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Securities and Housing Finance in Canada and the Global Financial Crisis

Aniket Bhushan

The North-South Institute

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Contents

Summary

Canadian banks were rated most stable in the world for two years running (2008-09). Canada's housing finance system has consistently received high praise. Securities regulation on the other hand has lagged in the absence of a national regulator. What explains Canada's resilience to the crisis? This question is addressed from the perspective of securities and housing finance regulation in Canada. I argue regulation of securities and housing finance in Canada is deeply embedded in market structure, which is quite

Draft –please do not cite. abhushan@nsi-ins.ca

different, especially compared to the US. Key aspects of Canada's market structure combined with highly conservative regulation have helped shield Canada from the worst of the crisis. However when looking at the collapse of the Canadian ABCP market it is clear that Canada had some of the same weaknesses as other countries. Much is made of the fact that no individual institution had to be bailed out in Canada; however the critical ongoing role the government plays in the housing finance system through mortgage insurance and securitization explains in large measure the resilience of Canadian banks and the financial system in general.

Four propositions are put forth explaining Canada's resilience in order of importance: a well-structured and conservative housing finance system in which the government plays a vital role; principles-based and outcome-focused regulation which strikes a good balance between rules and guidance; strong learning from past crises; and relatively low level of financial integration with external finance in particular low exposure to and competition from the US system. These factors have helped Canada weather the crisis better than most others.

Introduction[1]

Crises create winners and losers. If the Canadian brand of banking and financial regulation were a publically traded stock, then over the past couple of years as global markets tanked, Canada's stock was one of the very few on a tear. Rated as having the 'soundest banking system in the world' two years in a row by the World Economic Forum's (WEF), Canada is basking in the glow of the deserved accolades as it prepares to host the first G8/G20 summit of 2010.

The WEF findings are further corroborated by very positive external reviews of Canada's financial system by the IMF (2008) and the OECD (2008). However there is an interesting and common divergence across these recent surveys. While Canada ranks no. 1 and 3 on 'soundness of banks' and 'financial market sophistication' respectively, on 'regulation of securities' Canada ranked a lowly 21 well behind countries like South Africa, Australia, Brazil, India, France and others. Part of the reason is that Canada is the only G20 country without a national securities regulator –something Minister of Finance Jim Flaherty described as an "international embarrassment" for an otherwise very strong brand in financial regulation. Moving towards a national securities regulator has received renewed momentum in Canada. The recent "flash crash" (May 6, 2010), unilateral German ban on naked short-selling (May 18, 2010), as well as longer term issues like the growth of high frequency trading, preponderance of dark pools and alternative trading systems imply securities regulation is in focus.

With the rapid growth in mortgage, consumer debt and business receivables securitization, capital markets now play a greater role in linking the financial sector to the wider economy. Unlike securities regulation, Canada's housing finance system has received high praise (Klyuev, 2008; Carderelli et al., 2008a, 2008b; Kiff, 2009; Perry,

[1] The author would like to acknowledge and thank Roy Culpeper for comments on an earlier draft.

2010). Indeed the well-structured housing finance system (in which the government plays a key role) and the way it interacts with the wider financial system may be the key to Canada's resilience. This paper –part of a series of four on Canada– is focused on securities and housing finance in Canada, and what if any lessons can be drawn from the Canadian experience in these areas.

The paper is organized in two main parts. Part 1 provides background information on Canadian securities markets and the housing finance system, highlighting key elements of the market structure and regulation. Part 2 puts forward four propositions on Canada's resilience for further discussion: the 'domesticness' argument; strong learning from past experience; principles-based and outcome oriented regulation; and a fundamentally different housing finance system. A brief section contextualizes Canada's position on reform, before the concluding section recounts the main lessons from the Canadian experience in the area of securities regulation and housing finance.

Part 1. Background

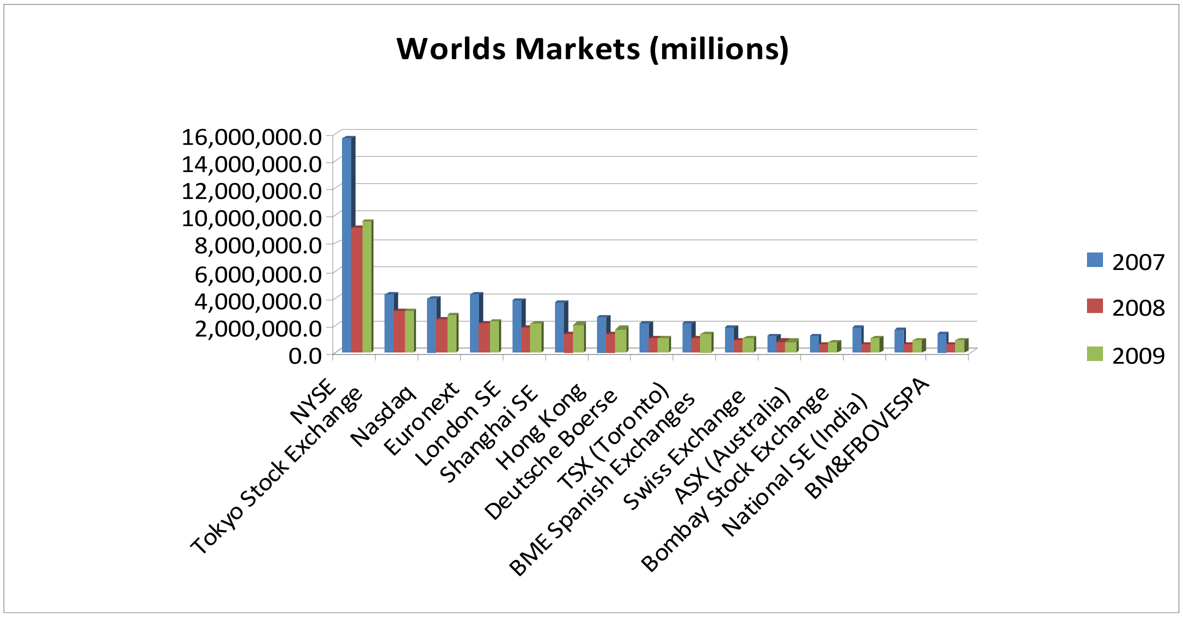
Market structure: Securities

Regulation of securities markets is rooted partly in market structure, therefore it is important to be aware of the structure of Canadian markets and some of the distinctive characteristics that impact regulation.

As already noted Canada has some of the most sophisticated financial markets in the world. Its clearing, settlement and exchange infrastructure is considered among the most secure in the world (IIROC, 2009; IMF Jan-2008; Thomas Murray, 2007). At the center are the Clearing and Depository Services Inc. (CDS) and Canadian Derivatives Clearing Corporation (CDCC); both are private (Bank of Canada regulated) and have received highest ratings in their external audits.

Canadian markets rank among the top 10 in the world in terms of market capitalization (however Canada's share of global market capitalization has been in steady decline). The TMX group –comprising the Toronto Stock Exchange (TSX) and the TSX Venture (TSXV)– rates amongst largest in the world but with a declining global market share. In 2009 it placed ninth behind NYSE, Tokyo SE, Nasdaq, Euronext, London SE, Shanghai, Hong Kong and Deutsche Bourse. At its pre-crisis peak in 2007 the total value of the NYSE stood at over $15.5trillion while the value of the Toronto Stock Exchange stood at $2.1trillion.

Figure 1 World Markets

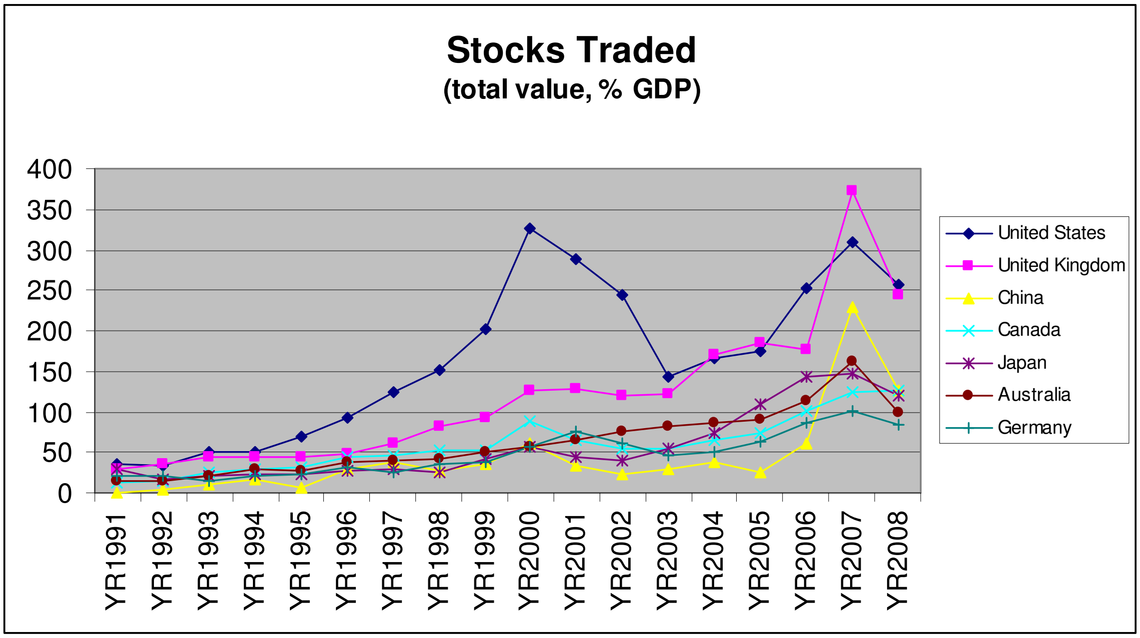


Source: World Federation of Exchanges

Canadian market capitalization (as %GDP) stood at 71% in 2008; lower than the US (and other smaller finance dominated economies such as Hong Kong, Switzerland and Singapore) but similar to the UK, Japan and Australia.

Trading activity is another indicator of the level of development of financial markets and has been on a secular uptrend across advanced economies since the deregulation & liberalization of the financial sector starting in the 1980s. The uptrend in trading volumes is also visible in Canada but to a lesser degree and displaying lower volatility (relative to GDP) as compared to the US, UK or even emerging China.

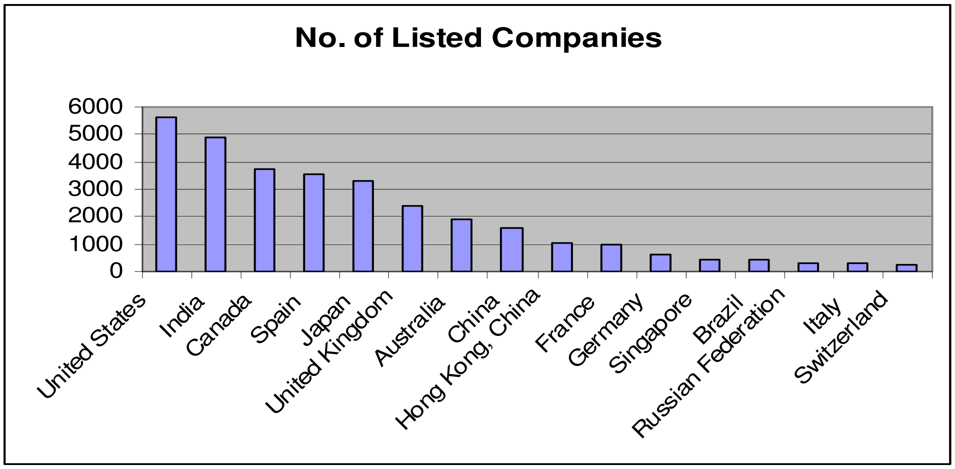
Figure 2 Trading Volume (%GDP)



Source: World Bank

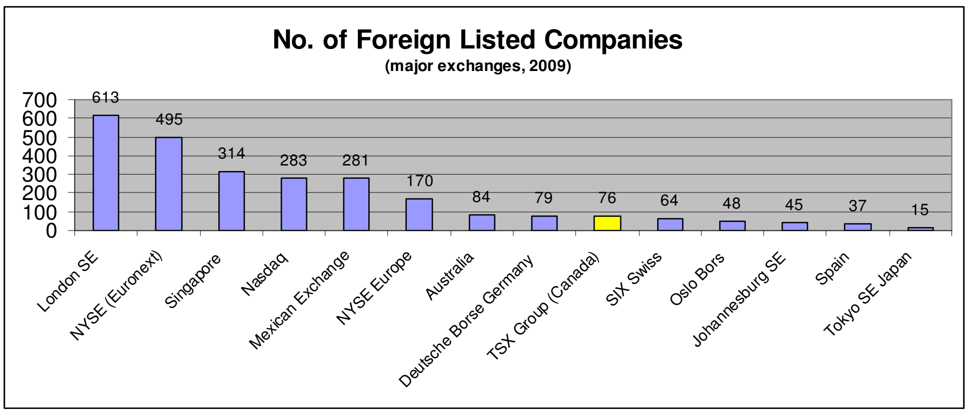
There are however more distinctive characteristics of Canadian markets which are worth highlighting. The total no. of listed companies relative to population size is the highest in Canada by a wide margin; double that of next in line Australia and nearly four times that of the US and UK. For its market size canada has an unusually large no. of listed companies (third behind th US and India), and listings are dominated by domestic players. A very large no. of very small listed entities amongst a small no. of large corporations that dominate market activity (trading, capitalization) is an important charecteristic of Canadian markets and has bearing on regulatory preferences. The prevalence of small public companies in Canada means that an emphasis on complex, mandatory formal corporate governance rules may prove disproportionately burdensome for a significant number of Canadian public companies, and yield limited benefit to Canadian investors (Nicholls, 2006).

Figure 3 Total Listed Companies



Source: World Federation of Exchanges

Figure 4 Foreign Listed Companies



World Federation of Exchanges

Relative to market size and growth, Canadian markets have some of the largest nos. of new listing and de-listings each year. This means the market is made up of a large no. of small companies that have relatively short 'market life' (WFE, 2008; 2009). The resultant market is highly fragmented between very small and large players, and highly concentrated in terms of a handful of companies dominating market activity.

Table 1 Market Concentration Ratios

Equity Market Concentration Ratios			
Top 5% companies share of total market by:			
2008	Market Cap	Trading Vol.	No. of companies
NYSE	54.8%	30.3%	95
Tokyo SE Group	60.3%	66.0%	118
Nasdaq	69.1%	33.1%	136
Euronext	69.3%	63.3%	44
London SE	88.8%	84.4%	121

Shanghai	71.3%	74.5%	43
Hong Kong	79.5%	80.9%	63
Deutsche Bourse	80.8%	51.1%	39
TSX Group (Canada)	*75.3%*	*86.3%*	*79*
BME Spain	na	na	na
Swiss Ex	72.4%	81.6%	14
ASX (Australia)	85.3%	76.4%	96
BSE (India)	77.9%	88.6%	246
NSE (India)	74.8%	79.3%	71
BOVESPA (Brazil)	64.3%	60.6%	19

Source: World Federation of Exchanges

Capital markets are rooted in and reflective of the underlying economy. Canada is very much a resource driven economy. Natural resources account for three quarters of Canadian exports. The resources sector also dominates equity markets.

In 2008 Canada had the largest no. of listed mining companies in the world. Canada is one of the most important markets globally for mining and natural resource companies. In 2007 the TMX group accounted for about 35 percent of new equity capital raised by mining companies globally. Positioning itself as one of the most attractive capital markets for mining and oil & gas companies, especially more junior and riskier ventures from emerging regions like L. America is part of TMXs strategy.

Oil & gas, mining and industrials accounted for over 55% of the TSX exchange and over 75% of the smaller TSX-Venture exchange (2004-05). While these figures are somewhat dated, they broadly correspond to present market structure.

Canada's market capitalization is concentrated in Ontario, Alberta, Quebec, and British Columbia. In each of these provinces, market capitalization is heavily concentrated in one sector: financial services in Ontario, oil and gas in Alberta, diversified industries in Quebec (e.g., forestry products, transportation), and mining in British Columbia.

Two further aspects, related to market structure, are important in Canada. The first is proximity to much larger US market, and second concentration in terms of major players (market makers, underwriters, investment houses).

Canadian based inter-listed corporations form the single largest group of inter-listed foreign corporations in the US by a huge margin. Four hundred and ninety-seven (497) Canadian corporations were SEC reporting issuers at the end of 2004 (Jordan, 2006). The dramatic rise in US cross-listing was an important phenomenon in the 1990s for Canadian markets. The traditional explanation for this phenomenon was the 'bonding hypothesis' which suggests firms incorporated in a jurisdiction with "weak protection" of minority shareholder rights or poor enforcement mechanisms could voluntarily subject themselves to higher disclosure standards and stricter enforcement of the US markets in order to attract investors. Jordan (2006) however finds this to be only a partial explanation and argues Canadian inter-listed corporations have been adroitly exploiting the "home bias" of U.S portfolio investors. They are "chameleons, deliberately blending into the woodwork of the US markets" despite higher associated costs.

The sharp increase in Canadian-US listing was a source of concern at a time when financing was becoming increasingly 'market oriented' (Bank of Canada, 2005; CIRANO, 2003). It pointed to some form of incompleteness in Canadian markets, as Canadian issuances in the US involved riskier firms for which the US was a more mature market (Calmes, 2004).

Notably, this trend has not abated. Klyuev (2008) more recently makes a similar case for Canadian SME financing and access to venture capital. According to the IMF (2009) about 1/4th of Canadian corporate finance is sourced in the US.

Canadian markets have been progressively losing their role as the dominant market even for high-volume large-cap Canadian securities as trading increasingly shifts to more liquid US markets. A number of large-cap Canadian securities trade in much greater volume in the US than in Canada. Moreover, many Canadian securities-linked derivatives (futures, options) only trade in US. This makes harmonization of Canadian securities regulation, particularly with the US, a key issue for Canada. It also implies that some of the more volatile Canada-based securities activities operate beyond Canadian regulation.

The concentration of players in Canada's financial sector is well known. The banking system has been described as oligopolistic with six large banks accounting for over 85 percent of bank assets. BIS surveys in the 1990s showed that growth in financial sector concentration in Canada was unmatched by any other major economy (CIRANO, 2003). The influential *MacKay Report* (1998) and the *Task Force on the Future of the Canadian Financial Services Sector* (1996-2001) made similar findings.

Concentration is also evident in capital markets. The 1987 amendment to the *Bank Act* paved the way for a major restructuring of the players in Canadian capital markets. The amendment allowed banks to buy brokerage firms. The six large Canadian banks acquired leading brokerage firms or started their own. By 2001 all the large brokerage firms in Canada were owned by the six big banks (RBC, TD, BMO, Scotia, CIBC, and National) further increasing concentration and domestic bank's share in an already oligopolistic bank-dominated system.

This crisis and the fallout on major US so called too-big-to-fail investment banks (Lehman) as well as banking conglomerates (Citigroup, Bank of America, Wachovia and others) has reignited the heated debate about whether 'investment activities' should be separated from 'traditional banking' as in the Glass-Steagall period (1933-99).[2] Its most recent incarnation is the proposed separation of 'proprietary trading' out of commercial

[2] It is easy enough to argue that Glass-Steagall had become ineffective well before 1999, as there were numerous loopholes which Wall Street exploited. Further evidence is the fact that the Citicorp/Travelers merger which created modern Citigroup (and was responsible for much of the lobbying to repeal Glass-Steagall) had actually gone through a year before the act was formally repealed.

banking under the Volker Rule. Here it is interesting to note that the same 'deregulation' (allowing banks to own and run investment businesses) had taken place in Canada 12yrs prior to the repeal of Glass-Steagall. Therefore it is worth looking at the Canadian experience on the issue.

It is reasonable to expect that bank-dominated concentration of the financial system fueled by deregulation such as via the 1987 and 1992 *Bank Act* amendments could have a destabilizing effect on the sector, and could heighten the risk of regulatory capture. The Canadian experience however points to the opposite. Far from destabilizing, the absorption of investment activities into the banks served to stabilize the brokerage industry in Canada. Unlike the US where a subsidiary of a banking conglomerate might be subject to different regulatory authority according to whether it is classed as an insurance company or investment bank, in Canada regulatory power is consolidated in the Office of the Superintendent of Financial Institutions (OSFI) which regulates the entity as a whole, squarely focusing on prudential aspects including the institution's risk exposure and risk management systems, while other regulatory agencies and self-regulatory organizations focus on market conduct. This has proven to be a major source of strength in the Canadian system (Coyne, 2009; Le Pan, 2009; Northcott et al. 2009).

One could go further and ask whether Canadian banks are just different, is it that proprietary trading and investment related businesses account for an insignificant share of their profits and revenue? Canadian banks are no different at all. Trading revenues as a percentage of total revenues at the big six Canadian banks has been increasing steadily. In fact 2009 was a record year for bank's trading revenues at C$ 10.2bn (from a loss of C$5bn in 2008) and trading profits were a key source of the strength for Canadian bank balance sheets (DBRS, 2010). According to one estimate proprietary trading accounts for an average 20 percent of the big six Canadian bank's operating profit (Pett, 2010). This share is set to continue to grow, but there is significant diversity amongst the banks with RBC dominating the business, while as a share of operating profit, ratios were higher at National (35%), followed by RBC (29%), BMO (23%), Scotia (17%), TD (17%) and CIBC (15%) (Pett 2010; DBRS 2010).

Furthermore Canadian equity markets function by and large in the form of 'bought deals', i.e. risk is transferred to a relatively small syndicate (primarily banks) that actually takes a position in issuances (unlike traditional investment banks which merely act as agents). This changes the dynamic of proprietary vs. client account trading in Canadian markets as the syndicate plays a vital market making role and is responsible for continuous markets (Carney, 2010). These factors make a Volker/Glass-Steagall type re-regulation highly unpopular in Canada.

Table 2 Capitalization Change: The Fall…and Bounce Back

Market Capitalization Change				
	The Fall…	…and Bounce		
	(% change in local currency end 2008/end2007)	(% change in local currency end 2009/end 2008)	Net	Range
Shanghai Stock Exchange	-64.00%	89.90%	25.90%	153.90%
National SE (India)	-55.40%	95.40%	40.00%	150.80%
Bombay SE	-56.10%	93.30%	37.20%	149.40%
Hong Kong Exchanges	-50.20%	73.60%	23.40%	123.80%
BOVESPA Brazil	-43.70%	69.70%	26.00%	113.40%
BME Spanish Exchanges	-44.10%	46.90%	2.80%	91.00%
NASDAQ OMX	-40.30%	44.00%	3.70%	84.30%
TMX Group	**-41.80%**	**40.00%**	**-1.80%**	**81.80%**
NYSE Euronext (Europe)	-47.80%	32.60%	-15.20%	80.40%
Australia SE	**-34.50%**	**44.80%**	**10.30%**	**79.30%**
Oslo Bors	**-47.70%**	**30.80%**	**-16.90%**	**78.50%**
NYSE Euronext (US)	-41.20%	28.50%	-12.70%	69.70%
London Stock Exchange	-33.40%	34.40%	1.00%	67.80%
Deutsche Börse	-44.60%	13.00%	-31.60%	57.60%
Swiss six	-36.20%	16.70%	-19.50%	52.90%
Tokyo Stock Exchange Group	-41.40%	8.60%	-32.80%	50.00%

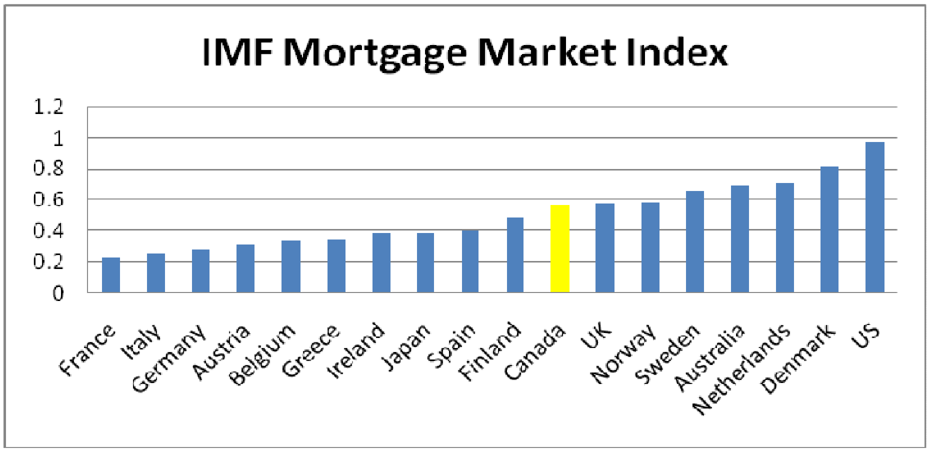
Data: World Federation of Exchanges

Canadian markets along with Australia and Norway are considered commodity plays. After all advanced economies with large natural resource reserves and floating currencies are a rarity. Canada in particular is seen as a 'low-beta' (or lower risk) commodity investment. Therefore it is not surprising market volatility, in terms of the fall and bounce back from the crisis, across commodity linked economies was quite similar. These trends broadly parallel exchange rate trends for these countries. Therefore relatively low/middle of the pack volatility in Canada can be attributed more to the structural makeup of the economy and the link with commodity price cycles than regulation per se.

Market Structure: Housing and Housing Finance

Canada has one of the most sophisticated housing finance systems in the world (Klyuev, 2008; Carderelli et al., 2008a, 2008b; Kiff, 2009; Perry, 2010). The most apt description of Canadian housing and mortgage finance is that it is 'boring but effective' (Kiff, 2009).

Figure 5 Mortgage Market Index



Source: IMF WEO, 2008 "Changing Housing Cycle and Implications for Monetary Policy" Caderelli et al.

The housing market in Canada is of course a fraction of the US, but is small (as a share of GDP) when compared for instance to Denmark, Netherlands, UK, Australia, US, Ireland, Spain, Sweden, Norway or Germany.

Housing and housing finance has typically not been a source of major risk to Canadian financial institutions or the financial sector generally. The collapse of banks in Western Canada in the 1980s (due to exposure to risky oil & gas and real estate lending) and the collapse and eventual takeover of the trust and loan companies in the early to mid 1990s are exceptions, but even these were largely contained by the standards of current housing finance crises in the US and some Western European countries.[3]

While direct government influence in the housing market is limited, the federal government of Canada plays a major role in structuring and regulating the housing finance system in particular through the Canada Mortgage and Housing Corporation (CMHC) (Traclet, 2005).

Much like the financial sector in general, the housing and housing finance system in Canada and the US could not be more structurally different. At the outset this would suggest there are limited lessons that can be drawn from Canada for a structurally much different housing and financial market like the US.

Table 3 Mortgage Outstanding: Canada US comparison

Residential Mortgage Debt Outstanding (%GDP, 2008)	
United States	Canada
84	61.6
Per capita Residential Mortgage Outstanding, (2008)	
United States (US$)	Canada (C$)
39,313	29,910

Data: CANSIM, Bank of Canada, Federal Reserve System; and World Bank

[3] We return to these later in the paper.

The size of the US residential mortgage market, even after crisis impact and write-downs, in Q2/2009 stood at over eleven times that of Canada's. While the latter totaled C$ 953bn approx. the former totaled US$ 11.51trillion. From the perspective of ownership rates there is much less difference between the US and Canada. In 2000 while Canada ranked 5th (67%) amongst advanced economies the US ranked 7th (65%). Closer to present ownership rates in both Canada and the US are around 68% (Kiff, 2009; Mohindra, 2010). An interesting difference however is that these rates in Canada were achieved without explicit targeted lending requirements, such as under the Community Reinvestment Act (CRA) in the US.

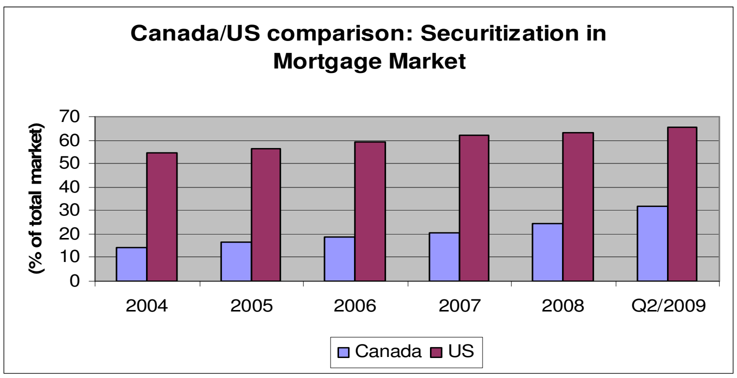
There are other major structural differences, three factors in particular are important: largely domestic bank-dominated housing finance, government role in structuring housing finance through CMHC, small non-prime segment and securitization. The housing finance system in Canada is primarily bank-dominated. The main players on the lending/origination/securitization side are all domestic. The 1992 *Bank Act* amendment increased concentration in the housing finance system in Canada in favour of the big banks. The amendment allowed banks to own trust and loan companies which till that time had a significant share of the housing finance market but were increasingly strained by losses. By 2007-08 nearly 70% Canadian residential mortgages were held by deposit-taking institutions and the bank share increased from 10% in 1970 to 56% 2007 (the 1992 amendment being the main catalyst). By contrast the share of US deposit-taking institutions in that mortgage market declined from 75% 1970 to 30% 2007, i.e. the exact opposite trend (Kiff, 2009).

The other key difference is the role of the government in *structuring* (which goes beyond regulation) the housing and mortgage finance markets. CMHC has been rightly described as Canada's "secret weapon" in this crisis (Erman and Perkins, 2009). The CMHC is a fully government owned crown corporation. Its principle activities are mortgage insurance and securitization. Mortgage insurance (MI) is an area where there are major differences between the US and Canadian systems. While MI is important in both, it is more so in Canada where nearly half of Canadian mortgages are insured while only 30% in the US at present and only 15% before the crisis (Perry, 2010). The Canadian MI market is dominated by one, fully government owned corporation –CMHC (over 70% of the MI in Canada). Furthermore up to 90% of the losses of the remaining private insurers are also guaranteed by the government (to level the playing field with CMHC). MI is mandatory in Canada for all loans with LTVs (loan-to-value) greater than 80%. CMHC insures the loan value in full and upfront (unlike in the US where insurance is only on the amount exceeding the LTV threshold, and insurance can be removed all together under certain conditions such as when property value exceeds mortgage balance). About 43% of all mortgages in Canada are insured directly by the government through CMHC; this no. has been as high as 57% in the early 2000s but has declined owning to increasing affordability, lower interest rates and new products (Mohindra, 2010).

Given the importance of MI (another reason for which is that it is a precondition to qualify for inclusion in government guaranteed securitization and buy-back programs – we turn to this later) CMHC's influence in structuring the market is clear. For instance up until 2006 Canada had the same infamous ‘zero-down’ 100% LTV mortgages with amortization over 40yrs. This changed swiftly when CMHC stopped insuring such products.

Much like elsewhere (including the US) securitization in Canada got its start in the public sector at CMHC in 1987. The main program is *National Housing Act – Mortgage Backed Securities* (NHA MBS). However mortgage securitization in Canada is still small compared to the US, only about 30% of mortgages are securitized in Canada (about half that in the US). While nearly 20% ($2.4trillion) of mortgage securitization in the US is in the private sector the corresponding figure for Canada for Q2/2009 was less than 2% ($17bn). Much lower levels of securitization also imply mortgages are largely held by the originators who initiate them, in the case of Canada the majority are held by the big five banks.

Figure 6 Securitization: Canada US comparison



Data: US Federal Reserve System and Bank of Canada

Of those Canadian mortgages that are securitized 92% (2008) were held by Special Purpose Vehicles that issue mortgage backed securities (MBSs) fully guaranteed by the government of Canada (Kiff, 2009).[4] NHA-MBSs dominate securitization in Canada. [5] CMHC further guarantees mortgage backed securities created by NHA approved banks and other issuers composed of mortgages insured by CMHC (in essence a dual guarantee – both on the default risk on mortgages and market/credit risk associated with the MBS).

To give the securitization market a boost and provide fresh funds for housing finance the government of Canada introduced the Canada Mortgage Bond (CMB) program in 2001. CMBs, which pay a higher interest rate than Government of Canada securities but are perceived as equally riskless, raise financing which goes towards purchasing NHA MBSs assembled by the Canada Housing Trust which issues 5yr bonds backed by the MBSs and full CMHC guarantee. $142bn of the $245bn Canadian securitized mortgages were bought by the Canada Housing Trust funded by CMHC guaranteed Canada Mortgage Bonds (CMB). So government guarantees in Canada exist on the underlying asset side, as well as the repackaging, sale and purchase of securitization.

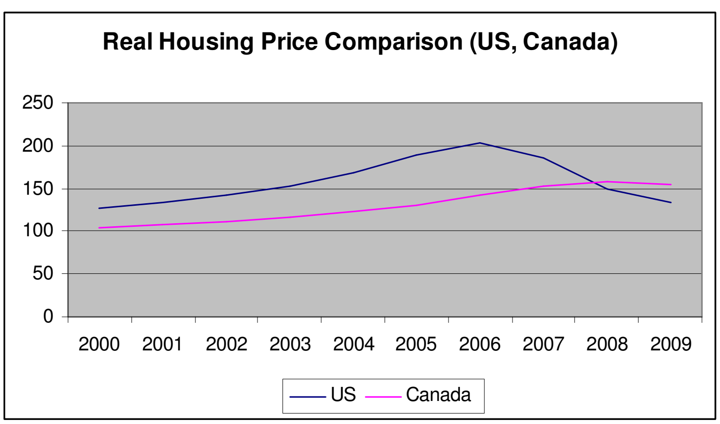
[4] Interest and principle repayment to investors on NHA-MBSs are fully guaranteed by the Government of Canada.
[5] $245bn of $267bn total securitized (2008) held in NHA MBS issuing SPVs fully guaranteed by CMHC

It is clear that the highly successful CMB program has been the major force driving securitization in Canada in recent years. The CMB program was expanded in October 2008 to infuse liquidity into the market as part of Canada's response to the crisis. While the spread over Gov of Canada bonds jumped to 60points at the depth of the crisis it has compressed significantly to 18points (March 2010) and CMBs have outperformed the wider market, testifying to the success of the program and strong demand for Canada's backstopped mortgage securities. CMBs are especially attractive to foreign investors as they are exempt from withholding taxes that investors normally pay on interest. By 2005 about 43% of CMBs were placed with foreign investors, effectively 'internationalizing' Canadian government backed securitization (Traclet, 2005).

Government role in securitization means private securitization is insignificant. Whereas in the US even after hundreds of billions in write downs about $2.4trillion (or about 20%) of the securitized pools were purely private, in Canada only $17bn or less than 2% of the securitization market was in private hands. Private securitization in Canada as in the US has proved much more vulnerable –and collapsed both in this crisis as well as in the past collapse of the 2000s asset bubble.

The housing market in Canada is a lot less volatile compared to the US. Even the prime market is a lot less volatile and the non-prime segment in Canada is very small. The subprime market is under 5% compared to about 20% in the US. At their peak Canadian subprime defaults were less than a fifth those in the US. This segment is at a much earlier level of development. Use of mortgage brokers for instance, while growing steadily in Canada, is a fraction of that in the US. Non-prime lenders mainly operate through brokers. Here too there are important differences; unlike in the US where brokers originated mortgages in Canada their role is limited to linking borrowers and lenders (Klyuev, 2008). The smaller subprime market is also one of the factors that explain lower level and lesser need for securitization in the Canadian mortgage market.

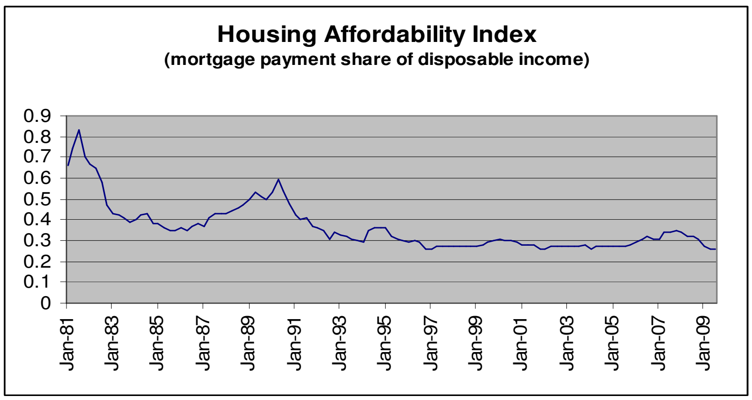
Figure 7 Housing Prices: Canada US comparison



Canada: Statistics Canada New Housing Price Index; US: Case-Schiller

While they did not rise as fast as the US, Canadian house prices have been rising for longer than the US. However, Canada has not experienced the sharp increase in arrears and defaults, or the sharp decrease in property values that occurred in the U.S. The Canadian prime market has been very steady and over the long-term defaults rates have been in steady decline. This can be attributed to three main factors: tight regulation, conservative lending by banks and steadily improving housing affordability. Price increases in Canada seem to be more in line with fundamentals as they are backed by improving affordability. Prices in 2009 rebounded strongly, aided by historically low interest rates and government measures like the first-time buyer and home renovation credit. In some regions prices have surpassed previous peaks. Housing markets in Western Canada (Alberta, British Columbia, Saskatchewan, & Manitoba) have rebounded much stronger and it is a subject of debate whether bubbles maybe developing. Valuations are, as in the case of Canadian asset prices in general, linked in part to commodity price cycles which have an important bearing in the economies of these parts of Canada.

Figure 8 Housing Affordability Index



Bank of Canada

Finally a key element of the Canadian housing finance market is the relatively lower market share of the more exotic products such as Alt-A, interest only and other variable mortgages. The 5yr fixed rate mortgage amortized over 25yrs is by far the most popular in Canada, unlike the US where terms as long as 40yrs are common. This also points to a more conservative consumer base in Canada in general.[6]

Regulation

In this section we outline the main features of securities and housing finance regulation in Canada.

Securities Regulation in Canada

[6] Research by BMO on Canadians in the US found they were not very receptive to the more exotic mortgage products on offer. Canadians in the US tended to be more cautious and conservative despite differences in access, regulation and costs. See: “Canada vs. US: The New Realty”, Garry Marr, *Financial Post*, Oct 23, 2009

Canada is the only G20 country with no national securities regulator. Instead securities regulation is fragmented into 13 provincial regulators. Four provincial regulators are at the center of the Canadian system, Ontario, Alberta, Quebec and British Columbia. They report to the provincial and territorial ministers responsible for securities regulation. They also supervise the self regulatory organizations (SROs). Fragmentation into provincial securities regulation and the important role played by SROs are key features of Canadian regulation.

The main SRO in Canada is the Investment Industry Regulatory Organization of Canada (IIROC) which was created by the merger of the Investment Dealers Association and Market Regulation Services Inc. and the Mutual Fund Dealers Association. IIROC supervises securities dealers and the major exchanges: TSX (which specializes in senior equity), TSX-Venture (junior equities) and Montreal (which specializes in derivatives and futures). SROs play a very important role in securities regulation in Canada. They regulate member securities and mutual funds dealers and work closely with the regional securities regulators and Canadian Securities Administration (CSA). Additionally, in case of IIROC investment dealer insolvency the Canadian Investor Protection Fund (CIPF) ensures investors cash and securities up to a defined limit ($1mn).

The CSA is a voluntary umbrella organization of the regional regulators. Though it has no official regulatory powers it plays an important advisory role to the regional regulators. CSA has harmonized a significant amount of securities law and streamlined the prospectus filing, application and registration processes for issuers and registrants.

Canada's securities regulation which may look highly fragmented from the outside is in fact quite centralized and coordinated thanks to bank ownership of the majority of securities and mutual fund dealers. As we have already seen OSFI is the key banking sector regulator and regulates all federally chartered financial institutions (including most mortgage trusts, insurance and other financial institutions). OSFI focuses mainly on risk exposure and quality of risk management at Canadian financial institutions. However other agencies support OSFI in regulating market conduct.

The Financial Consumer Agency of Canada (FCAC) plays a key role, both in securities regulation and regulation of housing finance. FCAC was created as a result of a five-year process (*Task Force on the Future of the Canadian Financial Services Sector*, 1996-2001), part of which was the *MacKay Report* (1998) which found that consumer protection in Canada was not effective in "reducing the information and power imbalance between institutions and consumers". The role of the agency is to consolidate and strengthen oversight of consumer protection measures in the federally regulated financial sector, and to expand consumer education. While the agency's mandate does not cover settling individual disputes it does submit an annual report to Parliament through the Minister of Finance. It is funded by federally incorporated financial institutions.

In this way OSFI and FCAC combine to form a uniquely comprehensive web of overlapping regulation such that all aspects of a financial institution's business, be it retail focused or investment related, are covered as one entity; as well all aspects of market conduct are covered by activity.

For such a system to work coordination between regulatory bodies is critical. Here the Financial Institutions Supervisory Committee (FISC) and the Senior Advisory Committee (SAC) play a pivotal role in Canada. While FISC oversees the health of federally regulated financial institutions, SAC reviews financial sector policy issues (legislation and regulation). FISC is chaired by the Superintendent of OSFI and includes the federal Deputy Minister of Finance, the Governor of the Bank of Canada, the Chair of the Canadian Deposit Insurance Corporation, and the Commissioner of the Financial Consumer Agency of Canada. SAC is comprised of the same senior officials, but it is chaired by the federal Deputy Minister of Finance. FISC was created in the 1980s in part to deal with the failure of western Canadian banks, and its mandate covers post mortems on past problems (Le Pan, 2009).

It should also be highlighted that there is concerted effort now to move towards a national securities regulator in Canada. Two provinces Alberta and Quebec are fundamentally opposed to such a move, with the latter arguing that the likely move to a national regulator would shift financial talent away from Montreal and increase concentration in Toronto. These apart there is strong support for moving towards a national regulator both within Canada and overseas (IMF FSSA, 2008; OECD, 2008).

Based on the recently tabled recommendations of the Expert Panel on Securities Regulation, (*Creating an Advantage in Global Capital Markets,* 2009) the minister of finance is expected to table a bill to move Canada to a national regulator (after seeking constitutional approval). Several recent expert panels are in support of this initiative including *Blueprint for a Canadian Securities Commission* (2006), as well as the *Task Force to Modernize Securities Legislation in Canada* (2006). Moving towards a single regulator has gained support over the years, going back to the shortcomings in Canada's regulatory system noted in the influential *MacKay Report* (1998). While more recent reports all point to the benefits of a single regulator, we should also note that earlier comprehensive studies (including CIRANO, 2003 and Nicholls, 2006) are less convinced of the benefits.

The above description has briefly outlined the key features of the Canadian securities regulation patchwork. Beyond institutions however, regulatory approach is also important. The Canadian approach to securities regulation is more principles-based and risk-focused. There are several reasons for this preference. One of them is embedded in market structure. The prevalence of a large no. of very small public companies means that an emphasis on complex, mandatory formal corporate governance rules may prove disproportionately burdensome for significant number companies (Nicholls, 2006). Therefore principles based regulation has a practical basis.

Principles based approach focuses more on regulatory outcomes than on compliance. In turn compliance costs are lower as high level principles of conduct which articulate desired outcomes are elaborated, but there is greater reliance on internal compliance systems of the institutions themselves. The regulator's focus then is on making sure these systems are up to par. The flipside to this is that the regulator retains significant discretionary room. OSFI uses this space by articulating elaborate "guidance" to regulated entities in a spirit of working with stakeholders.

The principles based approach is sometimes wrongly confused with lack of specific rules or checks against non-compliance. This is hardly the case. OSFI guidance is often extremely elaborate (running to 300pages) specifying desired outcomes, and in case of non-compliance the regulator retains the legal ability to compel management and the board to act in keeping with desired objectives. This makes for a very robust system and one that over time has engendered close working relationship between the regulator and regulated entities as well as a culture of prudence and strong risk management. In the context of fast changing financial markets the principles based approach has the added advantage of enabling regulators to keep up with the pace of change in markets.

It of course helps the cause of securities regulation (especially when it is fragmented across 13 different provincial regulators) that the market itself is dominated by the same big six Canadian banks. And the banks have a single regulator in OSFI. Another key factor is that the federal legislation that governs banking regulation, the *Bank Act,* is overhauled every five years to allow for change and evolution in a disciplined and measured manner. The act has two relatively simple principles: that banks and financial institutions maintain adequate capital and liquidity and that the Superintendent may make guidelines to ensure adequate capital and liquidity is maintained. Derived from these simple principles are a voluminous series of guidance and rules such that the application is closer to rules-based.

Beyond its prudential focus and principles based orientation, the regulatory emphasis in Canada is guided by a keen awareness of the importance of 'continuous markets'. The basic idea being market continuity, over other factors such as price volatility etc, is all important. As the governor of the central bank put it: it is more important that markets are continuous than whether they are signaling good or bad news (Carney, 2010). This principle has been important in guiding Canada's response to the crisis, which was swift, decisive and preemptive. As a result even as crucial interbank, money markets and others the world over went into deep freeze, Canada managed to avoid the worst of the pain and managed to thaw fastest.

Regulation of Housing Finance

The CMHC through its mortgage insurance and securitization activities plays a key role not only in regulating but also *structuring* the housing sector and housing finance system in Canada. The FCAC also plays a valuable role in outlining lender's responsibilities to borrowers and the obligations of the borrower encapsulated in his/her loan arrangement.

We have already seen the influence CMHC has on the mortgage market through mortgage insurance, when it stopped backing 100% LTV mortgages in 2006, these higher risk products nearly disappeared from the market. All lending institutions are approved and then supervised by a specific regulator. In the case of banks this is the OSFI. Credit unions and caisses populaires are provincially incorporated and are therefore almost exclusively regulated at the provincial level; their legislative and regulatory framework, however, generally parallels that of federal financial institutions such as banks. Life insurance companies are largely regulated at the federal level (by OSFI); the Insurance Company Act sets the same requirements as those faced by banks in terms of residential mortgage activities. The majority of trust and mortgage loan companies are federally regulated by OSFI, and the Trust and Loan Companies Act includes disclosure requirements. Mortgage broker activities are regulated by provincial Mortgage Brokers Acts, which also include the obligation of disclosure to borrowers (Traclet, 2005). In addition to these the FCAC is specifically charged with enforcing many of the federal laws that protect consumers in their dealings with financial institutions.

Mortgage lenders can decide to start a foreclosure procedure when mortgage loans are in arrears for more than three months; however since foreclosure procedures are expensive and time-consuming, lenders are encouraged by regulation to first try to reach an agreement with the mortgagors on an individual basis.

Consumer-side incentives in Canada are also different from the US and help indirectly regulate the housing finance market. Unlike the US, mortgage interest payments are not tax-deductable in Canada. However, this simply means incentives are back ended in that resale does not accrue capital gains tax in Canada while it does in the US. There is also no tax incentive to convert home equity into household debt in Canada which has resulted in greater equity accumulation than in the US (Perry, 2010).[7]

Perhaps the most important form of regulation on the consumer-side in Canada is the legal framework itself. The legal bias in Canada can be described as lender friendly. Loans are personal covenants with full recourse in 8/10 provinces. Which means defaulting on a loan carries a much stiffer disincentive in Canada as: one, banks can sue the defaulter for other assets, and two, it is much harder to reestablish credit and file personal bankruptcy in Canada than in the US. In the US on the other hand since for all practical purposes most states are non-recourse and it is easy to reestablish credit, underwater mortgagors –where property values had sunk below the value of the mortgage- had ample incentive to walk away handing the keys to their lender in the mail (so called ‘jingle mail’).

Recently, in response to an overheating housing market and calls from the banks themselves (which in itself speaks to risk aversion in a bank-dominated housing finance system) the Ministry of Finance announced new rules that effectively tighten housing finance, even as monetary policy remains at unusually accommodating levels. The minimum collateral required on second or investment properties was increased to 20% and all new borrowers were required to qualify for the higher 5yr fixed-term lending standard, even if applying for a different type of mortgage. These measures at aimed at

[7] Mortgage interest payment on value of up to $1mn is deductible in the US and is estimated to have cost tax coffers US $78bn in 2008 (Ferguson N, *Ascent of Money*) . In response to crisis Congress boosted incentive with $8000 tax credit for first-time buyers

cooling the market as well as prepare borrowers for eventual rate increases from the current unprecedented levels as and when the central bank begins the tightening cycle.

In the earlier discussion of securitization in Canada we have already seen how CMHC has a high degree of regulatory leverage over players in Canadian securitization. First, to sell into the MBS programs lenders have to be CMHC and NHA approved. This means complying with CMHC's lending standards. Second in order to be eligible to sell MBSs into the CMB financed program mortgages have to be insured either by CMHC or two private insurers. This in effect enables CMHC to not only regulate the quality of securitization but also structure the overall market.

Part 2. Four propositions on Canada's resilience

In this section we put forth four interrelated propositions that explain Canada's resilience to the crisis. In order of importance these are: 1. fundamentally different (well-structured and regulated) housing finance system, 2. Principles-based and outcome focused regulation, 3. Strong learning from past experiences, and finally 4. The domestic-ness or level of integration argument. In discussing each we also refer to lessons that can be drawn from the Canadian experience for other countries.

1. Fundamentally different housing finance system

The epicenter of this crisis was/is the housing sector, and more specifically the way in which housing finance interacts with the wider financial system and ultimately the real economy. As we have noted in earlier sections Canada has a highly sophisticated but also highly conservative housing finance system, and one in which the government plays a vital role.

Recent research by the IMF on housing and monetary policy (see Caderelli et al 2008a and 2008b) indicates that spillovers from the housing sector to the rest of the economy are larger in economies where it is easier to access mortgage credit and use homes as collateral. This is because movement in house prices influence household spending plans through the role of housing as collateral (prices going up loosen borrowing constraints). Moreover financial deregulation may have strengthened the role of housing in monetary policy transmission, because easier access to housing collateral may have linked house prices more closely to monetary policy. However the focus of monetary policy is the overall economy and cannot be the housing sector alone. Therefore a case can be made that monetary policy must be complemented by regulatory policies to limit risks of unsustainable house price bubbles. This implies regulatory policies in support of leaning against the wind, as have been used in Canada (and some other countries such as China, India, Singapore, and Hong Kong) could prove useful in limiting risk buildup in the housing sector and stem financial imbalances.[8]

[8] For a particularly good discussion of leaning against the wind in the housing sector through a countercyclical measure see: Jeane and Korinek (2010) *Managing Credit Booms and Busts: A Pigouvian*

The strength of Canada's housing finance system is well documented. It also accounts for the strength of Canadian banks. Ratnovski and Huang (2009) for instance find that more so than asset-side risk exposure bank's overall asset-liability structure is important and points to choice of business model, rather than tactical investment decisions. Here elements of Canadian market structure and regulation have combined in a fundamentally different system than the US.

First, the asset-liability structure is such that banks do not rely heavily on wholesale borrowing or lending. Large corporations usually borrow directly from the capital markets or from foreign led syndicates (bank's competitiveness in the syndicate market is reduced already by higher capital requirements).

This in turn means local banks can focus on lower risk, yet highly profitable mortgage lending and retail focused businesses. Mortgage lending is made all the more appealing by a virtual government backstop of the housing finance system through CMHC mortgage insurance and securitization, as well as the CMB funded MBS buying program. Furthermore, CMHC insured mortgages carry zero risk weight (i.e. CMHC backed mortgages do not require banks to put aside additional capital).[9] This makes mortgage lending very low-risk and all the more attractive from a strategic business model perspective for Canadian banks. The importance and prevalence of MI is itself a factor that limits the need for securitization (from a risk diversification perspective).

If we step back and look at the key elements in this crisis, they were three: the subprime market, the interaction between housing finance and the wider financial system through securitization and household leverage (incl. auto, credit card, mortgage, lines of credit, and home equity line of credit). Given the low bar set by most other advanced economies on each of these, Canada looks like the one-eyed leader of the blind.

Taxation Approach, University of Maryland and Johns Hopkins. On experience of other countries see: 'Home Improvements', The Economist, print ed. May 8th, 2010

[9] While insured mortgages carry zero risk-weight, they are included in the leverage ratios (ACM) used by OSFI, which act as a supplementary tool in prudential regulation. However, securitized mortgages are not included in the leverage ratio.

Table 4 Securitization Gross Issuance, and year on year change

Securitization Gross Issuance and year-on-year change

(mortgage and asset-backed securities, billions USD)						(% change year on year)			
	2004	2005	2006	2007	2008	2004-05	2005-06	2006-07	2007-08
US	2649	3139	3241	2952	1521	18.50	3.25	-8.92	-48.48
Australia	76	77	91	68	16	1.32	18.18	-25.27	-76.47
Japan	51	81	83	76	58	58.82	2.47	-8.43	-23.68
Canada	***18***	***25***	***29***	***45***	***79***	***38.89***	***16.00***	***55.17***	***75.56***
UK	130	157	242	237	400	20.77	54.14	-2.07	68.78
Spain	41	50	55	84	119	90.00	147.37	-44.68	184.62
Netherlands	23	49	36	56	107	-10.00	11.11	-50.00	320.00
Italy	43	41	38	36	121	21.95	10.00	52.73	41.67
Germany	10	19	47	26	74	113.04	-26.53	55.56	91.07
Ireland	3	1	13	14	60	-4.65	-7.32	-5.26	236.11
Belgium	3	1	3	6	51	-66.67	1,200.00	7.69	328.57
France	10	9	10	5	21	-66.67	200.00	100.00	750.00
Portugal	10	10	7	15	22	0.00	-30.00	114.29	46.67
South Korea	24	28	24	21	19	16.67	-14.29	-12.50	-9.52
L. America	11	14	20	20	18	27.27	42.86	0.00	-10.00
Emerging mkts t	46	55	64	53	63	19.57	16.36	-17.19	18.87

Data: IFSF Research, Securitization 2009, author calculations

We have already seen that securitization in Canada is much smaller than in the US but growing. In fact Canadian gross issuance (mortgage and other ABS) has experienced remarkable growth in recent years. Canadian mortgage securitization on the other hand is almost entirely government backstopped. Only insured mortgages are securitized under the main program NHA-MBS, which means default-risk is taken out of the MBS, and payments are additionally guaranteed by CMHC. This makes CMHC effectively the fifth largest financial institution by assets in Canada. Since 2007 CMHC's mortgage cap has been almost doubled from $350bn to $600bn. This indeed makes it Canada's secret weapon in the housing sector, but also points to the decisiveness and swiftness with which the actions have been taken.

As we have also seen private securitization is tiny in Canada (about a tenth of the US even in percentage terms). This more vulnerable market has experienced its own woes in Canada both recently in the APCP (Asset Backed Commercial Paper) collapse as well as in the past. A smaller private market meant less risk, and more government control in dealing with potentially deteriorating fallout.

The subprime segment itself as we have seen is much smaller in Canada which automatically limited the need for securitization as banks are able to meet mortgage lending needs through deposits, interest bearing notes etc. and would be very happy with the choices they have in dealing with the higher risk end of their lending spectrum –keep government insured mortgages on books or securitize and sell into government insured program and collect fees. Indeed the purpose or model of securitization in Canada seems to be quite different as it is more driven by liquidity concerns than risk diversification per se (Northcott et al, 2009).

Household leverage on the other hand is one area Canada tops its peers. Canada ranks first in terms of consumer debt-to-financial assets among twenty OECD countries and seventh in terms of debt-to-income. By end 2009 household debt to income reached a new high in Canada at 144.4%. While mortgages and consumer credit are important drivers of this debt fueled accumulation in Canada, personal lines of credit increased 25fold between 1989 and 2009 (CGA, 2010). Of the many domestic and global risks covered in its system-wide stress test, in the December 2009 *Financial System Review* the Bank of Canada noted that the one area where risk had increased was growing household indebtedness. A sudden change in Canadian interest rates could have a severe impact on the ability to households to manage their debt load. Here again however in terms of relative pace of change, Canada comes out a winner, thanks to the worse performance of others (Classens et al, 2010).

Finally, the significance of swift and decisive action taken by Canadian authorities (while others vociferously debated whether the bailout of the financial sector in the US constituted an irreversible turn to socialist ruin) cannot be overstated. Timing and pace in responding to an escalating crisis threatening to turn into a generalized run proved crucial. The Insured Mortgage-Purchase Program (IMPP) which purchased mortgages was rolled out in Aug-Sep 2008, and subsequently scaled up. Through CMHC the government allowed the purchase of up to $25bn first and then up to $125bn insured mortgages. CMHC also guaranteed more than 2.5 times the mortgage securities it had planned to in 2008 (Erman and Perkins, 2009). In addition, the Bank of Canada made $45bn available to banks through a liquidity facility.

Along with Government of Canada paper and NHA-MBSs, Canada Mortgage Bonds were one of the few instruments that provided liquidity to mortgage lenders and financial institutions in Canada. The purchase program enabled banks to move mortgages off their balance sheets, thereby fortifying bank balance sheets, and made room for further lending at a time when small businesses and consumers faced a near frozen credit market. This of course fits with the Bank of Canada's keen awareness of the importance of market continuity. TD Canada CEO, Ed Clarke, noted in an interview that this may have been one of the crucial differences between the US and Canada. While US banks stopped lending, Canadian banks continued to do so, thereby continuing transmission of accommodative monetary policy and making that channel more effective in resuscitating Canada from the crisis.

It is impossible therefore to disassociate the strength of Canadian banking from the strength of the housing finance system, which in turn relies on explicit government guarantee. Whether such a model would be tenable in another context, especially the US is another question. In the view of this author there is very limited amount that can be transplanted directly as lessons from Canada for the much larger, much more developed US housing finance system. General lessons in prudential oversight can be drawn. The importance of mortgage insurance can be emphasized. And a depoliticized role of the government in structuring the market should be stressed. However since the US, with around 8000 banks, several non-bank originators, brokers and other intermediaries, much higher reliance on wholesale financing (not to mention failed semi-public institutions like Fannie and Freddie) is really such a different beast, there is little to suggest the more conservative Canadian approach would work, let alone be desirable. Moreover if trends are anything to go by the Canadian system seems with time to be moving more in the direction of the US than the other way round.

2. Principles-based and outcome focused regulation

Much is made of how well a principles-based and outcomes focused approach has served Canada, where as in the US and other countries a more compliance oriented rules-based approach may have contributed to regulators like SEC missing bigger picture issues.

The reality may not be so clear cut. For one there have been similar big picture failures in Canada as in the US –perhaps the difference is only scale. Canada had its own Ponzi incident in Quebec (Earl Jones) which points to weakness in federal-provincial coordination, and it had its own securitization collapse in the ABCP crisis (we turn to this in more detail below).

However it is important to ask why principles-based approach likely works in Canada. First as we have seen, relatively simple regulatory principles are elaborated into quite specific guidance and compliance expectations are high. But more importantly, the Canadian market structure itself may be the main contributing factor as to the success of principles based regulation. Of foremost importance is that banking is a highly profitable business in Canada, with a very small no. of well-established players sharing the bulk of the spoils. This means no one player would want to risk losing its place in the setup. This curtails excessive risk-taking for fear of losing out share to others, as it is easy much easier to spot the deviant in a group of five than a crowd of thousands.[10] It probably also makes self-regulation more workable in Canada.

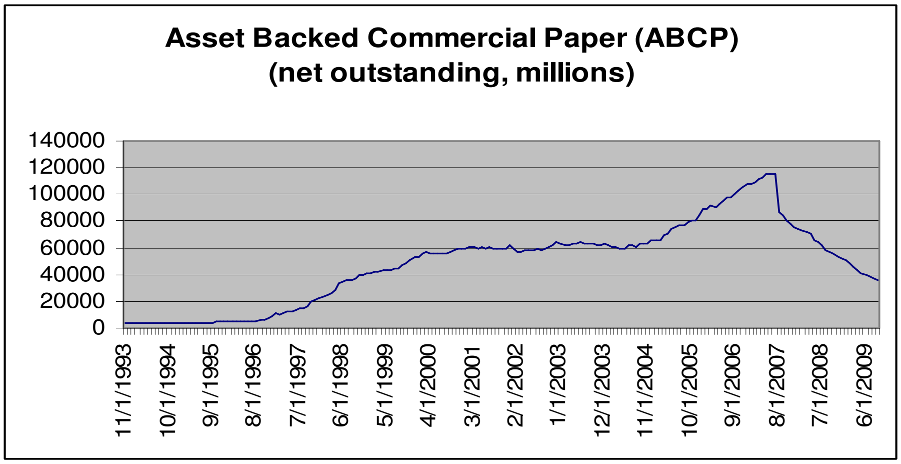
OSFI retains regulatory discretion in the Canadian model. For instance the regulator sets different leverage caps for different entities based in part on past track-record. The guiding principle as Canadian regulators often put it reads: 'trust but verify'. More importantly the mandate and focus of the main regulator is clear and limited. OSFI focuses only on prudential risk and quality of risk management systems at regulated entities, leaving market conduct and other aspects to other agencies, including SROs. Built in periodic review of the legislative framework every five years ensures legislation keeps pace with rapidly evolving financial markets. These then are areas where others can draw from the Canadian experience. What is more difficult to borrow from Canada and yet contributes to the strength of principles-based regulation is the fact that it is a lot easier to get those responsible for the vast majority of the financial system (over 85percent) around one table in Canada than in most other countries.

In part to engender a healthy dose of realism we turn now to an example that almost contradicts everything we have described above about the Canadian approach to regulation. As shown above securitization in Canada has grown rapidly, and responds in particular to liquidity constraints. The Asset Backed Commercial Paper (ABCP) market grew out of just such a demand from businesses, mortgage and asset-backed securities

[10] Back in Aug 2007 CIBC for example stood out amongst Canadian banks for its lager & riskier exposure to US subprime as well as lesser transparency, and took a hit for this in its Canadian business.

originators. The ABCP market in Canada grew rapidly starting in the mid-90s. ABCP growth took off around 2003-04.

Figure 9 ABCP collapse



Bank of Canada

The Canadian ABCP market literally fell off a cliff in mid-2007. At its peak in 2007 this market stood at approx. $117bn. This total market is further divided into bank-sponsored and (more risky) third-party non-bank sponsored ABCP. The latter grew from just 15% of the Canadian market in 2004 to 48% in 2006 (Chant, 2009).

Third-party ABCP was at the center of the crisis in Canada, as $32bn of paper was frozen in Aug-2007.[11] Several aspects of the ABCP crisis and the controversial restructuring plan are still unfolding. However it is possible to argue that while the exposure may have been smaller the Canadian system (in particular banks involved in ABCP and supplying liquidity lines to the market) were as unprepared and prone to risk as any other.

Chant (2009) argues the "ABCP crisis was both predictable and preventable". Chant identifies the maturity mismatch in the structure of ABCP conduits, together with their risky derivative investments, as the prime causes of the ABCP crisis. Moreover the Canadian regulatory setup had the same lapses as elsewhere –inappropriate ratings for exotic securities, minimal disclosure requirements, on/off-balance sheet tricks, lack of appropriate rules governing sale of products to unsuspecting investors. While the financial sector is one of the most heavily regulated areas of the Canadian economy, the ABCP participants were subject to minimal regulation with respect to ABCP activities. Classification as 'commercial paper' itself exempted issuers from certain prospectus requirements.

Canadian banks played the same on and off balance-sheet tricks as counterparts elsewhere, the burden of losses shifted from the liquidity providers (banks) to the note-holders (investors). On the regulatory side there were rules peculiar to Canada. In 2004 OSFI introduced capital requirements for banks against unconditional liquidity

[11] Note these events took place a year before the collapse of Lehman Bros. and the ensuing panic

commitments but not for liquidity arrangements conditional on a "general market disruption". As the crisis unfolded banks provided liquidity support to sponsored conduits (citing reputational risks) blurring the distinction between on/off balance-sheet.[12] Non-bank conduits however were dependent on a "general market disruption" in order to trigger conditional liquidity lines (for which banks were not required to set aside capital). This condition also did not apply to foreign ABCP sponsors, the main liquidity suppliers of non-bank conduits in Canada. It was the reason US rating agencies (Moody's, S&P) stopped rating 'Canadian-style' ABCPs and the only agency rating the paper was Dominion Bond Rating Service (DBRS), the largest Canadian rating agency.

Canadian banks held ABCPs as long as they were rated, investment dealers marketed them to financial institutions, pension funds, government agencies, corporations and individuals. However when third-party ABCP called on bank liquidity support (in Aug 2007) Canadian banks cited the "general market disruption" condition had not been met and thus passed on the burden of losses to the investor.

The eventual restructuring took over a year of agonizing negotiations.[13] Retail investors and regulators were unhappy with the restructuring plan worked out by lawyer Purdy Crawford under the controversial Montreal Accord. More recently the deal, according to which the major players and promoters in Canadian ABCP are protected from lawsuits, has been approved by US courts.[14]

Experience with the ABCP crisis shows there is much room for improvement of securities regulation in Canada employing both principles and rules-based approaches. Thomas Hockin (Expert Panel Chair) (Jan, 2009) pointed out that the lack of a national securities regulator has raised concerns about systemic risk as there is no national entity accountable for the stability of Canada's national markets. The ABCP crisis shows there are significant gaps in Canada's regulatory setup and systemic risk is no longer confined to just banking institutions.[15]

To sum up, principles based regulation has a practical basis in Canadian market structure. Several elements of the Canadian experience suggest lessons for other countries. Periodic review of the legislative framework, the balance between compliance and regulatory discretion such that regulators are able to keep up with market evolution, and a clear mandate for the regulator are all valuable lessons. But Canada has hardly been failsafe and the ABCP collapse clearly shows same failures and weaknesses as in other countries, if only on a somewhat smaller scale.

3. Strong learning from past experiences

[12] It is also worth adding, Canadian banks were able to fund these lines because they were relatively healthy compared for instance to US counterparts.
[13] The Federal government played a limited role but important role in this restructuring process.
[14] The restructured notes, due in 2016, have only recently started trading and regulators were only able to levy half the intended fines.
[15] Note: no of players in the non-bank ABCP market (offshore banks) were not subject to OSFI oversight.

White House Chief of Staff Rham Emanuel's prescient phrase –you never want to let a serious crisis go to waste, it's an opportunity to do things you could not do before– is only true to the extent one draws the correct lessons from crises-opportunities. While Canada ranks at the top of banking surveys today headlines about Canadian banks in the mid-1980s read distinctly like those associated with US, UK, Icelandic, Irish, Greek and Spanish banks do today. This should be a hopeful sign that redemption is possible and that current troubles are not unpardonable original sin.

Time Magazine on October 21, 1985 read *Facing Failure: Canadian Banks in Trouble.* The failure of two relatively small Western Canadian banks Alberta based Canadian Commercial and Northland, and following that the collapse of the eighth largest lender Montreal-based Mercantile Bank proved an important turning point in Canadian regulation. Similar issues (bailouts, guarantees) were discussed in the Canadian context at the time. The Western banks failed because of their over exposure to risky oil & gas and real estate investments in that part of the country. These failures were followed by the failure of a number of mortgage trust and loan companies in the late 80s.

This painful experience led to the establishment of the OSFI in 1987 with a mandate to regulate all federally chartered financial institutions, monitor federally regulated pension plans and provide actuarial advice to the government.

In addition to OSFI the Financial Institutions Supervisory Committee (FISC) was created in part to deal with the will to act in response to the failure of Western Canadian banks. One of the explicit concerns that the FISC is mandated with is performing post-mortems on past problems and learning even from midsize failures. FISC ensures regular senior level engagement, not just at time of crisis. Regularized interaction between those in charge of different aspects of regulation is important in developing respect for roles, jurisdiction, quality and timely information sharing, joint development of strategy and effective execution (Le Pan, 2009).

Moreover in the mid-late 1990s Canada experienced its own arduous fiscal crises and underwent painful austerity (for more on this see paper on macroeconomic policy in this series by Roy Culpeper).

Strong deliberate and a regularized and disciplined process of learning from past crises is a major lesson from the Canadian experience. Post-mortem need not be limited to drawing lessons from own experience but could be valuable in learning from other's experiences as well.

4. The domestic-ness or level of integration argument

Canada is highly integrated into the global economy via trade linkages, however much less so from the perspective of purely financial linkages. Domestic institutions dominate the financial system. Low level of financial integration with the external economy in particular with the US economy has contributed to resilience in Canada.

Canada's exposure to foreign banks was one of the lowest amongst advanced countries. The exposure of Canadian banks overseas is larger but still small compared to other advanced economies.[16] As of end 2009 Canadian exposure to US banks was only about $98bn, which compares with Mexico's exposure to US banks but is far lower than that of the UK, Japan, Germany, France, Cayman Islands, and proportionate to GDP is lower than Netherlands, Australia and South Korea. For the proximity to and deep trade linkages with the US economy, the Canadian banking system is not highly exposed to the US. Ratnovski and Huang (2009) argue the limited Canadian exposure to troubled US banks is a key factor in explaining Canadian resilience.

A new IMF dataset on financial integration further corroborates Canada's limited financial integration, stemming from restrictions on foreign direct investment and liquidation of direct investment in Canada.[17]

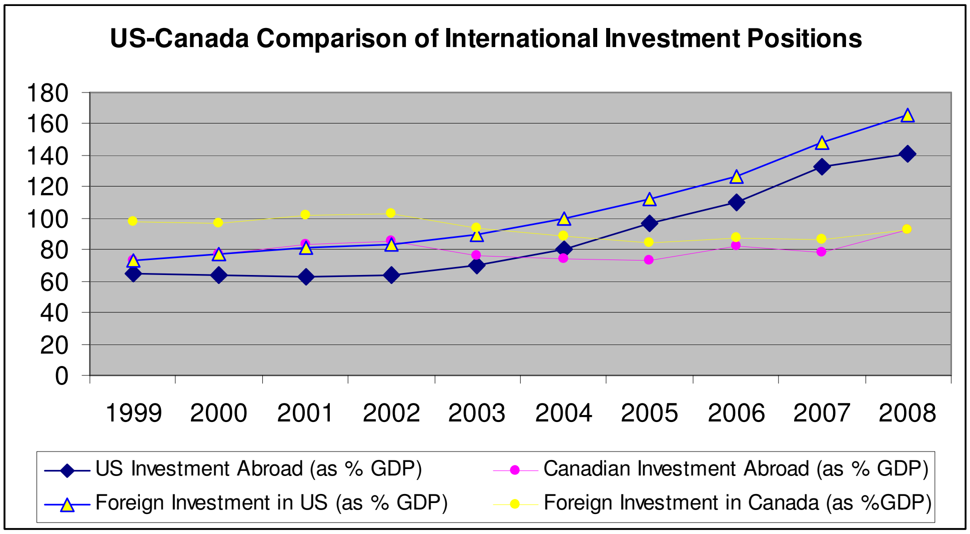
Table 5 Canadian Exposure to Foreign Banks, and Canadian Banks Exposure Abroad

	Consolidated claims of international banks (i.e. exposure to foreign banks), billions USD (2009)	in % GDP	**Total Foreign Claims of banking sector** (exposure of banks overseas) billions USD (2009)	in % GDP
United States	5393.5	38.27	2492.5	17.69
United Kingdom	3569.6	133.49	3643.8	136.26
Germany	2105.2	57.68	3302.1	90.48
France	1734.9	60.73	3773.1	132.09
Italy	1417.8	61.56	961.3	41.74
Netherlands	1079.6	123.95	1588.4	182.36
Japan	991.6	20.19	2428.3	49.45
Cayman Islands	762.6			
Belgium	675.03	133.88	433.5	85.98
Australia	615.8	60.66	501.2	49.37
Canada	**560.8**	**37.35**	**758.2**	**50.50**
Switzerland	555.07	112.83	1633.8	332.11
Hong Kong	448.5	208.26		
Singapore	261.8	143.89	206.3	113.38
Jersey	138.9			
West Indies	108.8			
Panama	77.03	333.64		
Bermuda	76.5	1306.49		
Bahamas	51.3	709.16		
Guernsey	43.3			

Based on data from Bank for International Settlements, GDP (current, US$ data)

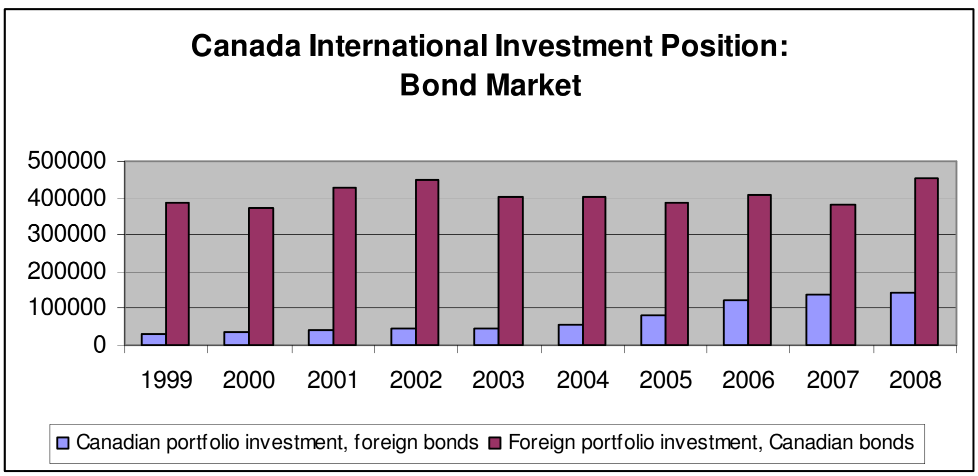
[16] For more on this see the paper by Pablo Heidrich and Hugues Letourneau in this series.
[17] See: "Measuring Financial Integration: A New Data Set", Martin Schindler IMF Staff Papers, Vol. 56, No. 1, 2009 data. Year: 2005

Figure 10 Net International Investment Position: Canada US comparison



US Bureau of Economic Analysis; Statistics Canada, Bank of Canada

Figure 11 Canadian International Investment Position: bond market



Statistics Canada

In 2008 Canada's net international investment position turned positive (negative in bop terms) for the first time this decade. This means overall Canadian investment abroad exceeded foreign investment in Canada. Since in equity markets Canada's external position is highly negative (i.e. Canadians invest in stocks outside Canada much more so than foreigners invest in Canada), Canada's net negative position until recently was driven by external demand for Canadian bonds. Foreign investment in Canadian bonds far exceeds the opposite and received a strong jump during this crisis discounting Canada as a 'safe haven'. At least part of this 'demand for Canada' is driven by strong interest in Canada Mortgage Bonds (CMB) which are made especially attractive to foreign investors as there are no withholding taxes on interest earned.

Finally it has also been argued limited external competition reduces pressures to defend market share, again reducing incentives to take risks and making Canadian banks more conservative. Even the IMF recognizes the fact that limited external competition has served Canada well during this crisis (Ratnovski and Hunag, 2009).

While Canada has by no means been spared the effects of a global recession, especially the downturn in its largest trading partner the US, a highly domestic banking and financial system has shielded it from the worst of global deleveraging. The lesson here may be that competitiveness derived from the presence of foreign players with all their advantages may not be the optimal or efficient outcome if domestic players can effectively meet the needs of the local market.

Contextualizing Canada's position on reform

Several myths have been propagated about Canada's resilience to this crisis. First, it is argued that Canada survived unscathed. While certainly better than most, Canada has by no means been unaffected. Indeed the take-away from the Canadian experience is not a straightforward success story. Despite having a much smaller, domestically dominated, highly concentrated and tighter regulated financial sector. A well-structured housing finance system and healthier macroeconomic fundamentals compared to G7 economies. Ultimately Canada was deeply affected by the crisis as evident in large output and employment contraction (concentrated among long term full-time employees), as well as increased long-term poverty (Arsenault and Sharpe, 2009).

It is also argued the Canadian system is the only one that has not needed government bailout. This again is a mischaracterization. While there may have been no 'bailout' as such of an individual financial institution[18], government support in shoring up the system through mortgage purchase and insurance were critical in Canada's response.

Responses across G20 countries have taken the form of direct support (capital injection or purchase of assets/lending), guarantees, swaps, quantitative easing or some combination thereof. While the scale of the interventional undertaken by most G20 advanced economies is greater than Canada's, what is barely noticed is that Canada's share of the second –purchase of assets or lending– at 9.1% of GDP (2009) is in fact the highest of any G20 country (IMF, 2010). It is easy to dismiss these as merely liquidity support, but according to the IMF figures about 48.4% has been actually used.

To put this in perspective: the IMPP and Bank of Canada liquidity line intervention totals about $114bn. Given the total tangible common equity of Canadian banks stood at a $68bn ($76bn after additional capital was raised) this implies the total intervention was worth more than the entire tangible common equity of the banking system (Sprott, 2009).

There are two further ways in which the Canadian experience is at odds with recent debates. First our financial system is dominated by too-big-to-fail institutions and in fact

[18] However OSFI's role in relaxing minimum capital and surplus requirements when Manulife Financial, Canada's largest insurer, was in trouble was crucial.

from past crises has only become more so. And second a Volker/Glass-Steagall type separation of investment and deposit banking makes little sense as most investment houses are owned and run by the major banks, and this is an important component of their strength.

Furthermore as the world debates the merits and demerits of taxing and shrinking the financial sector this feeling again is not shared in Canada (or other countries like India and China whose banks did not suffer the same turmoil). Canada is already good at taxing its financial sector: corporate taxes paid by the financial sector contribute about 23% of corporate taxes and 2.6% of taxes overall (both figures at the upper end of the spectrum for G20 countries). This is a further reason there is unlikely to be much support for such taxes in Canada.

The Canadian proposal, as articulated by the head of OSFI Julie Dickson is 'embedded contingent capital' (ECC). ECC is a debt security that converts into common equity when a bank is in serious trouble (replenishing core capital without use of taxpayer dollars). This would be a systemic risk fund embedded in the institution and not external. The contingent instrument would be priced as debt making it affordable for banks, and minimizing the impact on consumers. The trigger would be activated late in the deterioration when the regulator deems the institution is no longer viable (Dickson, 2010). It is evident this is a more market based solution to too big to fail, but also one that addresses the Canadian situation, where tangible common equity is low and thus leverage probably higher than supposed, especially considering insured mortgages carry zero-risk weight for the banks.

Conclusions

We have heard a lot about regulatory race to the bottom. If there is a salient lesson in this crisis it is that we should concentrate a lot more on regulatory 'race to the top'. Canada has been shown to have soundest banking and financial sector, as adjudicated not only by researchers but also markets themselves in the vote of confidence they have given Canadian securities. Clearly higher standards have been good for Canadian markets and competitiveness of the main players.

The other key lesson is the importance of a depoliticized, decisive and swift response. Canadian authorities have managed to keep markets convinced that they are on top of the situation; this is quite in contrast to authorities in some other countries. Part of the credit for this goes to efficient coordination amongst the key agencies and the presence of coordinating structures such as the FISC and SAC. Authorities were also able to instill confidence in markets because they had the necessary tools at their disposal. Here the discretionary room available to OSFI under the principles-based outcomes-focused model of Canadian regulation, and the key role played by CMHC in the housing finance system were critical. Increasing CMHC's cap on mortgage insurance, instituting the IMPP buy-back aggressively and utilizing the CMB to support market liquidity were key measures. These again were only possible because the government –through CMHC– plays an important role in structuring the housing finance system in the first place.

Despite not having a national securities regulator Canada has been able to respond effectively to developments in capital markets such as coordinating with other regulators to impose a ban on short-sale of financial stocks (Gagnon and Witmer, 2009). However the ABCP crisis clearly indicated some of the same gaps were evident in Canada as in other countries.

In this paper we began by outlining key elements of the market structure of Canadian securities and housing finance. Regulation in Canada is embedded in the market structure. Since there are several factors peculiar to Canadian securities market structure (such as a large no. of very small listed companies, dominant share of resources sector, and a bank dominated securities industry) as well as Canadian housing finance (very small subprime market, conservative lending, bank-dominated mortgage finance, and major government role in mortgage insurance and securitization) – caution is urged in drawing any direct lessons from Canada.

Some broad lessons from the Canadian experience can be drawn. Principles based approach to regulation where the regulator has greater discretion has proved important, as has periodic review of the legislative framework in keeping pace with market evolution. The regulatory patchwork in Canada is also a lot more comprehensive with presence of agencies like FCAC and coordinating bodies like FISA and SAC. However presence of institutions only goes so far. Ultimately, success is about the quality of talent retained within these institutions and how people work together.

We put forth and reviewed four interrelated propositions explaining Canadian resilience: the most important is a fundamentally different, well-structured and highly regulated housing finance system as well as securitization market. Second, principles based regulation has served Canada well. Third, there is a strong culture of learning from past crises and post-mortems. And finally the relatively limited degree of integration of the Canadian financial system into global finance and low exposure to as well as competition from US banks in particular have been important in contributing to Canada's resilience.

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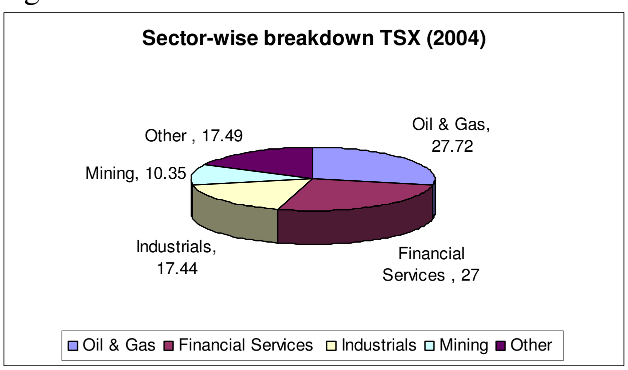
Figure



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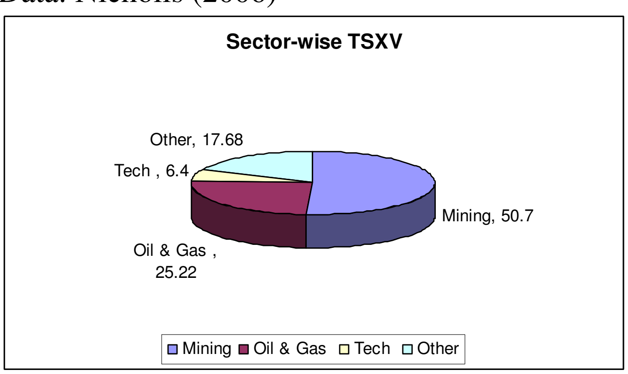

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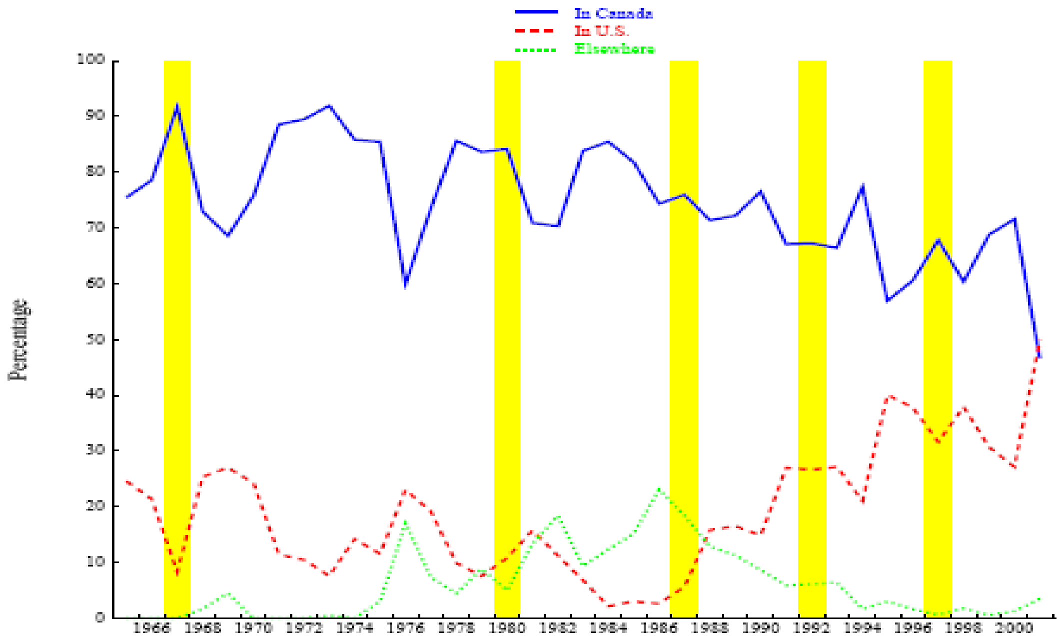
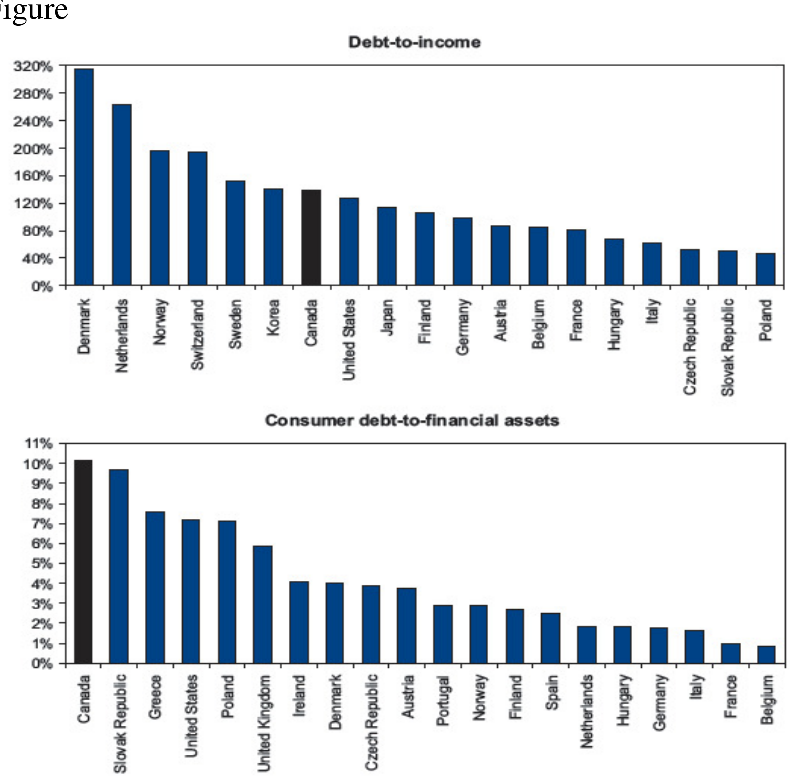
Figure

Gross New Issues of Stocks and Bonds by Canadian Non-Financial Businesses



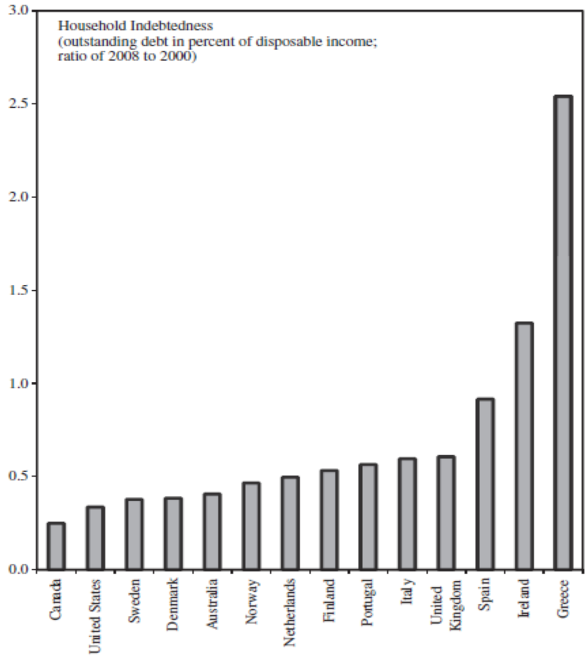
Source: Calmes 2004 and Calmes et al. 2009

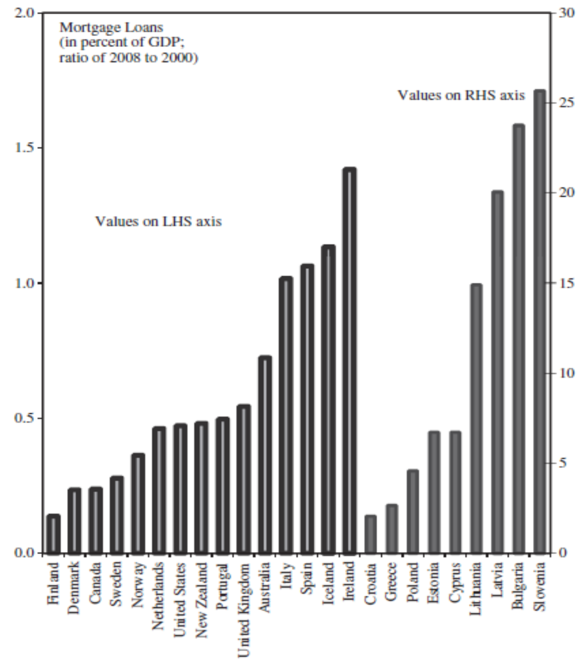
Figure



Source: OECD.Stat, Dataset: Financial balance sheets – non consolidated top chart: SAF4LINC – Loans; bottom chart: SAF41LINC – Household short-term loans, SAFASNC – Household financial assets. Extracted on January 15, 2010.

OECD in CGA (2010)





Classens et al, 2010

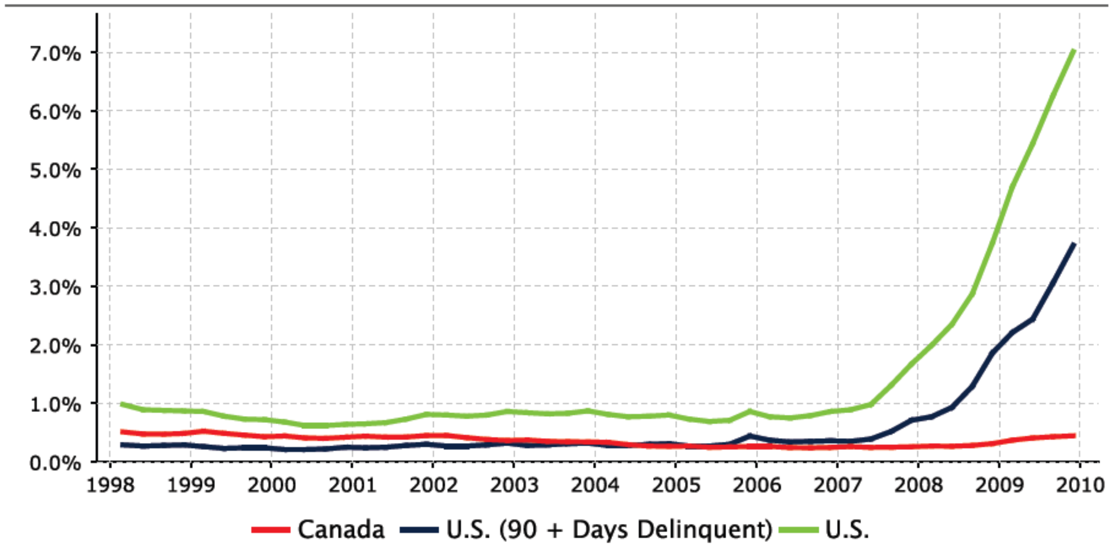
Canadian Securitization Market: Total Asset Backed Securities (private placement excluded)

March, 2010		
Dealer/administrator	**Amount Outstanding (billions)**	**Market Share**
BlackRock Canada	22.9	22.9
TD Securities	20.6	20.6
BMO Capital Markets	17.2	17.2
RBC Capital Markets	13.5	13.5
CIBC World Markets	9.1	9
Merrill Lynch Canada	8.6	8.6
Scotia Capital	4.8	4.8
National Bank	1.7	1.7
Credit Suisse	0.589	0.6
Dundee Securities	0.55	0.5
HSBC Sec Canada	0.355	0.4
Canadian Tire	0.163	0.2
Other	0.042	0
Total	100.099	

Dominion Bond Rating Service (Canada), March 2010

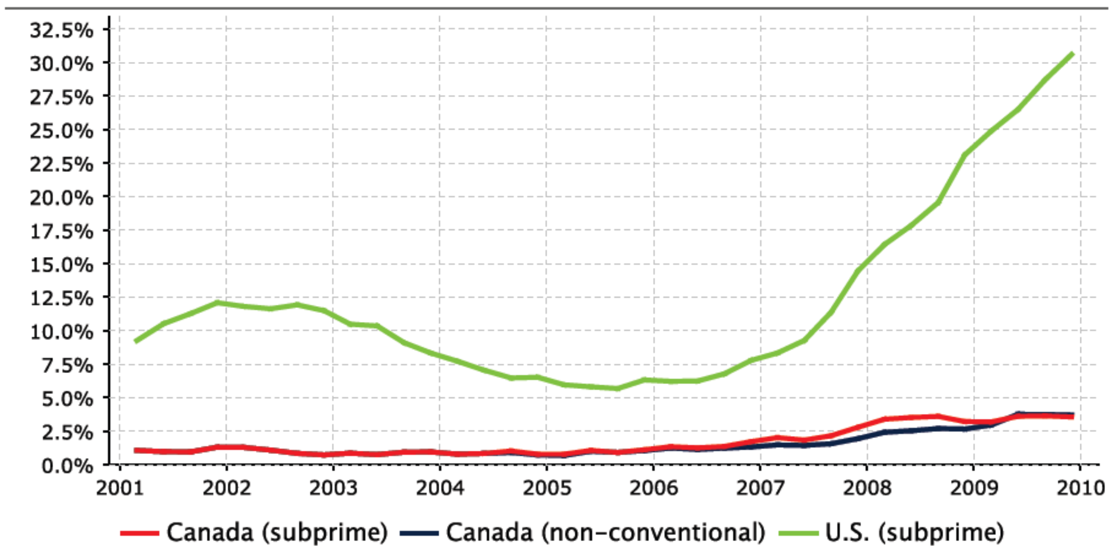
Residential Mortgage Default Rates

Prime Mortgages



Source: Canadian Bankers Association, The Mortgage Bankers Association

Subprime Mortgages



Source: DBRS, The Mortgage Bankers Association

Dominion Bond Rating Service (Canada), March 2010