Financial Market Supervision: Canada's Perspective

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Summary

The international financial crisis of 2008-2009 spurred policymakers in the United States and elsewhere to consider changing the way they supervised financial institutions and financial markets to reduce the prospects of experiencing another global financial crisis. Canada's financial system, in particular, garnered attention, because it has seemed to be more resistant to the failures and bailouts that have marked banks in the United States and Europe. In particular, some observers assessed the merits of the way Canada supervises and regulates its banks as one possible model for the United States. There likely are aspects of Canada's financial supervisory framework that may offer an approach to supervising financial markets that may be useful for the United States to consider. However, the smaller scope of Canada's financial system and its economy likely lessen the transferability of systems or procedures used in Canada to the vastly more complex U.S. financial system. This report presents an overview of Canada's financial system and its supervisory framework and draws some distinctions between that system and the current U.S. framework.

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Background

The 2008-2009 financial crisis prompted U.S. and foreign leaders to search for national models for supervising and regulating financial markets that have proven superior and for a new international order that can help mitigate any recurrence of the crisis. Canada's financial system, in particular, garnered attention because it has been more resistant during the crisis to the failures and bailouts that have marked banks in the United States and Europe. In particular, some observers assessed the merits of Canada's financial system, especially the way it supervises and regulates its banks, as one possible model for the United States. Currently, advanced economies employ a number of institutional structures to supervise and regulate their financial sectors.

No single model of market supervision has proven to be clearly superior, but the trend seems to be toward more integrated arrangements. Reportedly, the Obama Administration considered at one time replacing the multiple agencies that supervise and regulate the U.S. financial system with a single regulator.[1] Instead, Congress adopted the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank) (P.L. 111-203) and considered measures to reform securitization, banking supervision, hedge funds, financial consumer protection, and derivatives, among a number of other topics. The Dodd-Frank measure enhances the role of the Federal Reserve and created a new Bureau of Consumer Financial Protection.[2] A number of countries have opted for a twin peaks approach where prudential regulation (focusing on the long-term view of market performance) is assigned to one regulator and market conduct regulation (focusing on the day-to-day operation of the market) to another. Great Britain had employed a different model where a fully unified regulator, the Financial Services Authority, was separate from the central bank. Recently, however, the UK has opted instead to replace the FSA with an independent Financial Conduct Authority and the Prudential Regulation Authority, which is part of the Bank of England. Others, like the United States, have opted for specialized federal regulators, while reserving a role for state regulators in securities regulation. Canada's model assigns the central bank the main role of conducting monetary policy and maintaining price stability. It has assigned the core responsibility for supervising and regulating some aspects of the financial system to a separate federal agency, while also giving provincial governments authority over other parts of the financial system.

While Canada did not inject capital directly into its banks to forestall a failure, the financial crisis and global economic recession battered the Canadian economy in ways that are similar to those in the United States and in Europe. In April 2011, the International Monetary Fund (IMF) indicated that the Canadian economy, as represented by gross domestic product (GDP), contracted by 2.8% in 2009, before rebounding with a positive rate of economic growth of 3.2% in 2010 and 2.6% in 2011. Recent estimates by the IMF indicate that the rate of economic growth in Canada slowed in 2012, particularly in the second half of the year, to 2.0% and is projected to grow at a rate of 1.8% in 2013, as indicated in **Table 1**.[3] The vast economic and financial linkages between Canada and the United States mean that Canada is feeling the impact of the slowing U.S. economy.

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[1] Appelbaum, Binyamin, and Zachary A. Goldfarb, U.S. Weighs Single Agency to Regulate Banking Industry, *The Washington Post*, May 28, 2009, p. A1.

[2] For additional information, see CRS Report R40975, *Financial Regulatory Reform and the 111th Congress*, coordinated by Baird Webel.

[3] *Canada: Article IV Consultations*, International Monetary Fund, February 2013.

The IMF forecast indicates that the U.S. economy is expected to grow at an annual rate of 2.2% in 2012 and 2.1% in 2013.[4] It also indicates that the unemployment rate in Canada will fall to 7.3% by 2012 and 7.3% 2013. The Bank of Canada projects a slow return to the trend rate of economic growth in 2013 and after propelled in large part by an increase in business investment and a rebound in exports.[5]

Table 1. Canada's Actual and Projected Real GDP, Consumer Prices, and Rate of Unemployment

(Annual percentage changes and percent of labor force)

	2009	2010	2011	2012	2013
		Actual		Projected	
Real GDP	-2.8%	3.2%	2.6%	2.0%	1.8%
Consumer Prices	0.3	1.8	2.9	1.6	1.7
Unemployment	8.3	8.0	7.5	7.3	7.3

Source: *Canada Article IV Consultations*, International Monetary Fund, February, 2013.

Much of Canada's economic recovery after the financial crisis is attributed to low interest rates and a $33 billion fiscal stimulus package—one of the largest among advanced economies—over two years in infrastructure spending, tax decreases, worker retraining, housing, and aid to struggling industries. In addition, the federal government pumped additional liquidity into the economy by purchasing insured mortgages. In April 2009, the Bank of Canada lowered the nation's key interest rate to 0.25%. A drop in commodity prices caused the Canadian dollar to fall relative to the U.S. dollar, which improved the cost competitive position of Canada's exports. In relative terms, Canada's fiscal outlook is among the best in the G-20.

According to the Bank of Canada, major risks to Canada's economic recovery remain high and primarily arise from (1) global sovereign debt issues associated with some European countries that potentially could raise borrowing costs for Canadian banks; (2) the risk that global financial imbalances arising from large current account (exports and imports of goods, services, and income) imbalances could be disorderly and create sharp adjustments to exchange rates and other financial asset prices; (3) a protracted recovery in other major economies will be a drag on economic growth; (4) low interest rates could encourage excessive risk taking; (5) high levels of indebtedness among Canadian households leaves them vulnerable to economic and financial shocks. Although Canadian banks are not highly exposed to public or private entities in Greece, Italy, Spain, or Portugal, Canadian banks are exposed to banks in Europe and the United States that are themselves highly exposed to the four countries. This high level of financial linkages could amplify shocks throughout the global financial system.

The IMF has concluded that Canada's financial system is highly mature, sophisticated, and well-managed. In addition, the system is characterized by strong prudential regulation and supervision, stringent capital requirements, low risk tolerance, a well-designed system of deposit insurance and arrangements for crisis management and resolution of failed banks, a well-regulated and

[4] *World Economic Outlook*, The International Monetary Fund, October, 2012, p. 2.

[5] *Monetary Policy Report*, the Bank of Canada, January 2013, p. 17.

conservative mortgage market, and comprehensive mortgage insurance coverage. Supervisory responsibility for the financial sector in Canada is divided among the federal government, the provincial governments, and among a group of agencies within the federal government. The federal government is responsible for supervising all banks, federally incorporated insurance companies, trust and loan companies, cooperative credit associations, and federal pension plans. Provincial governments are responsible for supervising securities dealers, mutual fund and investment advisors, credit unions, and provincially incorporated trust, loan, and insurance companies. As a result, there are 13 regulatory authorities, each administering a separate set of securities laws and regulations.

The IMF also concluded that Canada was generally better situated than many other countries to weather the financial crisis and the global economic downturn. This resilience is attributed to three factors. First, Canada positioned itself well prior to the financial crisis through a conservative macroeconomic policy that reduced the federal government's debt relative to GDP and through a relatively tight monetary policy that focused on price stability.[6]

Secondly, the IMF argues that Canadian banks performed better because Canadian authorities acted proactively in addressing the potential economic slowdown. They did this by (1) adopting a major fiscal stimulus of Can$65 billion on October 30, 2008; (2) adopting an additional fiscal stimulus program in early January 2009; and (3) easing monetary policy through a series of cuts in key interest rates. As part of Canada's Economic Action Plan adopted in January 2009, officials implemented additional policy measures they could have employed if they had decided that further actions had been necessary. The economic plan comprised five elements: (1) funding for job and skills training; (2) funding to stimulate housing construction; (3) investment in infrastructure; (4) support for major export sectors, including automotive, forestry, and manufacturing; and (5) improving access to financing through the Extraordinary Financing Framework. In the early stages of the financial crisis, the Bank of Canada also provided liquidity by expanding its liquidity facilities and the Government of Canada purchased some insured mortgages through the Canada Mortgage and Housing Corporation.[7]

In addition, the Extraordinary Financing Framework is comprised of five elements: (1) providing funding to Canadian financial institutions through the Insured Mortgage Purchase Program and the Canada Mortgage Bond program; (2) expanding financing for Canadian businesses through Export Development Canada and the Business Development Bank of Canada; (3) increasing collaboration between financial Crown corporations[8] and private sector lenders and credit insurers under a business Credit Availability program; (4) designing a Canadian Secured Credit Facility; and (5) initiating a Canadian Lenders Assurance Facility and the Canadian Life Insurers Assurance Facility to provide insurance on the wholesale term borrowing of federally regulated deposit-taking institutions, and life insurers. Additional measures include the ability to offer guarantees on bank and insurance liabilities, and the authority to engage in transactions to maintain financial stability, including providing capital injections.[9]

Finally, the IMF argues that financial conditions have remained more favorable in Canada, because Canadian banks are managed conservatively. Canadian banks are required to maintain

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[6] *Canada Article IV Consultation*, International Monetary Fund, December 2010.

[7] *Financial System Review*, p. 3.

[8] State-owned corporations at either the federal, state, or territorial level.

[9] *Canada's Economic Action Plan, 2009 Budget*, Chapter 3, Ministry of Finance.

larger capital requirements than elsewhere, which has meant that Canadian banks had a stronger balance sheet position as the crisis developed. This higher level of capital and liquidity means that Canada is well positioned to meet the higher capital and liquidity standards adopted under the Basel III framework. The regulatory structure also discourages Canadian banks from taking excessive risks. This system is centered around two key thresholds: minimum risk-based capital ratios; and a maximum assets-to-capital multiple. Canada requires banks to hold capital at rates that are higher than those set in the Basel Accords; Canada requires its banks to hold tier 1 capital[10] of at least 7% and total capital of 10%, compared with 4% and 8%, respectively, for the Basel Accord. In addition, Canada requires that 75% of the tier 1 capital be in the form of common equity and it restricts innovative instruments to 15% of tier 1 capital. In addition, the assets-to-capital multiple is set at 20%, which translates into a leverage ratio of 5%. The capital requirements not only provide an enhanced capital cushion for Canadian banks, but they restrict rapid balance sheet expansion and discourage engaging in wholesale operations.[11] Nevertheless, as the financial crisis unfolded, the banks came under pressure from markets to increase their capital ratios, which they apparently did by tapping private sources.[12] In addition, the IMF points out that Canadian banks have been more resilient, because Canada has a strong financial regulatory and supervisory framework.[13]

As a result of these three factors, no Canadian bank needed public capital injections and none used public guarantees.[14] Nevertheless, the banks suffered a loss of 50% in the value of their equities, similar to the experience of such equities in the United States and Europe. The Canadian Imperial Bank of Commerce lost $2.1 billion in derivatives in 2008. The drop in commodity prices also caused the Canadian dollar to fall relative to the U.S. dollar, which improved the cost competitive position of Canada's exports. As the recovery began, however, demand for raw materials increased, which, in turn, caused the Canadian dollar to appreciate. The slowdown in global trade, the shake-out in the auto industry, and a slowdown in exports of construction-related products following the financial crisis had far-reaching negative effects on the Canadian economy. In January 2009, the Canadian Government announced about a Can$40 billion fiscal stimulus package over two years in infrastructure spending, tax decreases, worker retraining, housing, and aid to struggling industries to spur the Canadian economy, as indicated in **Table 2**. The stimulus to the Canadian economy provided by this economic package supplemented spending by the provincial governments. In addition, on April 21, 2009, the Bank of Canada lowered the nation's key interest rate to 0.25%.

[10] Tier 1 capital is the core measure of a bank's financial strength from a regulator's perspective. It generally is comprised of common stock and disclosed reserves.

[11] Rostnovski, Lev, and Rocco Huang, Why Are Canadian Banks More Resilient? IMF Working Paper WP/09/152. International Monetary Fund, July 2009, , p. 16.

[12] *Financial System Review*, p. 4.

[13] *Concluding Statement on the IMF's 2009 Article IV Mission to Canada*.

[14] *Financial System Review*, p. 1.

Table 2. Canada's Economic Action Plan

(in millions of Canadian dollars)

	2009	2010	Total
Action to Help Canadians and Stimulate Spending	$5.880	$6.945	$12.825
Action to Stimulate Housing Construction	5,365	2,395	7,760
Housing leverage	725	750	1,475
Immediate Action to Build Infrastructure	6,224	5,605	11,829
Infrastructure leverage	4,532	4,365	8,897
Action to Support Businesses and Communities	5,272	2,255	7,527
Sectoral leverage	1,300		1,300
Total Federal Stimulus	22,742	17,200	39,942
Total Stimulus (with leverage)	29,298	22,316	51,613
Total Stimulus as a share of GDP (%)	1.5	1.1	2.5
Total Stimulus (with leverage) as a share of GDP (%)	1.9	1.4	3.2

Source: *Canada's Economic Action Plan, 2009 Budget,* Chapter 3, Ministry of Finance.

The IMF used three measures to assess the financial strength of Canada's banks as a way of understanding the relative success the banks experienced in avoiding the same intensity of financial troubles that afflicted banks in other major economies. These measures include (1) capital-assets ratios (total equity divided by total assets), since better-capitalized banks likely can sustain higher losses without becoming insolvent; (2) balance sheet liquidity (total liquid assets divided by total liabilities), because a buffer of liquid assets allows banks to cover transitory cash-flow shortfalls; and (3) the funding structure of the banks, or the share of their funding that is derived from deposits, since deposit insurance likely improves the stability of this source of funding. The results of the measures are presented in **Table 3**, **Table 4**, and **Table 5**. The three tables also include a measure of the percentage decline from January 2007 to January 2009 in the value of the equity of the individual banks. They also provide some basic information on the nature of any government intervention that was needed to assist the individual banks.

Table 3, **Table 4**, and **Table 5** indicate that Canadian banks were not exceptionally financially strong relative to banks in other OECD countries. In some cases, the capital ratios of Canadian banks were half or less than that of a number of U.S. firms that experienced significant liquidity problems as the financial crisis progressed. Similarly, Canadian banks did not have balance sheet liquidity that was significantly different from that of other banks. As indicated by the IMF report, and as indicated in **Table 5**, the major difference between Canadian banks and banks in other OECD countries was the funding source of those banks. Canadian banks generally relied much less on wholesale funding, or borrowing from short-term from money markets. Instead, the banks relied on depository funding, much of which came from such retail sources as households, for a higher share of their funding.[15] This success in attracting household deposits may in part stem

[15] Ratnovski, Huang, *Why Are Canadian Banks More Resilient?,* p. 4.

from the ability of Canadian banks, as universal banks, to offer one-stop service in mutual funds and asset management.[16]

Table 3. Capital Ratios of Major Banks

Bank	Country	Capital Ratio	Value decline	Intervention
Hypo Real Estate Holding AG	Germany	2.1	97%	Asset guarantees and public loans
Deutsche Bank AG	Germany	2.1	81	
UBS AG	Switzerland	2.3	79	Capital injection
Commerzbank AG	Germany	2.5	89	Capital injection
ABN Amro Holding NV	Netherlands	2.6	NA	Nationalized (carved out from Fortis)
Barclays Plc	United Kingdom	2.7	85	
Fortis	Belgium	2.8	94	Broken up, part nationalized
Dresdner Bank AG	Germany	3.0	NA	Capital injection
Northern Rock Plc	United Kingdom	3.2	100	Nationalized
Dexia	Belgium	3.3	89	Nationalized
ING Groep NV	Netherlands	3.3	81	Recapitalized, asset guarantees
Lloyds TSB Group Plc	United Kingdom	3.3	78	Capital injection
HBOS Plc	United Kingdom	3.6	100	Recapitalized (part of Lloyds)
Canadian Imperial Bank of Commerce	Canada	4.1	54	
Royal Bank of Canada RBC	Canada	4.3	44	
Credit Suisse Group	Switzerland	4.7	66	
Banque de Montreal-Bank of Montreal	Canada	4.8	53	
Bank of Nova Scotia (The)	Canada	4.9	42	
Royal Bank of Scotland Group Plc (The)	United Kingdom	5.2	96	Capital injection, asset guarantees
Westpac Banking Corporation	Australia	5.3	38	
Commonwealth Bank of Australia	Australia	5.7	46	
National Australia Bank	Australia	5.7	53	
Toronto Dominion Bank	Canada	5.7	43	
Australia and New Zealand Banking Group	Australia	5.9	54	
Citigroup Inc	USA	6.4	94	Recapitalized, asset guarantees
HSBC Holdings Plc	United Kingdom	6.6	41	

[16] Ibid., p. 11.

Bank	Country	Capital Ratio	Value decline	Intervention
Washington Mutual Inc.	USA	8.5	100	Failed, taken over by FDIC
JP Morgan Chase & Co.	USA	8.6	50	
Bank of America Corporation	USA	9.3	87	Capital injection, asset guarantees
Wells Fargo & Company	USA	9.5	47	
Wachovia Corporation	USA	10.3	100	Failed, acquired by Wells Fargo
Capital One Financial Corporation	USA	16.9	80	

Source: Ratnovski, Lev, and Rocco Huang, *Why Are Canadian Banks More Resilient?,* IMF Working Paper WP/09/152, International Monetary Fund, July 2009.

Note: Capital represents bank equity divided by total assets. Value decline is a measure of the percentage decline from January 2007 to January 2009 in the value of the equity of the respective bank. Intervention represents some basic information about the nature of any government intervention.

Table 4. Balance Sheet Liquidity of Major Banks

Bank	Country	Liquidity	Value decline	Intervention
Capital One Financial Corporation	USA	3.70%	80%	
National City Corporation	USA	4.00	100	Acquired by PNC Bank
Citizens Financial Group Inc.	USA	4.30	NA	NA (owned by RBS)
SunTrust Banks, Inc.	USA	4.30	85	
US Bancorp	USA	4.40	58	
Washington Mutual Inc.	USA	4.80	100	Failed, taken over by FDIC
Regions Financial Corporation	USA	5.00	90	
Nomura Holdings Inc	JAPAN	5.60	76	
Wells Fargo & Company	USA	6.00	47	
Northern Rock Plc	United Kingdom	6.70	100	Nationalized
Kookmin Bank	Korea	7.80	56	
Bank of Ireland	Ireland	8.40	96	Capital injection, liabilities guarantee
Commonwealth Bank of Australia	Australia	8.90	46	
Australia and New Zealand Banking Group	Australia	10.32	54	
Westpac Banking Corporation	Australia	10.42	38	
Wachovia Corporation	USA	10.69	100	Failed, acquired by Wells Fargo

Bank	Country	Liquidity	Value decline	Intervention
HBOS Plc	United Kingdom	11.14	100	Capital injection (part of Lloys)
National Australia Bank	Australia	11.15	53	
Lloyds TSB Group Plc	United Kingdom	15.67	78	Capital injection
Banque de Montreal-Bank of Montreal	Canada	23.99	53	
Toronto Dominion Bank	Canada	24.37	43	
Bank of Nova Scotia (The)	Canada	24.43	42	
Royal Bank of Scotland Group Plc (The)	United Kingdom	25.11	96	Capital injection, asset guarantees
Bank of America Corporation	USA	25.59	87	Capital injection, asset guarantees
Canadian Imperial Bank of Commerce	Canada	26.00	54	
Royal Bank of Canada RBC	Canada	32.11	44	
HSBC Holdings Plc	United Kingdom	33.20	41	
Citigroup Inc	USA	39.46	94	Recapitalized, asset guarantees
Barclays Plc	United Kingdom	40.75	85	
JP Morgan Chase & Co.	USA	46.80	50	
Credit Suisse Group	Switzerland	64.93	66	
UBS AG	Switzerland	65.20	79	Capital injection

Source: Ratnovski, Lev, and Rocco Huang, *Why Are Canadian Banks More Resilient?,* IMF Working Paper WP/09/152, International Monetary Fund, July 2009.

Note: Liquidity represents total liquid assets divided by total liabilities. Value decline is a measure of the percentage decline from January 2007 to January 2009 in the value of the equity of the respective bank. Intervention represents some basic information about the nature of any government intervention.

Table 5. Depository Funding of Major Banks

Bank	Country	Depository funding	Value decline	Intervention
Hypo Real Estate Holding AG	Germany	24.0%	97%	Asset guarantees and public loans
Northern Rock Plc	United Kingdom	28.7	100	Nationalized
Deutsche Bank AG	Germany	34.1	81	
BNP Paribas	France	36.7	65	
Citigroup Inc	USA	37.8	94	Capital injection, asset guarantees
HBOS Plc	United Kingdom	41.0	100	Capital injection (part of Lloyds)
Société Générale	France	42.0	74	

Bank	Country	Depository funding	Value decline	Intervention
Banca Monte dei Paschi di Siena SpA	Italy	44.1	68	
Dexia	Belgium	44.9	89	Nationalized
DnB Nor ASA	Norway	45.4	74	
Danske Bank A/S	Denmark	46.3	78	
Commerzbank AG	Germany	47.0	89	Capital injection
JP Morgan Chase & Co.	USA	47.3	50	
Barclays Plc	United Kingdom	47.7	85	
Bank of America Corporation	USA	47.9	87	Capital injection, asset guarantees
National Australia Bank	Australia	51.7	53	
Commonwealth Bank of Australia	Australia	53.4	46	
HSBC Holdings Plc	United Kingdom	54.9	41	
Credit Suisse Group	Switzerland	55.6	66	
Capital One Financial Corporation	USA	57.3	80	
Lloyds TSB Group Plc	United Kingdom	58.7	78	Capital injection
Royal Bank of Scotland Group Plc (The)	United Kingdom	59.3	96	Capital injection, asset guarantees
Wachovia Corporation	USA	62.8	100	Failed, acquired by Wells Fargo
UBS AG	Switzerland	64.1	79	Capital injection
Wells Fargo & Company	USA	64.4	47	
Royal Bank of Canada RBC	Canada	65.1	44	
Banque de Montreal-Bank of Montreal	Canada	65.2	53	
Australia and New Zealand Banking Group	Australia	65.4	54	
Toronto Dominion Bank	Canada	67.9	43	
Canadian Imperial Bank of Commerce	Canada	68.2	54	
Bank of Nova Scotia (The)	Canada	71.4	42	
Westpac Banking Corporation	Australia	74.1	38	

Bank	Country	Depository funding	Value decline	Intervention
Washington Mutual Inc.	USA	74.6	100	Failed, taken over by FDIC

Source: Ratnovski, Lev, and Rocco Huang, *Why Are Canadian Banks More Resilient?,* IMF Working Paper WP/09/152, International Monetary Fund, July 2009.

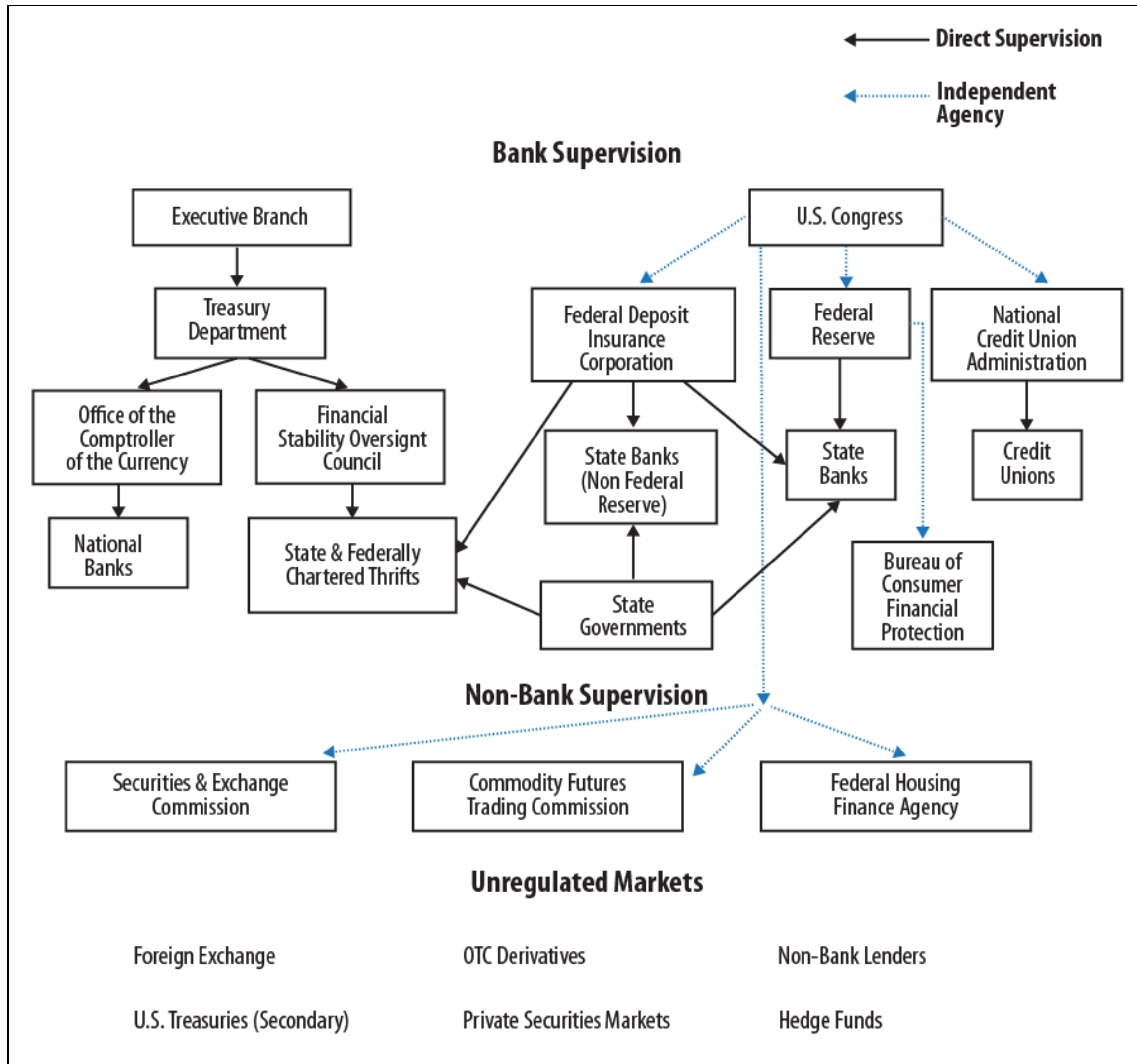
Note: Depository funding represents the share of total bank funding that is derived from deposits. Value decline is a measure of the percentage decline from January 2007 to January 2009 in the value of the equity of the respective bank. Intervention represents some basic information about the nature of any government intervention.

The U.S. Financial Supervisory System

Currently, the United States has a complex regulatory framework in which agencies have overlapping jurisdiction, and in which there are some regulatory gaps.[17] Congress and the Administration attempted to improve this process by adopting the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank) (P.L. 111-203) that instituted changes to the supervisory framework in an effort to improve the system and to correct weaknesses. Dodd-Frank created the Bureau of Consumer Financial Protection, the interagency Financial Stability Oversight Council (FSOC) to monitor systemic risk, and consolidated bank regulation from five agencies to four by eliminating the Office of Thrift Supervision. The Council is chaired by the Secretary of the Treasury and consists of the heads of 10 other agencies, including the Federal Reserve, FDIC, OCC, NCUA, SEC, CFTC, and FHFA. For banks and non-banks designated by the FSOC as creating systemic risk, the Federal Reserve has oversight authority, and the Federal Deposit Insurance Corporation (FDIC) has resolution authority. As indicated in **Figure 1**, financial supervision can be separated into three main categories: supervision of banks, supervision of non-banks, and those markets that are unregulated. For ease of presentation, the figure shows only the major lines of supervisory responsibility. For instance, the President nominates the governors of the Federal Reserve Board, but the Treasury Department closely coordinates with the Federal Reserve in developing and implementing policy. The chairman of the Federal Reserve, however, formally reports to Congress, so the figure shows only this line of responsibility. Similarly, the Administration coordinates closely with many of the other independent agencies that supervise parts of the financial system.

[17] For greater detail, see CRS Report R40249, *Who Regulates Whom? An Overview of U.S. Financial Supervision*, by Edward V. Murphy.

Figure 1. U.S. System for Supervising Financial Markets



Source: Developed by CRS.

The U.S. financial system is also characterized by a combination of federally chartered financial institutions and financial institutions chartered by the 50 individual states. This system, some observers argue, has allowed banks that faced federal regulatory action to walk away from federal regulators and move under state supervision by converting their charters to a state charter.[18] National banks are supervised by the Office of the Comptroller of the Currency (OCC), which is under the direction of the U.S. Treasury Department. Under Dodd-Frank, the OCC assumed supervision of the Office of Thrift Supervision over state and federally chartered thrift institutions. Next, the U.S. Congress has established a number of independent agencies that supervise various parts of the financial system. These agencies include the Federal Deposit Insurance Corporation (FDIC), which directly supervises state banks that are not part of the Federal Reserve System and indirectly supervises state and federally chartered thrifts and state

[18] Applebaum, Binyamin, By Switching their Charters, Banks Skirt Supervision, *The Washington Post*, January 22, 2009, p. A1.

banks, such as commercial banks and industrial banks. Next, the Federal Reserve System is the central bank of the United States and is comprised of the Board of Governors and 12 District Federal Reserve Banks. These banks supervise all state banks that are part of the Federal Reserve System, bank holding companies, the foreign activities of member banks, the U.S. activities of foreign banks, and Edge Act, or limited-purpose institutions that engage in foreign banking business. Under Dodd-Frank, the Bureau of Consumer Financial Protection is an independent entity within the Federal Reserve to supervise an array of consumer financial products and services. The National Credit Union Administration supervises the many credit unions. In addition to these federal entities, state entities supervise state chartered thrifts and state banks.

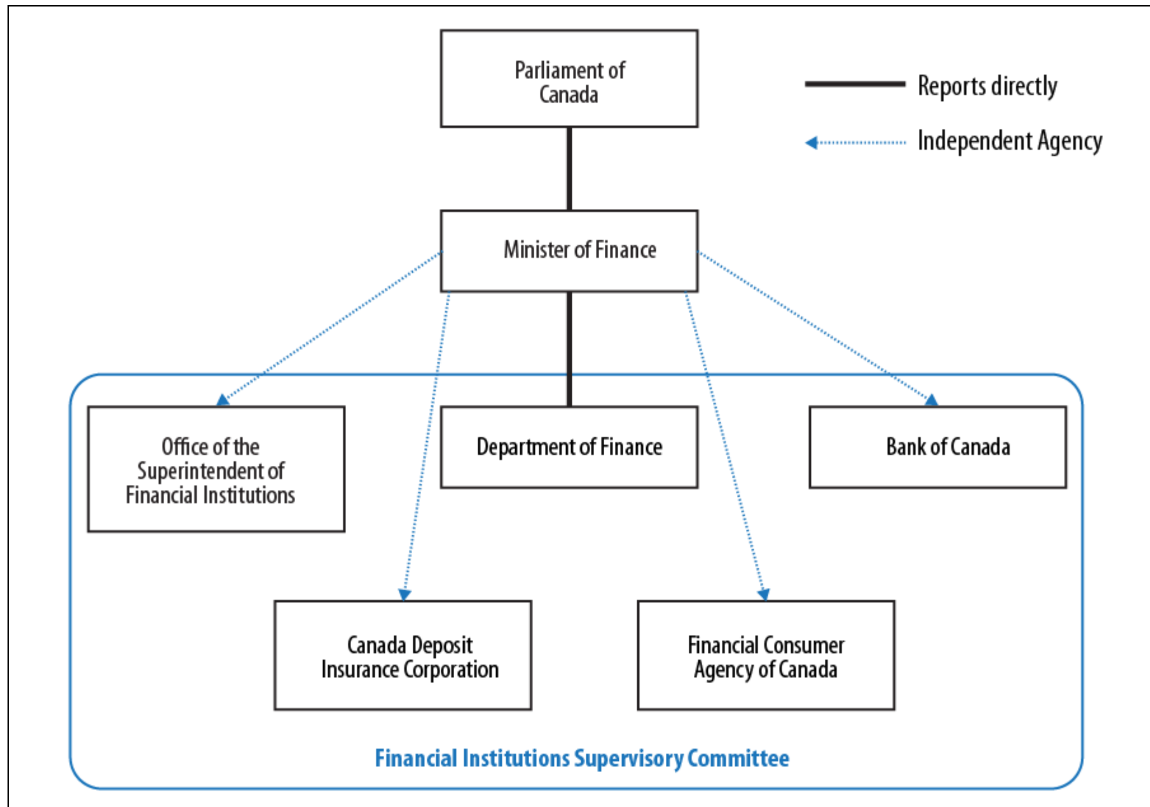
In the area of non-bank supervision, the U.S. Congress has chartered three independent agencies. These agencies include the Securities and Exchange Commission, which supervises all securities trading and securities firms, the Commodity Futures Trading Commission, which supervises the trading of commodities, and the Federal Housing Finance Agency, which supervises the Federal National Mortgage Association (Fannie Mae), the Federal Home Loan Mortgage Association (Freddie Mac), and the Federal Home Loan Banks. State agencies also regulate and supervise insurance activities. Beyond this area of supervision, there is a broad group of financial activities that have not been directly supervised, including the rapidly growing area of derivatives trading.

Canada's Financial System

In a recent assessment of Canada's financial system, the IMF concluded that Canada's system is highly mature, sophisticated, and well-managed. In addition, the system is characterized by strong prudential regulation and supervision and a well-designed system of deposit insurance and arrangements for crisis management and resolution of failed banks. Supervisory responsibility for the financial sector in Canada is divided among the federal government, among the provincial governments, and among a group of agencies within the federal government. The federal government is responsible for supervising all banks, federally incorporated insurance companies, trust and loan companies, cooperative credit associations, and federal pension plans. Regulations separating banks, insurers, trust companies, and investment dealers in Canada were largely eliminated in the 1980s. Also, by the 1990s, all of the major investment dealers in Canada were owned by banks, which not only created an integrated bank model, it also placed such dealers under close regulatory supervision. Provincial governments are responsible for supervising securities dealers, mutual fund and investment advisors, credit unions, and provincially incorporated trust, loan, and insurance companies. As a result, there are 13 provincial regulatory authorities, each administering securities laws and regulations. The Minister of Finance, however, oversees the incorporation of banks, permitting foreign bank branches, and reviews of large bank mergers. In particular, the minister has broad discretionary authority to disapprove mergers, which has effectively eliminated such transactions.

Within the federal government, the Financial Institutions Supervisory Committee (FISC) acts as the chief coordinating body that sets regulatory policy and supervises financial institutions. The Committee is comprised of the Department of Finance of the Ministry of Finance and four independent government agencies: the Office of the Superintendent of Financial Institutions (OSFI); the Bank of Canada; the Canada Deposit Insurance Corporation (CDIC); and the Financial Consumer Agency of Canada (FCAC), as indicated in **Figure 2**. These five semi-official agencies report to the Minister of Finance, who is responsible to the Canadian Parliament.

Figure 2. Canada's Financial System Supervisory Structure



Source: Office of the Superintendent of Financial Institutions.

FISC generally meets quarterly, but can meet more often if needed. In addition, FISC conducts a legally mandated five-year review of the National Bank Act to ensure that federal regulatory legislation is modernized periodically. Within FISC, the OSFI plays a key role in supervising Canada's financial sector. The OSFI supervises all domestic banks, branches of foreign banks operating in Canada, trust and loan companies, cooperative credit companies, life insurance companies, and property and casualty insurance companies. The OSFI has set limits on the ability of Canadian banks to leverage their capital and has set target capital ratios that are higher than the international standard. In broad terms, the OSFI is responsible for a number of activities including (1) assessing the financial conditions and operating performance of the institutions under its jurisdiction; (2) reviewing information obtained from statutory filings, financial reporting, and management reporting requirements; (3) conducting meetings with institutions; (4) attending board meetings when necessary of institutions to discuss the results of supervisory reviews; (5) providing composite risk ratings to institutions; (6) advising institutions of any corrective measures that the institution will be requested to take; (7) monitoring any corrective measures; and (8) reporting to the Minister of Finance on an annual basis.[19]

The OSFI has considerable enforcement powers, including the authority to intervene progressively in problem institutions under "structured early intervention" provisions that articulate a four-stage process culminating in closure, even while an institution's capital may remain positive. The four-stage process is comprised of the following:

[19] *Guide to Intervention for Federally Regulated Deposit-Taking Institutions*, Government of Canada.

- Stage 1—**Early Warning**. If an institution has been identified as Stage 1, the OSFI has identified deficiencies in the institutions financial condition, policies, or procedures that could lead the institution to fall into a Stage 2 category where there is the risk of insolvency or failure.
- Stage 2—**Risk to Financial Viability or Solvency**. At this stage, an institution is judged to pose material safety and soundness concerns and is vulnerable to adverse business and economic conditions.
- Stage 3—**Future Financial Viability is in Serious Doubt**. At this stage, the OSFI has identified that the institution has failed to remedy the problems that were identified in Stage 2 and the situation is worsening. The situation poses severe safety and soundness concerns and is experiencing problems that pose a material threat to its future viability or solvency unless effectiveness corrective measures are initiated.
- Stage 4—**Non-Viability/Insolvency is Imminent**. At this stage, OSFI has determined that the institution is experiencing severe financial difficulties and has deteriorated to such an extent that (1) the institution has failed to meet regulatory capital requirements; (2) the statutory conditions for taking control have been met; and (3) the institution has failed to develop and implement an acceptable business plan.

In addition, the OSFI plays a key role in regulating Canada's financial sector, providing a nearly unified regulatory and supervisory framework. As is the case with supervision, OSFI is responsible for regulating federal financial institutions, including banks, insurance companies, foreign bank representative offices, and pension plans that are under federal jurisdiction. One weakness of this system is that there are gaps in the regulatory framework concerning such collective investment schemes as mutual funds, where the operators of such funds have not been subject to a registration regime.

The Bank of Canada is responsible primarily for conducting monetary policy by setting interest rate targets and adjusting the supply of credit. The Bank also serves as the key component in the payments system by providing a check clearing function, and it serves as the traditional lender of last resort. In its conduct of monetary policy, the Bank of Canada adopted in 2000 a system of eight pre-set dates per year on which it announces its key policy rate—the target overnight rate of interest. It has veered from these pre-set dates only under exceptional circumstances.[20] While the Bank of Canada reports to the Minister of Finance, this public announcement system acts as an important element in making the Bank's activities transparent to the public and to the financial markets and relatively free from non-economic considerations. The Bank also has three credit facilities at its disposal in its traditional role as the lender of last resort, including a facility to provide liquidity to any financial or nonfinancial firm through outright purchases of a wide range of claims in the event of "severe and unusual stress on a financial market or financial system."

Canada established a working group in 2010 headed by the Bank of Canada to assess reforms to the over-the-counter derivatives markets in Canada as a result of recommendations developed by the Financial Stability Board and approved by the Group of Twenty (G-20) nations.[21] Canadian

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[20] Macklem, Tiff, Information and Analysis for Monetary Policy: Coming to a Decision, *Bank of Canada Review*, Summer 2002, p. 12.

[21] For more detail about the over-the-counter derivatives markets reforms see: CRS Report R42961, *Comparing G-20* (continued...)

authorities were faced with deciding between establishing local central counterparties (CCPs) located in Canada to clear derivatives transactions or using global clearing, which would mean relying on large foreign-domiciled CCPs. Canadian authorities concluded that Canadian market participants could clear OTC derivatives using any CCP recognized by Canadian authorities, including global CCPs.[22] In addition, the Bank of Canada adopted a set of 24 principles related to risk management, efficiency and transparency for systemically important payment systems, securities settlement systems, central securities depositories, central counterparties, and trade repositories, collectively referred to as financial market infrastructures, or FMIs.[23] The 24 principles have been summarized into 10 broad requirements the Bank of Canada is implementing to promote the safety and security of the financial markets:

1. FMIs should have a strong foundation for their risk-management practices.
2. FMIs should collect adequate high-quality financial assets from participants to manage credit risk.
3. FMIs should have robust sources of liquidity.
4. FMIs should take appropriate actions to ensure that they are able to complete settlement as expected.
5. FMIs should minimize disruptions associated with the failure of one or more of their participants.
6. FMIs should be able to continue providing critical services in all circumstances.
7. FMIs should set fair, open, and risk-based access requirements and manage the risks that arise from participation.
8. FMIs should mitigate the risks associated with interdependencies that can amplify disruptions within the financial system.
9. FMIs should provide their services and manage their risks in an efficient manner.
10. FMIs, especially trade repositories, should provide relevant information to participants, authorities, and the public to improve transparency in markets.

Canada's financial system is dominated by five large banking groups (Royal Bank of Canada, TD Canada Trust, Bank of Nova Scotia, Bank of Montreal, and Canadian Imperial Bank) that account for about 60% of the total assets of Canada's financial sector, as indicated in **Table 6**. In comparison, foreign banks account for about 4% of Canada's total assets in the financial sector. The low representation by foreign banks is attributed to the "widely-held" rule for large banks that limits the concentration of bank share ownership and, therefore, reduces the scope for mergers and for foreign entry through acquisitions or mergers. This lack of competition, combined with Canada's financial legal framework, allows Canadian banks to concentrate more on their low-risk, profitable domestic retail banking activities (services provided to individuals including deposits, savings accounts, mortgages, credit cards, etc.), generally leaving large

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Reform of the Over-the-Counter Derivatives Markets, by James K. Jackson and Rena S. Miller.

[22] Chande, Nikil, Jean-Phillippe Dion, Darcey McVanel, and Joshua Silve, The Canadian Approach to Central Clearing for Over-The-Counter Derivatives, *Financial System Review*, the Bank of Canada, December 2012, p. 43.

[23] McVanel, Darcey, and Joey Murray, The Bank of Canada's Approach to Adopting the Principles for Financial Market Infrastructures, *Financial System Review*, the Bank of Canada, December 2012, p. 51.

domestic borrowers to conduct their wholesale banking activities (services provided to corporations, governments, and other entities) abroad. Some observers argue that this framework also reduces incentives for innovation among Canada's protected banks and has proved to be difficult for small businesses and venture capitalists. Canada's insurance sector is dominated by three large domestic groups, which account for over 80% of the assets in this sector. The securities sector is marked by large Canadian, as well as U.S. and UK securities firms.

Table 6. Canada: Financial Sector Structure, End-2006

	Assets		
	Billions of $Can.	**Percent of Total Assets**	**Percent of GDP**
Banks	$2,389.0	59.3%	166.0%
Canadian	2,214.0	54.9	153.8
Foreign	175.0	4.3	12.2
Trusts (including bank subsidiaries)	254.7	6.3	17.7
Credit unions	193.8	4.8	13.5
Life insurance companies	346.5	8.6	24.1
Canadian	331.1	8.2	23.0
Foreign	15.4	0.4	1.1
Property and casualty insurance	93.2	2.3	6.5
Mutual funds	660.2	16.4	45.9
Asset based financing and leasing	92.3	2.3	6.4
Total	4,029.7	100.0	280.0

Source: Canada: Financial System Stability Assessment – Update, International Monetary Fund, January 15, 2008, p. 11.

Unlike the United States and some European countries, subprime mortgages account for fewer than 5% of Canadian mortgages, which sharply limited Canada's direct exposure to the meltdown that occurred in the subprime mortgage market. Although Canada's mortgage markets are somewhat less innovative than in the United States, Canadian consumers seem to be well served and home ownership rates are comparable with those in the United States.[24] In addition, Canadian law requires that all bank-held mortgages above a loan-to-value ratio of 80% be insured, which has curtailed the securitization of mortgages by banks in Canada. About one-third of mortgages are securitized in Canada, about half as much in percentage terms as in the United States.[25] In addition, prepayment penalties and the lack of interest deductibility reduces the demand for long-term mortgages, so the maturity of most mortgages generally does not exceed 5 to 10 years.

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[24] Kiff, John, *Canadian Residential Mortgage Markets: Boring But Effective?,* IMF Working Paper WP/09/130, International Monetary Fund, June 2009, p. 12.

[25] Ibid., p.5.

Economic Effects of Canada's Supervisory System

Canada's financial system was relatively more resilient during the financial crisis compared with counterparts in the United States and Europe. Nevertheless, Canada's financial system was not immune to the financial crisis nor did it escape the economic downturn that stalled global economic growth. The Canadian economy is linked with the international economy. As a result, a sharp drop in exports and a decline in commodity prices negatively affected the Canadian economy. Household wealth declined, the rate of unemployment rose, and the economy has grown below the average rate posted prior to the financial crisis. At one point, Canadian banks suffered a loss of 50% in the value of their equities. Consequently, the banks faced pressure from financial markets to increase their capital ratios, which they apparently did by tapping private sources.

As a result of the financial crisis, aspects of Canada's financial system were closely scrutinized as the United States considered ways to amend its own financial system to limit the possibility of another financial crisis. However, the smaller scope of Canada's financial system and its economy likely lessened the transferability of systems or procedures used in Canada to the vastly more complex U.S. financial system. In addition, it can be argued that Canada's supervisors and regulators can take a more conservative approach than their U.S. counterparts as a result of Canada's proximity to the U.S. capital markets. Nevertheless, Canada's financial supervisory system and regulatory structure have proven to be less susceptible to the bank failures that have loomed in the United States and Europe and may offer some insight for U.S. policymakers. Canada's reliance at the federal level on a unified supervisor and regulator appears to have some merits as compared to a more decentralized approach.

Canada's approach does have some drawbacks. Specifically, Canada's system of regulating securities markets at the provincial level means that regulations regarding market participants and investor protection differ by province, creating inefficiencies in the system and raising costs to providers and consumers. Differences between provinces also mean that coordinating policy approaches across the 13 provinces can be slow and cumbersome.

Furthermore, the nature, structure, and powers of the provincial regulators vary, which increases the costs to financial services providers and to consumers, because financial services providers are required to pay fees to the regulatory authorities in all of the provinces where they raise capital. This ultimately raises the cost of capital and limits access to funding. It also inhibits the growth and development of the markets and innovation in developing financial instruments. In addition, while the conservative, risk-adverse approach employed by Canada's banks helped to shield them from some of the current financial turmoil, the approach also reduces efficiency in the market and reduces competition. Acquisitions of Canadian banks are significantly impeded by the rule that bank stocks be widely held, and mergers are effectively prohibited. With reduced competitiveness pressures, Canadian banks maintain low-risk balance sheets at the expense of greater innovation and more efficient capital allocation. This approach also means that financing for small firms and venture capital for potentially high-growth companies is sharply reduced.

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