Competitive Pressures in the Banking Sector, Perverse Incentives, and Financial Stability

Understanding the Canadian Experience

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The “Too Big Too Fail” (TBTF) View and Its Problems

- There has been much discussion over the hazards of bank bailouts and why there are built-in incentives for banks to grow sufficiently “big” and benefit from what some have described as a TBTF subsidy.
- For example, Brewer and Jagtiani (2011), point out that banking organizations in the US were willing to pay an added premium for mergers that would bring them over the asset sizes that are commonly viewed as the thresholds for being TBTF (which they estimated to be a $15 billion that put a number of banks into the $100 billion + in assets during the 1991-2004 period).
- Hence, not only are large banks candidates for anti-trust legislation because of their growing monopoly position in certain markets; but they are also candidates for the now growing hazards of TBTF that were associated with the financial crisis of 2008.

The “Too Big Too Fail” (TBTF) View and Its Problems

- We wish to argue that the TBTF view certainly has its merit, in possibly explaining some behaviour of financial institutions prior to the financial crisis. However, much of the culture of the banking sector towards the model of “originate to distribute” securitization and trading that replaced careful underwriting (assessment of borrower risk) and lending as the primary focus of banking institutions has little to do with TBTF. For this reason, we wish to argue that there has been a misplaced emphasis on TBTF. To show this we shall look briefly at the Canadian experience which serves as a counter-example to the TBTF view.
- Moreover, those who have promoted the view that has become the norm since the policy movement to deregulate and de-supervise financial markets that began in the US in the late 1960s (and built up momentum throughout the 1980s and 1990s) in the name of promoting greater competition in the banking industry should look carefully at the Canadian experience, which once again serves somewhat as counter-example.

The "Too Big Too Fail" (TBTF) View and Its Problems

- We may be well be willing to concede that greater competition could be a good thing in industries producing, say, "widgets", since the lower the price that could potentially ensue as a result of lower profits and greater productivity that would be impacted by the competition would have positive welfare benefits for the community at large. However, applying these principles of competition to the banking sector, where there exists tremendous externalities, could be disastrous.
- While emphasis of the analysis will be on the Canadian experience, we shall draw on the latter to derive lessons for policy makers both in Canada and internationally.

The Metamorphosis of the Banking Sector: From Industrial Capitalism to Hyper-Financial Capitalism

- Ever since the early 19th century, chartered banks in Canada were given a “charter” (a license) to meet certain obligations, namely to provide for a payments system (which originally meant literally that they were licensed to supply a viable circulating medium – their own private bank notes) and to make loans to credit worthy borrowers whose liability side came to constitute itself a critical part of the nation’s payments system.
- Banks could earn revenue in meeting their obligations either from direct service charges and/or from the interest spread arising directly from their lending activities. Given the private/public purpose of chartered banks, they were heavily regulated by the public authorities, especially in preventing banks from engaging in other activities (outside of their charter) which could endanger the viability of the complete payments and credit system.
- This important need for a properly regulated, yet accommodating, banking system has always been greatly acknowledged as critical to the viability of a dynamic industrial capitalism. Indeed, one needs only to consider the work of Schumpeter (1934). Also, in Chapter 12 of the *General Theory*, Keynes recognized the need for finance to be at the service of industry (or productive “enterprise”) and noted that an important feature of the 1930s crisis was the breakdown of this relationship as the system had come to be dominated by largely unfettered rentier speculative activity.

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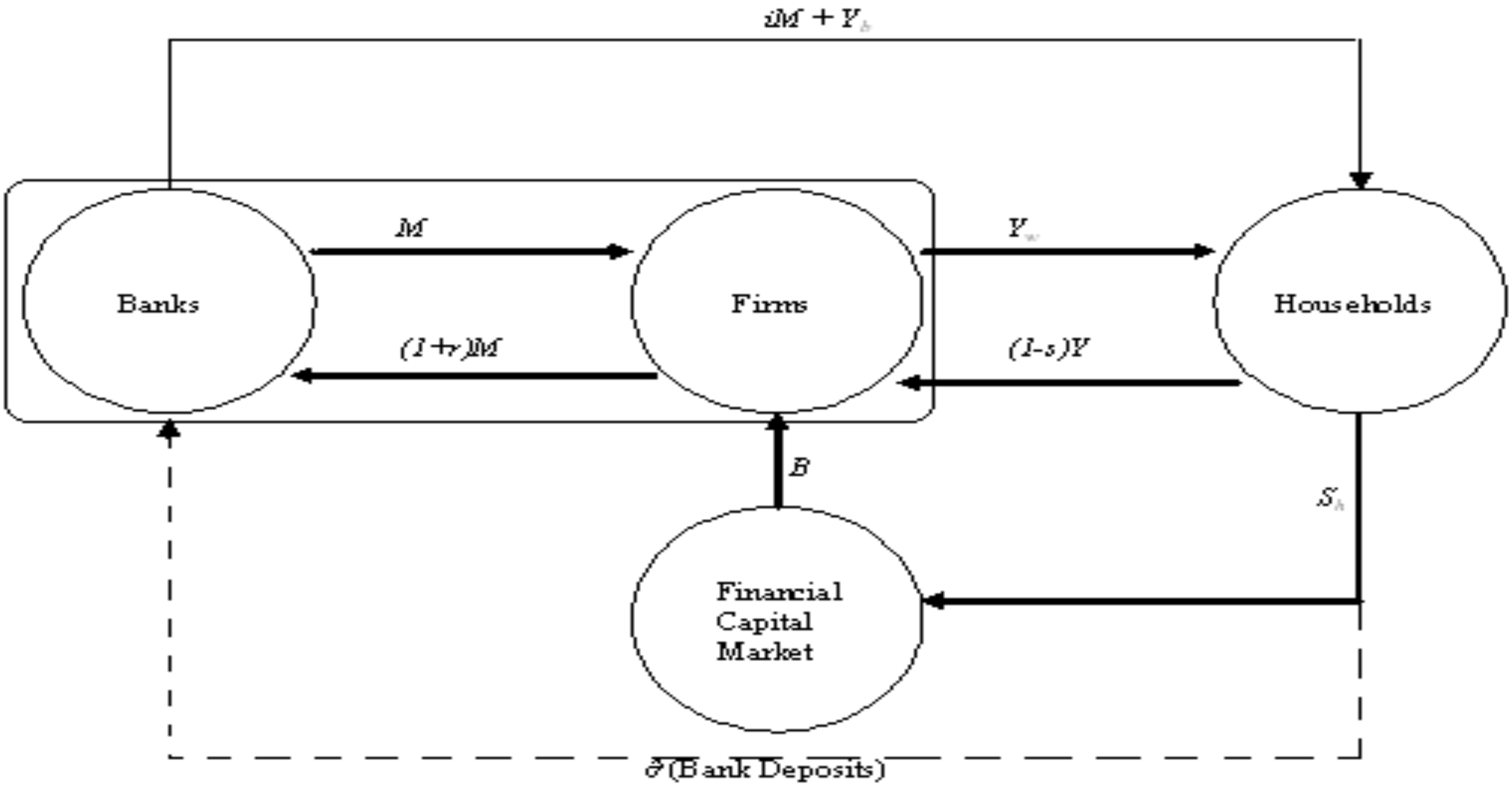
- A key feature of a growth-oriented productive system (as during the early postwar "golden age" of industrial capitalism) was the centrality of bank financing of production, reflecting industry/finance complementarities, with banks serving industry, largely because of the regulations that had been put in place as a result of the virtual collapse of the (mainly) US banking sector during the Great Depression.
- This link between industry and finance is well highlighted in the traditional depiction of banks as creators of money in the financing of productive activity, as described within the standard model of the monetary circuit --- with the fundamental relation between banks and business enterprises being at the centre stage (see Fig. 1 below)).

Figure 1: Traditional Role of Banks in the Pre-Financialization Era



Key Features of the Pre-Financialization Period and the Centrality of Bank Financing of Production

- Banks finance short-term needs of business enterprises.
- Financial markets handle the long-term financing of investment, reflecting essentially the counterpart of household savings, since business enterprises would be net borrowers and households net lenders.
- Given the institutional structure that regulated and prevented speculative excesses, bank profits depended directly on the growth of the productive sphere --- that is to say, bank revenues were associated with the expansion of loans for production and were earned primarily from their interest income --- that is, the interest spreads (multiplied by the overall loans outstanding less loan defaults).
- Problems of commercial bank viability (and bank failures) could potentially arise because of sharp movements in household liquidity preference (as Keynes had emphasized during the 1930s) but, given the institutional structure of the early postwar period, as long as the central bank would intervene as a lender of last resort, fluctuations in household liquidity preference would not sufficiently short-circuit the banking system.

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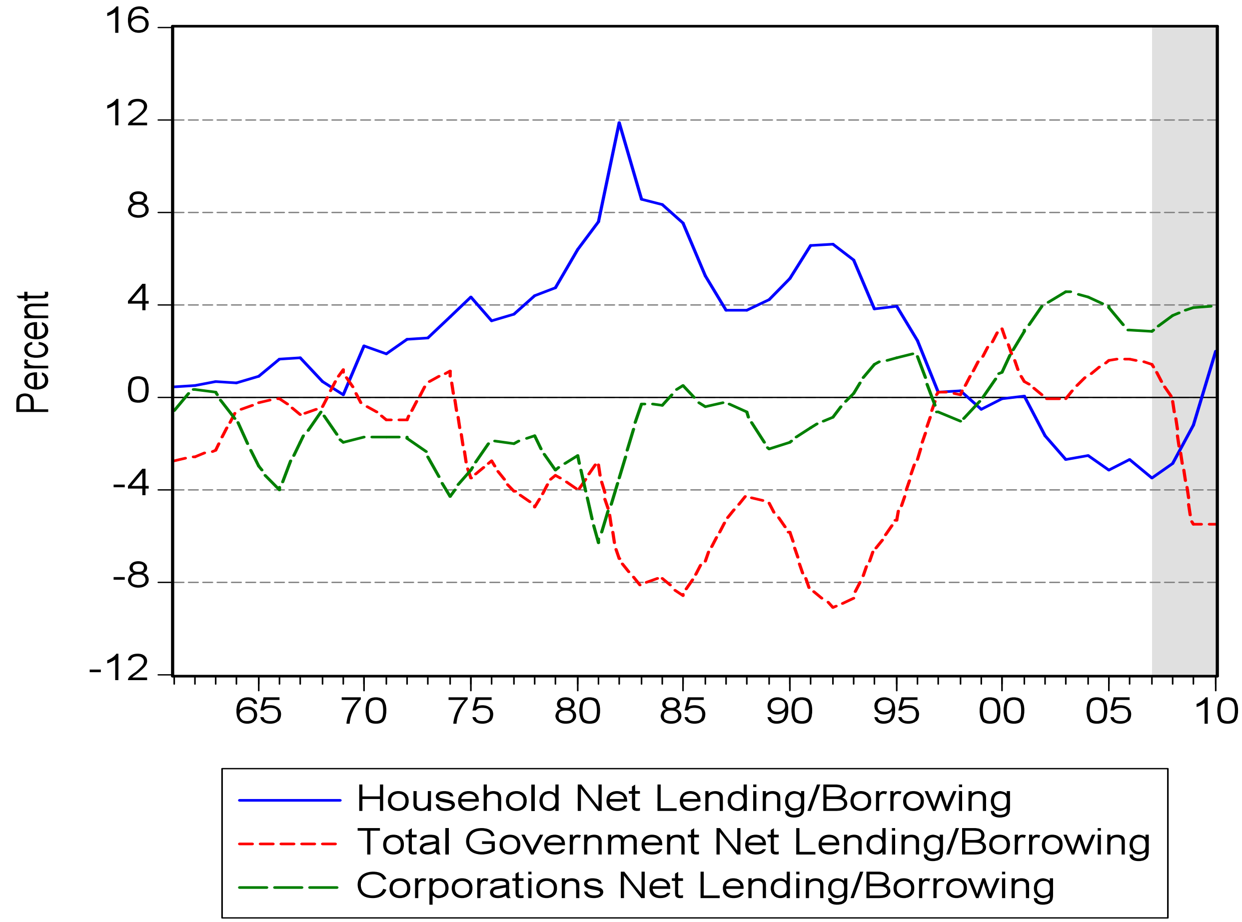
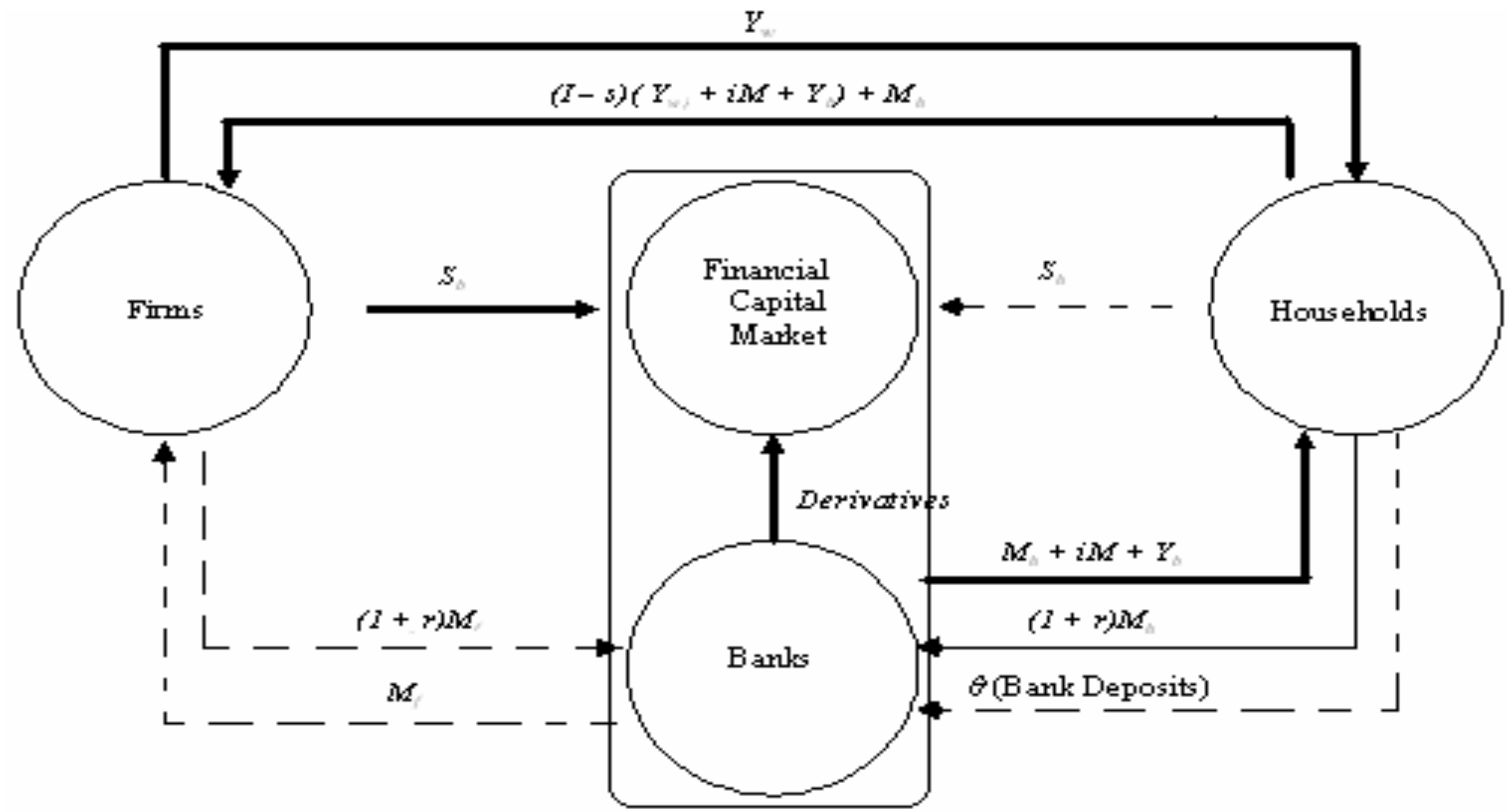
- 1. This model of commercial banking has been somewhat stood on its head under what has been described by many as a process of “financialization”. Instead of industry being the net borrower vis-à-vis the banking sector, growing profits and retained earnings associated with fairly flat business investment have slowly transformed (or “rentierized”) the non-financial business sector itself into a net lender that seeks profitable outlets that provide high financial returns for its internal funds (see Fig. 2 below).
- On the other hand, households have become net borrowers (see M_h) and have thus become an additional source of revenue for business enterprises from the increasing net spending of the household sector.
- 2. On the supply side, deregulation, globalization, and computerization have brought about a significant structural transformation of finance, especially over the last two decades.
- Banks have become financial conglomerates engaged in lucrative investment banking by layering their assets, engaging in cross-boundary arbitrage, and loosening credit by permitting the household sector to take on an increasing debt load without a concomitant rise in real personal disposable income.

Figure 2: Corporate, Household, and Banking Sector Balances as a Percentage of GDP, Canada 1961-2010



Source: Statistics Canada, CANSIM Series V646937;
http://www.statcan.gc.ca/pub/13-020-x/2010004/tab-eng.htm, Tables 4,5, and 26.

Figure 3: Strategic Role of Banks during the Financialization Era



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- As depicted in Fig. 3, we have a reversal of the traditional view of banks that are financing business enterprises. In this hyper-financialized system, the dynamics of credit creation has been sustained not by business indebtedness but by household indebtedness.
- Because of firms' position as net lenders, rentier speculative behaviour (that Keynes had so vehemently criticized in the *General Theory*) has taken over the financial sector largely because of the growing proportion of corporate saving that has been directed into speculative ventures in a way that household and even group pension funds would be less likely to do, in the latter case because of legal restrictions on the risk structure of their portfolio.

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- As can be seen from Figs. 3 & 4, commercial banks have played a key role by being the primary source that has been feeding the financial markets, with investment banks (in the case of Canada it is the investment branch of the chartered banks) with new, and ever more sophisticated, speculative derivatives that are sold in the financial markets, through hedge funds, etc., to the new corporate rentiers.
- For instance, in the case of Canada, the chartered banks are the primary issuers of mortgage loans in this new “originate to distribute” model of banking which are then repackaged and financially redesigned for financial acquisition, while, in the US, these commercial bank loans are then sold to the investment banks, which would, in turn, sell these securities to the final purchasers both domestically and internationally. In much the same way, in Canada the insurance arm would be insuring these securities at each stage of the financial layers, while in the US it would have been the major insurers such as AIG. Since many of these functions (commercial banking, investment banking, funds management, and insurance) reside in one single entity, they benefit from economies of scale, scope and network and are thus highly profitable (Guttmann 2009).

Figure 4: Securitization and "Originate to Distribute" Model of Banking

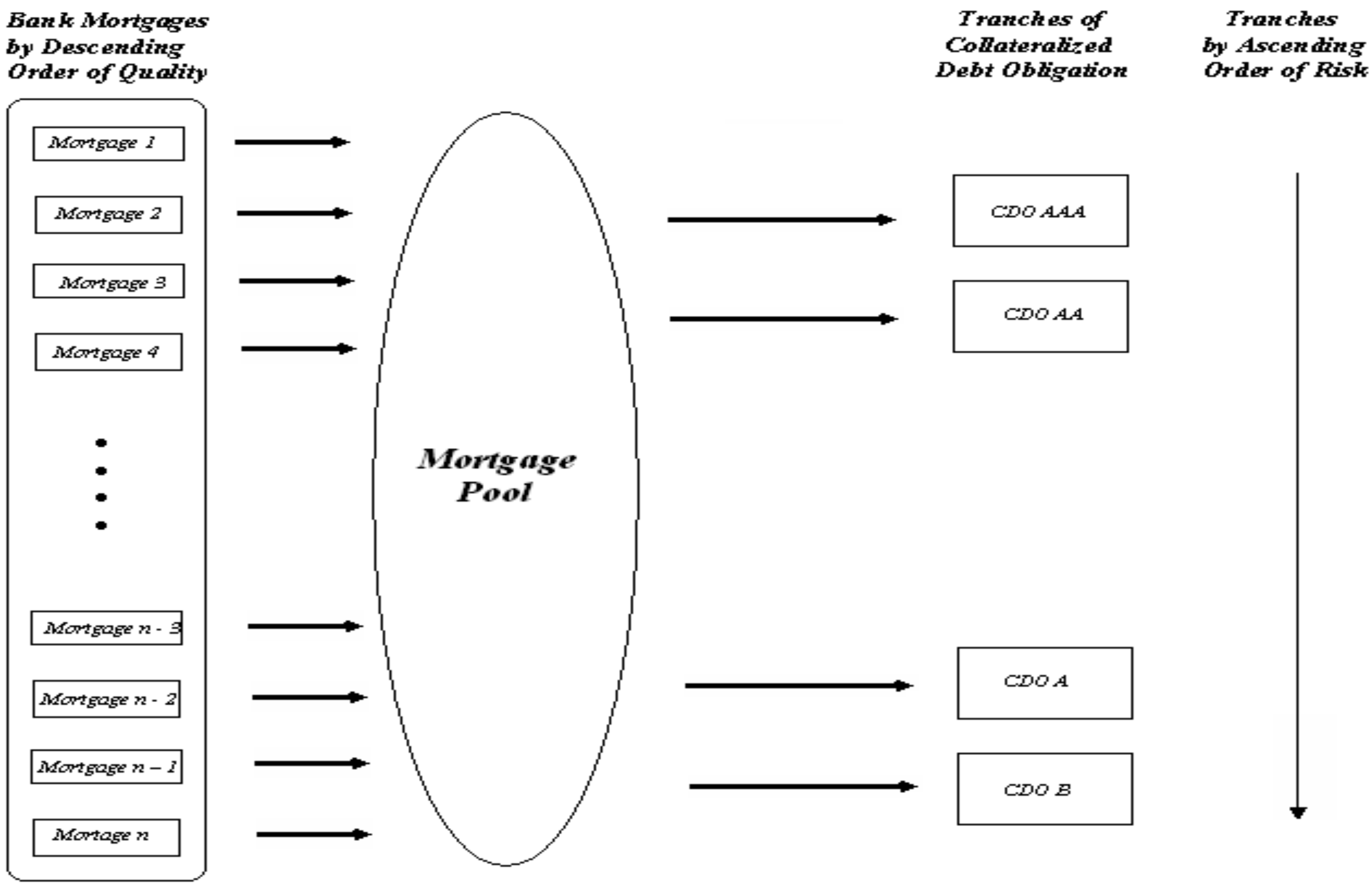
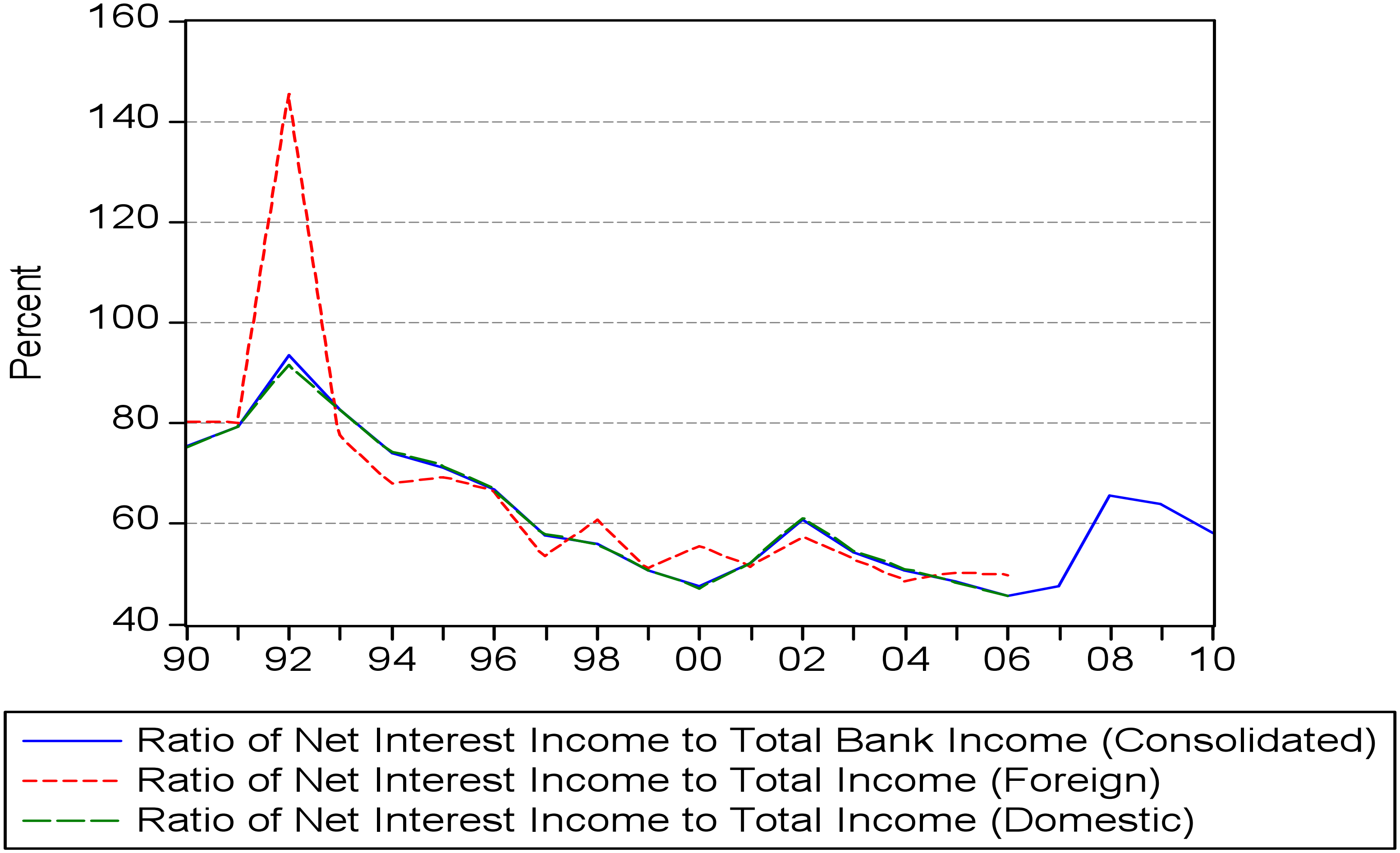
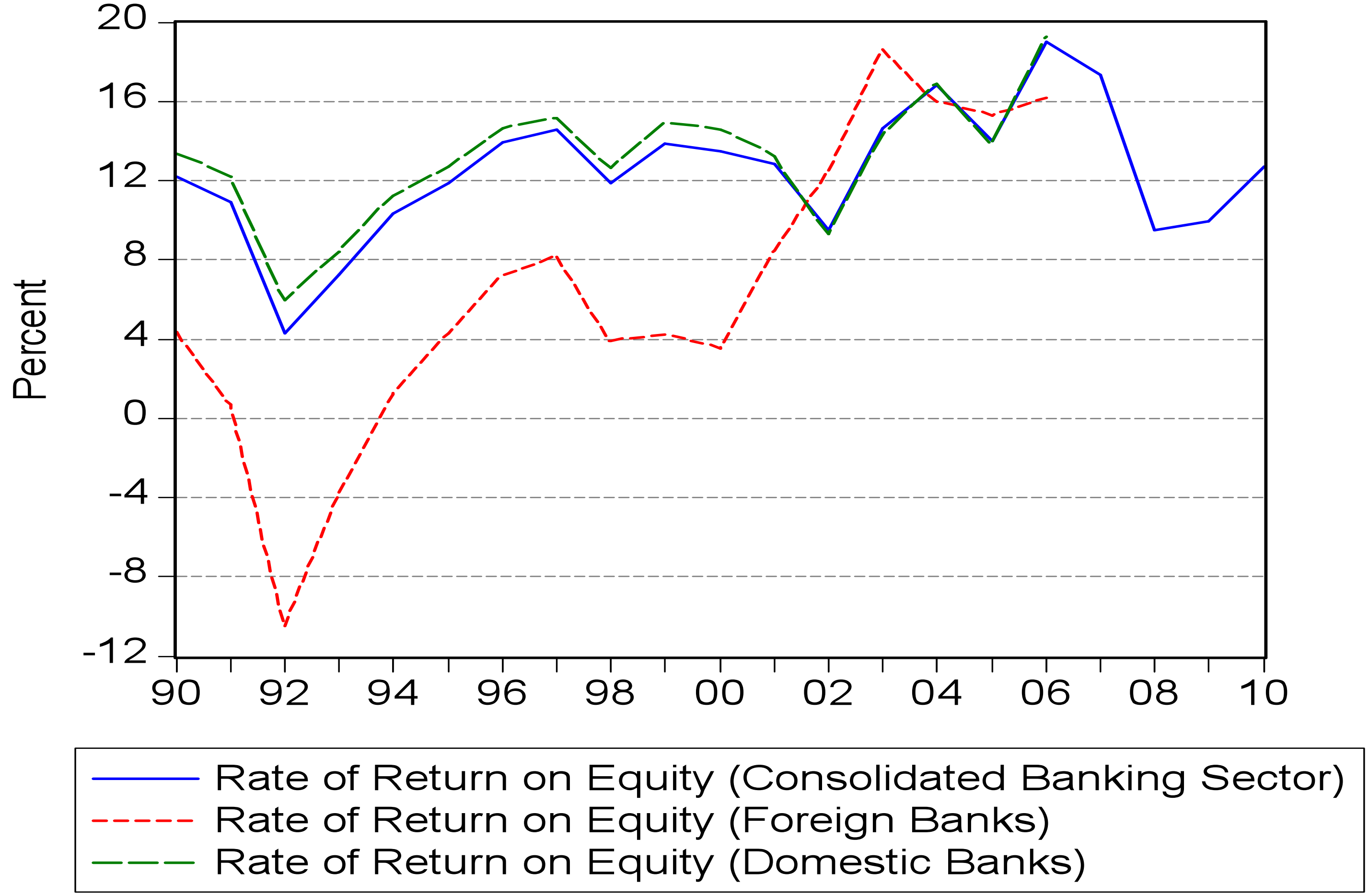


Figure 5: Proportion of Net Interest Income to Total Income of Chartered Banks in Canada: Canadian, Foreign-Owned, and Consolidated Banking Sector, 1990-2010



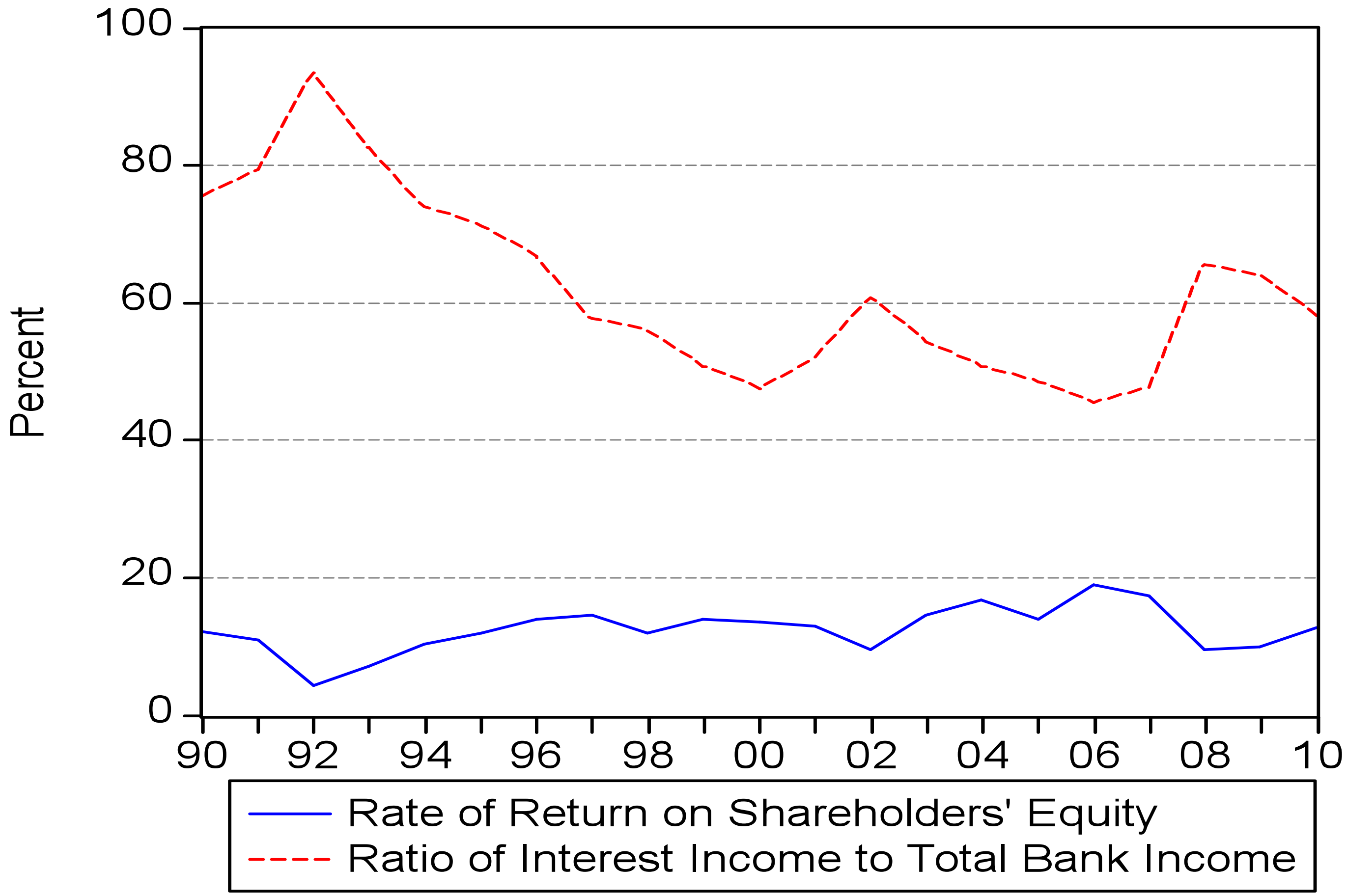
Source: Bank of Canada, Banking and Financial Statistics (Various issues)

Figure 6: Rate of Return on Equity of Chartered Banks in Canada: Canadian, Foreign-Owned, and Consolidated Banking Sector, 1990-2010



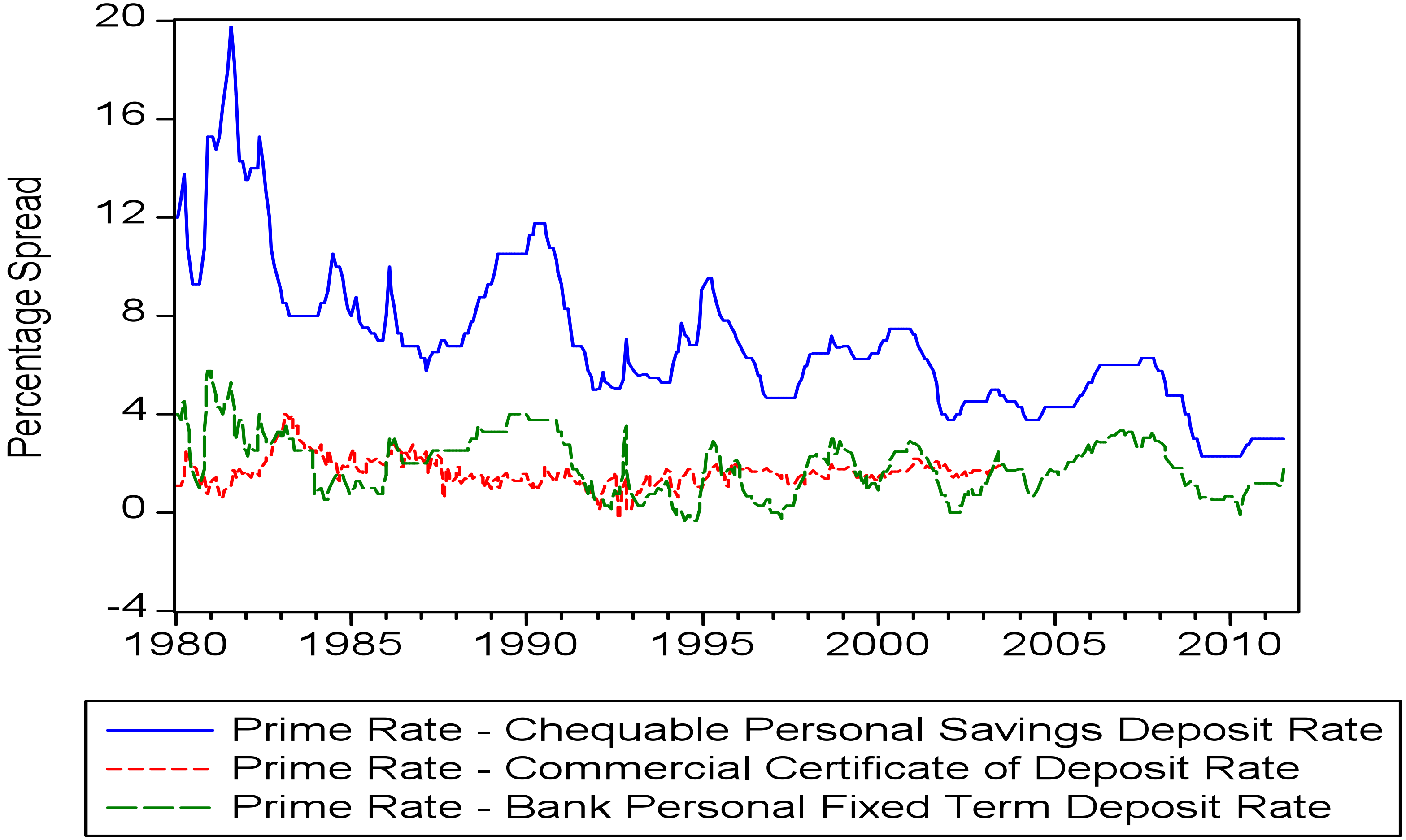
Source: Bank of Canada, Banking and Financial Statistics (Various issues)

Figure 7: Relation between Bank Profitability and Composition of Revenues of the Canadian Banking Sector, 1990-2010



Source: Bank of Canada, Banking and Financial Statistics (Various issues)

Figure 8: Measures of Interest Spreads in the Canadian Banking Sector, Monthly Observations, 1980-2011



Source: CANSIM V122492, V122495, V122506, V122515.

Table 1: Example of Regression Equation of Rate of Return on Equity in the Canadian Banking Sector

Dependent Variable: D(ROE)
Method: Least Squares
Date: 09/13/11 Time: 11:29
Sample(adjusted): 1991 2010
Included observations: 20 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.331074	0.459996	-0.719733	0.4815
D(SPREAD)	-0.019584	0.274388	-0.071373	0.9439
D(RATIOINTEREST)	-0.398022	0.065578	-6.069487	0.0000

R-squared	0.724079	Mean dependent var	0.025976
Adjusted R-squared	0.691618	S.D. dependent var	3.482561
S.E. of regression	1.933942	Akaike info criterion	4.294479
Sum squared resid	63.58225	Schwarz criterion	4.443839
Log likelihood	-39.94479	F-statistic	22.30591
Durbin-Watson stat	2.317856	Prob(F-statistic)	0.000018

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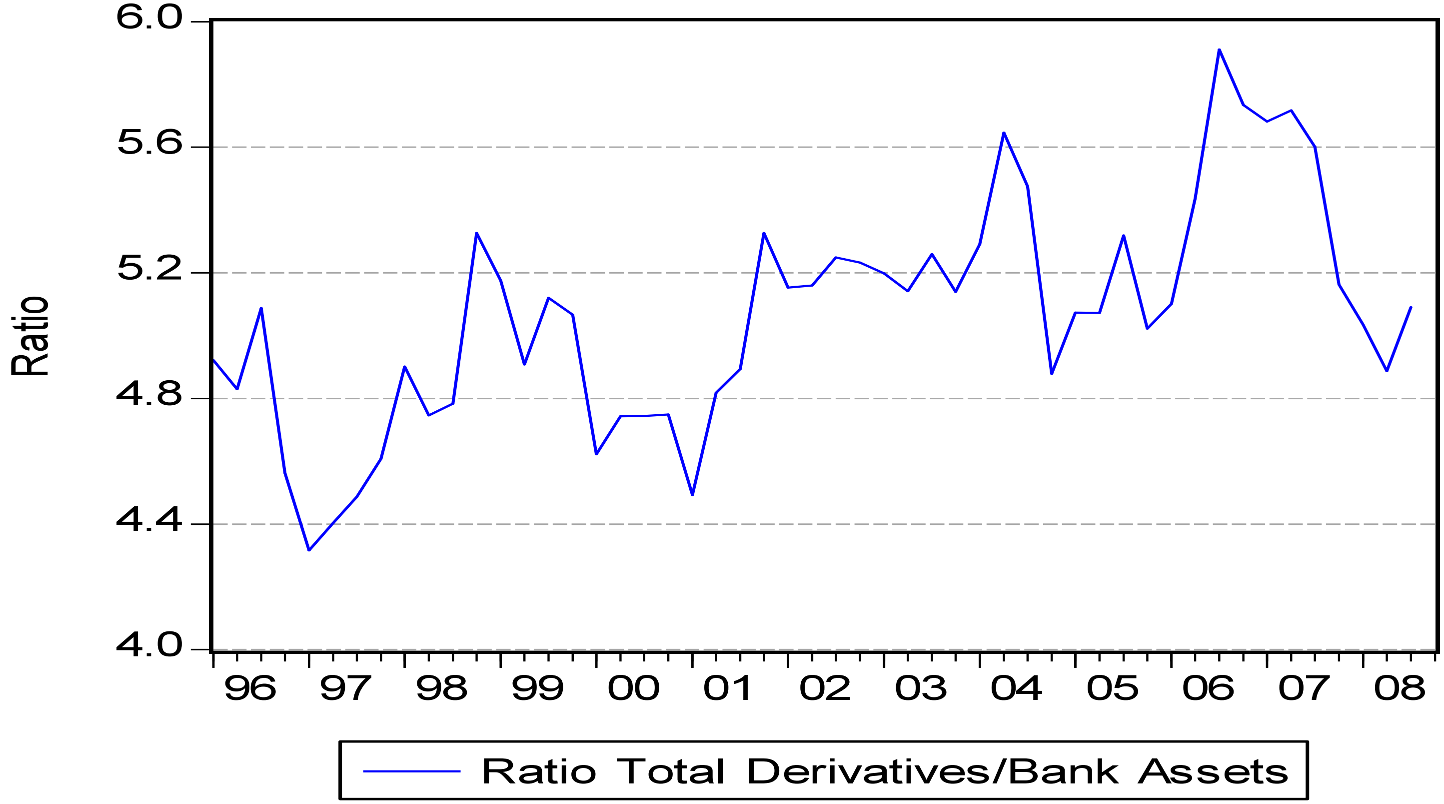
- Facilitated by deregulation, computerization and globalization, this process of financialization has brought about a complete transformation in the source of revenues for the banking sector (see Fig. 5).
- From as much as 90 percent of total revenues being derived in the early 1990s from the traditional interest spreads related to their activities in making loans to creditworthy borrowers, by the mid-2000s this had gone down to less than 50 percent, with more and more of these revenues earned from commissions, user fees and other forms of compensation unrelated to their traditional role in providing loans to the public.
- As shown in Fig. 6, this activity has been very lucrative for Canadian banks, with a trend upward movement in the rate of return on equity until its spectacular reversal, after these banks began to suffer significant losses triggered by the U.S. subprime crisis in 2007.

Figure 9: Value of Total Derivative Contracts as Proportion of Total Bank Assets, 1996-2008 (Quarterly Observations of the Consolidated Banking Sector)

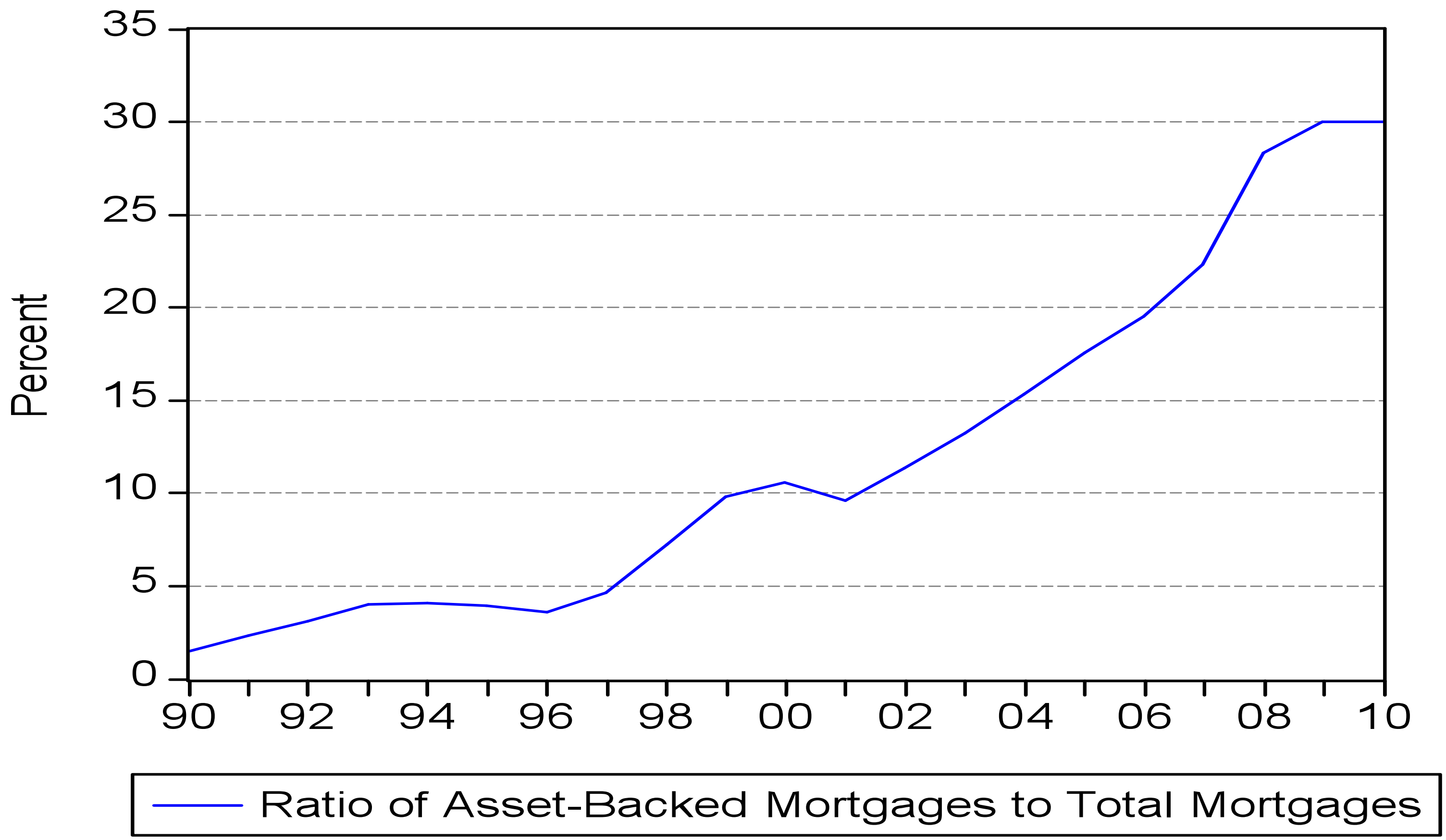


Source: Office of the Superintendent of Financial Institutions Canada

The Metamorphosis of the Banking Sector: From Industrial Capitalism to Hyper-Financial Capitalism

- Given the lucrative nature of this activity and the competitive pressure from U.S. banks, Canadian banks did progressively engage in securitization via the creation of off-balance sheet items within the financial system. All sorts of financial derivatives surfaced in Canada during this era: whether it was over-the-counter (OTC) contracts or exchange-traded contracts. Indeed, the value of total contracts of off-balance sheet items grew more than threefold between 1996 and 2008 within the Canadian banking system and, as a proportion of total bank assets shown in Figure 9, going from a ratio of about 4.5 in 1996, reaching a peak at a ratio of nearly six at the end of 2006 and early 2007, and then falling precipitously since 2007.
- Not only was it profitable for banks and security dealers in general but, most importantly, under the new institutional structure of NAFTA this activity flourished like never before (Correa and Seccareccia 2009). However, as shown in Figure 10, much of the growth of the issuing of asset-backed securities permeated Canada's mortgage sector in a big way, from practically zero in 1990 and then peaking and remaining at the plateau at about 30 percent of total mortgages by 2008-2010.

Figure 10: Mortgage Assets of the Issuers of Asset-Backed Securities as a Percentage of the Economy-Wide Mortgage Loans, Canada 1990-2010

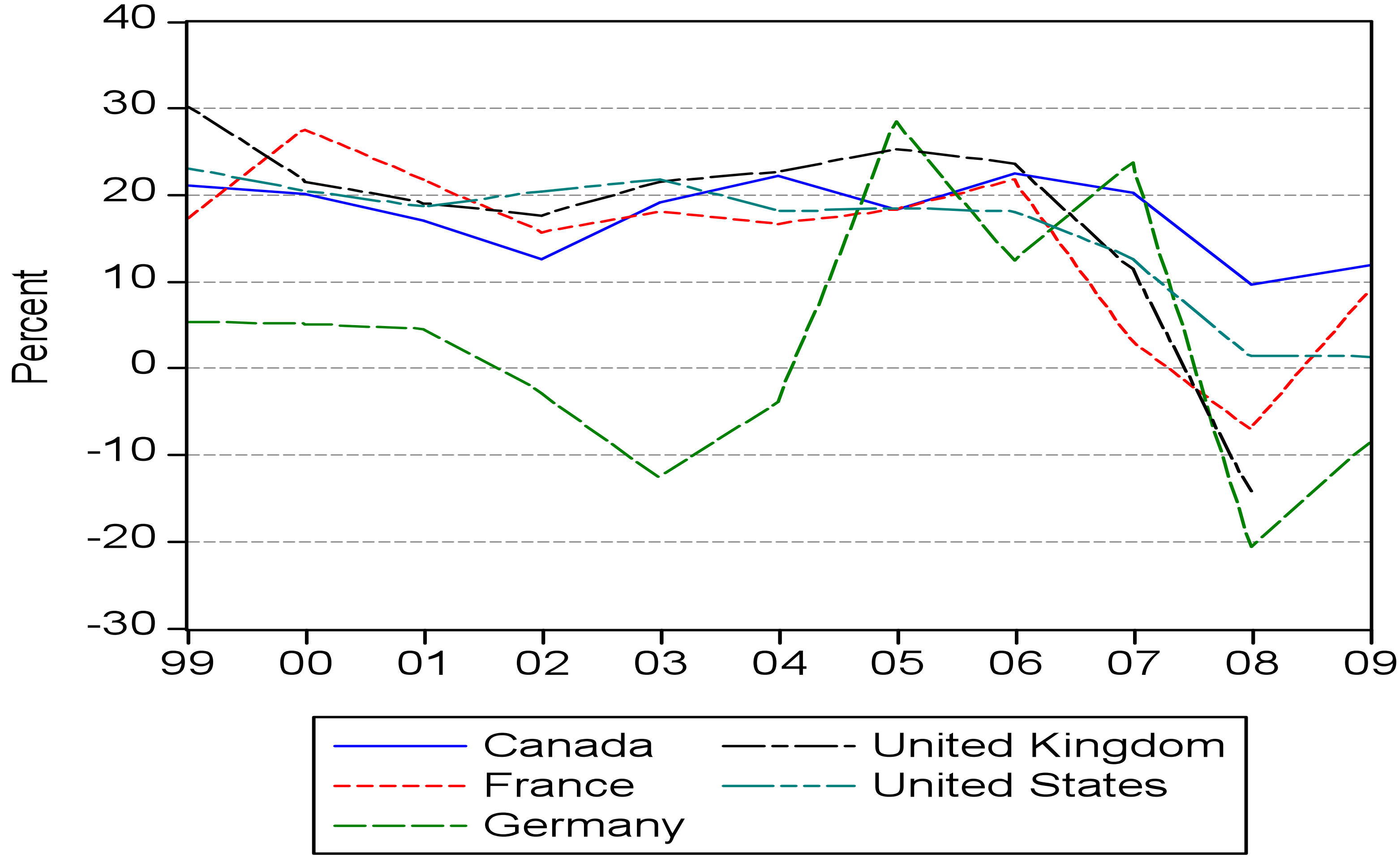


Source: Statistics Canada, CANSIM V52230350 and V52230917

Canadian Banks: Why Less Competition and More Regulation May Have Prevented Them from Following Closely the US Model and Thrived during the Financial Crisis

- We have seen that, over the last two decades, banking has gone from the traditional model of “originate to hold” to one of “originate to distribute” where banks can originate loans, earn their fee, and then sell them off to investors who would be prepared to accept different layers of exposure to risk depending on the particular properties of these assets.
- As the financial crisis advises, problems of moral hazard and adverse selection are rampant in such an unregulated system that emerged in both Canada and internationally during the 1990s with mark-to-model accounting techniques proliferating and with asset values that seemed to be kept aloof only by their own bootstraps (Berndt and Gupta (2008)).
- An international comparison of rates of return (Figure 11) would suggest that Canadian banks had been engaging in profit satisficing throughout the pre-financial crisis era but without facing the kind of competition faced by both US and European banks (with the latter as a result of the increased competition within the Euro zone).

Figure 11: International Comparison of Rates of Return on Equity of Commercial Banks, 1999-2009



Source: OECD.Stat Export

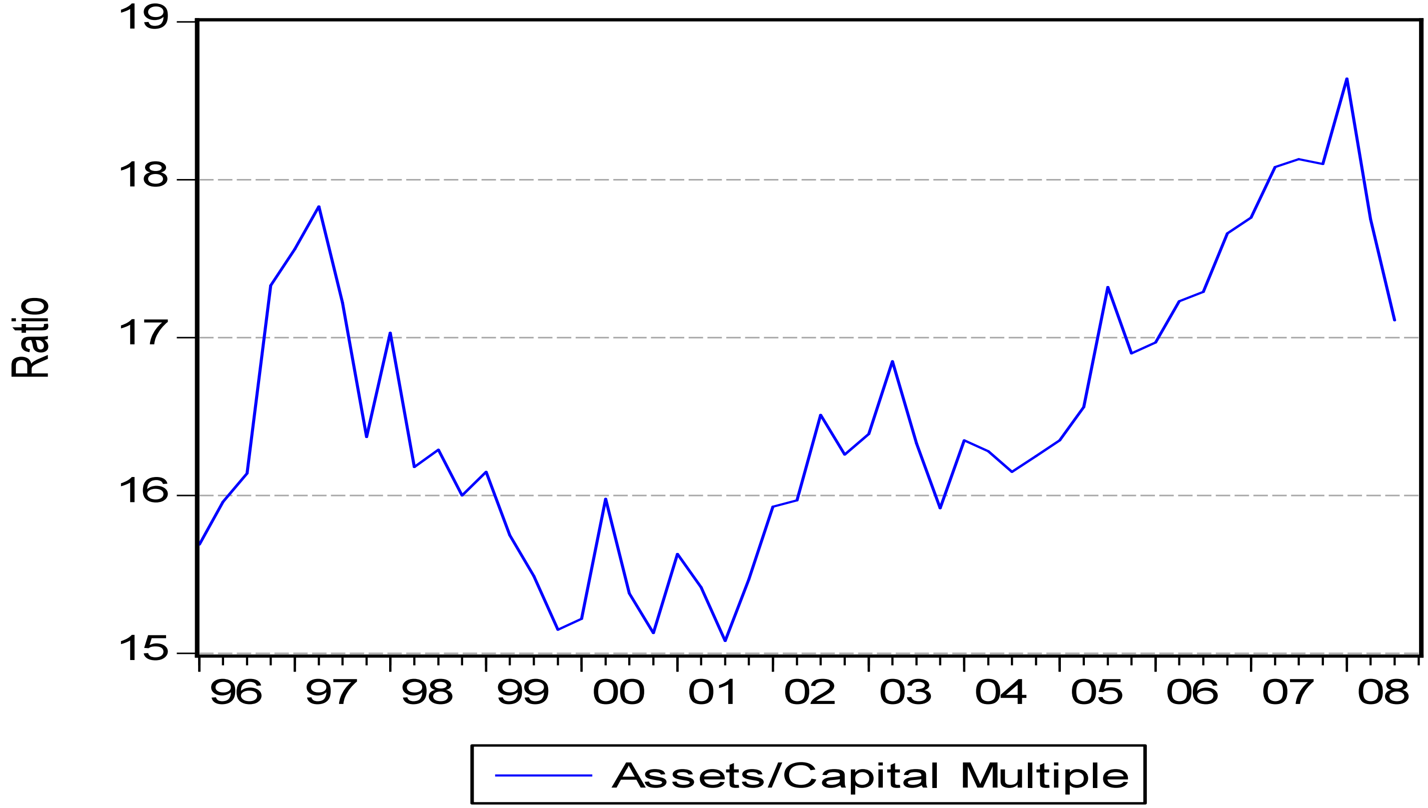
Canadian Banks: Why Less Competition and More Regulation May Have Prevented Them from Following Closely the US Model thereby Being Favourably Placed during the Financial Crisis

- While moving in the same direction that ultimately led to the 2007 subprime crisis (and the eventual financial crisis in 2008) in the US, the Canadian financial system revealed some important features which prevented it, however, from sinking into the same quagmire.
- Firstly, despite the pressure to liberalize under NAFTA, the Canadian banking system has remained relatively protected from foreign competition. Under article 1410 of NAFTA the Canadian government maintained its right to refuse a foreign investment that prevents a a threat to the “safety and integrity” of its financial system. This included retaining restrictions on foreign ownership in In fact, even under the current looser regulatory system since 2001, it makes the foreign acquisition of the major Canadian banks (the so-called Schedule I banks) very difficult since an investor cannot hold more than 20 percent of voting shares and not more than 30 percent of non-voting shares of the larger banks, with direct approval from the federal Minister of Finance.

Canadian Banks: Why Less Competition and More Regulation May Have Prevented Them from Following Closely the US Model and Thrived during the Financial Crisis

- Secondly, in terms of Basel II capital adequacy requirements, Canadian banks tended to be much better capitalized than their American and European counterparts and also tended to be less leveraged than other banking institutions internationally (see Bank of Canada 2008: 24). As a result, Canadian banks have faced significantly less losses and writedowns than banks in the US, the UK and continental Europe. For instance, by the fourth quarter of 2008, Canadian banks had reported losses of about $12 billion from the financial fallout, while the figure for the US and Europe combined was over $700 billion in US funds (cf. Bank of Canada 2008: 9).
- Figure 12 below traces the evolution of the asset/capital ratio as measured by the federal Office of the Superintendent of Financial Institutions (OSFI) in Canada for the post-1996 period. The ratio does not follow any discernable business cycle pattern, since it *declined* during the relatively high growth era of the late 1990s, but it *rose* during the post-2001 growth period and fluctuated around a stationary trend during the 2000-2001 slowdown. It peaked late 2007 at 18.6 — a level that was still below the OSFI upper limit of 20 for the asset/capital multiple — and declined sharply during 2008 as banks suffered serious losses.

Figure 12: Total Canadian Bank Assets to Adjusted Measure of Tier 1 and 2 Capital Multiple, 1996-2008 (Quarterly Observations of the Consolidated Banking Sector)



Source: Office of the Superintendent of Financial Institutions Canada

Canadian Banks: Why Less Competition and More Regulation May Have Prevented Them from Following Closely the US Model and Thrived during the Financial Crisis

- This less-leveraged feature of Canadian banks is not the result of a more conservative culture of business in Canada (as some have suggested, see Zakaria, 2009). It relates to the fact that the country has a deeply rooted and highly concentrated national multi-purpose system of branch-banking with a captive deposit base. As the Canadian Bankers Association advertizes (2011): In Canada "Investment banks are anchored by solid deposit-taking institutions." They are also national institutions that diversify regional risk.
- As pointed out by Booth (2008: 43-44), with less exposure to risk because of the less fragmented and more monopolistic nature of the Canadian banking system — with a wide base in regionally diversified markets and a fusion of investment and deposit banking operations into large single institutions — Canadian banks have been under less competitive pressure to securitize their loans and have tended to retain proportionally more of their assets in the hands of the originator of the bank loan.

Canadian Banks: Why Less Competition and More Regulation May Have Prevented Them from Following Closely the US Model and Thrived during the Financial Crisis

- For much the same reason and, perhaps, as a barrier to entry, Canadian banks are more capitalized because of this highly oligopolistic banking structure, with Canada's six largest banks accounting for over 90 percent of total bank assets domestically.
- This makes their activities highly lucrative with less pressure to involve themselves into more risky financial innovations. These high returns have allowed Canadian banks to penetrate aggressively the US banking sector and, during the financial crisis, has provided the former lots of buying opportunities because of failing US banks. The outcome of all this is that the biggest four chartered banks — the Royal Bank of Canada (RBC), Toronto-Dominion Bank (TD), the Scotiabank, and the Bank of Montreal (BMO) — are now securely placed in the top ten of North-American rankings.

Despite the Lower Competitive Pressures, Canadian Banks Were Moving in the Same Direction as U.S. Banks

- In 2006, sub-prime mortgages accounted for less than 5 percent of overall outstanding Canadian mortgages, while in the US this figure was 22 percent (Bergevin 2008).
- However, in the wake of the oil and commodity price boom and the ensuing hot real estate market, there was growing demand for looser mortgage lending. Indeed, under pressures to deregulate further the financial markets, the door was opened for the subprime market to move north in May 2006 in the first Conservative budget of the newly-elected Harper minority government. Owing mostly to the lobbying effort of American International Group (AIG) which recruited the support of some former officials of the federally-owned Canada Mortgage and Housing Corporation (CMHC), they finally succeeded in persuading the Harper Conservatives to open Canada’s mortgage insurance sector to greater foreign competition (McNish and McArthur, 2008).

Despite the Lower Competitive Pressures, Canadian Banks Were Moving in the Same Direction as U.S. Banks

- Hence, in 2007 and early 2008, even as signs were emerging of the gravity of the problem south of the border, subprime mortgages were actually proliferating in Canada. This was so even with the formal opposition of the former Governor of the Bank of Canada, who feared the inflationary consequences of this type of credit expansion not only in the hot Canadian housing market at the time but also on a broader scale, thereby possibly frustrating the Bank of Canada’s own low inflation targeting policy. In fact, if it was not for the severity of the US financial crisis in 2008 which, in a sense, nipped the problem in the bud, one would have probably seen the development of a serious subprime crisis in Canada as well.
- It was therefore the strength of a national banking system, a somewhat stronger regulatory structure, as well as a more favorable conjuncture of factors, including timing of policy changes, which would explain why the Canadian banking system weathered the storm a bit better than that of a number of other countries internationally.
- Their “bigness” per se was not a factor in their demise as some advocates of TBTF have suggested for the US.

What Is to Be Done?

- Since their inception in nineteenth century Canada, and because of their charter, banks are a blend of private/public institutions that are the foundation of our payment system. Securitization has offered banks a means to offload risky assets while earning revenues. This process ought to be abolished since the benefits that such a secondary/derivative market confers to a small group of individuals engaged in high stakes speculation is minimal relative to the damages that their activities could inflict on society. Therefore, banks should be prohibited from fueling a casino economy through their role in creating a secondary market from their initial credit advances.
- As the experience of the Great Depression informs, there should be a clear separation between the activity of banking proper and the activity of buying/selling secondary assets for the purpose of making capital gains (including credit default insurance). Hence, there should be a strong separation between the banks and the financial markets depicted in Figure 3.The moral hazard that such an incestuous relation could give rise is potentially much more damaging than the TBTF risks, which seem rather unimportant in light of the Canadian experience.