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Opportunities for Better Systemic Risk Management in Canada

The International Monetary Fund has identified gaps in Canada's ability to monitor and deal with systemic risk in its financial system. Greater coordination efforts are needed between regulators, and the proposed cooperative securities regulator could play an important role.

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The Study In Brief

With the IMF scheduled to perform an update assessment of Canada's financial sector stability during 2018-19, this paper asks: How is Canada faring when it comes to the management of systemic risk? To answer this question, I focus on capital markets, both federal and provincial, coordination issues, and how the stability responsibilities of the proposed cooperative market regulatory system should be exercised. I also make some recommendations on systemic risk management more generally.

While improvements have been made, overall, the upcoming IMF assessment is likely to again point to areas where we have not made sufficient progress. As such, this paper argues that the following suggestions will point us in the right direction:

- Clarification is needed that the Bank of Canada and the Cooperative Markets Regulatory Authority (CMRA) are expected to take the lead in systemic risk conjunctural analysis, with involvement of Finance and OSFI, and inter-agency coordination performed by the Heads of Agencies group given the federal-provincial aspects.
- The CMRA should elaborate the framework and analysis the new authority intends to use to assess systemic risk in securities markets, it should focus on enhanced market monitoring and contributing to macro stress testing, and it should commit to publishing regular reporting on its systemic risk assessment.
- The Canadian Securities Transition Office should develop draft arrangements for the sharing of stability analysis among the CMRA, the Bank of Canada, OSFI, and key provincial market regulators who are not part of the cooperative capital markets initiative, and should publish these for comment.
- The Bank of Canada should broaden the regular reporting it makes in the Financial System Review (FSR) to include its analysis of systemic market risk, especially the links between markets and institutions, which it is uniquely positioned to analyze.
- The federal and provincial regulators should ensure there are arrangements in place to share market data necessary for financial stability analysis of capital markets.
- BC should, through legislation, rectify deficiencies identified by Financial Institutions Commission (FICOM) compared to Basel Core Principles.
- Alberta should update the guidance applying to the Alberta Treasury Branches, and ensure that its supervisory resources are sufficient.
- All provinces should be more transparent about the resources they are devoting to prudential regulation and supervision in the annual reports of the various agencies.
- Provinces should ensure they all have the arrangements in place to access Bank of Canada Emergency Liquidity Assistance.

Implementation of these measures would bolster Canada's ability to monitor and deal with systemic risk in the financial system, with the proposed cooperative securities regulator playing a key role.

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Financial regulation cannot and should not be expected to prevent the failure of individual institutions, nor prevent all problems in markets.

However it is reasonable to expect a high standard of excellence in mitigation of systemic risk – ensuring that problems in one market or institution aren't propagated to the rest of the system, with big consequences for the real economy and Canadians broadly.

During 2013-14, the IMF Financial Sector Stability Assessment of Canada identified issues with Canada's system (IMF 2014). A main recommendation was:

> "Cooperation between federal and provincial authorities in both ongoing supervision and crisis preparedness could be improved. Such cooperation should be better articulated for the financial groups spanning federal and provincial regulatory boundaries and for institutions and markets deemed to be systemic. Furthermore, the authorities should work together to find effective mechanisms to allow for sharing of experience and joint work across the federal and provincial agencies."[1]

The IMF will do an update assessment during 2018-19. This paper asks: How is Canada faring when it comes to the management of systemic risk? To answer this question, I focus on capital markets, both federal and provincial, coordination issues, and how the stability responsibilities of the proposed cooperative market regulatory system should be exercised. I also make some recommendations on systemic risk management more generally.

The federal government has been pushing forward with its proposed Capital Market Stability Act (CMSA), as its contribution to the proposed cooperative market regulatory system with a range of provinces. Called the Capital Markets Regulatory Authority (CMRA), this proposed new regime has the potential to be a major contributor to systemic risk mitigation from a market perspective, where there has been a national lacuna. Courts have accepted there is a case for federal involvement in overseeing the systemic risk in capital markets, beyond what the provinces can do on their own.[2] This was recently confirmed by the Quebec Court of Appeal (though it found aspects of the arrangements unconstitutional). But the new system is not yet up and running, and this systemic risk mandate has not been fleshed out. This paper will answer the question of how the CMRA should implement its systemic risk mandate.

Furthermore, in the banking and deposit-taking system there are provincially systemic institutions and financial infrastructure that on occasion might be nationally systemic. Examples include the Caisse Desjardins in Quebec, Central 1 in BC, which

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1 Communication and information sharing does exist but the IMF believed it needed strengthening.

2 See SCC, *Reference re Securities Act,* 2011 SCC 66, December 22, 2011.

manages the credit union system liquidity back-up arrangements (outside Quebec), and the Alberta Treasury Branches (ATB).

In this area, the federal government has been trying to disentangle and clarify federal and provincial roles regarding their respective financial institutions by (i) having the Office of the Superintendent of Financial Institutions (OSFI) cease joint supervision with provinces of credit union centrals; and (ii) clarifying that Bank of Canada Emergency Lending Assistance to provincial institutions is subject to the province agreeing to indemnify the Bank of Canada against any losses. This may indirectly put pressure on provinces to enhance their supervisory and crisis resolution capacity.

How have provinces responded to the challenge to enhance their capabilities in their prudential sphere, where these are important for systemic risk management? And are the requisite emergency arrangements now in place?

On the questions identified in this introduction, I perform a high-level assessment, identify opportunities for improvement and make policy recommendations accordingly.

Background

Since the global financial crisis of 2008, regulators globally, led by efforts of the Financial Stability Board (FSB), the International Monetary Fund (IMF) and international standard setters based at the Bank for International Settlements (BIS), have taken steps to strengthen their respective financial systems, making significant progress toward ending "too-big-to-fail" scenarios and mitigating the risk that future crises will require taxpayer-funded bailouts to save domestic financial systems.[3] Through these international efforts, it has become apparent that the management of systemic risk involves many agencies, including prudential regulators, central banks and securities market regulators. In Canada, these agencies include both federal and provincial authorities.

None of these authorities have an explicit mandate to manage systemic risk for the Canadian financial system as a whole. There have been multiple calls since the financial crisis for a body that is widely recognized as having the mandate to coordinate the management of systemic risk in Canada.[4] Are coordination mechanisms adequate?

What is Systemic Risk?

Systemic risk is the risk that problems in one or a few financial institutions or markets, or some exogenous event, causes cascading problems across a wide variety of markets and institutions, or the financial system overall, with material negative impacts on the real economy (see, for example, Caruana BIS 2010). Systemic risk is intimately tied to the notion of linkages and dependencies between

3 National governments are at various phases of implementing reforms such as Basel III capital and liquidity rules; recovery and resolution plans for systemically important banks at the global and domestic levels; the implementation of cross-border crisis management groups; and, the implementation of bail-in regimes, as well as various capital market reforms like central counter-parties for derivatives and money market reforms that are in progress. Further work by national authorities is likely to continue in the coming years to bring their respective frameworks in line with new international standards for Total Loss Absorbing Capacity (TLAC) as well as internationally agreed upon stay protocols (which essentially means statutory cross-border enforceability) for over-the-counter derivatives and other financial contracts such as securities financing transactions.

4 Crow, J.W. (2009) and Jenkins and Thiessen (2012) argued for a coordinating committee inclusive of the federal safety-net agencies and the provincial securities commissions for the purpose of managing systemic risk (and macroprudential policy). In its March 2014 Financial Sector Assessment Program for Canada, the IMF identified a gap in systemic risk coordination as well – more below.

various markets and institutions, either through technical interdependencies, direct exposures, or market dynamics.

Systemic risk and its mitigation has three components. The first is structural. That includes the structure of key parts of the financial system and how resilient they are to shocks. Related is the degree to which the structure and operation in stressed times of institutions and/or markets are likely to amplify or dampen shocks.

It has long been recognized that a key structural aspect of systemic risk is the design of the payment, clearing and settlement systems that underlie all financial (and real) transactions. Another structural feature is the resilience of the systemically important institutions in the banking and insurance system, and the degree of interconnectedness between them. Structural mitigants to systemic risk include robust levels of capital and liquidity to reduce contagion and amplification impacts.

Market characteristics imposed by regulation can also lead to structural systemic risk or can contribute to its mitigation. Circuit breakers are an example of a structural feature of a number of markets designed to reduce the likelihood of outsized market moves leading to wider problems (aside from the assessment of whether these work in practice). Another structural feature consists of requirements for central counterparties in derivative transactions, and collateral and haircut rules on specified market transactions.

In addition, the design of regulation and business models for non-bank entities can add to, or reduce, systemic risk. Take the role that money market mutual funds played in the last financial crisis, and the risks that still exist today (see FSB 2017 p. 1-2). Systemic risk concerns include these entities' promised liquidity to investors, which may not actually be possible under stresses to the asset side of their balance sheets, coupled with little, if any, requirement for some types of these entities to hold capital buffers. Dealing with this type of systemic risk requires setting rules and supervising with an eye not just to the individual institution or market but taking account of possible systemic impacts and stress scenarios. Again, certain rules can act more in a pro-cyclical fashion, thus potentially adding to system-wide risk.

A second component of systemic risk is conjunctural, whereby events in the real economy or in financial markets initially affect a number of players and lead to behaviours by market participants that magnify the impacts. This can occur, for example by draining liquidity from markets, leading to severe downgrades of valuations of a wide range of assets and entities, funding pressures, collateral calls, crowded trades, and fire sales of assets by institutions with liquidity problems that depress mark-to-market valuations generally. In these scenarios, liquidity problems can spread and become solvency problems for institutions and market participants. Conjunctural systemic risk is hard to mitigate in advance with rules. This type of risk typically builds up in good times when risks are under-appreciated and assets can become over-valued. But monitoring and analysis by the authorities of signs of bubbles, large imbalances and significant mispricing of risk, and analysis of opaque markets can help identify potential problems. Stress scenarios can assist regulators and private market participants in considering how these markets or institutions might behave under stress conditions, what indicators of potential excessive stress should be monitored, and what actions regulators and supervisors might take in advance, or in stress conditions.

Lastly, arrangements for responding to potential systemic financial events after they have started (ex post) need to be robust so as not to exacerbate the situation. The presence of credible arrangements to mitigate crises, if designed appropriately in dealing with moral hazard, also reinforce ex ante incentives for appropriate private market behaviour (e.g., dealing with the too big to fail problem). These ex-post arrangements include Emergency Liquidity Assistance (ELA) policies of central banks and

other system liquidity providers, and resolution frameworks that allow problem institutions to be isolated.[5] Bank regulators and legislatures have spent considerable time strengthening this ex-post capacity, but it remains largely untested globally, and not at all in Canada. A recent C.D. Howe Institute *Commentary* (Le Pan 2016) identified issues with the resolution framework for insurers in the case of systemic natural disasters.

Systemic Risk Triggers and Definition

There are three commonly cited causes or triggers of systemic risk (Schwarcz 2008), namely:

- Risk of the joint default of a large number of financial institutions;
- liquidity risk in the financial system; and
- risk of a large idiosyncratic shock to a systemically important financial institution or to market infrastructure.

Joint default of a number of institutions could be caused by liquidity risk or a common real or perceived asset-credit risk. Perception or reality of a widespread asset problem itself could lead to market liquidity problems, even if institutions were still fundamentally sufficiently capitalized.

A key point is that developments in institutions can have systemic consequences that are transmitted via markets, and market disruptions can have major impacts on institutions. So proper systemic risk mitigation has to involve coordination. Though neither a systemic event nor a 'failure,' the recent Home Capital issue is an example of this interaction. That was also an example where deposit insurance, normally a mitigant to systemic effects, did not prevent a 'run.'

While discussions of the causes of systemic crises are often retrospective with little certainty that future crises will resemble past experience, such discussions help inform frameworks and policies that are agnostic to future causes. For example, it is generally agreed that Basel III capital and liquidity requirements for banks are essential ex ante measures as they are formulated to absorb unexpected losses and protect against constraints on institutions' funding during times of financial turmoil – which protections are important regardless of triggering event. In this regard, an IMF, FSB and BIS report for the G20 suggests a more generic definition of systemic risk that is not specific to causes or triggers - defined as: "a risk of disruption to financial services that is (i) caused by an impairment of all or parts of the financial system and (ii) has the potential to have serious negative consequences for the real economy."[6, 7]

Having the Systemic Risk Mindset

There are several challenges for authorities in the systemic risk sphere. One is the sheer complexity of interactions in the financial system. So modelling and analytic assessment are not easy. What is important is measuring the tails of the distribution of outcomes, not the most likely event – that requires a mindset different than regular forecasting. Another challenge is that real crises often arise from behaviour that is not evident in normal markets, when herd behaviour, rumour and fears

5 See Kronick (2016) for a discussion on proper design of such crisis arrangements, including options for dealing with moral hazard.

6 Guidance to assess the systemic importance of financial institutions, markets and instruments: initial considerations, October 2009.

7 The October 2009 Guidance further provides that: "Fundamental to the definition is the notion of negative externalities from a disruption or failure in a financial institution, market or instrument. All types of financial intermediaries, markets and infrastructure can potentially be systemically important to some degree."

lead to over-reaction by market participants that become self-fulfilling prophecies. Again, it is hard to monitor for this type of behaviour and many analytical frameworks do not work well in these conditions. While there are indicators of build-up of potential bubbles that have been part of past crises, these are not always present. The timing of imbalances actually becoming systemic events is notoriously hard to predict. There is also a natural tendency to implicitly assume that future systemic events will be like the most recent (fighting the last crisis). Systemic events are by their nature low probability but high impact. That means potentially systemic events do not happen all that often, so it is hard to maintain regulatory and supervisory focus on what may seem like distant possibilities.

The implication is that systemic risk assessment, particularly for conjunctural developments, requires a different mindset than normal regulation and supervision. More emphasis is needed on scenarios and use of stress analysis. More 'what if' thinking is needed. And a clear mandate and resourcing for this analysis is important, so it doesn't become displaced by other apparently-more-pressing, day-to-day regulatory and supervisory matters.

Canada's system and markets have generally fared well during major financial shocks. That can make it a challenge to design credible stress scenarios that are useful guides to action. Our financial landscape is characterized by a relatively concentrated system, with certain asset concentrations in particular economic sectors, that are reflected in markets as well. We have material international linkages and exposures both on the institutional and market side. That suggests the need for designing stress scenarios that are more fitted to the concentrations that are present.

An important question in systemic risk thinking is what the threshold is for an event actually posing systemic consequences. It has long been appreciated, conceptually, that a financial system that has one large institution can be as risky systemically as a system with 20 institutions, each of which is one-twentieth of the larger entity. While idiosyncratic risk related to bad risk management is diversified in the second system, risk arising from certain conjunctural events would affect each system similarly.

Since the 2007/08 financial crisis there has been very little experience of the new global or Canadian regulatory system working in times of significant stress, for example the new Basel III rules and resolution framework. The experience of a failure even of a smaller entity occurring without causing ripples is distant memory. More instant communication systems can spread 'news' faster and wider than before. More actors are directly connected online to institutions, other financial entities and markets. It is possible that the threshold for what constitutes a potentially systemic-triggering event has been lowered in the eyes of market participants.

One can argue that institutions that are provincially important are not likely to be nationally systemically important as they do not have the size, complexity or national payments activity required to create systemic inter-linkages with other major institutions. However, I believe it would be wrong to assume this – the better working hypothesis is that the threshold for systemic importance is likely lower than before.

The relevance of this point for Canada is that it may be all the more important for federal and provincial regulators to 'up their game' and not only for the largest institutions.

Systemic Risk Management is a Public Good

Systemic risk management can be thought of as a public good. Private institutions do not have strong incentives to manage the systemic risk they generate because the consequences of their actions are borne

by all system participants (Schwarcz 2014).[8] And individual entities do not have the information from their own activities to grasp the systemic consequences of their actions. The challenge is to facilitate collective action and coordinate regulatory and supervisory oversight to ensure incentive alignment (with the result that private institutions will take actions to control systemic risk that they would not otherwise take if left to their own devices). The essence of systemic risk management is conducting oversight, implementing regulations, conducting supervision, and taking other actions that ensure incentive alignment (e.g., changes to regulation, lending money, buying assets) – actions aimed at modifying behaviour.

Coordination is different than oversight in that the oversight of systemic risk is accomplished by setting standards and ensuring conformity to those standards. Coordination among relevant authorities is also necessary to ensure that potential gaps are dealt with and that oversight actions are aligned, or at least not working at cross purposes. A coordinating body, as proposed below, would be responsible for coordination, not oversight, regulation, or supervision. Each agency that is part of the coordination effort would have its own mandate and its own tools for managing systemic risk, focused on, and tailored to, the specific aspects of systemic risk for which that agency is responsible. The United Kingdom, United States, Australia, and Europe have all taken steps to establish bodies with strong mandates to coordinate the management of systemic risk.[9]

Generalized Policy Implications

The framework above implies that, if systemic risk is to be appropriately mitigated:

- Coordination mechanisms between regulators/supervisors must be in place and effective, built on trust.
- Regulatory and supervisory frameworks ought to be up to best-practice international standards.
- Ex ante frameworks should be designed resiliently and tested regularly against potential stress scenarios.
- One or more authorities with national perspective (and international connections) needs to have an explicit mandate for regular systemic-risk analysis, monitoring and stress testing, with appropriate arrangements with other regulators who may control necessary tools to intervene, and with will to act. Adequate resources with expertise should be devoted to this function.
- Having technical capacity for systemic-risk thinking in the regulatory/supervisory organization(s) matters.
- There are benefits for authorities to be transparent about their systemic risk conjunctural analysis and their systemic risk policy framework more generally.

8 Schwarcz suggests that a market participant may engage in a transaction even if doing so increases systemic risk because much of the harm of a possible systemic collapse would be externalized onto other market participants and ordinary citizens impacted by the collapse.

9 In the United Kingdom, the government has created a Financial Policy Committee in the Bank of England, chaired by the bank governor. In the United States, a new Financial Stability Oversight Council is chaired by the secretary of the treasury. In the EU, the European Systemic Risk Board has been established, chaired by the president of the European Central Bank. In Australia, coordination among different government branches is done through the Council of Financial Regulators.

Canadian Authorities; Accountabilities and Recent Developments

So what is the situation in Canada? Federal and certain provincial authorities have taken numerous steps since 2008 to reduce systemic risk. One step has been designating the six largest banks and two provincially regulated financial institutions as domestically systemically important.[10] In Canada, the federal government is responsible for regulating and supervising banks and major life insurers through OSFI. Its mandate for regulation and supervision of individual institutions includes monitoring and evaluating system-wide events or issues that may have a negative impact on the financial condition of financial institutions. However, OSFI does not have a systemic risk mandate outside of federally regulated financial institutions.

The Bank of Canada promotes the stability and efficiency of the Canadian financial system by: (i) providing liquidity; (ii) overseeing key domestic payment, clearing and settlement systems; (iii) participating in the development of financial system policies in Canada and globally; and (iv) assessing risks to the overall stability of the financial system. Its role in providing liquidity, through the provision of ELA, is a key component in managing systemic risk in a crisis scenario. It will be too late to start putting these arrangements in place once a potential systemic crisis starts.[11, 12]

Since the financial crisis, domestically and internationally, the resiliency of those entities has been greatly increased with new standards for required capital and liquidity, new resolution authority, and new supervisory and risk management and governance requirements. Stress testing by institutions and the authorities has ramped up. For example, the Bank of Canada and OSFI have together conducted macro stress tests involving Canadian banks.

Additional payments systems have been designated as 'prominent,' for example the Automated Clearing and Settlement System, because they pose payments risk and are thus required to meet higher standards. Some of the clearing and settlement systems are being further upgraded by a revamped Payments Canada that replaced the Canadian Payments Association.

Resources at OSFI, the Bank of Canada and the Canada Deposit Insurance Corporation (CDIC) devoted to financial system analysis, regulation and supervision have increased significantly. Bank of

10 The Office of the Superintendent of Financial Institutions (OSFI) has designated six Canadian institutions as Domestic Systemically Important Banks (D-SIBs): (1) Bank of Montreal, (2) Bank of Nova Scotia, (3) Canadian Imperial Bank of Commerce, (4) National Bank of Canada, (5) Royal Bank of Canada, and (6) Toronto-Dominion Bank of Canada. At the provincial level, Desjardins Group and Central 1 Credit Union have been designated as systemically important by provincial regulators (by, respectively, the Autorité des marchés financier and the Financial Institutions Commission (FICOM), the provincial regulators for Québec and British Columbia).

11 http://www.bankofcanada.ca/core-functions/.

12 In a May 2015 consultation on ELA, the Bank of Canada proposed that for a provincially regulated credit union, caisse populaire or central to be eligible for ELA, the Bank would require (i) the firm to be a member of the Canadian Payments Association (CPA); (ii) a provincial indemnity against losses incurred by the Bank; (iii) the ELA to be necessary to support the stability of the Canadian financial system; and (iv) the firm to have a credible recovery and resolution framework. In September 2015, in response to the May 2015 consultation, the Bank provided that: "Recovery and resolution plans (RRPs) are not necessarily required of every financial institution in order to achieve a credible framework, but as an institution increases in size and complexity, such plans provide greater assurance that a framework is credible." http://www.bankofcanada.ca/2015/09/bank-canada-emergency-lending-policies-consultations/. Only some provinces with systemic institutions have progressed in putting necessary arrangements in place.

Canada publications such as the financial system review (FSR) indicate more analysis of systemic risk issues (including an explicit section in the FSR on vulnerabilities and possible trigger events that could be transmitted and amplified with adverse effects on the financial system and the economy). The Bank of Canada reports it regularly monitors degree of leverage, funding and liquidity issues, pricing of risk and opacity in four main areas: financial sector entities; shadow banking; asset markets; and the non-financial sector (see FSR June 2015 for a description of the methodology). OSFI reports markedly increased supervisory attention given to domestically systemically important banks.

On the other hand, authorities have not regularly published indicators of their analysis, nor have they published aggregated results of stress scenarios to any degree (the IMF publishes aggregate system results of their stress test every five years as part of their financial stability assessment). There are good reasons not to publish results of individual institution stress tests. However, though the problem is less acute in Canada compared with the US and EU, there appears to be more scope for reporting of ongoing system-wide analysis as a way of maintaining public confidence. It is important that the analysis and reporting be done in such a way as to not imply anything about the adequacy of existing capital or liquidity provisions for specific institutions. Transparency of this form can also be an important tool to influence behaviour of market participants who otherwise may find it hard to realistically judge systemic impacts. Additionally, it is not clear how much prudential systemic risk analysis is being fed into OSFI risk assessments of individual institutions.

Also at the federal level, the CDIC has been made the resolution authority for federally regulated deposit-taking institutions, and is responsible for resolution planning for Canada's six largest banks. It has an ex-ante deposit insurance fund as well as a borrowing authority that could be used to provide temporary liquidity when resolving an institution.

On the securities front, the Bank of Canada, Finance Canada and OSFI have been heavily involved with securities regulators in reforms to the over-the-counter (OTC) derivatives market. Furthermore, the Canadian Securities Administrators (CSA) is the coordination group of provincial and territorial securities regulators. The CSA struck a Systemic Risk sub-committee in 2009. Quebec and Ontario were active participants in the International Organization of Securities Commissions (IOSCO) review of systemic risk issues in securities markets following the financial crisis. The work of the subcommittee appears to have been focussed on the changes in OTC derivative markets and central counterparties coming out of the FSB and IOSCO post- crisis analysis. That is all to the good. As has been recognized internationally, the work on central counterparties has raised issues of the adequacy of risk proofing of these entities. As Canada sensibly permits the central counterparties for a number of Canadian markets to be international entities, that raises the necessity of regulatory links between Canadian authorities and others. Some Canadian authorities report these links are in place, but it is not possible to ascertain how robust those are, nor what scenarios Canadian authorities have examined in the case of problems.

The IOSCO Core Principles were revised to indicate, in Principle 6, that "the regulator should have or contribute to a process to monitor, mitigate and manage systemic risk, appropriate to its mandate" (IOSCO 2017). Monitoring means more than just dealing with specific issues from time to time. IOSCO produced a useful report exploring what this new Principle 6 would mean in practice. The working group was chaired by the OSC and the Autorite des Marches Financiers (AMF), and the Alberta Securities Commission (ASC) was a member (IOSCO 2011). The OSC was supportive of moving forward (see Condon speech, OSC 2012). Supporting and promoting financial stability was added as a new organizational goal for the

Ontario Securities Commission (OSC). There are selected IOSCO initiatives that the OSC, ASC and AMF participate in, such as updating principles for financial market infrastructure. Vulnerabilities associated with money market funds and IOSCO plans for asset management industry measures based on the FSB direction are also relevant.

However, there is little evidence in CSA, OSC or AMF documents or statements of priorities of regular ongoing monitoring of systemic risk from a market perspective. CSA stated priorities do not include systemic risk.[13] It was only in 2016/17 that the OSC statement of priorities, for example, included enhancing OSC systemic risk oversight.[14] The main action step cited was working with other agencies to monitor trends and risks across various market segments and participants, with market data analytics capability to be developed. There is no publication with a market analysis framework building on the IOSCO Report or containing analysis of systemic risk market trends relative to Canada.

Provincial Prudential Regulation and Supervision of Systemically Important Institutions

At the provincial level, the Québec AMF and the British Columbia Financial Institutions Commission (FICOM) have prudential regulatory responsibilities over Desjardins, which has more assets and employees than the National Bank of Canada and Central 1 Credit Union. [15,16]

British Columbia and Quebec have recognized Central 1 Credit Union and Caisse Desjardins, respectively, as domestically systemically important. Central 1 is the liquidity backstop for the BC and Ontario credit union systems, which are the two most significant outside Quebec. In addition, Central 1 is a direct clearer and operates clearing and settlement for the credit union system nationwide outside Quebec. BC also regulates and supervises several large credit unions in the province.

In its designation of Central 1 as systemically important, FICOM sets out a range of requirements for Central 1, often in reference to OSFI guidelines. The requirements include the enhanced supervision activities FICOM intends to take and enhanced reporting Central 1 would have to provide (FICOM 2014). FICOM indicated in a public letter in January 2017 that Central 1 would continue to comply with existing OSFI guidelines while FICOM "finalises the appropriate regulatory standards and guidelines in the coming months" (FICOM 2017). As set out below, the issue is whether FICOM has the resources and powers to operate this system.

Alberta financial institutions are not foremost on the list of those that are systemically important. However, Alberta Treasury Branches (ATB) is a $47 billion asset size deposit-taking institution, with a material market share in the province (some 14 percent of the Alberta consumer market share according to its 2016 Annual Report). Because of the full guarantee provided ATB by the province

13 See the CSA Business Plan 2016-2019 published on the CSA website. It includes individual initiatives such as finalizing OTC derivatives arrangements, but nothing on enhancing systemic risk monitoring.

14 See OSC Notice 11-775 Notice of Statement of Priorities for Financial year to End March 31, 2017.

15 As of Dec. 31, 2014, Desjardins had $229 billion in total assets and 45,966 employees: https://www.desjardins.com/ca/about-us/desjardins/who-we-are/quick-facts/#note-1.

16 The National Bank of Canada 2014 Annual Report provides that the Bank had total assets in excess of $205 billion and 20,000 employees as of Oct. 31, 2014.

there is a direct link between ATB and provincial finances. In severe scenarios, both might be significantly stressed by developments in the province. In other jurisdictions, links between major financial institutions and their governments were a source of contagion.

In general, it is very difficult to do a full assessment of the extent to which provincial regulation and supervision have been stepped up following the financial crisis. Provincial reporting on regulatory and supervisory processes and resources is not at all extensive. That itself is a problem. However, from what is available, there are some clear indications that further improvement is necessary in some provinces.

On the positive end of the spectrum, the publications of the AMF in Quebec suggest an activist up-to-date regulator and supervisor. Guidance applicable to deposit-taking institutions has been extensively updated since the financial crisis. The AMF and Desjardins annual reports contain information on the enhancement of supervision of the Desjardins movement that has occurred since its designation as systemically important. This designation has also resulted in an extra 1 percent capital buffer being applied. Desjardins' common equity tier 1 (CET1) ratio at the end of 2016 was 17.3 percent. As a co-operative, its lesser access to capital is probably part of the reason for the higher capital position. On the liquidity side, Desjardins reports Basel-type liquidity metrics to AMF, and publicly reported a Liquidity Coverage Ratio (LCR) of 124 percent (minimum required 100 percent) at year-end 2016.

On the other hand, in 2015, the BC Ministry commenced a review of the BC financial institutions legislation. FICOM provided a submission on the initial government discussion paper, based on a comparison of the legislation against international standards (Basel Core Principles). The FICOM submission indicated that there were major gaps in BC legislation compared to international standards in a wide variety of areas, including independence, salary setting, staffing, and regulatory powers, and that these hampered FICOM.[17] The review has not proceeded to legislation at this date. Yet demands on regulatory and supervisory resources would be expected to be higher because of Central 1 being designated as a systemically important entity, and because of OSFI ceasing supervision of central credit unions.

Going back further, in 2014 the BC Auditor General performed a review of FICOM.[18] The major findings were that there was a serious resource gap, including FICOM "lacking important staff expertise and competencies, and facing a high staff vacancy rate of 35 percent." As a result, "FICOM is not currently performing timely reviews of credit unions and may not be able to detect a worsening situation in time to address and reduce the risk of failure."[19] FICOM had gone as far as it could on its own to meet international standards, and legislative changes were necessary. Over half of risk ratings were based on on-site reviews that were over two years old. The Superintendent at the time indicated that resource issues had been raised repeatedly with the government.[20]

17 *Financial Institutions Act* and Credit Union Incorporation Act Review, Commission response to the Initial Public Consultation Paper, FICOM, October 20, 2015.

18 Credit Union Supervision in British Columbia, Office of the AUDITOR GENERAL, March 2014.

19 *Ibid*, p. 6.

20 See *Vancouver Sun*, "FICOM Staff shortage handicaps oversight of B.C. Credit Unions," Interview quote with Carolyn Rogers, Superintendent, July 28, 2016.

A follow-up report by the BC Auditor General in 2016 reported progress on some previous recommendations.[21] But the AG concluded that FICOM had had little success in hiring and retaining staff, and many current staff had limited experience.

Another recommendation from 2014 had not been acted on at all because of staff shortages; specifically, BC having a completed operational plan for payments to insured depositors in case of a failure. Inability to make timely payouts can lead to market reaction and deposit runs that make crises worse. And knowing that an operational plan is not in place can limit the ability of decisionmakers to deal with financial institution problems proactively and thus can increase the potential for a call on public funds to deal with a problem.

Moving slightly east, ATB is regulated and supervised by a division of the Alberta Treasury, which does not disclose its resource allocation. Alberta Treasury has promulgated certain guidelines under the ATB legislation, patterned on certain OSFI guidelines. However, the range of published guidance has not kept up in a number of areas with what has occurred elsewhere. For example, the guidance on liquidity dates from 2004 (pre-crisis) and does not incorporate more recent required liquidity metrics. ATB's annual report includes voluntary reporting on liquidity measures, which it states are "equivalent to Basel metrics." But it is not possible to determine where they differ, nor if there has been any effective supervisory challenge of the appropriateness of assumptions underlying them. As another example, there is no guideline on mortgage underwriting standards equivalent to the recent OSFI B-20.[22] Perhaps that is covered in supervisory practice, but, if so, it should be made clear to the public.[23]

The capital adequacy guideline applying to ATB is based on the standardized approach and was last revised in 2016. The minister has directed that ATB meet a minimum 7 percent Tier1 and 10 percent Total Capital ratio, similar to the, well-capitalized policy for banks that OSFI operated before the financial crisis. ATB Tier 1 capital is high quality, fully composed of retained earnings, and so is equivalent to the post-crisis Basel CET1. And ATB reports a Tier I capital adequacy ratio of 9.6 percent in its most recent annual report. But the capital requirements do not include a Basel III-compliant leverage ratio, which many jurisdictions have thought desirable to supplement the risk-weighted calculation. ATB reports it voluntarily does an internal capital assessment incorporating OSFI guidelines under the standardized approach.[24] But there are no details of this, and no results reported publicly.

Alberta Treasury did develop a publicly risk based assessment methodology for ATB in response to a 2011 Alberta Auditor General recommendation. However, it is not clear how extensive or up to date this is given the status of guidance. Nor is there any information available as to how Alberta has reacted to OSFI ceasing to jointly supervise the Alberta Central Credit Union.

The bottom line is that we have seen improvements in prudential regulation and supervision post-financial crisis across some provinces, changes that will lead to better systemic risk analysis in these places, but more remains to

21 Progress Audit: Credit Union Supervision in British Columbia, Office of the Auditor General, July 2016.

22 According to the OSFI site:"This Guideline sets out OSFI's expectations for prudent residential mortgage underwriting, and is applicable to all federally-regulated financial institutions (FRFIs) that are engaged in residential mortgage underwriting and/or the acquisition of residential mortgage loan assets in Canada."

23 See Report of the Auditor General of Alberta, July 2013 , p. 142.

24 ATB 2017 Annual report, p. 43.

be done in provinces lagging behind. As well, there seems to be a lack of contribution to systemic risk monitoring of securities markets under the existing regulatory arrangements. This section has identified how these provinces could make the leap forward. We turn now to coordination mechanisms and the potential for the proposed CCMR to make a contribution.

Coordination Mechanisms in Canada

Let's return now to the issue of systemic risk coordination in Canada. A number of agencies play a role in managing financial system risk in this country and should participate in coordinating the management of systemic risk. But systemic risk is about more than just the safety and soundness of the major institutions, or systemic clearing and settlement systems, which have long been the focus of authorities. A key underdeveloped area is monitoring systemic risk in markets and among non-bank, non-insurance, 'shadow' entities (though it is not clear how large these are in practice as yet).

It is worth recalling that the major issue in the financial crisis in Canada with the potential to pose serious systemic problems concerned the market for non-bank asset-backed commercial paper (ABCP). This was not under the direct purview of federal authorities, and involved interaction between market developments and the health of individual institutions, many with international linkages. Ideally, market regulators would have been equipped to play a larger role in identifying risk build up and dealing with it. Ultimately, the ad-hoc Heads of Agencies Committee (described below) played a role, but the impression is that leadership was provided mostly by the main federal authorities.

The Senior Advisory Committee (SAC) is composed of federal authorities, chaired by Finance Canada, and focusses on policy issues. The Financial Institutions Supervisory Committee (FISC) is mandated by legislation for prudential information sharing, is chaired by the Superintendent of OSFI, and has federal authorities as members (the new securities authority is not proposed to be a member). The Heads of Agencies ad hoc group includes the federal authorities and key provincial securities regulators.

The IMF calls for a multi-sectoral approach to addressing emerging systemic risks with broad participation and the necessary powers to establish a fulsome view of systemic risk.[25] The IMF also calls for improved cooperation between the federal and provincial authorities, including more comprehensive information sharing.[26] Considering the constitutional division of powers in Canada, the division of responsibilities for managing financial system risk and the clear lack of coordinated coverage across financial sector areas as demonstrated in Figure 1 below, the IMF's recommendations for a multi-sectoral approach are understandable. However, any enhancement to these mechanisms has to respect the divided jurisdiction that exists, and not undercut incentives for the various governments to be accountable.

In a March 2014 report, the Financial Sector Assessment Program (FSAP) Technical Note on Crisis Management and Bank Resolution Framework on Canada, the IMF articulated its concern that no one committee or agency has the authority or mandate to fully cover all financial stability issues related to systemic risk. In discussing the current systemic risk framework in Canada, the report states:

> …there is no single forum where systemic risks emerging from various parts of the financial sector – banks, insurance and securities

25 *Ibid*.
26 *Ibid* at page 54.

Figure 1: Inter-agency Committees' Coverage of Financial Sector Areas

	Banks	Insurance Companies	Securities Markets	Market Infrastructure	Shadow Banking	Provincial Credit Unions	Pension Funds
Financial Institutions Supervisory Committee (FISC) (supervisory focus)	Dark Blue	Dark Blue	White	White	White	White	Light Blue
Senior Advisory Committee (SAC) (policy focus)	Dark Blue	Dark Blue	Light Blue	Light Blue	Light Blue	White	Light Blue
Heads of Agencies (HOA) (policy focus)	White	White	Dark Blue	Dark Blue	Light Blue	White	White
Canadian Securities Administrators (CSA) (Regulatory focus)	White	White	Dark Blue	Dark Blue	White	White	White

Note: Dark Blue = primary area of discussion; Light Blue = other areas of discussion; White = not covered.

firms; federally and provincially incorporated financial institutions; unregulated entities; and markets – are raised and discussed in a structured way so that authorities have at all times a high level view of risks and can decide on coordinating policy actions, as necessary [Figure 1].[27] Moreover, no single committee has an explicit crisis preparedness and management role, although both the Financial Institutions Supervisory Committee (FISC) and Senior Advisory Committee (SAC) have been actively involved during the recent financial turmoil.[28]

The 2016 IMF update also noted other areas of enhanced cooperation. These included the regular cooperation framework between OSFI and Quebec's AMF, discussion of federal-provincial financial stability protocols, and Finance Canada and CDIC sharing federal work on bank resolution with the AMF. The Bank of Canada coordinates with provinces concerning centralized counterparties. At the same time, it appears that provincial arrangements with the Bank of Canada to ensure provincial institutions' access to Emergency Liquidity Assistance are not yet fully in place.

27 IMF Country Report No. 14/67 at page 16: https://www.imf.org/external/pubs/ft/scr/2014/cr1467.pdf.
28 *Ibid.*

It is clear that there are numerous federal and provincial regulatory agencies that have an interest in the management of systemic risk; however, no one agency or formalized grouping of agencies has the clear legal authority or mandate to manage all aspects of systemic risk across the country.

While some have called for one agency (usually the Bank of Canada) to be provided that mandate,[29] there are practical and conceptual problems with that approach. Systemic risk coordination involves the use of a variety of tools rightly under the purview of other regulators. Action has to proceed through cooperation and trust, not dictat. Federal-provincial suspicions in the financial area remain. And it is not desirable to lessen incentives for the various entities with authority in the area to act.

But achieving an improved coordination mechanism does not require naming one party as responsible, or changing legislation. It would benefit from the federal government providing clarity about the processes that are expected to be used for the ongoing conjunctural analysis of systemic risk, what bodies are expected to contribute to others in the formulation of rules and regulations, and who is expected to be involved in communications during crises. That could lessen external and internal impressions that Canada is not well prepared, help make sure that the participating authorities embrace their roles, and increase accountability.

The Importance of Data

Analysis of financial stability issues requires appropriate data. The FISC legislative provisions provide for mandatory sharing of prudential data on financial institutions among members. On the market side, there appears to be some fragmentation. The Investment Industry Regulatory Organization of Canada (IIROC) holds all the equity and the vast majority of debt trading data. The Bourse, and therefore the AMF, has listed derivative data. The four largest Commissions have access to OTC derivatives data from the US trade repositories. This begs the question whether there should be a special focus on coordinating access to market data on behalf of all the interested and expert participants in systemic risk analysis, whether federal or provincial.

Capital Markets Stability Act[30]

In early 2008, the Government of Canada created a third-party Expert Panel on Securities Regulation to determine the optimal structure of securities regulation in Canada. The analysis led to the creation of the Canadian Securities Transition Office (CSTO) that was charged with bringing a Canadian securities regime to the market. The draft Canadian Securities Act that was brought to light allowed for provinces to join, essentially creating a hybrid federal/provincial regulator. With provincial dissent mounting in Alberta and Quebec, and elsewhere, the government then sent the draft to the Supreme Court for an advisory opinion.

The Supreme Court unanimously deemed the Canadian Securities Act to not be in the purview of Parliament. However, the Supreme Court decision did indicate that "specific matters…aimed at addressing matters of genuine national importance and scope…including management of systemic risk and national data collection, appear to be related to the general trade and commerce power (and thus

29 See for example *Securing Monetary and Financial Stability: Why Canada Needs a Macro-prudential Policy Framework*, D. Longworth and P. Jenkins, C.D. Howe Institute, June 2015.

30 The Capital Markets Stability Act (CMSA) and the Cooperative Capital Markets Regulatory System is proposed and has not been enacted. Important pieces of the legislative framework have not yet been published. Comments in this paper are based on the May 2016 consultation draft of the proposed CMSA.

constitutional). With respect to these aspects… the provinces acting alone or in concert, lack the constitutional capacity to sustain a viable national scheme."[31] That led the federal government to propose the CMSA and to enter into arrangements with participating provinces.

The federal government, in August 2014, issued a consultation draft of the proposed federal CMSA, which was revised in January 2016. It applies to "a threat to the stability of Canada's financial system that originates in, is transmitted through or impairs capital markets and that has the potential to have a material adverse effect on the Canadian economy."

Some commentators bemoaned the lack of specificity in this definition (see for example Anand 2016, de Laurentis 2016, and Zinatelli 2016). However, ultimately systemic-risk assessment requires a high degree of judgement. This paper argues that it is better to have a general definition that is workable, than too much specificity that hampers ability to act. If systemic risk assessment and regulation becomes subject to significant litigation about the precise meaning of words such as material, a robust financial system will be the loser.

Rightly, the CMSA will apply across the country, not just in participating provinces that have signed on to the cooperative regime. As envisioned, it will have a specific responsibility related to systemic risk in markets, with a national scope (and international outlook), and have a specific organization structure supporting that mandate, meaning that it has the potential to be a marked improvement on the existing situation.

Notably, this new authority has the potential to fill a meaningful contributory role in an area – systemic risk in capital markets – that has arguably been under-developed in Canada. But to make that contribution requires a much better focus and transparency than has been evident to date. What should be this focus?

Information gathering and monitoring will be important tasks for this nascent body. The IOSCO paper (IOSCO 2011) has a useful menu of ideas that could be developed in the Canadian context. So do FSB papers that consider issues of concentrations, illiquidity, and over-valuations, among other factors. The new body should develop and publish its framework for monitoring and analysis, the criteria it will consider, as the Bank of Canada has done, while recognizing that the determination of what is systemically risky has to be ultimately a judgement.

Initial suggested powers for this body included a framework for designation as systemically important a number of entities, facilities, securities or derivatives including: trading facilities, clearing houses, credit rating organizations, benchmarks, capital markets intermediaries and securities or derivatives.[32] This designation power was dropped in the revised draft, perhaps because of a perceived global shift away from entity-based to activity-based consideration of systemic risk. However, failure to have that power may prove problematic in hampering the ability to adjust the regulatory perimeter as conditions change.

The authoritative body will, however, be given the power to prescribe a product or practice as systemically risky. The authority may issue regulations or issue temporary orders to any entity, including those not now regulated federally or provincially. Regulations are subject to the agreement of the Council of Ministers (a feature that could slow down the will to act, and which the Quebec Court of Appeal has found to be unconstitutional, as noted below).

31 SCC, *Reference re Securities Act*, 2011 SCC 66, December 22, 2011, p. 6.

32 The CMSA August 2014 draft for consultation can be found at: http://ccmr-ocrmc.ca/wp-content/uploads/CMSA-English-revised.pdf.

With regard to exercising its systemic-risk powers, the proposed new regulatory authority must consider whether information is already being collected by the provinces' traditional regulatory authorities and must evaluate how a security, market or practice – such as asset managers, exchanges, and credit rating agencies - is already regulated. This is in recognition of the considerable potential for overlap and duplication in the arrangements. This requirement sets up a further need for coordination in the Canadian system. Hopefully, the acrimony over the federal-provincial aspects of the securities regulatory file will not hamper day-to-day information sharing.

Without some overall oversight process to push for action, that need for coordination will also likely get in the way of timely action. A need for supporting the 'will to act' was precisely why the FISC was created to deal with matters of prudential regulation and supervision (as discussed above).

One important note: The recent Quebec Court of Appeal decision, related to the federal-provincial agreement to create the cooperative scheme, does find unconstitutional the fact that the overall arrangement contemplates that systemic risk regulations (which would flow from a federal head of power under the Constitution) would be subject to non-disapproval by a council of federal, provincial and territorial ministers. However, this ruling does not undercut the Supreme Court's systemic risk reasoning.[33]

Operationalizing Systemic Risk in Securities Markets

The systemic risk mandate of the proposed cooperative system rightly does not give the new regulatory authority overall coordinating responsibility for systemic risk analysis. But the authority should be expected to contribute timely meaningful, insightful analysis of systemic risk from a market perspective, to supplement what is already occurring. It should also be able to contribute to systemic risk reduction in markets, and to play a leading role in dealing with specific, market-related systemic risk events in future.

IOSCO's work after the financial crisis recognized that securities regulators were not adequately focussed on financial stability. IOSCO core principles were revised to provide that securities regulators should have, or contribute to, a process to monitor, mitigate and manage systemic risk, and to periodically review the perimeters of regulation. It would be desirable for the new authority to develop and communicate in more detail the broad framework it will use to assess systemic risks, and have an effective, properly resourced, monitoring function. Part of that would also include clarity on where and how it will rely on assessments developed by other regulators. That would allay legitimate industry worries about potential for overlap and duplication.

Much of systemic risk is related to how product markets or entities perform in stressed conditions, not in ordinary times. Understanding interconnections is key to effective systemic risk assessment. Stress and scenario testing has become a major tool in assessing these risks. (Currently the Canadian authorities' stress testing has been more about macro conditions' effect on major domestically important entities – not on how markets perform). There is room to add more market dynamics to this stress testing, to make the results more useful to market participants and to the authorities. How will the proposed authority contribute to useful scenario stress testing of the system?

33 See Court of Appeal, Province of Quebec, In the Matter of the Reference of the Government of Quebec Concerning the Constitutionality of the implementation of pan-Canadian Securities Regulation, May 10, 2017.

The information-gathering power under the CMSA should be designed and used to fill gaps in current knowledge, including by focussing on less-regulated markets. That, together with aggregating information from existing regulatory reporting, could be used to regularly perform more market-based systemic-scenario stress analysis. It would be natural for the new authority to cooperate with other players in this analysis. It will be a major task to ensure that adequate consistent data are available for decisionmaking.

Monitoring market data, including collecting market intelligence, should be a focus of the new authority from a systemic risk perspective. Here the authority should supplement the market assessment already being done by the Bank of Canada. The new entity should focus on monitoring activity in the 'shadow' sectors. It could also provide a systemic-risk assessment of existing reporting and suggest areas for enhancement. Experience elsewhere suggests that it has been difficult to gather adequate data for systemic market-risk assessment as each current data collection is related to entities and activities under the regulatory purviews and mandates of existing agencies.

There has been significant analysis internationally on the potential for the activities of non-bank and non-insurance market intermediaries to contribute to systemic risk. Current examples in other jurisdictions include assessments of money market mutual funds, asset managers, and hedge funds more broadly, all focussed on leverage and liquidity. Central counterparties (CCPs) are an understandable focus, though many of the CCPs not already overseen by the Bank of Canada are outside Canada, but have Canadian institutions as participants. Furthermore, cyber threats to markets, and the systemic implications of distributed ledger technology in capital markets are also important. The CMRA should develop analysis of these new markets in the Canadian context and regularly publish assessments. Again, there are many opportunities to coordinate with other Canadian authorities in these assessments.

Adequate resourcing will be crucial to the success of the CMRA in the systemic risk area. The Memorandum of Understanding (MOU) between participating jurisdictions in the cooperative system specifies that there will be a chief regulator and several deputy chief regulators representing various participating regions. To ensure financial stability matters get adequate consideration there should also be a deputy with specific staff responsible for financial market stability. Staff ought to bring a range of skills and experience commensurate with the mandate, and include persons with expertise in macro market and scenario analysis.

The CMRA and CMSA have the potential to contribute to systemic risk analysis from a market perspective. But to do so requires focussing on areas that are not well analyzed, generating effective market monitoring, developing and publishing a framework and regular analysis, as well as having a willingness to act when problems arise, rather than getting bogged down in federal-provincial coordination. Lastly, adequate resourcing is required with senior people having a mandate for systemic risk work.

Recommendations

There is more to do to effectively oversee systemic risk in Canada's financial system. While improvements have been made, overall, the upcoming IMF assessment is likely to again point to areas where we have not made sufficient progress. This paper has made suggestions that will point us in the right direction, including the following:

- It should be clarified that the Bank of Canada and the CMRA are expected to take the lead in systemic risk conjunctural analysis, with involvement of Finance and OSFI. One of the existing coordinating bodies should clearly be seen as the focal point for inter-agency coordination, with the Heads of Agencies group the more logical given the federal-provincial aspects.
- The proposed Capital Market Stability Act (CMSA) has the potential to be an important

addition to Canada's ability to identify and deal with systemic risk in markets. To achieve this potential, the newly created regulator should elaborate the framework and analysis the new authority intends to use to assess systemic risk in securities markets, it should focus on enhanced market monitoring and contributing to macro stress testing, and it should commit to publishing regular reporting on its systemic risk assessment. Hiring staff with appropriate expertise in market assessment and ensuring a senior position in the Authority is given the clear mandate for systemic risk work will be key to success.

- The Canadian Securities Transition Office should develop draft arrangements for the sharing of stability analysis among the CMRA, the Bank of Canada, OSFI, and key provincial market regulators who are not part of the cooperative capital markets initiative, and should publish these for comment.
- The Bank of Canada should broaden the regular reporting it makes in the FSR to include its analysis of systemic market risk, especially the links between markets and institutions, which it is uniquely in a position to analyze
- The federal and provincial regulators should ensure that there are arrangements in place to share market data necessary for financial stability analysis of capital markets.
- BC should proceed with amendments to its financial institution legislation to rectify deficiencies identified by the British Columbia Financial Institutions Commission (FICOM) compared to Basel Core Principles. FICOM should have more salary flexibility, like other regulators, so it can deal with its staffing shortage and ensure its guidance and supervision of systemically important entities is up to date.
- Alberta should update the guidance applying to the Alberta Treasury Branches, and ensure that its supervisory resources are sufficient.
- All provinces should be more transparent about the resources (financial and people) they are devoting to prudential regulation and supervision in the annual reports of the various agencies.
- Provinces should ensure they all have the arrangements in place to access Bank of Canada Emergency Liquidity Assistance.

Implementation of these measures would bolster Canada's ability to monitor and deal with systemic risk in the financial system, with the proposed cooperative securities regulator playing a key role.

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