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A National Systemic Risk Clearinghouse?

Cristie Ford¹ and Hardeep Gill²

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In *Reference re Securities Act*,³ the Supreme Court of Canada allocated to the federal level of government responsibility for two things: data collection and the management of systemic risk. The path forward now presumably entails cooperative federalism and negotiation between the federal and provincial governments around the relationship between these responsibilities and those of provincial securities regulators. In view of these negotiations, and in the interest of protecting Canadian investors, taxpayers, and capital markets from systemic risk in particular, this essay considers what exactly falls within the newly defined scope of federal responsibility.

Our claim is that the *Reference* can be seen as an invitation to create a meaningful and ambitious national systemic risk regulator, and one deeply connected to the securities markets and securities regulators. Regulating systemic risk requires deep information channels into local markets. Systemic risk has always been a function of myriad smaller, more localized risks, but over the last few decades financial innovation has embedded systemic risk even further into the daily operations of capital markets. In other words, it is simply not possible to manage systemic risk at some metaphysical distance from the day-to-day operations of the securities markets themselves. The day-to-day operations of issuers, registrants, and regulators in the capital markets are *constitutive* of systemic risk.

The *Reference* opens the possibility that the federal government can create not an overlapping fourteenth securities regulator, but a different kind of regulatory capacity at the federal level. In giving data collection responsibilities to the federal government, the *Reference* is giving it a potentially significant and valuable tool, and one that complements the federal responsibility for managing systemic risk. This essay will argue that the combination of systemic risk and data-collection responsibilities could generate not a twentieth-century-style frontline regulator but an active “clearinghouse” regulatory body, as envisioned by some scholars in law and organizational theory. As we describe further below,⁴ a regulatory clearinghouse is an institution that sets broad goals and regulatory requirements, while leaving detailed implementation of regulation to more local units. Crucially, such a clearinghouse would have the data analysis capacity and the authority to require

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³ 2011 SCC 66 [Securities Reference].

⁴ See Part 3 below.

more local regulatory units to produce information, and to demonstrate their compliance with the centrally-defined goals. This is not the path that the federal government would have chosen, and it is not a straightforward path. Nevertheless, with some creative thinking, it may have some advantages. A commitment to meaningful systemic risk management and data collection gives the federal government a principled way to imagine a coherent role for itself in Canadian securities regulation.

1. The *Reference* Decision and the Scope of Federal Authority

The Supreme Court of Canada delivered the *Reference* on 22 December 2011. Its contents are thoroughly analyzed throughout this volume; this essay focuses only on the two areas of responsibility the Court allocated to the federal government. The first, and most significant, is responsibility for preventing systemic risk:⁵

Prevention of systemic risk may trigger the need for a national regulator empowered to issue orders that are valid throughout Canada and impose common standards, under which provincial governments can work to ensure that their market will not transmit any disturbance across Canada or elsewhere....

We accept that preservation of capital markets to fuel Canada’s economy and maintain Canada’s financial stability is a matter that goes beyond a particular “industry” and engages “trade as a whole”.... Legislation aimed at imposing minimum standards applicable throughout the country and preserving the stability and integrity of Canada’s financial markets might well relate to trade as a whole.⁶

The Court suggested, “without attempting an exhaustive enumeration,” that some of the proposed federal Act’s provisions on derivatives, short-selling, credit rating, urgent regulations, and data sharing seemed to be directed at systemic risk.⁷ These provisions do not collectively constitute a coherent mandate. The Court apparently intended them as broadly illustrative, and we should take seriously the caveat that this list of topics is not exhaustive. For many observers familiar with how

⁵ “Manage” is probably a better term than “prevent,” since systemic risk cannot be prevented even if acute systemic risk *crises* can be averted. This essay uses the term “manage,” except when referring specifically to particular paragraphs in the *Reference*.

⁶ Securities Reference, above note 3 at paras 104, 114.

⁷ *Ibid* at para 103. The provisions the Supreme Court identified are s 73 (designation of credit rating organizations and other organizations), s 89 (prohibiting the sale of exchange-traded derivatives except on designated exchanges), s 90 (prohibiting the sale of designated derivatives unless a prescribed disclosure document has been filed and delivered), s 126(1) (requiring the declaration of short positions), ss 109 and 224 on data collection and sharing (requiring respectively that market participants keep records and produce them to the Chief Regulator where required; and prohibiting persons from representing that the Tribunal has provided any merit-based approval of persons, products, or the adequacy of disclosure), and s 228(4)(c) (permitting the Canadian Securities Regulatory Authority to make regulations without first publishing a notice, in urgent situations). The definitional distinctions between the Canadian Securities Regulatory Authority, the Tribunal, and the Chief Regulator (as head of the Authority’s regulatory division) are no longer particularly relevant given the likelihood that the envisioned regulatory architecture will not come to pass.

capital and financial markets operate, the larger problem is that one cannot actually manage systemic risk without having substantially more authority than these provisions provide over the myriad incremental, local decisions that create systemic risk in the first place.

Parsing the language of the *Reference*, responsibility for managing and responding to systemic risk does seem to include the power to engage in at least two distinct regulatory acts. First, the national regulator has the power to *issue orders* that are valid throughout Canada. Second, it has the power to impose *common standards* (or, elsewhere, “minimum standards”) designed to ensure that one market will not “transmit any disturbance across Canada” and that the stability and integrity of Canada’s financial markets are preserved.⁸ Moreover, these powers are clearly and exclusively within federal jurisdiction. This is not something the provincial governments can accomplish simply by working together:

The provinces’ inherent prerogative to resile from an interprovincial scheme aimed for example at managing systemic risk limits their constitutional capacity to achieve the truly national goals of the proposed federal Act. The point is not that the provinces are constitutionally or practically unable to adopt legislation aimed at systemic risk *within* the provinces. Indeed, some provincial securities schemes contain provisions analogous to the ones aimed at systemic risk found in the proposed Act. The point is simply that because provinces could always withdraw from an interprovincial scheme there is no assurance that they could effectively address issues of national systemic risk and competitive national capital markets on a sustained basis.⁹

The second responsibility the *Reference* allocates to the federal level of government relates to data collection:

The emphasis in the proposed Act on nationwide data collection may similarly be seen as aimed at anticipating and identifying risks that may transcend the boundaries of a specific province. By analogy with Statistics Canada, it might be argued that broad national data-collecting powers may serve the national interest in a way that finds no counterpart on the provincial plane.

The Court left open precisely how national data-collection powers could serve the national interest. As Ed Iacobucci notes in this volume, the Court’s analysis of data collection must have been based on the efficacy of collecting data at the federal level (even though the Court held policy efficacy to be an irrelevant consideration in determining federal jurisdiction overall).¹⁰ The analogy to Statistics

⁸ *Ibid* at paras 103, 114.

⁹ *Ibid* at para 120.

¹⁰ Edward M. Iacobucci, “Competition Policy, Efficacy and the National Securities Reference,” this volume.

Canada does not address whether the data-collection powers of a national securities regulator would be equivalent in size, scope, or mandate to those of Statistics Canada.

The Court concludes,

Aspects of the Act, for example those aimed at management of systemic risk and at national data collection, appear to be directly related to the larger national goals which the Act proclaims are its *raison d'être*.¹¹

This essay looks at these two constitutional spheres of authority in turn. Part 2, immediately below, tries to illuminate the nature of systemic risk. It makes the point that systemic risk does not operate on a separate plane from the day-to-day operation and regulation of securities markets; on the contrary, systemic risk is a function of multiple smaller risks, combined and interacting in interconnected national, and international, markets. What this means is that in order to manage systemic risk, the federal government must be able to assess risks arising out of underlying architectural elements of capital markets (such as clearinghouses) as well as issuers, securities (not just derivatives), registrants, exchange trading rules, retail investment products such as money-market mutual funds, and capital markets players such as hedge funds. Although frontline regulatory responsibility for the securities markets would remain with the provinces, a national systemic risk regulator would have to be in a position to require detailed information from those provinces, and it would have to have the power to oversee how provincial regulators collect and manage data. Part 2 also considers the undeniable connections between domestic and international securities markets and between securities regulation and financial regulation more broadly.

Part 3 considers recent scholarship in law and organizational studies to highlight the fact that data collection can be an important regulatory tool and, moreover, one that is especially well suited to regulating fast-moving environments such as the capital markets. It considers whether, in granting the federal government the power to impose standards concerning systemic risk, the *Reference* has actually granted the federal government the power to enact some form of principles-based or outcome-oriented regulation around systemic risk. Part 4 concludes.

2. Systemic Risk

A) *What is systemic risk?*

Systemic risk is the aggregate of multiple smaller risks. As Anita Anand has noted, systemic risk involves “the risk of breakdown among institutions and other market participants in a chain-like fashion that has the potential to affect the entire financial system negatively.”¹²

¹¹ *Ibid* at para 117.

¹² Anita I Anand, “Is Systemic Risk Relevant to Securities Regulation?” (2010) 60 UTLJ 941 at 942 [Anand].

Systemic risk can be a function of several conditions.¹³ Institutions that are “*too big to fail*” cannot fail because their size makes them systemically important. Institutions may also be “*too interconnected to fail*” because of the number and overlapping nature of their mutual obligations and covenants. Interconnectedness through credit default swaps played a major role in creating the recent financial crisis.¹⁴ Global institutions that are involved in multiple sectors, as AIG was (providing insurance, offering asset-management financial services, and participating in many parts of the capital markets), spread and exacerbate systemic risk. *Concentrated* markets like Canada’s, in the financial sector and elsewhere, are more systemically vulnerable if a risk in that sector crystallizes. The *correlation of exposures* between industries that depend on each other also tightens causal connections and generates systemic risk. Finally, *opacity and complexity* exacerbate systemic risk because they increase interconnectedness while also making linkages harder to identify and contagion effects harder to predict.

Metaphorically, we could describe systemic risk in different ways. The first would be to see it as a chain, as in Anita Anand’s formulation. The chain imagery effectively evokes the dynamic cause-and-effect process by which systemic risk spreads. Like a line of dominoes, the movement of one piece affects all other pieces that touch it. At a greater level of complexity, and still consistent with the Anand formulation, the metaphor of the “chain reaction” explosion evokes a more exponential multiplier effect: the first explosion kicks off not one additional explosion but several, which in turn kick off still more in subsequent rounds.

While the chain-reaction imagery captures the *mechanism* of systemic risk, the analogy of sedimentary geologic layers may capture the *nature* of systemic risk. Arguably, it is the sedimentary, accretive nature of systemic risk for which the *Reference* does not account. Each individual layer of decision-making may be relatively innocuous, but taken together the layers build up to a potentially dangerous height. What this image suggests is that if the federal level of government cannot have some degree of timely oversight over the incremental decisions that issuers and securities market participants make in their operations, it will not be able to regulate systemic risk.

Beyond the metaphors of systemic risk as chain reaction or sedimentary layers, and somewhat combining them, is recent work done by network economists on the underlying structure of global financial markets.¹⁵ The realization that interconnectedness can produce systemic risk derives significantly from this work.¹⁶ Network studies map the various links among institutions and

¹³ See generally Staff of the International Monetary Fund and the Bank for International Settlements, and the Secretariat of the Financial Stability Board, “Guidance to Assess the Systemic Importance of Financial Institutions, Markets and Instruments: Initial Considerations”, *Report to the G-20 Finance Ministers and Central Bank Governors* (October 2009), online: Financial Stability Board www.financialstabilityboard.org/publications/r_091107d.pdf [Report to G-20].

¹⁴ Sheri Markose et al, “Too Interconnected to Fail: Financial Contagion and Systemic Risk in Network Model of CDS and Other Credit Enhancement Obligations of US Banks”, *Paper prepared for ECB Workshop on Recent Advances in Modelling Systemic Risk Using Network Analysis* (5 October 2009), online: Agent-based Computational Economics and Financial Modelling www.acefinmod.com/docs/TooInterconnectedToFail_15112009.pdf.

¹⁵ See e.g. *ibid.*

¹⁶ *Report to G-20*, above note 13 at 24-28.

examine the ways in which risk, including systemic risk, is a function of these links. As an important report prepared for G-20 finance ministers and central bank governors in 2009 insists,

In order to assess the systemic importance of a financial institution, it is not enough to assess the *initial impact* a financial institution could have on other financial institutions in the face of credit and liquidity shocks. It is crucial to also track *second round* effects. ... In subsequent rounds of contagion, these cumulative effects could lead to significant capital impairment and/or failures of other institutions in the network. It is also important to analyze financial instruments which represent *contingent extended links* between institutions that can increase the range of contagion such as credit default swaps.¹⁷

Although network analysis so far has tended to focus on banks and financial institutions, securities markets generally are also susceptible to systemic risk. Five examples below seek to demonstrate how lower-level risks – that is, a series of individually unremarkable decisions – can aggregate into systemic risk in the securities markets in particular.¹⁸

B) *Systemic Risk and the Securities Markets*

i) Canadian Issuers, Derivatives, and Interconnectedness

Canadian issuers are linked to each other, and internationally, through multiple mechanisms. These links are vectors along which risk, including systemic risk, travels.

Issuers and their distributions are linked to other issuers and other distributions through their underwriters, their creditors, their debt holders, the registrants that sell their products, and their investors (including institutional investors and venture capitalists). There are also business-based or industry-based connections between issuers. Some are self-evident: The Canadian banking industry is highly concentrated, as are other industries such as telecommunications. Others are correlated in terms of risk: the fates of extractive industry issuers, their service providers, and other ancillary businesses, for example, are linked together, and collectively they are linked to relevant global commodity prices and other phenomena. Concentration risk and the correlation of exposures within particular industries generate systemic risk.

Just as important, but more opaque, are the complex and hard-to-track ways in which risks associated with seemingly uncorrelated issuers can be correlated through their reliance on structured finance. Financial engineering innovations have radically increased and made more complex the

¹⁷ *Report to G-20*, above note 13 at 24 [emphasis added].

¹⁸ The discussion is broadly complementary to Anand, above note 12, and to Anita I. Anand, “After the Reference: Regulating Systemic Risk in Canadian Financial Markets,” this volume.

ways in which issuers, investors, markets, industries, and even economies are interconnected. That engineering has increased systemic risk while at the same time making that risk harder to track.¹⁹

Issuers in multiple industries now use derivatives to hedge the risks associated with their businesses (to say nothing of individuals and organizations that use them for the purpose of speculating). Entities doing work across borders, including banks and international mining companies, manage foreign-exchange exposure through derivatives. Resource companies – mining companies, forestry companies, and oil and gas companies – manage risks related to commodity price changes through derivatives. Small businesses use derivatives to manage risks associated with changing costs of supplies. Lenders such as credit unions use derivatives to manage risks associated with having long-term fixed obligations, like residential mortgages, while offering variable rates of return on deposits.²⁰

Modern derivatives practice has also “shattered the atom” of the corporate share itself. A share’s constituent elements (for present purposes, primarily its voting right and the positive economic interest the shareholder is meant to have in the corporation’s success) can be disassembled and recombined in novel and inscrutable ways, including by parties with opaque or counterintuitive motives.²¹ Corporate risk can be sliced ever more finely and parceled out to parties willing to purchase it, rather than allocated to shareholders in a lumpen fashion in the form of equity.²² Nor are equity and debt instruments really distinct anymore, thanks to innovations such as “reverse exchange securities” (which create assets that are half share, half bond), and securitization generally (which creates securities out of aggregate pools of debt, including consumer debt).²³

These decisions are often innocuous, and may even be highly beneficial, for an individual issuer. But because multiple issuers are hedging risks in the over-the-counter derivatives markets, and their shares are being deconstructed in multiple ways, issuers’ fates and their financial instruments – including their common shares – may be interconnected in significant but non-obvious ways. This interconnectedness creates systemic risk. The complexity and opacity inherent in these transactions means that the risk is harder to address. It is also noteworthy that the issuers distributing the most complexly structured instruments tend to be banks. Banks are systemically important in Canada not

¹⁹ Patricia A McCoy, Andrey D Pavlov & Susan M Wachter, “Systemic Risk through Securitization: The Result of Deregulation and Regulatory Failure” (2009) 41 Conn L Rev 1327.

²⁰ We are indebted to Paul Bourque for this list of examples.

²¹ Henry TC Hu & Bernard Black, “The New Vote Buying: Empty Voting and Hidden (Morphable) Ownership” (2006) 79 S Cal L Rev 811.

²² Ronald J Gilson & Charles K Whitehead, “Deconstructing Equity: Public Ownership, Agency Costs, and Complete Capital Markets” (2008) 108 Colum L Rev 231.

²³ Tamar Frankel, “New Financial Assets: Separating Ownership from Control” (2010) 33 Seattle UL Rev 931 at 945-946.

only because they are also depository banks (as if that were not sufficient in itself) but because financial services make up such a large portion of Canadian listed equities markets.²⁴

Structured finance does not reduce risk, of course. It transfers it. Determining to whom it is transferred can be very complex and non-transparent. Nevertheless, we know from the recent financial crisis that risk can be concentrated in unexpected quarters, such as American insurer AIG's London-based Financial Products Division.²⁵ The catastrophic systemic risk that AIG's collapse would surely have produced meant, in turn, that the counterparty risk associated with those hedging transactions was borne by American taxpayers and others.

ii) Long-Term Capital Management and Hedge Funds

Hedge funds and other specialized trading firms are ubiquitous in global financial systems, and the manner in which these companies interact with the other financial institutions can bring about significant systemic risks. Canada has a sizable hedge fund industry, which in 2004 held approximately \$20 billion in assets.²⁶ Many of the safeguards in place to protect the economy from risks posed by the activities of banks and other types of funds do not apply to hedge funds and specialized trading firms.

Hedge funds account for approximately 1% of total funds held by financial institutions,²⁷ yet they pose risks for the entire financial industry through their operation. The primary reasons for this are the interconnected nature of large financial institutions and the comparative lack of regulations on the function of hedge funds. This situation is best illustrated by the near failure of the American hedge fund Long-Term Capital Management (LTCM) in 1998. The fund employed as principals the luminaries of the financial world, including two Nobel Prize winners in economics and numerous Harvard business professors. For this reason, among others, LTCM was able to achieve a high level of leverage, and had a functional debt-to-equity ratio of approximately 25:1. At its prime, it held \$4.7

²⁴ The financial services sector is the largest single sector listed in Canada in terms of market capitalization. As of February 29, 2012, it constitutes 23% of Toronto Stock Exchange market capitalization and 22% of the combined market capitalization of the TSX and the TSX-V. TMX Market Intelligence Group, "Current MIG Report: What's Listed on TSX and TSX Venture Exchange as at February 29, 2012" (29 February, 2012), online: TMX Group www.tmx.com/en/mig/index.html.

²⁵ See e.g. Gretchen Morgenson, "Behind Insurer's Crisis, Blind Eye to a Web of Risk", *New York Times* (27 September 2008) online: The New York Times Company www.nytimes.com/2008/09/28/business/28melt.html?pagewanted=all.

²⁶ See the "AIMA Canada Hedge Fund Primer" (June, 2004), online: Alternative Investment Management Association Canada http://aima-canada.org/doc_bin/AIMA_Primer.pdf

The industry has been growing steadily since 2004, having approximately doubled in size according to the "Scotiabank Asset Weighted Canadian Hedge Fund Index" (March 2012), online: Scotiabank http://www.scmonline.com/analytics/reports/SCHFPI_monthly.pdf

²⁷ See e.g. Hedge Fund Facts.org, "Hedge Funds: How They Serve Investors in the US and Global Markets" (August 2009), online: Coalition of Private Investment Companies www.hedgefundfacts.org/hedge/wp-content/uploads/2009/09/Hedge_Funds.pdf.

billion in equity, placing it in the upper echelon of hedge funds in size. The fund also held off-balance-sheet positions of approximately \$1 trillion in derivatives such as swaps.²⁸

The Russian financial crisis of 1998 crystallized losses by LTCM totalling \$500 million in the bond arbitrage market and forced it to close out its positions in other sectors at a loss to gain liquidity.²⁹ This rush to liquidity ultimately brought about its downfall. The counterparties to LTCM -- many large financial institutions on Wall Street -- worried that a default by LTCM could bring about a catastrophic chain of defaults, potentially leading to a shortening of investment capital and a meltdown of the economy. To keep this from happening, the Federal Reserve Bank of New York organized a private bailout by the major counterparties of LTCM totalling approximately \$3 billion.

The President of the Federal Reserve Bank of New York testified before the US House of Representatives that if LTCM had been allowed to default, its major counterparties would have lost billions of dollars.³⁰ He went on to state,

[T]here was a likelihood that a number of credit and interest rate markets would experience extreme price moves and possibly cease to function for a period of one or more days and maybe longer. This would have caused a vicious cycle: a loss of investor confidence, leading to a rush out of private credits, leading to a further widening of credit spreads, leading to further liquidations of positions, and so on. Most importantly, this would have led to further increases in the cost of capital to American businesses. ... [I]t was my judgment that the American people, whom we are pledged to serve, could have been seriously hurt if credit dried up in a general effort by banks and other intermediaries to avoid greater risk.³¹

The fact that hedge funds like LTCM are substantially unregulated is what creates this form of systemic risk. One of the principals of LTCM, Eric Rosenfeld, during an address to a business class at MIT, indicated that although the bankruptcy of LTCM was not predictable at any particular time, it could not continue to operate over a long period of time because of its very high leverage and speculative investment methods.³² Therefore, by allowing such a fund to persist unregulated, the economy admitted the systemic risk that its collapse would eventually be sure to pose. The implication for present purposes is clear: Funds like LTCM create systemic risk, the management of which is now the *federal* government's responsibility in Canada.

²⁸ Roger Lowenstein, *When Genius Failed: The Rise And Fall Of Long-Term Capital Management* (New York: Random House, 2000) at 191.

²⁹ See Roger Lowenstein, *ibid* at ch 8 for a very good account of these events..

³⁰ See Statement, William J. McDonough, President Federal Reserve Bank of New York (1998), online: Federal Reserve Bank of New York <http://newyorkfed.org/newsevents/speeches/1998/mcd981001.html>.

³¹ *Ibid*.

³² Eric Rosenfeld, MIT Tech TV Presentation (19 February 2009), online: MIT <http://techtv.mit.edu/videos/2450-eric-rosenfeld-15437-presentation-21909>.

iii) The ABCP Crisis, Disclosure, and the Role of Registrants

As is well known, the Canadian asset-backed commercial paper (ABCP) market crashed in August 2007 when conduits were no longer able to “roll over” (resell) their maturing notes.³³ ABCP is short-term debt (maturing in less than one year, and often in 170 days) that is backed by a pool of longer-term loans such as residential mortgages, car loans, credit card debt, student loan debt, and credit derivatives. Conduits are specialized trusts that hold the underlying assets and issue the commercial paper backed by those assets to investors. Since the maturity of the underlying assets is long-term and the commercial paper issued is short-term, a conduit needs to reissue (or “roll over”) notes for the same set of assets several times before the underlying assets mature. This is known as a “maturity mismatch.”

ABCP in Canada is not subject to the same level of prudential oversight as regular bank lending. Assets held on a bank’s balance sheet are subject to capital requirements, while those being securitized through conduits into ABCP are not. Nor is ABCP subject to full prospectus-level disclosure under securities regulation. ABCP was offered under the short term debt exemption in section 2.35 of National Instrument 45-106, which covered any security with a maturity date not more than one year from the date of issuance, so long as it had an “approved credit rating” from an “approved credit rating organization”. This meant that any disclosure about ABCP was voluntary. IIROC-regulated broker dealers then marketed and sold ABCP to some 1,800 retail investors. Retail investors vastly outnumbered sophisticated institutional investors in this market, though they collectively held only a fraction of what the institutional investors (primarily the banks) held.

The ABCP Crisis was triggered by the realization that much of the commercial paper issued by Coventree Inc., the largest third-party (that is, non-bank) dealer of ABCP, had been exposed to the increasingly shaky US subprime mortgage market. In November 2006, Dominion Bond Rating Service (DBRS), the only ratings agency for non-bank ABCP products, had indicated to Coventree that it would take a more stringent approach in rating some of their transactions.³⁴ In January 2007, DBRS notified Coventree that it would refuse to rate some of their transactions unless Coventree met additional liquidity requirements.³⁵ Coventree could not rollover its maturing commercial paper, and banks, as emergency liquidity providers, did not step in to help. In August 2007, the ABCP market as a whole froze. No ABCP conduits could roll over their maturing notes, and investors could not access their investments.

³³ See John Chant, “The ABCP Crisis in Canada: The Implications for the Regulation of Financial Markets” Research Study prepared for Expert Panel on Securities Regulation (2009) online: Expert Panel on Securities Regulation www.expertpanel.ca/eng/reports/research-studies/index.html at 4 [Chant].

³⁴ Paul D Davis, Stephen Ganttner & Matthew Langford, “Timely disclosure obligations – *Coventree* decision outlines guiding principles” (November 2011), online: McMillan www.mcmillan.ca/timely-disclosure-obligations--coventree-decision-outlines-guiding-principles.

³⁵ “Credit crisis ‘made in Canada’”, *The National Post* (27 September 2007), online: Postmedia Network Inc. www.canada.com/nationalpost/financialpost/story.html?k=63868&id=3f92dc01-2dce-41a1-8035-358121a6725a.

In his review of the crisis, Professor Emeritus John Chant splits its causes into pre- and post-crisis influences. Among the pre-crisis influences are an unstable business model (in that any business model based on a maturity mismatch is subject to “runs”), overly favourable credit ratings, over-leverage and the under-pricing of risk, the exemption of ABCP from the prospectus requirements, and investors’ own eagerness for a higher rate of return.³⁶ Another issue was that non-bank-sponsored ABCP, which was based on assets from other markets such as the US subprime mortgage market, had grown to account for almost 50% of the entire market by the end of 2006.³⁷

Post-crisis, the crisis was magnified by a lack of transparency on the part of arrangers and conduits, conditional liquidity arrangements, and “mark to market” accounting.³⁸ The lack of transparency in the setup of sponsors, conduits, and various intermediaries meant that investors could not differentiate between conduits that were saddled with toxic assets and those that were not. Therefore, when the conduits set up by Coventree could not rollover their notes, other conduits had a similar problem. The fact that ABCP was not subject to the same levels of prudential regulation as other bank operations meant that banks could earn revenue from assets while simultaneously reducing the amount of capital they had to keep on hand.³⁹ But when the ABCP Crisis unfolded, the conduits held by banks were affected to the same degree as non-bank conduits. Banks then realized that in order to retain their reputation and keep the crisis from affecting their on-balance-sheet business adversely, they would need to provide assistance to the investors in their conduits. In this way, the off-balance-sheet activities of banks ended up being indemnified by their on-balance-sheet activities.

The Bank of Canada characterized the ABCP Crisis as having the potential to profoundly affect the Canadian economy. David Dodge, then governor of the Bank of Canada, told the *Financial Post* that the crisis had “stymied activity in the credit markets with would-be buyers not able to secure the necessary loans,” and that were a collective restructuring agreement not reached, “the problems could make their way to so-called Main Street.”⁴⁰ The same *Financial Post* story indicates that the Bank of Canada considered “[s]olving the ABCP problem [to be] in the public interest, certainly in the interests of the functioning of the financial markets...”⁴¹ In other words, the Bank of Canada itself considered that leaving the ABCP Crisis unaddressed could pose a systemic risk.

The ABCP Crisis also highlights the particular role of registrants in safeguarding investors against systemic risk. Registrants have an obligation to “know their clients” and to not sell them assets that are ill-suited to them. Given the fundamental flaws underlying the ABCP market, it seems reasonable to assume that ABCP was not well-suited to at least some of the retail investors to whom

³⁶ Chant, above note 33 at 20-22.

³⁷ Chant, above note 33 at 20.

³⁸ Chant, above note 33 at 23.

³⁹ Chant, above note 33 at 33.

⁴⁰ Opinion, “TD May Join the ABCP Bailout” *The Financial Post*, online: National Post www.financialpost.com/opinion/story.html?id=d7eefab7-9dc6-44c4-93e5-b6b5ee3761f8.

⁴¹ *Ibid.*

it was marketed. The problem was exacerbated by the prospectus exemption, which meant that registrants did not even have access to prospectus-level disclosure on ABCP products. A credit rating agency that gives unwarranted high ratings to complex financial products contributes to systemic risk; likewise, a registrant who markets and sells such complex wholesale financial products downstream without understanding what they are also contributes to systemic risk.

The fact that registrants can generate systemic risk – a point made by David Johnston and Kathleen Rockwell before the financial crisis⁴² – illustrates how foundational and unavoidable systemic risk is in Canadian securities markets. Issuers and investors are linked to each other, through registrants. This is the justification for capital reserve and risk management requirements in National Instrument 31-103, but the ABCP Crisis suggests that registrants can also be vectors for systemic risks by means of their sales practices. The relationship between wholesale product originators and registrants, and registrants' potential incentives to market particular products to their clients, can contribute to spreading systemic risk.

Some of the factors listed above, such as Coventree's holding subprime assets and subsequently failing to disclose pertinent information to its shareholders, the behaviour of the ratings agencies, the lack of transparency of conduits, and the eagerness of investors, derive from smaller decisions that in isolation might not have been consequential. Together, however, they created the conditions for the ABCP Crisis to occur and thus contributed to the systemic risk already present through the operation of a market built upon a fragile business model.

iv) The Flash Crash of 2010 and High-Frequency Trading

The so-called "Flash Crash" of 2010 exemplifies a different type of systemic risk presented by investment firms – one in which the way they operate has a negative effect on the day-to-day operation of the markets. At approximately 2:45 pm ET on March 6, 2010, the S&P 500 dove an unprecedented 900 points (6%), subsequently recovering about 600 points before closing. During a period already characterized by heightened volatility resulting from the emerging Greek sovereign debt crisis, an extraordinarily large sell order of E-mini S&P contracts (valued at approximately \$4.1 billion) was initiated by a mutual fund complex.⁴³ An E-mini S&P contract is a futures contract worth \$50 times the value of the S&P 500 stock index. The sell-off triggered an enormous amount of sell pressure on the market and a shortage of liquidity (i.e., a shortage of buyers),⁴⁴ as the number of E-mini's in supply greatly exceeded the number in demand.

⁴² Most recently see David Johnston & Kathleen Rockwell, *Canadian Securities Regulation*, 4th ed (Markham: LexisNexis, 2006) at 10.

⁴³ Andrei Kirilenko et al, "The Flash Crash: The Impact of High Frequency Trading on an Electronic Market" (2011), online: The Q Group http://q-group.org/pdf/Kyle-paper-Q-group_flash_crash_01182011_small.pdf.

⁴⁴ *Ibid* at 36.

Noting the extraordinary sell pressure, high-frequency trading (HFT) firms, which are firms that use algorithmic (computer-automated) trading strategies to trade in the market, reacted quickly. HFT firms are technical traders, not value-based traders; they typically hold positions for mere seconds or milliseconds, and often function as de facto “market-makers” by providing liquidity and relying on the bid–offer spread to make a profit. In other words, HFT firms buoy market volume and provide liquidity by engaging in large numbers of transactions, even though the overwhelming majority of those transactions are cancelled within milliseconds of being entered into. Unlike other market-makers such as broker-dealers, however, HFT firms retain the freedom to withdraw from the market when conditions become unfavourable.

Because HFT firms can query markets across very short time intervals, they sensed market abnormalities soon after the March 6 sell order was placed. They quickly sold their inventories of E-mini’s before traditional traders could react,⁴⁵ thus benefitting from the valuations before the sell-off, and then substantially disengaged from the market.⁴⁶ The additional sell-off by HFT firms led to what appeared to be a further shortage of liquidity on the markets – that is, a massive buyer shortage resulting from the fact that HFT firms accounted for a large percentage of trade volume and were not buying. The precipitous drop in stock markets was thus exacerbated by the activity of the HFT firms.

Because of the volume of trading they engage in, HFT firms have a stabilizing influence on the markets and contribute to their efficient operation. The sudden withdrawal of HFT firms can exacerbate any decline in the market. Thus, their ability to exit the markets in unfavourable conditions produces systemic risk⁴⁷ by increasing the potential magnitude of a negative market shock, and thereby increasing the probability that a chain of market or institutional failures will be triggered.

A second criticism of HFT firms is that they obscure what has traditionally constituted market liquidity, since most of their trades have a net-zero effect on the market, even though they account for a significant percentage of total volume. This effect tends to obscure thinning of volume originating from “normal buyers,” and can thus hide possible risks.⁴⁸ HFT firms worsen the risks associated with momentum-driven price movements – that is, they tend to exacerbate price declines and hasten price increases – which is thought to undermine “value investing,” or buy-and-hold strategies that rely on company fundamentals.⁴⁹ The greater the divergence of investing strategies from fundamentals, the greater the eventual market corrections that must take place, and the greater the systemic risks associated with those market corrections.

⁴⁵ *Ibid* at 36.

⁴⁶ Harald Malmgren & Mark Stys, “The Marginalizing of the Individual Investor”, *The Magazine Of International Economic Policy* (2010) online: The International Economy www.international-economy.com/TIE_Su10_MalmgrenStys.pdf at 24.

⁴⁷ *Ibid* at 25.

⁴⁸ *Ibid* at 46.

⁴⁹ *Ibid* at 46-47.

v) Investors and Money-Market Mutual Funds

Investors themselves are linked through the large pension and investment funds that are the main vehicle for most Canadians' participation in the securities markets. Particularly relevant to systemic risk concerns are the money-market mutual funds.

The Money Market Fund (MMF) marketplace is another example of an established financial sector that is susceptible to contagion effects and runs. Together with the size of the market and its position in the economy as the single largest commercial lender, this means that MMFs pose a significant systemic risk to the US economy in particular, but also to Canada's economy. The United States Securities and Exchange Commission is well aware of that risk, since the freezing of the credit markets in 2008 was largely due to MMF activity.

Background on MMFs: An MMF is a special type of mutual fund that, in many ways, operates similarly to a bank deposit. Like other mutual funds, an MMF carries a net asset value (NAV) ratio, which describes the rate of return on the investment on any given day. The NAV for a mutual fund is calculated by taking a weighted average of the assets held by the fund over the number of outstanding shares. The distinguishing feature of MMFs is that their NAV ratio is fixed at 1.00, which means that when an investor (or shareholder) wishes to redeem shares, the amount of money returned by the fund must be the same as the principal. The mechanism that allows MMFs to achieve this is called amortized cost accounting, which means that the daily value for each asset held by the fund is assumed to be the value at maturity. This type of calculation allows the fund to constantly balance its assets such that the NAV ratio comes out at or very near 1. The assumption made by the funds is justified, provided that the assets held are sufficiently short-term and safe enough that they can be counted on to have an actual (mark-to-market) value that is very close to the value at maturity. The catch in all of this is that MMFs are not required to have an external insurance provider to cover any losses that occur.

The American MMF industry holds approximately \$3.2 trillion, or approximately 30% of the entire mutual fund market. About one third of investors in this market are "retail" investors, who essentially treat MMFs as if they were as stable as deposit accounts while still taking advantage of their relatively high rate of return. MMFs oblige these investors by providing chequing privileges, an open withdrawal policy, and other bank-like services. The other two-thirds of MMF investors are institutional or corporate investors, who effectively outsource much of their cash management operations to MMFs.⁵⁰ Even hedge funds and other financial institutions place money in MMFs as short-term, low-risk investments.⁵¹

⁵⁰ Jonathan Macey, "Reducing Systemic Risk: The Role of Money Market Mutual Funds as Substitutes for Federally Insured Bank Deposits," John M. Olin Center for Studies in Law, Economics, and Public Policy

No. 422, online: Yale Law School http://digitalcommons.law.yale.edu/cgi/viewcontent.cgi?article=3100&context=fss_papers at 9 [Macey].

⁵¹ *Ibid* at 8-9.

MMFs function as short-term corporate lending vehicles because they hold significant high-grade commercial paper. For example, if a trustworthy corporation needs a short-term loan in order to reorganize some of its operations or pay its employees, then it might sell commercial paper to an MMF to obtain the necessary funds. It could repay the money with interest at the time the paper matures. Corporations often prefer selling short-term commercial paper to an MMF to taking a loan from a bank, since it is less costly.

The 2008 credit crunch: Although investors are warned, on the prospectus or the US registration statement, that MMFs are not guaranteed to be completely safe, few actually seem to believe it. Birdthistle attributes this primarily to the fixed NAV, which gives MMFs the appearance of being unaffected by market fluctuations, and to the ways in which they are advertised: Fund managers reportedly tout the stability offered by MMFs.⁵²

When Lehman Brothers collapsed in September 2008, its commercial paper became worthless. The Reserve Primary Fund, which held much of that paper, lost approximately \$785 million, or 1.2% of its total value.⁵³ Because the fund was not insured and the fund managers could not cover such a large loss through their own reserves, the NAV ratio of the fund was forced to vary from the fixed value of 1 to a new value of 0.97. This devaluation phenomenon has been colloquially termed “breaking the buck,” and it was virtually unprecedented in MMF history: The only other time it had happened was in 1994, when a much smaller fund had its NAV ratio recalculated to 0.96. When the buck broke for the Reserve Primary Fund, it came as a severe shock to investors, not only because they had lost 3% of their holdings but because they had lost it in an investment that they had assumed was virtually riskless.⁵⁴

The initial consequence of breaking the buck was a run on the Reserve Primary Fund. This is because the interest in an MMF is a “demand equity,”⁵⁵ meaning that investors are entitled to get back their principal, not just the proportion of the fund that their share represents. A loss of 3% in value therefore meant that the last 3% of investors to get out of the fund would lose out completely, since the other 97% would have taken their principal. Typical mutual funds are not demand equities (they are “demand debts”),⁵⁶ and so are not vulnerable to runs in the same way.

The run on the Primary Fund forced it to go through the capital it had on hand and then sell off its assets at a discount in order to meet the withdrawal demands of its investors. As shareholders in other MMFs watched the collapse of the Primary Fund, they also looked to redeem their investments. Managers of the other funds reserved extra cash rather than reinvest it, in preparation for a run on their funds. Corporate sellers of commercial paper consequently lost access to a large

⁵² William Birdthistle, “Breaking Bucks in Money Market Funds” (2010) 5 *Wisc L Rev* 1155 at 1187 [Birdthistle].

⁵³ *Ibid* at 1177.

⁵⁴ *Ibid* at 1177.

⁵⁵ Macey, above note 50 at 51.

⁵⁶ Macey, above note 50 at 51.

source of capital that they typically used to fund day-to-day operations.⁵⁷ It was not the initial Reserve Primary Fund run itself but this effect on corporate borrowing that was of real significance: It affected the economy as a whole, and prohibited growth.

This type of behavior is especially noteworthy in that starting the run (and thus the systemic crisis) required only a few very risk averse investors to withdraw from the fund before the others determined that it was becoming too risky to stay in, and subsequently decided to exit themselves. In this way, like a Depression-era bank run, the fund dynamics after the breaking of the buck resembled a large-scale prisoner's dilemma.

The Canadian Connection: Canadian MMFs exist, and mirror their US counterparts in makeup. The market in Canada is smaller, however: it held approximately \$39.4 billion at the end of 2010, a 6.4% share of the total mutual fund market, compared with 30% in the US.⁵⁸ These numbers are trending slowly downwards, from a high in early 2009. This trend may be accounted for by the combination of the current low interest rate environment and competition from bank accounts offering similar yields. This is not to say that in a different economic environment the MMF marketplace would not see a revival. As demonstrated in the United States, these markets can grow very rapidly.⁵⁹

Recently, the various Canadian securities regulators modified their regulations for MMFs, such that these funds are now required to have greater liquidity available in the event of a severe loss. The precise provision is that 5% of assets must be cash or cash-equivalents available within a day, and 15% must be cash or cash-equivalents ready within a week.⁶⁰ This increased liquidity should have the effect of halting runs on funds; the new rule is clearly aimed at limiting the systemic risk posed by MMFs, and hence is now directly under the federal rather than provincial purview.

C) *The New Scope of Federal Systemic Risk Authority*

Professor Steven Schwarcz has discussed the challenge of complexity in the financial markets in a way that helps shed light on what “systemic risk” entails today.⁶¹ He describes complexity in the assets that underlie modern structured financial products—for example, variability in property

⁵⁷ *Birdthistle*, see note 52 above at 1180.

⁵⁸ Investment Funds Institute Monthly Report, online: The Investment Funds Institute of Canada <http://statistics.ific.ca/english/Reports/MonthlyStatistics.asp>.

⁵⁹ Macey, above note 50 at 16.

⁶⁰ *Annex C, Amendments to National Instrument 81-102 Mutual Funds* BCSC Notice (9 February 2012), online: BCSC [www.bcsc.bc.ca/uploadedFiles/securitieslaw/policy8/81102 \[NI Amendments Advance Notice\] \(Annex C\).pdf](http://www.bcsc.bc.ca/uploadedFiles/securitieslaw/policy8/81102_NI_Amendments_Advance_Notice_(Annex_C).pdf)

National Instrument 81-102 BCSC (30 April, 2012), online: BCSC

[www.bcsc.bc.ca/uploadedFiles/securitieslaw/policy8/81-102\[NI\]_Apr30-2012.pdf](http://www.bcsc.bc.ca/uploadedFiles/securitieslaw/policy8/81-102[NI]_Apr30-2012.pdf)

⁶¹ Steven L. Schwarcz, “Regulating Complexity in Financial Markets” (2009) 87 Wash UL Rev 211.

values, interest rates, mortgage terms, and the creditworthiness of individual mortgagees⁶²—overlayered with complexity in the design of the structured products themselves—for example, in the design of synthetic products so complex that adequate disclosure to investors was virtually impossible⁶³—and exacerbated by complexity in modern financial markets (including indirect holding systems and the widespread use of complex mathematical risk modeling).⁶⁴ Schwarcz examines how these multiple complexities can lead to inappropriate lending standards, failures of disclosure, and a lack of transparency and even of comprehensibility.⁶⁵ Perhaps the most difficult problem to manage is that they also create a complex system characterized by intricate causal relationships and a “tight coupling” within credit markets, in which events tend to amplify each other and move rapidly into crisis mode.⁶⁶ The financial crisis illustrates beyond doubt the myriad interrelated ways in which complexity can generate systemic risk and impair both markets and financial regulation.

In allocating to the federal level of government the responsibility for managing systemic risk, the *Reference* has given it a daunting task. Certain market players establish the underlying architecture that allows the capital markets to function, and regulating them is necessary in order to regulate systemic risk. Specifically, exchange trading rules would need to be regulated in terms of their potential systemic risk effects. Clearinghouses would also need to be regulated, because the failure of a clearinghouse could bring down the entire domestic securities market and affect international markets as well. Capital adequacy and risk management for registrants, as envisioned in National Instrument 31-101, are also fundamental to mitigating systemic risk in key parts of the Canadian capital markets.

In addition, to manage the systemic risk produced by modern and complex capital markets, the federal government will need at least some degree of oversight and jurisdiction over three further layers of risk, which broadly track the three levels of complexity identified by Schwarcz. First, a federal systemic risk regulator will need jurisdiction over the systemic risks associated with underlying issuer securities under particular conditions. As described above, issuer securities whose risks are correlated, or which operate in concentrated markets, are susceptible to systemic risk. More than this, however, a systemic risk regulator would need to have visibility into and jurisdiction over the degree to which issuers are interconnected through their hedging (and speculative) behaviour in the derivatives markets.

Second, issuers that securitize underlying assets and bundle them into consolidated debt obligations, ABCP, MMFs, or other securities generate and spread systemic risk, particularly when these products make it into the retail market without any of the prudential adequacy rules (or the CDIC insurance) that deposits would attract. As was the case with ABCP, the nature and degree of risk can

⁶² *Ibid* at 216-220.

⁶³ *Ibid* at 220-230.

⁶⁴ *Ibid* at 231-236.

⁶⁵ *Ibid* at 236-238.

⁶⁶ *Ibid* at 245-258.

be hard to identify *ex ante*. In the United States, SEC Final Rule AB enforces asset-level disclosure and tagging of assets precisely in order to improve visibility into such instruments.⁶⁷ Other systemic risks are generated by the waterfall agreements and risk modelling assumptions built into such securitized assets, and still more are generated by registrant conduct in the marketing and sale of such products, particularly when those products are developed by the wholesale arms of their own institutions.

Third, as the LTCM and Flash Crash examples suggest, a systemic risk regulator would have to be able to grapple with the role played by hedge funds, HFTs, and similar players in generating and exacerbating systemic risk.

The Bank for International Settlements (BIS) identifies a series of ways to deal with systemic risk.⁶⁸ In general, these strategies are aimed at reducing contagion effects, and sometimes at increasing visibility. They include increasing market robustness by raising prudential standards and capital and liquidity buffers; developing an orderly resolution regime for institutional failure; examining financial industry structure for features such as “too big to fail” institutions; developing a more robust market infrastructure, for example by requiring that derivatives be exchange-traded or cleared with a central counterparty; and, finally, greater and more proactive supervision of financial institutions.

The BIS model assumes (except in its last point) that regulators already have the capacity to see what is going on in the markets. This is not currently the case in Canadian securities regulation, however, and it is certainly not the case at the federal level. A Canadian national systemic risk regulator would have to be in a position to know what emergent problems and linkages characterize the Canadian capital markets landscape and to map out network linkages and other sources of systemic risk.

This requires that the federal government have detailed issuer-related, distribution-related, and market-related data. Assuming that the path forward involves cooperative federalism, this data would presumably come from frontline regulators at the provincial level. Being able to compare data across jurisdictions in terms of both *disclosure* and *methods* is essential to ensure that data from the various provinces is comparable. That is, the federal systemic risk regulator would have to be in a position to oversee what information provincial regulators require in their jurisdictions and what methods they use to gather it.

We should remember that international regulatory arbitrage contributed significantly to the development of the recent financial crisis. Regulatory arbitrage across Canadian jurisdictions would be extremely detrimental, and to the extent that it contributed to systemic risk it would be the federal government’s responsibility. We should also recall that a lack of comparability between

⁶⁷ United States Securities and Exchange Commission, “Final Rule: Issuer Review of Assets in Offerings of Asset-Backed Securities,” Release No. 33-9150 (28 March 2011) [17 CFR Parts 229 and 230], online: SEC <http://www.sec.gov/rules/final/2011/33-9176.pdf>.

⁶⁸ Jaime Caruana, “Systemic Risk: How to Deal with It?” (February 2010), online: Bank for International Settlements www.bis.org/publ/othp08.htm.

particular financial products contributed to that crisis, and that institutions consciously avoided making products comparable as a means to stymie regulatory oversight.⁶⁹ The modern capital markets call for a systemic risk regulator that is in a position to deal with the complex ways in which fast-moving and complex financial products can generate systemic risk.

Of course, systemic risk is not generated only in the securities markets. The federal systemic risk regulator envisioned here would also have to be at least well connected to (if not integrated with) institutions addressing systemic risk posed by banks, insurers, payment systems, and accounting practices. To be clear, what is called for is a broader systemic risk remit than the Office of the Superintendent of Financial Institutions (OSFI) has exercised so far.

Canada's financial system is closely interconnected with all of the world's major economies,⁷⁰ and exogenously generated systemic risk is therefore a clear risk for domestic capital and financial markets. Several overlapping forums, both political and technocratic, are seeking to play a role in international financial regulation going forward. Many of the gaps in international systemic risk regulation, including those around hedge funds, exchange-traded derivatives and central counterparties for OTC derivatives, and credit rating agencies, fall partly within the mandate of the International Organization of Securities Commissions (IOSCO).⁷¹ A Canadian systemic risk regulator would therefore have to possess the formal capacity to speak for Canada at IOSCO, to complement positions taken by Canada's Department of Finance, the Governor of the Bank of Canada, and OSFI in forums such as the Financial Stability Board (FSB), the BIS, and the G-20.⁷²

If Canada can develop a comprehensive federal-level systemic risk regulator that can incorporate information from the local level in a particularly effective way, it may be able to take a leadership role in the ongoing international conversation about systemic risk. Section 3 below, which addresses the possibilities inherent in the federal government's responsibility for data collection, describes one means of developing such a regulator within the scope of federal power under the *Reference*.

3. Data Collection and the Systemic Risk Clearinghouse

This essay argues that “data collection,” as the term is used in the *Reference*, can in fact be a substantial regulatory tool. We draw on the notion of the “regulatory clearinghouse,” developed by

⁶⁹ United Kingdom Financial Services Authority, *The Turner Review: A Regulatory Response to the*

Global Banking Crisis (London: Financial Services Authority, 2009), online: Financial Services Authority www.fsa.gov.uk at 47.

⁷⁰ Camelia Minoiu & Javier A Reyes, “A network analysis of global banking: 1978-2009” International Monetary Fund Working Paper WP/11/74 (April 2011), online: IMF www.imf.org/external/pubs/ft/wp/2011/wp1174.pdf.

⁷¹ See e.g. Chris Brummer, *Soft Law and the Global Financial System* (New York: Cambridge University Press, 2012) at 213-227.

⁷² On the political mandate of the G-20, see David T Zaring, “International Institutional Performance in Crisis” (2010) 10 *Chicago J Int'l L* 447.

new governance and experimentalist scholars in law and organizational theory, to animate one model of regulation that uses data collection as a central mechanism.

What is a clearinghouse? The *Canadian Oxford Dictionary* defines it as follows:

1. a bankers' establishment where cheques and bills from member banks are exchanged, so that only the balances need be paid in cash.
2. an agency for collecting and distributing information, materials, etc.⁷³

The institution of the financial clearinghouse is well understood by anyone with an interest in banking or securities regulation. The idea of an “information clearinghouse,” which is our focus here, may be more familiar in academic or scientific circles. Our claim is that there are advantages to introducing the second, broader notion of the clearinghouse into securities regulation as a means of responding to the *Reference*.

Scientists and policy researchers deploy information clearinghouses as part of an evidence-based policy strategy. Examples include the What Works Clearinghouse (WWC) in the United States, which, predictably enough, tries to look at what works in education policy.⁷⁴ Evidence-based policy development proceeds by a series of steps: determining the criteria for evaluating the effectiveness of a particular policy; establishing a framework for that evaluation; undertaking content analysis – that is, looking at what data is generated – and doing comparative studies; and, finally, building in constant revision to the analytical process based on learning generated through the evidence-based process itself. On this model, the clearinghouse is a central body that aggregates data. In its simplest incarnation, it is not much more than a repository for data, which can then be used by others. Online clearinghouses are many, and many of them limit themselves to the circumscribed, but still useful, function of putting as much information as possible about a particular topic in one place, to reduce search time costs for dispersed potential users of that information.

There is another, more ambitious version of the information clearinghouse, which is still underpinned by and fundamentally concerned with data collection, the second major function that the *Reference* allocates to the federal level of government. We argue that this more ambitious version of the information clearinghouse offers a promising way forward for securities regulation in the wake of the *Reference*. Drawing on some scholarly literature in the “experimentalist” or “new governance” vein, we can imagine a clearinghouse with more robust information-forcing and accountability powers.

⁷³ *The Canadian Oxford Dictionary*, 2d ed, *sub verbo* “clearing house”. The C.O.D. considers “clearing house” to be two words, not one, but this essay follows the academics in presenting it as one word.

⁷⁴ But see Jere Confrey, “Comparing and Contrasting the National Research Council Report *On Evaluating Curricular Effectiveness* with the What Works Clearinghouse Approach” (2006) 28 *Educational Evaluation and Policy Analysis* 195 (critiquing the WWC’s empirical methodology).

Over the last two decades or so, regulatory practice and scholarly work in regulation studies have undergone something of a conceptual revolution. Regulation is a much more complex thing than it was thirty years ago. Moreover, in North America, Europe, Australia, and the UK, old-fashioned, bureaucratic “command-and-control” regulation has given way to what has come to be known as “flexible regulation.”⁷⁵

As the name suggests, “flexible regulation” seeks to develop more flexible, context-sensitive, nuanced regulatory strategies across a variety of subject matter areas. Forms of flexible regulation have been applied in areas as diverse as international labor standards,⁷⁶ workplace safety and domestic labor law,⁷⁷ EU governance,⁷⁸ environmental regulation,⁷⁹ and securities and financial regulation.⁸⁰ While there are a number of versions of flexible regulation,⁸¹ all share the conviction that old-style, one-size-fits-all prescriptive regulation is a starkly limited tool. In its place, proponents of flexible regulation advocate a restructured and more collaborative relationship between the state and regulated entities, one that incorporates private and non-state parties’ experience and expertise.⁸²

⁷⁵ See e.g. Ian Ayres & John Braithwaite, *Responsive Regulation: Transcending the Deregulation Debate* (Oxford: Oxford University Press, 1992); Eric Orts, “Reflexive Environmental Law” (1995) 89 Nw UL Rev 1227 [Orts]; Julia Black, *Rules and Regulators* (Oxford: Oxford University Press, 1997) [Black]; Michael C Dorf and Charles F Sabel, “A Constitution of Democratic Experimentalism” (1998) 98 Colum L Rev 267 [Dorf & Sabel]; Neil Gunningham, Peter Grabosky & Darren Sinclair, *Smart Regulation: Designing Environmental Policy* (Oxford: Oxford University Press, 1998) [Gunningham]; Malcolm K Sparrow, *The Regulatory Craft: Controlling Risks, Solving Problems, and Managing Compliance* (Washington, DC: Brookings Institution, 2000) [Sparrow]; Christine Parker, *The Open Corporation: Effective Self-Regulation and Democracy* (New York: Cambridge University Press, 2002) [Parker]; Cary Coglianese & David Lazer, “Management-Based Regulation: Prescribing Private Management to Achieve Public Goals” (2003) 37 Law & Soc’y Rev 691; Orly Lobel, “The Renew Deal: The Fall of Regulation and the Rise of Governance in Contemporary Legal Thought” (2004) 89 Minn L Rev 342; Gráinne de Búrca & Joanne Scott, eds, *Law and New Governance in the EU and US* (Oxford: Hart, 2006) [de Búrca & Scott].

⁷⁶ Lucio Baccaro & Valentina Mele, “Pathology of Path-Dependency? The ILO and the Challenge of ‘New Governance’” (5 October 2010) paper prepared for MIT Institute for Work and Employment Research Seminar, online: MIT Sloan http://mitsloan.mit.edu/iwer/pdf/Lucio_Baccaro-IWER_paper_20101005.pdf.

⁷⁷ Cynthia Estlund, *Regoverning the Workplace: From Self-Regulation to Co-Regulation* (New Haven: Yale University Press, 2010); Orly Lobel, “Interlocking Regulatory and Industrial Relations” (2005) 57 Admin L Rev 1071.

⁷⁸ David M Trubek, & Louise G Trubek, “New Governance and Legal Regulation: Complementary, Rivalry, or Transformation?” (2007) 13 Colum J Eur L 539; Gráinne de Búrca & Neil Walker, “Law and Transnational Civil Society: Upsetting the Agenda?” (2003) 9 Eur LJ 387; Jonathan Zeitlin, “The Open Method of Coordination in Action: Theoretical Promise, Empirical Realities, Reform Strategy” in Jonathan Zeitlin, Philippe Pochet & Lars Magnusson, eds, *Open Method of Coordination in Action: The European Employment and Social Inclusion Strategies* (Brussels: Presses Interuniversitaires Européennes-Peter Lang, 2005).

⁷⁹ Orts, above note 75.

⁸⁰ Black, above note 75; Cristie Ford, “Toward a New Model for Securities Law Enforcement” (2005) 57 Admin L Rev 757; Cristie Ford, “New Governance, Compliance, and Principles-Based Securities Regulation” (2008) 45 Am Bus LJ 1 [Ford 2008]; Robert F Weber, “New Governance, Financial Regulation, and Challenges to Legitimacy: The Example of the Internal Models Approach to Capital Adequacy Regulation” (2010) 62 Admin L Rev 783.

⁸¹ See e.g. Mary Condon, “The Walter S. Owen Lecture: Canadian Securities Regulation and the Global Financial Crisis” (2009-2010) 42 UBC L Rev 473; Sharon Gilad, “It Runs in the Family: Meta-Regulation and Its Siblings” (2010) 4 Regulation & Governance 485.

⁸² Parker, above note 75; Gunningham, above note 75; Peter Drahos, “Intellectual Property and Pharmaceutical Markets: a Nodal Governance Approach” (2004) 77 Temp L Rev 401.

Because flexible regulation is premised on a decentralized, information-based, flexible and collaborative approach, scholars have had to consider what role a central state regulator (or a regional one, or in some cases a transnational body) still can and ought to play.⁸³ Among the various scholarly perspectives, the one characterized by the deepest commitment to incrementalism and pragmatism, and which has most fully imagined what a regulator should look like in order to permit this, is the “experimentalist” perspective, the chief proponents of which are Charles Sabel at Columbia Law School and his coauthors, including Michael Dorf, Joshua Cohen, and William Simon. Many other versions of flexible regulation have a great deal to recommend them in various contexts, and several explicitly agree on the need for a centralized data management regulatory clearinghouse.⁸⁴ Experimentalism is especially useful here, however, because it speaks to the specific task of trying to imagine what the federal level of government in Canada could do with authority over data collection.

The experimentalist clearinghouse is a centralized regulatory institution charged with aggregating multiple decentralized regulatory interactions into a systematic regulatory structure. Sabel and his colleagues have written about experimentalist structures in a variety of contexts, ranging from American constitutional and administrative law through drug treatment courts, EU governance, and transnational governance regimes.⁸⁵ In brief, the clearinghouse regulator operates differently from a traditional regulator; it sets broad goals and regulatory requirements, but it allows more local, context-specific experiments to determine the best means by which to meet those goals. The clearinghouse regulator has “information-forcing” powers, meaning the capacity to require that local units generate and produce comprehensive data and to require that that information be produced in consistent and comparable forms so that it can be effectively aggregated. Using substantive principles-based, outcome-oriented, or similar analytical methods, it assesses local units’ success in meeting centrally established regulatory expectations. Although the central clearinghouse is operating at a somewhat greater remove from day-to-day operations, this does not mean that it needs fewer resources: On the contrary, thorough and incisive analysis of meta-level information requires more, not less, regulatory capacity than straightforward command-and-control regulation would.⁸⁶

⁸³ See e.g. Drahos, *ibid*; Gregory Shaffer & Mark Pollack, *Transatlantic Governance in the Global Economy* (Lanham, MD: Rowman & Littlefield, 2001); Adrienne Héritier & Dirk Lehmkuhl, “Introduction: The Shadow of Hierarchy and New Modes of Governance” 28 *J Pub Pol* 1.

⁸⁴ See also e.g. Bradley C Karkkainen, “Collaborative Ecosystem Governance: Scale, Complexity, and Dynamism” (2002) 21 *Va Env’t LJ* 189 (advocating that different levels of government “pool” their information in order to “build a richer collective understanding . . . of [a] problem” at 222-225); Susan P Sturm, “New Governance and the Architecture of Learning, Mobilization, and Accountability: Lessons from Gender Equity Regimes” in de Búrca & Scott, above note 75; Sparrow, above note 75 at (expressing a desire for agencies to “organize the lessons they learn and to make the accumulated knowledge readily available” at 167-168).

⁸⁵ See primarily Dorf & Sabel, above note 75; Michael C Dorf & Charles F. Sabel, “Drug Treatment Courts and Emergent Experimentalist Government” (2000) 53 *Vand L Rev* 831; Charles F Sabel & Jonathan Zeitlin, “Learning from Difference: The New Architecture of Experimentalist Governance in the EU” (2008) 14 *Eur LJ* 271; Charles F Sabel and William H Simon, “Minimalism and Experimentalism in the Administrative State” (2011) 100 *Geo LJ* 53.

⁸⁶ Julia Black, Martyn Hopper & Christa Band, “Making a Success of Principles-Based Regulation” (2007) 1 *Law & Fin Markets Rev* 191; Cristie Ford, “Principles-Based Securities Regulation in the Wake of the Global Financial Crisis” (2010) 55 *McGill LJ* 257 at text accompanying n 119 [Ford 2010].

Based on its analysis of the information being generated, the clearinghouse monitors local units' compliance with centrally defined goals, primarily through benchmarking and comparative analysis. Particular local units' successes in meeting regulatory goals become "benchmarks." The central clearinghouse has the capacity to challenge local units' strategies, outcomes, or overall performance in meeting regulatory goals by reference to other local units' performance benchmarks. Like Brandeisian "multiple laboratories for democracy,"⁸⁷ the clearinghouse structure permits parallel learning. It also builds in some flexibility for local units to devise their own context-appropriate mechanisms for addressing regulatory problems, so long as they demonstrably meet the overall standards set by the central clearinghouse regulator.

The spectre of the "race to the bottom" can be a risk of competitive federalist models. This argument is not infrequently made with regard to state-level corporate law in the United States.⁸⁸ Regulatory competition and arbitrage also very likely played a role in the run-up to the financial crisis, because global financial institutions were in a position to play London and New York against each other.⁸⁹ Under the experimentalist model, such a race to the bottom is avoided through the presence of a central standard-setting clearinghouse regulator – something not present either in US corporate law or in international financial regulation pre-crisis. The clearinghouse regulator can also generate incentive structures to reward leaders (for example, with more autonomy) and punish laggards (for example, with closer oversight).

A subtler but still pernicious problem is the possibility of a "race to the middle," a concern expressed by Professor Andrew Green in his contribution to this volume.⁹⁰ In this case, the various local actors lack any incentive to become practice leaders, and standard practice across local units coalesces at a mimetic, complacent, suboptimal level.⁹¹ Experimentalism's prescription for this problem is for the clearinghouse regulator to set its comparative benchmarks based on *best practices* to emerge from local units, not just industry standards. In their original article on the subject, Dorf and Sabel describe this as "rolling best practices rulemaking."⁹²

⁸⁷ *New State Ice Co. v. Liebmann*, 285 US 262 (1932) (per Brandeis J, dissenting) ("It is one of the happy incidents of the federal system that a single courageous State may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments without risk to the rest of the country" at 311).

⁸⁸ Most famously see William L Cary, "Federalism and Corporate Law: Reflections upon Delaware" (1974) 83 *Yale LJ* 663.

⁸⁹ See e.g. Shaun French, Andrew Leyshon & Nigel Thrift, "A Very Geographical Crisis: The Making and Breaking of the 2007-2008 Financial Crisis" (2009) 2 *Cambridge J Regions Econ Soc* 287.

⁹⁰ Andrew Green, "Effectiveness, Accountability and Bias: Some Concerns about a Quasi-National Securities Regulator," this volume.

⁹¹ On the tendency of institutions to imitate each other, see Paul J DiMaggio & Walter W Powell, "The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields" in Walter W Powell & Paul J DiMaggio, eds, *The New Institutionalism in Organizational Analysis* (Chicago: University of Chicago Press, 1991).

⁹² Dorf & Sabel, above note 75 at 350-354; on rolling best practices rulemaking in the context of principles-based securities regulation in Canada, see Ford 2008, above note 80 at pages 41-45; Cristie Ford, "Principles-Based Securities Regulation" (2009) Research Study prepared for Expert Panel on Securities Regulation (2009), online: Expert Panel on Securities Regulation www.expertpanel.ca/eng/reports/research-studies/index.html at 21-22.

Among the perceived advantages of experimentalism is the idea that experimentalism makes sense as a commitment to a deeply pragmatic, evidence-based, learning-by-doing mechanism. The central clearinghouse is responsible for setting broad goals within the scope of its mandate. The precise details of how to meet those goals, however, are determined based on experience at the more local level. Moreover, means and ends are interrelated: the federal government's precise understanding of the nature and origins of systemic risk will evolve through actual experience in trying to manage it, and this, in turn, may generate revised expressions of the original goal. This is only a partial answer to the problems of complexity and uncertainty that bedevil financial markets regulation in general and systemic risk regulation in particular. The question we should be asking ourselves is not whether an evidence-based, learning-by-doing mechanism will be flawless under such challenging conditions, but whether there are reasons to think that relative to other real-life options, they might stand a better chance of being effective under those conditions.

In the context of Canadian securities regulation and the federal/provincial division of powers in the wake of the *Reference*, a federal regulatory clearinghouse along experimentalist lines could look something like the following:

- The federal government establishes a clearinghouse regulator. The *Reference* tells us that “[l]egislation aimed at imposing minimum *standards* applicable throughout the country and preserving the stability and integrity of Canada’s financial markets might well relate to trade as a whole.”⁹³ Thus empowered, the clearinghouse articulates broad goals and sets minimum standards around systemic risk (including systemic risk with international origins or implications) and data collection. Whether it does so in the language of principles, outcomes, or processes matters less than that it does so in language cast at a high enough level of generality that the goals can cover the full range of Canada’s experience with systemic risk. Principles-based or outcome-oriented measures are the likeliest candidates here.⁹⁴
- Experimentalism’s “local units” here are primarily provincial and territorial *regulators*, not issuers or registrants. Provincial and territorial regulators are responsible for generating comprehensive, fine-grained, top-quality data from issuers, registrants, exchanges, clearinghouses, and others. The federal government’s responsibility for data collection implies influence over, and perhaps even oversight of, national transaction reporting infrastructure such as exchanges, clearinghouses, trade repositories, data consolidators and processors, and trade surveillance.⁹⁵ They are required to produce data in aggregable form to the federal systemic risk regulator. Beyond question, as the Canadian Securities Transition

⁹³ Securities Reference, above note 3 at para 114.

⁹⁴ One of the authors’ own understandings of principles-based regulation has been most recently described at Ford 2010, above note 86 at 262-278.

⁹⁵ Under current Canadian law, provincial securities regulators delegate some statutory authority to the self-regulating registrant bodies, IIROC and the MFDA, as well as to the clearinghouse, CDS, the exchanges (collectively owned by the TMX Group), and so on. With respect to SROs such as IIROC, the important point here is that data on any systemic risk posed by its membership makes its way up to the federal clearinghouse regulator. There may be reason to consider establishing direct federal-to-SRO (and -exchange, -clearinghouse, etc.) information channels around systemic risk-related issues, distinct from the delegated statutory authority that flows from provincial authorities to SROs.

Office's pre-*Reference* plan also recognized, maintaining local regulatory offices has clear benefits. A local regulatory presence improves the chances of effectively pulling local, context-sensitive knowledge into the central clearinghouse. It also enhances access and communication channels for local securities market participants, improves compliance and enforcement intelligence, and provides a formal, institutional voice for distinct provincial and local securities constituencies. Indeed, in keeping with the spirit of cooperative federalism described in the *Reference*, it serves many of the purposes that the Supreme Court's *Reference re Secession of Quebec* held the constitutional principle of federalism to serve within Canadian confederation as a whole.⁹⁶ As we know, the provinces and territories are not capable of addressing systemic risk challenges or of developing a comprehensive data collection function on their own. Combining provincial or territorial frontline securities regulators with a national clearinghouse permits a degree of local or regional diversity without compromising centralized overall systemic risk management.

- The federal government's responsibility for data collection, combined with the provinces' and territories' continued responsibility as frontline securities regulators, means that the federal government must have the ability to mandate extensive disclosure requirements from provincial and territorial securities regulators. It must require that provinces and territories push fine-grained, high-quality information upward, in forms capable of being aggregated, on all matters that concern systemic risk.⁹⁷ The federal government can set clear requirements around the generation and form of that information, as is necessary to allow the federal government to manage systemic risk. In contrast to the high-level standards established around systemic risk in general, some requirements around data collection should be more detailed and process-based. Good regulatory design always requires a mix of more detailed and more principles-based provisions. On some topics, the advantages that detailed, prescriptive rules provide in terms of certainty and limiting discretion will outweigh the advantages that more principles-based drafting offers in terms of flexibility and context-sensitivity. A federal-level legislator concerned with ensuring that the information flowing from provincial/territorial to federal level is highly comparable will want to establish detailed, process-based requirements around the forms of information being generated and produced at the provincial and territorial level.
- The federal systemic risk regulator may also want to consider mandating particular operational processes for provinces and territories, if those processes are likely to produce better quality data. For example, experimentalist scholars argue that broad stakeholder participation improves the quality of information produced by ensuring that a broader and more contextually-grounded range of perspectives go into the deliberative process. On this basis, the federal systemic risk regulator could decide that provinces should establish consumer or investor panels, like Ontario's or the FSA's, to ensure the explicit incorporation of a fuller range of stakeholder voices into the data-generating architecture at the provincial and territorial level.⁹⁸

⁹⁶ *Reference re Secession of Quebec*, [1998] 2 SCR 217 at paras 43, 55-60.

⁹⁷ See section 2. (B), above.

⁹⁸ The Hon. Tom Hockin's Expert Panel on Securities Regulation recommended that such panels be established. Expert Panel on Securities Regulation, *Final Report and Recommendations* (2009), online: Expert Panel on Securities Regulation www.expertpanel.ca/eng/documents/Expert_Panel_Final_Report_And_Recommendations.pdf at 36-37.

- The clearinghouse regulator monitors the provinces' and territories' comparative successes and challenges in meeting federally defined broad goals on matters bearing on systemic risk. It benchmarks the provinces' and territories' accomplishments in accordance with evidence-based policy development principles. It determines criteria for evaluating effectiveness, establishes a framework for that evaluation, undertakes content analysis, and engages in comparative analysis. This kind of process is not unknown to the federal government: A version of evidence-based policymaking is embedded in the Cabinet Directive on Streamlining Regulation, which sets out the standards that apply whenever the federal government embarks on regulation-making.⁹⁹
- The federal clearinghouse needs both the technical (data-analysis) and legal capacity to engage in meaningful comparative benchmarking. This requires sophisticated powers of data analysis. The clearinghouse would expect provinces to learn “in parallel,” to consider the utility of innovations developed in other provinces, and to justify their own decisions in reasons-based ways. It may choose to develop “rolling best practices rules” (which are not inconsistent with the ability to set “minimum” standards, in the *Reference's* terms).¹⁰⁰ It may decide to establish any number of positive and negative incentives for provincial and territorial regulators. The clearinghouse must also be able to analyze data also across time, for example to develop an historical context for current levels of leverage or degrees of interconnectedness. Such longitudinal information could help to track and respond to behavioural cascades, such as the cascade toward excessive leverage that characterized investment banking in the United States in the run-up to the financial crisis.
- In the context of Canadian federalism, there would have to be a mechanism for resolving disputes between the federal and provincial/territorial levels of government around systemic risk management. Accountability mechanisms, too, would have to be developed. As Andrew Green has noted, a problem with multijurisdictional regulatory structures is that it may leave no jurisdiction accountable.¹⁰¹ Presumably, if the federal government intends to assert that systemic risk and therefore its own jurisdiction is broad in scope, then it must also be accountable for failures within that scope. Where the political will to hold regulators accountable does not exist – another risk that Professor Green identifies – then accountability will be compromised, in this model and inevitably in every other model too.
- The clearinghouse regulator would be in a position to help coordinate action between provinces and territories in a way that the non-binding forum of the Canadian Securities Administrators cannot. The clearinghouse would be able to require provinces to coordinate and to meet performance standards set by other provinces, in the interest of managing systemic risk. Its capacity for data analysis allows it to focus on evidence-based and reasons-based justifications for taking particular steps to manage systemic risk.
- Finally, in keeping with an evidence-based, learning-by-doing approach and with the dynamic nature of securities market regulation, the clearinghouse would have to build in the capacity for constant revision to its own analytical processes, based on learning generated

⁹⁹ Government of Canada, *Cabinet Directive on Streamlining Regulation* (2007), online: Treasury Board of Canada Secretariat www.tbs-sct.gc.ca/ri-qr/directive/directive-eng.pdf.

¹⁰⁰ Ford 2008, above note 80 at 41-45.

¹⁰¹ See Green, above note 90.

through its own experience and that of the provinces and territories. A national clearinghouse of Canadian capital markets data would make possible sophisticated data mining and industry- and product-specific predictive analytics, which ought then to be ploughed back into the standard-setting and oversight processes themselves.

Professor Jeffrey MacIntosh argues in this volume that in advocating a federal securities clearinghouse, we misconstrue the meaning of the *Reference*.¹⁰² In our view, an energetic reading of the federal powers is needed to address the very real and pervasive problem of systemic risk. While it is certainly possible to read the *Reference* in a way that prizes cooperative federalism over actual policy effectiveness,¹⁰³ this subject matter is too important not to try to read it in a way that creates a workable regime for protecting Canadian investors and the Canadian public, and that permits each level of government to actually discharge the responsibilities it has been given.

What we propose is a form of cooperative federalism that takes seriously the responsibility the Supreme Court has allocated to the federal government. The purpose of the examples in Part 2 above is to demonstrate that systemic risk is inextricable from, and flows from, the day to day operations of the securities markets. If the federal government is to discharge the responsibilities the Court allocated to it, it must have some authority over those aspects of the securities markets that constitute that risk. By analogy, an engineer who is responsible for the safety and soundness of a new building must have some authority to direct the quality and use of the materials that comprise the building. This is particularly true where none of the building's subcontractors is responsible for safety and soundness, where the subcontractors collectively do not have the capacity to ensure the building's safety and soundness, and indeed where each subcontractor may stand to gain by reducing his or her own safety standards relative to others'.¹⁰⁴

Contrary to Professor MacIntosh's assessment, what we propose is not a "command-and-control" regime; quite the opposite.¹⁰⁵ Nor does the establishment of a federal systemic risk clearinghouse make the provinces into federal "agents", any more than a European Union harmonization directive makes European member states "subjects" or "operatives" of the EU.¹⁰⁶ A national securities clearinghouse designed to respond to this unique jurisdictional environment will not open the floodgates, or engender federal incursions into corporate law, contract law, or health law. What is contemplated here is a model of federal-provincial cooperation that may be unprecedented in Canada, but that flows logically from the unavoidable fact that regulating systemic risk cannot be excised from regulating mundane securities market operations. It would be a grave mistake to fetishize existing understandings of cooperative federalism, if the cost is that the federal government is not actually capable of managing systemic risk.

¹⁰² Jeffrey G. MacIntosh, "A National Securities Commission? The Headless Horseman Rides Again," this volume.

¹⁰³ We share Professor Iacobucci's concerns in this regard. See above note 10.

¹⁰⁴ See Green, above note 90.

¹⁰⁵ See sources, above note 75.

¹⁰⁶ See sources, above note 78.

In addition to charting a path forward by which the federal government will be able to take care of its responsibilities for systemic risk and data collection, the clearinghouse model has a few potential advantages relative to even a conventional national securities regulator. First, this is an evidence-based model that may be especially well suited to securities regulation. Pragmatic, comparative learning-by-doing is a reasonable response to the uncertainty generated by complexity and volatility in the financial markets. Second, this model may help provincial and territorial regulators by establishing a mechanism for systematically learning from their own experiences and from those of their peer regulators. Finally, this is not a duplicative fourteenth securities regulator. It is a regulator with a different mandate, skill set, and perspective, designed around the responsibilities for collecting data and managing systemic risk that the Supreme Court of Canada found the federal government to possess.

4. Conclusion

We have sought to demonstrate that powers over systemic risk and data collection are not in fact inconsequential. This is the position that the federal government is entitled to take in any negotiations with the provinces over the way forward.

Following on the *Reference*, the Supreme Court of Canada envisioned a negotiated, cooperative federal arrangement.¹⁰⁷ In proceeding in this direction, the federal government should begin from a position of confidence about what its powers over systemic risk and data collection permit. These issues are too important to be regulated in a piecemeal fashion. Both the likelihood and the magnitude of systemic risk events are far greater today than they were in at the time of the Kimber Commission in 1965, or even at the time of the Wise Persons' Committee in 2003.

While we may, in the abstract, applaud the Supreme Court's reaffirmation of cooperative federalist principles, it is somewhat harder to do so in this context, when we consider the enormous danger that systemic risk presents for Canadian investors, taxpayers, and capital markets. In this essay we have tried to envision a federal systemic risk and data collection regulator that will still have the information base and capacity to manage these serious risks. Moreover, there may be a silver lining to the Court's decision, in that it opens the door to the potential creation of an entirely new kind of federal regulator – one that may, through its focus on data collection, actually be in a particularly promising position to regulate a phenomenon as dispersed and dynamic as the securities markets.

Our claim in this essay is that a federal systemic risk clearinghouse is consistent with the *Reference* and that it can be built out in an ambitious way without creating a fourteenth regulator. Although

¹⁰⁷ Securities Reference, above note 3 (“It is not for the Court to suggest to the governments of Canada and the provinces the way forward by, in effect, conferring in advance an opinion on the constitutionality on this or that alternative scheme. Yet we may appropriately note the growing practice of resolving the complex governance problems that arise in federations, not by the bare logic of either/or, but by seeking cooperative solutions that meet the needs of the country as a whole as well as its constituent parts” at para 132).

developed in other regulatory contexts, the clearinghouse concept may actually be particularly appropriate for managing systemic risk arising from the securities markets. Unlike other parts of administrative law, in which the government takes a more engaged, merit-based position *vis-à-vis* industry actors, securities regulation has always taken a bottom-up, decentred, and information-forcing (i.e., disclosure-oriented) approach. The complexity, global interconnectedness, and speed of innovation that characterize modern financial markets also demand a regulator that is evidence-based, well-informed, well-resourced, and nimble. The federal government would never have opted for this kind of structure at first instance. The fact that the *Reference* gives it so few choices, however, also opens up new opportunities for creative thinking. The experimentalist securities regulation clearinghouse, based on data-collection powers and a mandate for managing systemic risk, may be a promising path forward.