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CHECK AGAINST DELIVERY

What Are Banks Really For?

Across the world's major economies, addressing the failures of banking ranks among the highest policy priorities. In the harsh glare of the current financial turmoil, it is clear that many banks outside of Canada were either not doing their jobs or were doing them in ways that created enormous risks. It is vital that we learn from these mistakes to build a more robust financial order.

The financial system should be the servant of the real economy. As one of my international colleagues recently remarked, "it is time the banks stopped swanning around like the Queen of England and resumed their traditional role as handmaidens to industry." It is apparent that an era of self-absorbed finance that viewed itself as the apex of economic activity led to widespread misallocation of capital. Now, in some major economies, the challenge is that banks are not allocating capital at all. Around the world, banks are accused of not lending enough, charging too aggressively when they do lend and, most fundamentally, of deepening the recession rather than dampening it. These concerns are much less valid in Canada than abroad, but we too should reflect upon them and respond accordingly.

My remarks today will address the role of banks and markets in our economy. In recent years, these core elements of our financial system became increasingly intertwined, with each expanding into the traditional role of the other, and each reliant on the health of the other. This blurring between banks and markets led to the emergence of the so-called "shadow banking" sector, whose presence helped trigger the crisis and whose absence will complicate the recovery. We now face important policy questions about which activities banks should perform, which should be located in sustainable, continuously-open markets, and which should be prohibited.

The final answers to these questions require reflection and implementation will take time, but broad direction is needed now. Markets are overshooting. On the current trajectory, virtually all financial activities will be put back onto bank balance sheets at potentially tremendous cost in terms of lost output and employment.

Restoring stability to financial markets requires broad direction on the type of global financial system that should emerge from the current financial mess. Important steps will be taken at this week's meeting of the leaders of the G-20 in London. Canada has much to offer these discussions, and is participating actively and constructively.

Let me stress at the outset that many of my comments today apply more acutely internationally than domestically. While some commentators have been too quick to ascribe global failings to our local institutions, we should not engage in a bout of perverse envy. Our system *is* better. Regulation *has* been more consistent. Our banks *have* been more conservative. Credit conditions in Canada *remain* superior to those in virtually every other industrialized country. That is not to suggest that access to credit is not a challenge, that risks do not lie ahead, or that our system cannot be improved. However, many of the current constraints in our system reflect the impact on Canada of failures in the international financial system and of international institutions. The core of our system has many – although not all – of the elements of a more sustainable global financial system.

The Traditional Roles of Banks

Commercial banks perform several key functions in our economy. To begin with, banks are a critical part of the payments system – the pipes through which financial transactions occur. By facilitating decentralized exchange, the payments system is critical to the functioning of a market economy. Like oxygen, the payments system passes unnoticed unless disrupted. It is one of the Bank of Canada's jobs to oversee systemic elements of the payments system, as well as its reliability. Reflecting years of investment and planning, our payments system has functioned smoothly and reliably, despite the enormous shocks to our financial system over the past two years.

The second important role of banks is to transform the maturities of assets and liabilities. Banks take short-term liabilities, usually in the form of deposits, and transform them into long-term assets, such as mortgages or corporate loans. Households and businesses can therefore do the reverse, holding short-term assets and longer-term liabilities. This helps them to plan for the future and to manage risks arising from uncertainties over their cash flows. Banks also provide liquidity to their customers by allowing rapid access to those same short-term assets. Indeed, by transacting at a wide range of maturities, banks provide arbitrage which increases the efficiency of financial markets. This allows borrowers to obtain the lowest rate of interest appropriate to their risk characteristics.

The social value of maturity transformation is without question. However, by definition, it also leads to a maturity mismatch that creates a fundamental risk for banks. Banks hold liquid reserves that are only a fraction of their outstanding obligations. What if a depositor wants his money back, but that money is committed to long-term investment projects? Generally, this is not a problem, because banks maintain sufficient liquidity to meet typical demands and can borrow from other banks if the shock is larger than anticipated. But what if many depositors want their money back at the same time? There is a tipping point when the liquidity problem becomes self-fulfilling.

To manage this risk, banks rely on two crucial supports. First, deposit insurance gives depositors the comfort that their funds will be there when they need them.[1] Second, the Bank of Canada acts as a lender of last resort to solvent but illiquid institutions. [2]

These support mechanisms are carefully crafted to discourage banks from taking inappropriate risks while still providing the necessary support. They are also accompanied by a robust regulatory framework. Bankers implicitly accept a social contract that gives them access to liquidity support in times of a stress in return for regulation of their behaviour at all times.

Banks perform a third essential role of credit intermediation, channelling funds from savers to investors. This allows savers to diversify their risk and all of us to smooth our consumption over time. Young families can borrow to buy a house, students can pay for university. Canadians can invest in low-risk, interest-bearing accounts for their retirements, and businesses can finance working capital and investment.

Banks, Markets, and the Crisis

Banks are not the only game in town. In recent years, markets have grown to the point that they are now an important alternative for corporate and household finance. From a financial system perspective, the deepening of markets is generally very welcome because it makes the system more robust and increases competition, which disciplines banking activity.

While markets expand the choices and lower the prices available to financial consumers, they function differently from banks. Unlike banks, markets rely more completely on confidence for liquidity. We have seen during this crisis that confidence is not always present. Liquidity waxes and wanes, and with it, so do the prices of securities. In recent months, as we have seen a fundamental repricing of virtually every financial asset across the world, liquidity in many securities has fallen dramatically.

Banks have relationships with their customers. They follow borrowers over time and monitor their payment history and reliability. When performing their role properly, banks tailor their products to the borrower, imposing higher or lower standards as appropriate. In contrast, markets are transaction oriented. They act as an intermediary between savers and borrowers but maintain relationships with neither. Consequently, market instruments are more robust when the underlying product is more standardized. Determining whether an activity is best financed through a bank or a market depends on the relative benefits to

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[1] The Canada Deposit Insurance Corporation insures eligible deposits up to a maximum of $100,000 (principal and interest combined) per depositor against the failure of a bank or other financial institution if it is a CDIC member. Canadian chartered banks are CDIC members, as are federally regulated trust and loan companies that take deposits and deposit-taking associations governed by the Cooperative Credit Associations Act.

[2] A more detailed description of the Bank's role as lender of last resort can be found in the Winter 2004-05 issue of the *Bank of Canada Review*, available at http://www.bankofcanada.ca/en/review/winter04-05/daniel.pdf

that activity of specialization versus standardization.

In response to increased competitive pressure from markets, banks have become direct participants in markets. This move helped to sow the seeds of the crisis through three channels in particular; wholesale funding, securitization, and proprietary trading.

First, banks have become increasingly heavy users of markets to fund their activities. In recent years, many international banks borrowed in short-term markets to finance asset growth and, in the process, to substantially increase their leverage. This made them increasingly dependent on continuous access to liquidity in money and capital markets. In the process, banks conflated a reliance on market liquidity with their access to central bank liquidity. This exacerbated the potential liquidity problems of banks to a magnitude that we now better appreciate.

Second, banks increasingly used securitization to straddle relationship banking and transactional market-based finance. Under the originate-to-distribute business model, banks originated a set of loans, repackaged them as securities, and sold them to investors. In essence, banks took specialized loans and sold them in standardized packages. While securitization promised to diversify risks for banks, the transfer of risk was frequently incomplete. Banks often sold securities to “arms-length” conduits that they were later forced to reintermediate or held onto AAA tranches of structures that proved far from risk-free. At the extreme, the business models of some institutions were wholly reliant on the continuous availability of markets for securitized assets (e.g., Northern Rock).

The global financial crisis exposed the fundamental incentive problems that can occur with securitization. In the originate-to-distribute model, the incentives of the originating institution were no longer aligned with those of the risk-holders. Once that relationship was severed, the standards for new loans and their ongoing monitoring were adversely affected. However, pricing and risk management did not reflect these changes until they were abruptly adjusted, helping to trigger the onset of the crisis.

Third, many retail and commercial banks expanded into investment banking. This allowed banks to package traditional lending with higher value-added agency business, market-making activities and, increasingly proprietary trading. Banks’ push into markets helped spur the proliferation of over-the-counter derivative products, which created counterparty and investment risks that were difficult to identify and control.

Incentive problems also plagued this transition. In many banks, a culture that rewarded innovation and opacity over risk management and transparency eventually undermined its creators. Senior managers and shareholders of banks discovered that actual risks were much greater than originally thought. By that time, the more junior traders who had assumed the risks had already been paid, largely in cash. Many large, complex institutions learned too late that there can be principal-agent problems within firms, as well as between firms and their shareholders.

Just as banks began doing what markets traditionally did best, there was an explosion in highly specialized products that required monitoring and continuous access to funding liquidity. More and more of the traditional functions of banks – including maturity transformation and credit intermediation – were conducted through a broader range of intermediaries and investment vehicles, which have been collectively referred to as the “shadow banking” system. Shadow banks included investment banks (in other countries), mortgage brokers, finance companies, structured investment vehicles (SIVs), hedge funds, and other private asset pools.

The scale of these developments was remarkable. During this decade, banking assets grew enormously, to anywhere from one and a half times to six times national GDP in Canada, the United States, the United Kingdom, and Europe. In all countries besides Canada, much of this growth was financed by increased leverage.[3] In the final years of the boom, when complacency about access to liquidity reached its zenith, the scale of the shadow banking system exploded. The value of SIVs, for example, tripled in the three years to 2007. The growth in financial activity and the increasingly complex array of financial players have prompted a dramatic increase in claims within the financial system, as opposed to between the financial system and the real economy, which created risks that were difficult to identify and evaluate.

Financial institutions, including many banks, came to rely on high levels of liquidity in markets. In the United States, the total value of commercial paper rose by more than 60 per cent and the ABCP market by more than 80 per cent in the three years before the crisis. In essence, the shadow banking system practiced maturity transformation without a safety net – that is, it was wholly reliant on the continuous availability of funding markets. The collapse in market liquidity that began in August 2007 crystallized these risks.

The regulatory system neither appreciated the scale of this activity nor adequately adapted to the new risks created by it. The shadow banking system was not supported, regulated, or monitored in the same fashion as the banking system. With hindsight, the shift towards the shadow banking system that emerged in other countries was allowed to go too far for too long.

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[3] Average asset-to-capital ratios for U.S. investment banks rose to 25 prior to the onset of the crisis, to 30 in the euro area, and to over 40 for some major global banks. These are all much higher than the Canadian equivalent of about 20.

Financial Deleveraging

The financial crisis is now reversing the decades-long transition from bank-based, relationship-oriented finance towards market-based, transaction-oriented finance. Banks are playing a larger role in the ongoing extension of credit. However, this transition carries enormous risks. Banks alone cannot support the same level of economic activity as the entire system did before, particularly since many need to delever. Moreover, the financial system as a whole is more robust when both banks and markets are strong, healthy, and liquid.

Financial deleveraging is now one of the dominant forces in the global economy. After a decade during which household debt, leverage in the financial sector, and cross-border capital flows all rose rapidly, all have slowed or are now falling. The duration and orderliness of these shifts will help to determine the severity of the global recession.

Financial institutions around the world must bring their leverage down to more sustainable levels by shrinking assets and raising more capital. Considerable, albeit disruptive, progress has been made in the shadow banking system, where SIVs and other conduits have been largely wound up. Hedge fund assets under management have been cut in half to about US$1 trillion, and the leverage applied to these assets has been substantially reduced. As liquidity in many funding markets has dried up, so has embedded leverage in many pension funds. However, there has been less progress in the regulated banking sector. This is a large task. We estimate that to bring leverage ratios down to Canadian levels by raising capital alone, global banks would need more than US$1 trillion in new capital, before any additional writedowns on assets.

The deleveraging process has contributed to a dramatic reversal in cross-border capital flows. Many of the largest global banks have dramatically curtailed their international activities. Hedge funds have similarly retreated to their home countries in anticipation of redemptions and over concerns for cross-border liquidity. The Institute of International Finance (IIF) estimates that net flows from private creditors to emerging markets, which topped US$630 billion in 2007, will be negative this year. Once the crisis passes, the scale of cross-border financial transactions is unlikely to return to pre-crisis levels. This reflects both the re-emergence of home bias amongst investors and the impact of measures to support domestic institutions. This financial protectionism, if not checked, could permanently impair cross-border capital flows and could be a serious setback for the global economy.

Reform of the Global Financial System

It is clear that the global financial system needs to be restructured, but doing so requires a clear view of the objectives. The fundamental objective is a system that efficiently supports economic growth while providing financial consumers with choices. The system must be robust to shocks, dampening rather than amplifying their effect on the real economy. It should also support sensible innovation. The system needs both stable banks and robust markets, since both play a central role in financing and, if properly structured, each can support the other.

Achieving these objectives will require a range of measures starting with short-term initiatives to keep the system functioning and then bridging to more fundamental long-term reforms, which help define the roles of banks and markets.

Keeping the System Functioning

Extraordinary measures have been taken to underpin the financial system. All G-20 countries have explicitly and repeatedly confirmed that no systemically important institution will be allowed to fail. In some countries, there has been direct support for banks through capital injections using public money. Support has also taken less direct forms, such as liquidity support to help keep open the markets on which banks and market participants depend. Some of these measures are expediencies taken in the midst of a crisis and elements may need to be adjusted later to support a more permanent solution. [4]

For example banks have been provided with considerable liquidity support to reflect the scale of the funding pressures. The broader intent has been to grease the wheels of the financial system. In providing liquidity to banks at the core of the system, central banks expected that key markets would resume functioning as liquidity cascaded down to other market participants and, ultimately, through private credit creation to the real economy. However, the weaker the starting point of regulated institutions and the greater the importance of the shadow banking sector, the longer the healing process has taken.

While the provision of extraordinary liquidity is limiting the damage from the crisis, it has long been apparent that official liquidity, irrespective of size, cannot re-open markets on its own. Reopening markets will ultimately require a series of measures to improve the infrastructure of core funding markets, securitization, and credit default swaps (CDS).

Building Systemic Markets

A robust and efficient financial system needs core markets for interbank lending, commercial paper, and repos of high-quality securities that are continuously open, even under periods of stress. To that end, the Bank of Canada is currently engaged in wide-ranging discussions with market participants, regulators, and other central banks on the steps that may be needed to create continuously open markets. Potential measures include improving the transparency of securities (as with ABCP), standardizing terms such as through-the-cycle haircuts for repos, and exploring the potential use of clearing houses to limit counterparty risks. Regulations and standards could reinforce these initiatives. Central bank operations could also be adapted to create a market-maker of last resort.

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[4] The Bank of Canada has outlined some principles for the provision of liquidity in the following article http://www.bank-banque-canada.ca/en/fsr/2008/pol0608.pdf

Authorities are also taking important steps to improve the functioning of key markets such as securitization and CDS by creating more robust infrastructure and standardizing the products. For example, to reduce opacity, the models and data underlying securities could be published to move securitization from black box to open source. An extreme would be to standardize securities by introducing a government "wrap" or guarantee, as is the case with Canada Mortgage Bonds.[5] [6] Similarly, a host of measures are being pursued to make the CDS market more sustainable. The U.S. Federal Reserve has improved clearing and settlement arrangements, and has encouraged the move of CDS onto clearing houses. This will encourage the standardization of these products, while making CDS counterparties – often banks - less systemically important at the margin.

The Limits Between Banks and Markets

These initiatives will change the margin between banks and markets and will make markets much more robust. This will reduce risks to those institutions that rely on these markets and reduce the extent to which certain banks are "too interconnected to fail."[7] Nonetheless, even with these changes, banks can be expected to continue to be active market participants.

For some, such progress is insufficient. A simple lesson that they draw from the crisis is that banks should be divorced from markets. To those who think this way, banks are most naturally heavily regulated utilities that collect deposits and make loans. Once banks become involved in the market "casino," they are overwhelmed by the resulting risk-management challenges and all too often have to draw on their public safety nets. Indeed, the very existence of those safety nets may encourage excess risk taking and promote financial crises. That is why some advocate restricting banks' activities to their "core" functions of deposit taking and lending. The range of activities related to the markets would be kept outside the heavily regulated banking sector. To this way of thinking, banks could not then get themselves into trouble or, if they did, their demise could be safely managed.

In the midst of the crisis, this is a seductive viewpoint, but its practical value may be limited for three reasons.

First, banks perform a broad range of market-related activities that are vital to the existence of markets. Canadian banks are the major agents, market makers, underwriters, and traders of most government debt and corporate debt. Even with substantial improvements to market infrastructure, it is difficult to see markets functioning effectively in the absence of bank participation. These activities can be distinguished from principal positions or proprietary investments and are essential to well-functioning

[5] For example, the former Deputy Chairman of the United Kingdom Financial Services Authority, Sir James Crosby, proposed the introduction of government guarantees of newly-issued mortgage-backed bonds. In March, the Bank of England introduced an Asset Purchase Program to support corporate credit markets.

[6] In addition, to align incentives, originators could brand their products to retain part of the security or to absorb first loss.

markets. Efforts to improve market infrastructure described above will make markets less risky and the system as a whole more robust.

Second, banks are the major providers of cross-border financing products ranging from trade finance, to foreign exchange hedging, to foreign financing. In a world of global supply chains and corporations, it would be very costly to prohibit bank provision of these services that have become integral to global commerce. Moreover, with global cross-border flows already under such pressure, further impediments would be extremely risky.

Third, the crisis has demonstrated that there are many firms that have been deemed systemic and worthy of rescue even though they were not deposit-taking banks. Efforts to build more robust markets and to define clearer and more comprehensive resolution schemes may limit these cases in the future, but they are unlikely to eliminate them entirely. In my opinion, a better approach is the plan by the G-20 to expand the perimeter of regulation. As a general principle, all financial activities that can pose a systemic risk to financial stability should be supervised and regulated. This will include pools of capital of material size, leverage, and maturity mismatches. In addition, to avoid regulatory arbitrage, markets should be regulated according to economic substance, placing similar activities into the same regulatory bucket, even if undertaken in different institutions. Regulating by economic substance should limit the destabilizing impact of shadow banks on the banks themselves.

In many respects, the relative success of Canadian banks and their consolidated supervision by the Office of the Superintendent of Financial Institutions demonstrates that, with the proper regulatory regime and professional management, banks can be much more than utilities. In this spirit, Canada is contributing to the international debate on financial sector reform. We are stressing the need for a macroprudential (i.e., comprehensive and system-wide) approach that takes into account the importance of banks, markets, and the interactions between them.

Conclusion

Our principal preoccupation is weathering the financial and economic storm, but as we respond to the current tempest, policy-makers must also focus on where we want to end up when calmer conditions arrive. Our destination should be one where banks and financial markets play critical, and complementary, roles in a financial system to support long-term economic prosperity. The system as a whole will be more stable if market infrastructure is substantially improved, market products are more standardized and transparent, and banks can fulfill their market-making roles with appropriate liquidity backstops.

As the G-20 pursues its critical agenda of financial reform, Canada will contribute an important perspective on these issues, drawing on the fine example we continue to set.