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## Actuaries

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### TAKING STOCK: IS BEING BIG BAD AND IS STRONG COMPETITION ALWAYS GOOD?

By Nino Boezio

In the past two years we have certainly heard a great deal about banks and brokerage firms in distress. Financial institutions such as insurance companies were also receiving serious scrutiny, something that they otherwise would not receive under most periods of economic turmoil. In 2008

the news (particularly emanating from the United States) was dominated by the spectre of bank failures due to excessive investment in sub-prime mortgages and other lower quality investments. In 2009, through a variety of mechanisms including government assistance and accounting changes, the banking industries throughout the world began to recover.

In conjunction with this environment, a number of propositions have been put forward on how to prevent this crisis from ever happening again. Some have criticized the practice of keeping many financial transactions “off-book,” and that process is now being reversed in conjunction with deleveraging. Others have attacked regulation and internal risk management practices, and both of these are now being reviewed and are receiving heightened and intense scrutiny, both within public and private circles.

Some have also attacked the large U.S. banking institutions, claiming that the “too big to fail” principle was in part behind the creation of this financial mess. A similar attack has been levied against many financial institutions around the world. The idea is that a “too big” institution knows that it is critical to an economy, and therefore expects a bailout when aggressive risk taking does not work out. Hence government intervention through legislation has been considered as an option to break up the dangerously big financial institutions.

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## // IN CONTRAST TO THE “TOO BIG” ARGUMENT, SOME HAVE ARGUED THAT BEING SMALL IS ALSO A SERIOUS PROBLEM. ... //

### “TOO BIG TO FAIL” VERSUS “TOO SMALL TO SUCCEED”

In testimony before the House Financial Services Committee in Washington on Oct. 29, 2009, Treasury Secretary Timothy Geithner gave indications that new regulations governing big financial institutions would, “enable government the ability to order even healthy companies to ‘shrink and separate’ if their size or scope threatened the broader economy.”<sup>1</sup> The premise is that market dominance is potentially a bad thing, and that companies will engage in risky business strategies (that they otherwise would not engage in) if they know a government put option exists. President Obama has indicated that he also wants measures taken against the large institutions.

The public discussions on this issue have influenced many to conclude that being big is often bad, or at least not necessarily the best market model to follow, especially in the case of financial institutions. I do tend to somewhat differ in the overall view, because I do not believe many large organizations like the idea of gambling with their survival, thinking that the government will otherwise bail them out if things do not turn out—virtually everyone wants their organization to succeed, even though sometimes this might be tainted by unreasonable optimism. Also an organization can make a mistake by assuming the cost of risk-taking is quantifiable when it is not, leading to higher losses than ever anticipated—but this is not caused by any ease of mind created by the thought that the government might otherwise be there to assist if things go wrong. As well, there is the legal repercussions and embarrassment of being partly responsible for a failed or failing organization.

We should also focus our scrutiny on the smaller institutions. In contrast to the “too big” argument, some have argued that being small is also a serious problem, and that U.S. government regulations have encouraged weak banks to continue in operation. For example, Martin Fridson in his

book, “Unwarranted Intrusions: The Case Against Government Intervention in the Marketplace”<sup>2</sup> (written in 2006 before this financial crisis was gathering momentum), made a number of observations which I found rather insightful:

- Deposits were insured through the creation of the Federal Deposit Insurance Corporation (FDIC) via the Banking Act of 1933. The FDIC has unfortunately encouraged weak banks to exist by allowing them to continue in operation rather than fail. Fridson cites that for bank losses, “the deposit insurer has transformed them into costs that include payments to depositors, assumptions of bad loans, financial assistance to the troubled institutions, and the insurer’s operating and administrative expenses.”
- Fridson cites the findings of an economist, Eugene White, who performed a study of the FDIC for the period 1945 to 1994. White concluded that, “the tab has probably exceeded the cost of bank failures that would have occurred if deposit insurance had not been adopted.” White also concludes that, “the destruction of weak banks and the formation of larger banks would have produced a stronger banking system with fewer losses.” Fridson remarking on these findings states, “by enabling small, weak banks to continue attracting deposits despite their precarious financial state, the innovation halted the trend of merger and consolidation of the nation’s highly localized banking industry.”
- Fridson also makes the following observation, “In reality, the impetus behind deposit insurance was the preservation of small banks. These institutions were highly prone to failure. Not only were their financial resources limited, but small banks’ loan portfolios were heavily concentrated in their local economies. A single major employer’s failure could financially devastate the small businesses to which a local bank had lent money. The small banks knew that they could survive any business downturn, however, if only the government would agree to insure their deposits. That way, depositors wouldn’t withdraw their money, no matter how shaky the little banks became.”

Even though Fridson notes that the FDIC has also protected banks that are, “too big to fail,” one of the other major points made from his review is that the United States now likely has more banks (and many of smaller size) than it otherwise would have had, because of government introduced safeguards. This

result has caused a weaker financial system, given the inefficiencies that it indirectly brings to the financial system as a whole. If larger institutions had been developed and fostered, it would have been healthier for the banking sector.



Photos from the banking crisis of the 1930s. Source: <http://www.fdic.gov/about/history/historicalphotogallery.html>

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## // THE ARGUMENT LEVIED THAT THE BANKS “TOO BIG TO FAIL” EVENTUALLY BECOME A PROBLEM FOR GOVERNMENT, CAN ALSO BE LEVIED AGAINST HAVING TOO MANY SMALL BANKS. //

In my own review of FDIC data, I was surprised at the number of U.S. financial institutions that exist. Consolidation did not occur with any great regularity until the early 1990s. There were 14,146 insured commercial banks in 1934 (after the FDIC was created in 1933), to a peak of 14,507 in 1984 (with the overall number being relatively stable during that period of 50 years), to a much smaller total of 7,097 at the end of 2008 (a drop of more than half).<sup>3</sup> The decline since 1984 was in large part due to unassisted mergers between banks, even though the number of banks remaining is still a relatively large number, especially when compared to other countries.

Of course, how big an institution is allowed to get is another question, but having small and smaller institutions is not a solution either. No one really wants to talk about the latter since the public, politicians and the banking industry may be overly concerned with losing the perceived value of deposit insurance and with defending against the spectre of reduced competition, but it does nullify the cleansing effects that a free market has on limiting the number of institutions that operate.

Ironically, FDIC insurance has helped the “too small to succeed” banks to otherwise survive. By having deposit insurance

as a backstop, they can engage in speculative ventures with depositors’ money. So the argument levied that the banks “too big to fail” eventually become a problem for government, can also be levied against having too many small banks.

### WHAT ABOUT TOO MUCH COMPETITION?

Throughout this period of financial turmoil, I often would hear (primarily through the Canadian media) about how Canada has a superior banking system and how regulation had safeguarded Canadian banks from getting into the same financial trouble that U.S. banks now faced. I was not always sure if this told the complete story (for example, one of the Canadian banks, CIBC, was heavily involved in sub-prime exposure, and it was not due to any violations of either regulations or general bank industry standards). In addition, the strengths and weaknesses of any type of financial system can alternate depending on what economic environment we happen to be in.

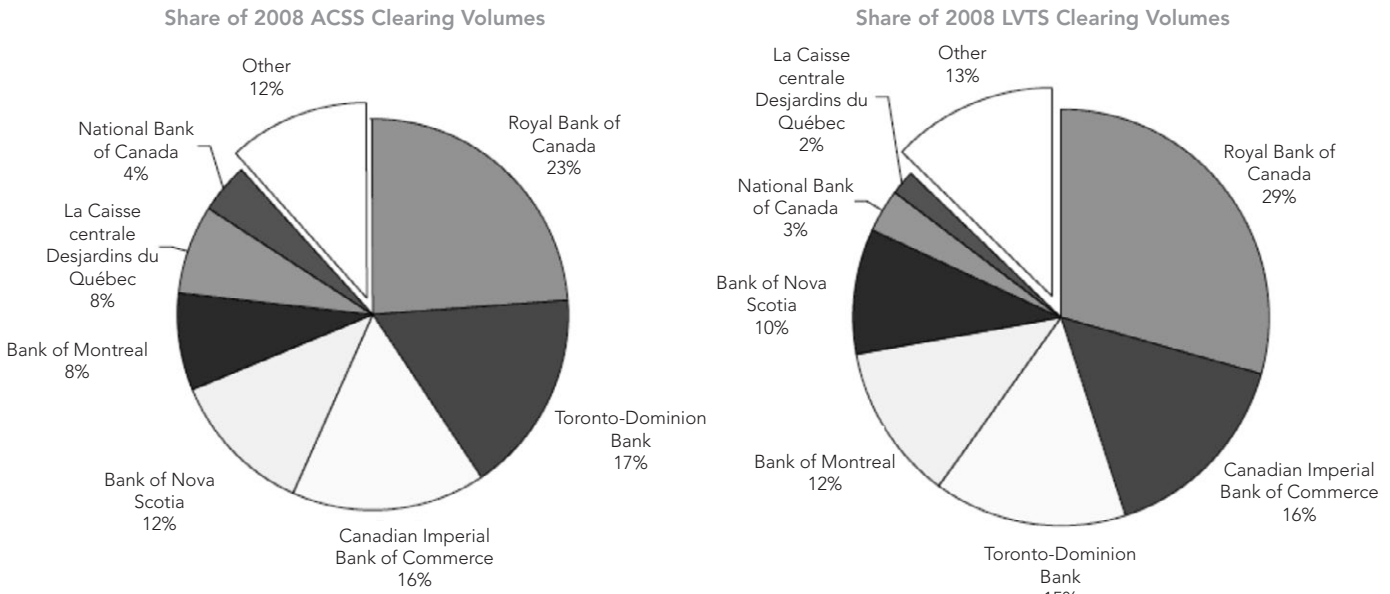
I attended a presentation in June 2009 that addressed the prospects for the Canadian banking industry and the financial industry as a whole worldwide. There was one particular comment that really caught my attention, and which really shed some light on one of the major structural differences between the Canadian and U.S. banking industry. The speaker highlighted the fact that since the major Canadian banks have such a dominant presence in the Canadian market, they make sufficient shareholder return from providing basic banking services without having to get into more exotic and risky investments.<sup>4</sup> He noted the fact that Canadian banks are an oligopoly, which means that the top six banks control about 90 percent of the market (I include two charts from that presentation for illustration, and one includes a 7th financial institution).



**Associated Press**  
President Franklin D. Roosevelt signed the Glass-Steagall Act which was passed in 1933, and which separated commercial and investment banking

**The top seven deposit-taking institutions in Canada constitute a powerful and stable oligopoly**

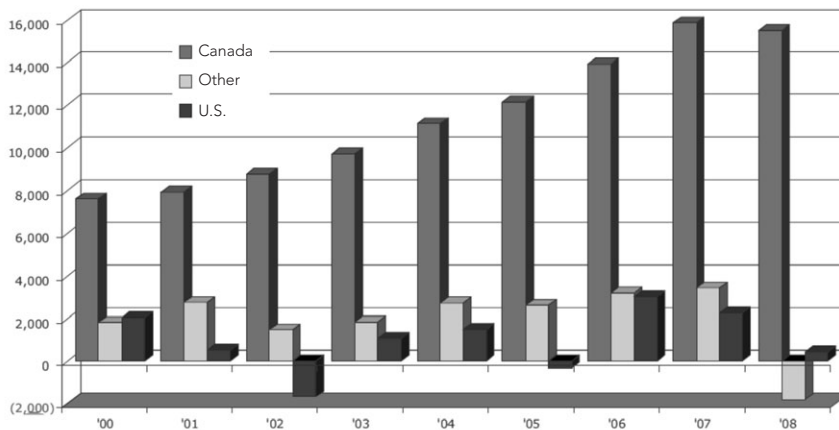
Canadian payments—Clearing Systems Volumes



Source: Canadian Payments Association; Moody's Analysis. Note: ACSS=Automated Clearing Settlement System; LVTS=Large Value Transfer System

**The oligopoly acts as a market-based regulator, reinforcing rationale pricing of risk and mitigating against excessive innovation**

Big Six Canadian Banks—Net Income by Geographic Area, C\$ millions



Note: The big six Canadian banks are Royal Bank of Canada, Toronto-Dominion (TD), Bank of Nova Scotia, Bank of Montreal, Canadian Imperial Bank of Commerce, National Bank of Canada

Source: Bank Annual Reports, Moody's Analysis and Estimates

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Taking the speaker's point further, if we use the common measure of 10:1 (that many like to use when comparing the United States to Canada in terms of size, based on relative population), one might figure that six banks in Canada may be like having 60 banks dominating the U.S. market. However this rationale can be flawed.

Having a higher population does not necessarily mean that we should proportionately have more banks. If there were only 60 banks dominating a particular market, one could still expect more competition than with only six as is the case for Canada. Competition is not always tied to the population it serves, but how easy it would be to coordinate strategies among the banks and thus function in an attitude of cooperation rather than rivalry, and it also depends on how fragmented the market is. Canadian banks do compete with each other, but the pressure for dramatic innovation is likely not as strong as in the U.S. environment. More companies competing in a particular sector

simply make the prospect for competition to be more intense. In particular, it does increase the likelihood that at least some banks are going to try to push innovation to a breaking point, hurting the entire industry if other banks follow suit. They may also engage in risky investments to get a better return. It can be embarrassing for any company to be boring.

We do note in the following table that market dominance is significantly different between the two countries. In actuality, while the Canadian banking industry is dominated by six banks, the United States has really only three or four, and these are of much smaller scale than their Canadian counterparts (the top two Canadian banks are almost equivalent to the top 10 U.S. banks in terms of deposit market share, and ironically the 10th largest U.S. bank is now also a Canadian bank because of its pre-crisis acquisitions).

2009 Rank	2008 Rank	U.S. Institution	US Market Share (%)	Total U.S. Deposits (\$B)
1	1	Bank of America Corp.	12.00	907.4
2	4	Wells Fargo & Co.	10.04	758.9
3	2	JP Morgan Chase & Co.	8.46	639.8
4	5	Citigroup Inc.	4.24	320.8
5	16	PNC Financial Services Group Inc.	2.44	184.2
6	7	U.S. Bancorp	2.02	152.8
7	8	SunTrust Banks Inc.	1.57	118.5
8	12	Capital One Financial Corp.	1.51	114.3
9	14	BB&T Corp.	1.51	114.2
10	11	Toronto-Dominion (TD) Bank	1.39	104.9
		Total of the Big 10	45.18%	\$3,415.8
		Total for Institutions in U.S.		\$7,559.9

The 2009 U.S. data includes bank and thrift deposits at retail and nonretail branches (active and de novo) as of June 30 and is pro forma for all acquisitions that have closed or have been announced at Oct 18. The 2008 data is based on ownership reported by the companies as of June 30, 2008. Source SNL Financial

2009 Rank	2008 Rank	Canadian Institution	Cdn Market Share (%)	Total Deposits (Cdn \$B)
1	1	Royal Bank	21.82	406.4
2	2	TD Bank	21.16	394.0
3	3	Bank of Nova Scotia	18.42	343.0
4	4	Bank of Montreal	12.77	237.7
5	5	CIBC	11.56	215.2
6	6	National Bank	4.15	77.3
		Total of the Big 6	89.88%	\$1,673.7
		Aggregate for Canadian Banks		\$1,862.1

Source: Office of the Superintendent of Financial Institutions Canada (OSFI), August 31, 2009 Data

# // WHEN COMPETITION IS VERY STRONG, THE PRESSURE TO COME UP WITH NEW PRODUCTS AND IDEAS CAN BE SUBSTANTIAL. //

As mentioned earlier, the United States has over 7,000 commercial banks, but it also has an additional 1,200 savings institutions insured by the FDIC. Of course, many of these U.S. financial institutions are of varying sizes and many do not dominate the market at all. Canada in contrast has 22 domestic banks, 26 foreign banks, and 29 foreign bank branches. In addition, Canada has 66 trust and loan companies (but many of these are also owned by the big six Canadian banks).<sup>5</sup> Once we remove the top six Canadian financial institutions from the Canadian financial system, the remaining players are rather insignificant. Also, if we compare the two countries and assume all of the Canadian entities are separate and independent (which they are not, but this may also be the case for some of the U.S. institutions) we have 60 times as many financial institutions in the United States. This is quite a stark difference in the number of organizations operating within the two countries.

When you have many companies (banks) fighting for a market, it does change some of the dynamics. If there are too many, they have to compete vigorously. They offer higher deposit rates and lower charges (perhaps too low) as there are many other institutions that would otherwise take the business. Thus some (perhaps many) of the banks have to get into risky investments elsewhere in their overall book of business, because they make poor returns on basic offerings and services. For example, a regional bank which has a limited branch network and is thus unable to expand, may engage in riskier financial activities in order to achieve growth. When you have 7,000 U.S. banks (or even 60) which have to compete with each other, you can envision a scenario where they feel forced to become more risky in order to remain at the same position or to get ahead of their peers, or even to achieve a similar share return to Canadian banks. I have to wonder how different things would be if instead of six major banks, Canada had the equivalent of 60 banks fighting for the Canadian market with none being dominant—I strongly believe that Canada would have a much weaker and more fragile banking system. The Canadian banks would be induced to come up with more

provocative and more challenging products and ideas, some of which could fail miserably.

I should point out that Canada also has deposit insurance (the Canadian Deposit Insurance Corporation) which has similarities to the FDIC, so that on its own insurance may not always prove to be a negative. But combine that with too many (and smaller) institutions, and we can produce a market efficiency problem.

## COMPETITION LEADS TO INNOVATION— BUT SOME GOOD AND SOME BAD

Competition does benefit society as it produces incentives to come up with new innovations that benefit the consumer. Such innovations also benefit the company that produces them, since it will achieve a relative advantage to its peers.

When competition is very strong, the pressure to come up with new products and ideas can be substantial. We see for example, in times of warfare, technological advances are more rapid and are of much greater magnitude than in times of peace. However, given the complexity of our world, competition can also lead to developments that are much farther ahead than our ability to comprehend and manage effectively. When the competition becomes severe, it can cause a company to go farther than it should go into innovative products that are not completely understood.

## COMPETITION CAN LEAD TO GREATER RISK-TAKING

An organization, in order to distinguish itself from its peers, may at times be motivated to take on excessive risk. Depending on the incentives in place, certain individuals or divisions can be motivated to take chances based on the risk-reward payoff matrix. If a person faces limited downside risk if a decision is wrong (such as just losing a job) but has substantial upside, then the risks undertaken can be worth the gamble. These wrong incentives are not truly tied to the size of the institution,

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even though a large organization has a large distribution network which can generate higher returns for a successful idea. But I do not consider risk-taking to be unduly influenced by the government put option for larger organizations, but rather misaligned corporate incentives. For smaller organizations however, it may become more of an issue, as there is less to lose and more to gain given the much smaller corporate asset base, especially given the presence of deposit insurance.

## SUMMARY

There have been two conflicting themes operating in the U.S. banking system, and this tends to be a similar problem in many world economies. We have a financial system where organizations may be protected from failing which results in inefficiencies. We also encourage more risk taking as too many financial institutions are doing the same thing, and they therefore become motivated to look for ways to develop a relative advantage. Some institutions may be content with making a limited return on their investment, while others will become very aggressive in order to win market share over their peers.

Competition on its own promotes innovation and efficiency. However, it also promotes an environment, especially in today's world, where developments and products can move beyond our ability to understand and monitor them. An organization tries to achieve a competitive edge, but without understanding its real cost. Here competition becomes a detriment to the well-being of the sector as a whole and the population it serves.

If there are cracks in our risk management systems or an organization has improperly aligned incentives (especially in terms of time periods, and where benefits or gains are too short-term in nature) then we can find an organization running somewhat loose in its revenue generating enterprises, without realizing that its products and services have hidden costs which no one

truly understands, and is not being provisioned for via the balance sheet.

Under a totally free market framework, being small normally results in a company ceasing to exist unless it can achieve a competitive advantage. If there are too many institutions in any particular sector, it has been understood that the weakest can and do fail. Unfortunately many forget these other principles of competition as they wish to break-up larger organizations into smaller components while protecting organizations through government insurance programs.

In summary, we may not always know what number of companies of any type may be the ideal in any particular sector of the economy, and what is the appropriate size of an institution, but it does cause us to wonder. But targeting large organizations because of their absolute size relative to the economy is flawed if we do not address many of the other technical and practical problems that have been created by inappropriate government safeguards and intervention. **■**

## FOOTNOTES:

- <sup>1</sup> Paletta, Damian, "U.S. Seeks Power to Force Even Strong Banks to Shrink", *Wall Street Journal*, October 30, 2009, page A8.
- <sup>2</sup> Fridson, Martin S., *Unwarranted Intrusions: The Case Against Government Intervention in the Marketplace*, Hoboken: Wiley, 2006. 251, 262.
- <sup>3</sup> "Historical Statistics on Banking, Commercial Bank Reports, CB02: Changes in Number of Institutions", <[www2.fdic.gov](http://www2.fdic.gov)> [path: <http://www2.fdic.gov/hsob/hsobRpt.asp>]
- <sup>4</sup> Routledge, Peter, "Moody's Investors Service – Canadian Bank Overview", *Canadian Banking Sector: Fixed Income & Equity Perspective*, (luncheon seminar sponsored by Toronto CFA Society), June 11, 2009.
- <sup>5</sup> "Who We Regulate, Federally Regulated Financial Institutions", <<http://www.osfi-bsif.gc.ca/>> [path: [http://www.osfi-bsif.gc.ca/osfi/index\\_e.aspx?DetailID=568](http://www.osfi-bsif.gc.ca/osfi/index_e.aspx?DetailID=568)]



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