Carolyn Wilkins: Liquid markets for a solid economy

Remarks by Ms Carolyn Wilkins, Senior Deputy Governor of the Bank of Canada, to the Chambre de commerce du Montréal métropolitain, Montréal, Quebec, 5 May 2015.

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Introduction

Good afternoon. It's a real pleasure to be here in Montréal, where I have family roots. I want to talk today about an important financial force that affects all of us who invest and borrow. I'm talking about financial liquidity, in all of its forms. Right now, liquidity is going through some important changes.

We are all affected by liquidity, whether we realize it or not. If you are a business person, you need funding liquidity, which means that you have reliable access to financing on reasonable terms. If you invest in the stock market or in corporate bonds, you need market liquidity so you can buy or sell assets quickly, at predictable prices. The same is true if you are a saver through certain kinds of mutual funds that promise you access to your savings when you want them.

As a central banker, I want the economy to have the right level of liquidity available at the right price so the financial system can keep working smoothly for businesses and households and the Bank's monetary policy actions work the way they are supposed to, in order to meet our inflation target.[1]

Today I'll talk about what has been happening to liquidity in the financial system. I'll start by looking back at the recent financial crisis and the lessons we learned. Then I'll review the reforms that are being implemented in Canada and elsewhere and talk about how the financial system is evolving and what all this may mean for you. Finally, I'll discuss the next steps we're planning at the Bank of Canada to promote a smoothly functioning and safe financial system.

The crisis and its lessons

The seeds of the crisis were sown in a time when liquidity seemed to be everywhere. Think back to 2006, when it was relatively easy for businesses to get loans and households to take out mortgages. Financial institutions, particularly in the United States, were so eager to boost profits by extending credit that they started bundling mortgages and securitizing them. These securities satisfied the demand for so-called safe assets that gave a higher return.

Memories become more painful as we move into 2007. Canada had a sound financial system, but we still ran into trouble. During the summer, the more-than-$32 billion market for Canadian non-bank asset-backed commercial paper (ABCP) froze. Companies that relied on this market for funding were hurt, along with investors, including some of Quebec's largest firms, which suddenly had no market for the paper.

While there were some doubts about the assets behind the paper, the shortage of liquidity undoubtedly worsened the crisis and spread it to other markets. A lack of transparency about the assets and a poorly designed liquidity backstop didn't help. Ironically, even though some said that ABCP was backed by just about anything, the underlying assets in the Canadian

[1] D. W. Diamond, and R. Rajan, "Liquidity Shortages and Banking Crises," *Journal of Finance*, 60, no. 2 (2005): 615–47.

paper ultimately turned out to be relatively sound, and the losses felt by the investors were largely the result of the market freeze.

The affected companies, the provincial and federal governments, and the Bank of Canada worked hard to negotiate the Montreal Accord. This included a standstill agreement and rescheduling of payments, along with protection for smaller investors.

I chose this example because we're in Montréal, but there are plenty more that show that liquidity can evaporate quickly for reasons that aren't immediately obvious.[2] But it was clear in 2008 with Bear Stearns and Lehman Brothers that, when liquidity disappears, everybody can feel the consequences, and they are very expensive.[3] The fallout from the crisis because of credit and liquidity issues is estimated to have cost the global economy more than US$10 trillion in lost output.

The response

A lot has been done, both in Canada and globally, to respond to the lessons taught by the crisis. The goal is to strengthen the world's financial system so that it functions well, reducing the costs and chances of any future crisis.[4] It's also to make sure taxpayers won't be on the hook for the cost of any future turmoil. Let me mention some of the most important reforms.

Internationally, policy-makers gathered at the Basel Committee on Banking Supervision to establish new regulatory standards. The Basel III package, as it's called, is perhaps best known for its regulations that determine how much capital banks need to have, while taking into account how risky their assets are, and how much leverage they are allowed to take on. Globally, banks have doubled the amount of Tier 1 capital they hold, and Canada's banks have been at the forefront of this effort.

Equally important are the standards that make banks more resilient from a liquidity perspective. I was pleased to be one of Canada's representatives in Basel and to chair the working group on liquidity. Two new rules are being implemented. The Liquidity Coverage Ratio means that banks will have enough high-quality liquid assets available to meet their needs in the case of a stress scenario that lasts 30 days, thereby ensuring that they can continue to operate when access to funding may be impaired. The other new standard is the Net Stable Funding Ratio, which will work to reduce banks' over-reliance on short-term funding for longer-term assets.[5] These rules make it less likely that banks will face a funding shortfall, which could lead to them overly restrict funding to companies and households.

In addition to Basel III, the Financial Stability Board (FSB) has been leading work to ensure that banks have crisis-management frameworks in place should they come under serious stress that threatens their viability. These include ***recovery*** frameworks, which would allow banks to shore up capital, restore confidence and get funding liquidity flowing again. The FSB has also led work on so-called ***resolution*** frameworks to be used if a bank's recovery

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[2] M. K. Brunnermeier, "Deciphering the Liquidity and Credit Crunch 2007–2008," *Journal of Economic Perspectives* 23, no. 1 (2009): 77–100; C. Gauthier and M. Souissi, "Understanding Systemic Risk in the Banking Sector: A MacroFinancial Risk Assessment Framework," *Bank of Canada Review* (Spring 2012): 29–38.

[3] F. Allen and D. Gale, "Financial Fragility, Liquidity, and Asset Prices," *Journal of the European Economic Association* 2, no. 6 (2004):1015–48.

[4] T. Ahnert, "Rollover Risk, Liquidity and Macroprudential Regulation," Working Paper No. 2014–23, Bank of Canada, 2014.

[5] Basel Committee on Banking Supervision (BCBS), "Basel III: The Liquidity Coverage Ratio and Liquidity Risk Monitoring Tools," January 2013; BCBS, "Basel III: The Net Stable Funding Ratio," October 2014; T. Gomes and C. Wilkins, "The Basel III Liquidity Standards: An Update," Bank of Canada *Financial System Review* (June 2013): 37–43.

actions aren't enough to get the bank back on its feet. These will allow national authorities to either maintain the bank's critical operations and eventually return it to viability, or wind up the institution at minimal cost to taxpayers.

The final response I'll mention has to do with ensuring that the most important markets for funding liquidity, such as the repo market for government securities, can keep operating in times of stress. As we saw with Lehman Brothers, when a financial institution comes under suspicion, others may avoid trading with it. When a bank can't get funding, that's when it may call in its loans or cut its lines of credit, and companies feel the pain directly.

One way of increasing resilience in financial markets, including repo markets, is to establish a central counterparty (CCP) service. Canada has developed such a service here in Montréal.[6] The Bank of Canada has designated it as systemically important. That means we oversee it, in co-operation with the Autorité des marchés financiers, the Ontario Securities Commission and the British Columbia Securities Commission. The Bank has authority to oversee all systemically important financial market infrastructures.

The implications

This response by global and national authorities has meant a lot of change. Taken as a whole, the reforms make the world's financial system safer. However, that safety isn't free. Like all regulations, the Basel rules on capital and liquidity come with costs, both direct and indirect. For example, financial institutions have to make decisions about how to best allocate their capital. The more assets they hold, and the riskier those assets are, the greater the capital charges they incur. Those extra costs will either reduce profits or be passed on to customers, perhaps in the form of somewhat higher interest rates or stricter conditions on loans, or a reduction in some business lines altogether.

The reforms are also affecting market liquidity in a number of ways.[7] We've seen some financial institutions that traditionally act as market-makers for bond trading cut back on this activity. In the United States, dealer inventories of corporate bonds have fallen to less than half their pre-crisis levels.[8] At the same time, there is more demand for safe assets. The Basel rules on capital and liquidity are increasing the demand for high-quality assets such as government bonds.

It's not all about regulation, though. Those same bonds are being bought and held by many institutions for separate reasons. Certain central banks are stimulating their economies by buying assets. Some central banks and sovereign wealth funds are accumulating reserves. The International Monetary Fund estimates that the world's official international reserves quadrupled to US$11 trillion in the 10 years ending in 2013. These purchases are reducing the pool of bonds available for trading and for use as collateral. Further, financial institutions have become more risk-averse in general, going beyond regulatory requirements to build up cushions of high-quality assets.

We're hearing a lot of commentary about how liquidity may be diminishing in secondary bond markets, especially for corporate bonds. We see that the average size of a transaction has dropped and turnover rates are down from pre-crisis levels. Bid-ask spreads remain wider than they were in 2006.[9]

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[6] The service is run by the Canadian Derivatives Clearing Corporation. It also clears derivatives contracts traded on the Montréal Exchange and some over-the-counter derivatives.

[7] Committee on the Global Financial System, "Market-Making and Proprietary Trading: Industry Trends, Drivers and Policy Implications," CGFS Papers No. 52, November 2014.

[8] I. Fender and U. Lewrick, "Shifting Tides – Market Liquidity and Market-Making in Fixed Income Instruments," *BIS Quarterly Review* (March 2015): 97–109.

[9] Ibid.

In sovereign bond markets, there are mixed signals.[10] On the one hand, bid-ask spreads in the United States and Europe are very close to what they were before the crisis. On the other hand, in some cases average transaction sizes may be smaller than they were, and the market may not be as deep.

Liquidity is also influenced by the players in the market. The shadow banking system is growing in size and influence".[11] Here, I'm referring to institutions such as hedge funds that intermediate credit but operate outside of the regular banking system. Despite the ominous-sounding name, shadow banks have an important, positive role to play in the economy. Their influence is growing, along with the amount of assets they have to manage. They have also introduced a number of new financial products and innovations.

While Canada's shadow banking sector is relatively small compared with those of other countries, we are still closely involved in international efforts to monitor it.[12] The Financial Stability Board has been coordinating these efforts and publishes regular monitoring reports. Canada is also an active participant in the FSB's thematic peer-review of shadow banking, and I'm leading the team that will conduct it.

Let me give you an example of the kind of risk that's worth watching. At the global level, institutional funds are growing. This includes funds, such as open-ended mutual funds and some exchange-traded funds (ETFs), where investors can sell or redeem their investment on short notice. This can be the case even if the assets held by the funds are relatively illiquid. The salient question is what happens if many funds see large numbers of investors asking to redeem at the same time. The worry is that fund managers may not have enough cash holdings and may be forced to incur large losses as they sell assets to cover redemptions.[13] There are stress-test results that suggest that fund managers are holding enough cash to cover all but the largest redemption shocks.[14] But it's far from clear that all investors and savers appreciate the liquidity and redemption risks involved in some funds. I'm not trying to tar all these funds with the same brush, but I would say everyone should be aware of all the risks involved in investing, including liquidity risks.

The bottom line on the reform package is that the risks of financial transactions will be priced more appropriately. This will make funding and market liquidity marginally more expensive. But weighed against the cost of another crisis, it's a small price to pay.[15]

The backstop

The Bank of Canada has a role to play in promoting the stability and resilience of core funding markets, in normal times as well as during times of extraordinary market stress. Today, we're publishing two consultation papers that spell out how we intend to adjust our

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[10] Ibid.

[11] Z. Pozsar, "A Macro View of Shadow Banking: Do T-Bill Shortages Pose a New Triffin Dilemma?" in *Is U.S. Government Debt Different?* edited by F. Allen et al. (Philadelphia, PA: FIC Press, 2012), 35–44.

[12] T. Gravelle, T. Grieder and S. Lavoie, "Monitoring and Assessing Risks in Canada's Shadow Banking Sector," Bank of Canada *Financial System Review* (June 2013): 55–63.

[13] M. Feroli, A. K. Kashyap, K. L. Schoenholtz, and H. S. Shin, "Market Tantrums and Monetary Policy," Chicago Booth Research Paper No. 14–09, 2014.

[14] Morgan Stanley and Oliver Wyman Blue Paper, Wholesale & Investment Banking Outlook, 19 March 2015.

[15] Financial Stability Board and Basel Committee on Banking Supervision, "Assessing the Macroeconomic Impact of the Transition to Stronger Capital and Liquidity Requirements," Final Report of the Macroeconomic Assessment Group, December 2010, available at http://www.bis.org/publ/othp12.pdf; Bank of Canada, "Strengthening International Capital and Liquidity Standards: A Macroeconomic Impact Assessment for Canada," Special report, August 2010, available at http://www.bankofcanada.ca/wp-content/uploads/2010/09/report.pdf.

financial market operations and emergency lending policies. These two papers can be found on our website.[16] My colleague, Deputy Governor Lynn Patterson, will talk in detail about initiatives relating to the Bank's market operations in a speech in Vancouver next week. Let me walk you through the highlights, while stressing that you should infer nothing from these proposals for the current or future stance of monetary policy.

First, the Bank is proposing to reduce the amount of benchmark government bonds we buy at government bond auctions for our own balance sheet. This will help liquidity by increasing the amount of such newly issued securities that will be available to other buyers. For its part, the Bank will buy some of the assets we need in the secondary market for government bonds. Second, we are exploring changes to our securities-lending program. This would assist primary dealers that contribute to market liquidity but that need to borrow securities, while still encouraging the market to clear itself. Finally, we intend to set up a regular program of term repo operations that will not only help us manage our balance sheet, but also give us timely insight about liquidity conditions in short-term funding markets.

These steps will all help markets in normal times. But we need to be ready for when times aren't so normal. We're using this period of relative calm to sharpen our tools that could be used in any future periods of stress.

During the crisis, the Bank set up a temporary term repo facility that reduced short-term funding pressure for primary dealers, which improved market conditions.[17] At its largest, the facility grew to $42 billion. What we are now proposing, in addition to the regular term repo program I just mentioned, is a Contingent Term Repo Facility that we can activate at our discretion when we see severe liquidity problems that are market-wide. The facility would offer liquidity for terms of up to one month that could be made available to primary dealers and, in some circumstances, other institutions if we judge it necessary for the stability of the financial system.

In addition to this facility to deal with extraordinary market-wide stress, we are proposing changes to how we deal with liquidity issues at individual institutions. This is our traditional role as lender of last resort. What this role means is that we act as a backstop to make sure that a liquidity shortage in one place doesn't turn into widespread stress for the whole system. We haven't done a comprehensive review of this role since 2004, and it's time to take the lessons of the crisis on board.

Our Emergency Lending Assistance (ELA) was traditionally meant for financial institutions that were judged to be still solvent, but unable to access liquidity. In an emergency situation, it can be very difficult to distinguish insolvency from illiquidity. So we will now restrict ELA to those institutions that have in place the credible frameworks for recovery and resolution that I spoke of earlier. This will ensure that any lending will be part of a coordinated effort taken by the institution and the authorities, as needed, to bring a distressed institution back to viability. And if it can't recover on its own, the authorities can do what is needed to restructure or liquidate the business while maintaining any functions that are critical to the financial system and without exposing taxpayers to loss.

We are also clarifying that we would, under certain conditions, provide emergency lending to provincial institutions such as caisses populaires or credit unions and their centrals. Because these institutions can get liquidity support from their provincial centrals, we would limit ELA to cases that have implications for the Canadian financial system. As well, we are prepared to provide emergency lending to address liquidity problems at key Canadian market

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16 Available at https://en.ews.staging.boc.ets.net/2015/05/public-consultations-bank-canada-framework-financial-market-operations/.

17 E. Enenajor, A. Sebastian and J. Witmer, "An Assessment of the Bank of Canada's Term PRA Facility," *The North American Journal of Economics and Finance* 23, no. 1 (2012): 123–43; Bank of Canada Working Paper No. 2010–20.

infrastructures that are overseen by the Bank. This is essential because infrastructures such as CCPs are becoming more important.

Finally, we are adjusting the range of collateral we would accept as a last resort for emergency loans. This collateral could include mortgages, which would give a stressed institution more capacity to accept ELA in an emergency. To be clear, this would only occur after all other collateral had been exhausted.

I should stress that these policies are for extremely rare occasions – the Bank hasn't activated its ELA policy in roughly 30 years. And the guiding principles behind these changes are the same as those that led the international response to the crisis – we want to minimize the risk of a future systemic crisis while protecting taxpayers from bearing the cost of recovering or resolving a troubled financial institution.

Conclusion

A solid economy rests on reliable funding and market liquidity. We learned from the crisis that liquidity can be a fickle friend, and its absence can amplify financial distress.

The reforms to date will make the financial system safer. They are designed to lower the risk profile of core financial institutions and to increase the resilience of funding and market liquidity in times of market stress. The transition is challenging market participants to adjust their business models to the new reality. I hope that you better understand the importance of liquidity so you can make appropriate financial decisions for you and your companies.

The Bank of Canada will continue to promote the economic welfare of Canadians by supporting the stability and resilience of our financial system. We are adjusting our liquidity policies to contribute to the smooth functioning of the financial system in normal times. And, should another major bout of liquidity turmoil arise, we will be ready.

If we all do our part, a more robust financial system will emerge, to the benefit of the people it ultimately serves: businesses and households who save and borrow.