you, as investment professionals, have a special responsibility for diligent research and for helping your clients understand the nature of their investments. I’m glad to see that this is reflected in the CFA code of conduct, which requires that members: “use reasonable care and exercise independent professional judgment when conducting investment analysis, making investment recommendations, taking investment actions, and engaging in other professional activities.”

### **The Canadian Economy**

Let me now say a few words about what we economists call the “real side” of the economy. The recent turbulence in global financial markets has occurred at a time of

robust global economic expansion and strong commodity prices. In the context of ongoing global developments, the Bank has identified several important issues and increased associated downside risks that currently face the Canadian economy. The marked volatility and sharp appreciation of the Canadian dollar warrant particular attention. Indeed, the volatility we have seen in foreign exchange markets has been extremely high and the magnitude of the recent appreciation of the Canadian dollar has been stronger than historical experience would have suggested. The weakening of prospects for the U.S. economy is another issue. At the same time, the Canadian economy is operating above its production capacity and the momentum in domestic demand has been strong in spite of the tightening of credit conditions that has occurred in the wake of recent financial market turbulence. As always, we at the Bank of Canada will be considering all the accumulated information on trends and developments in the global and Canadian economies, and their implications for the outlook for inflation in Canada, as we sit down to make our decision for the 4 December fixed announcement date.

### **Conclusion**

Let me conclude. The financial market dislocation that arose in the summer from the reassessment of credit risk has yet to fully run its course. But it seems that, so far, Canada has come through the recent turbulence reasonably well. There has been some tightening of credit conditions, but it appears that Canadian companies and Canadian banks are in a strong position to withstand the turmoil. Still, there are important lessons to be learned in terms of how we can continue to strengthen the resilience of our financial system. For our part, we at the Bank of Canada will carefully examine how liquidity is supplied to the economy. We will continue to do research to understand financial system mechanisms and developments so as to increase our ability to identify risks. And we will work with our partners to implement preventative measures. I am confident that you will do your part, too.