RECONSIDERING CANADIAN BANK MERGERS

by

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1. Introduction

Over the past decade, a pattern of rapid consolidation has become a global characteristic of the international banking industry. Financial institutions have used mergers to re-position themselves as larger, more effective competitors in increasingly international markets. This emerging trend has sparked significant discussion and debate regarding the effects of mergers and acquisitions on competition. Concerns relating to reduced quality and scope of financial services have been raised amidst arguments for the achievement of better efficiency. Taking these and other factors into consideration, policy makers must balance the expected social benefits and costs associated with a merger to achieve the optimal result.

While there has been considerable consolidation in the industry worldwide, consolidation within Canada has been virtually non-existent. This outcome can be largely attributed to two failed merger attempts by major Canadian banks in 1998. This paper examines the analysis and context surrounding the original merger proceedings and discusses the implications for future Canadian bank merger proposals.

First, the importance of the banking industry from the perspective of stability is established and the key considerations of the 1998 bank merger proposals are outlined. The analysis relies on a variety of data sources, including various Statistics Canada Surveys as well as data from the Office of the Superintendent of Financial Institutions (OSFI), to assess differences in the level of competition in the industry, identify changes to other more structural characteristics, and to extend the analysis to incorporate information and considerations relevant to the current environment. Overall, the analysis suggests that, should bank mergers be proposed in the current context or the near future, the likelihood of a proposal succeeding would be favorable.

2. Motivation

A well-functioning financial system is vital to the success of any economy. Banks, a fundamental part of this system, play an important role in creating economic stability and growth. In addition to their own contributions to Canada's economic prosperity, employing over 257,000 Canadians and paying $8.7 billion in taxes in 2007,[1] banks facilitate production, employment, and output in other industries. Banks foster investment by providing credit to businesses and consumers, provide a means to hold and transfer financial assets, and enable risk-sharing. For these reasons, among others, the stability of banks and their ability to succeed are important considerations for policy makers.

In the past, banks have argued that to maintain their stability and fulfill their function as a catalyst for economic growth, they need to be larger and have proposed mergers as a means of achieving this. Canada's current policies surrounding bank mergers were developed in 1998 in response to two proposed bank mergers between four of Canada's largest banks. The proposed mergers between the Bank of Montreal (BMO) and the Royal Bank of Canada (RBC) as well as between the Canadian Imperial Bank of Commerce (CIBC) and the Toronto-Dominion (TD) Bank launched the "two single most

[1] Canadian Bankers Association. *Banks and the Economy,* September 2008. Accessed online at www.cba.ca

extensive and exhaustive merger reviews ever carried out in Canada."[2] At the time, the four merging parties represented over $590 billion in assets.[3] After assessing the likely effects the mergers would have on competition within the banking market, the Competition Bureau determined the anti-competitive effects of the proposed mergers were too large to permit the mergers to proceed.[4]

Since the initial review process in 1998, despite public and political opposition to bank mergers, the Canadian banking industry has sustained constant, and more recently, renewed interest in large scale bank mergers. These sentiments have been echoed by some prominent academics and economic authorities. David Dodge, former Governor of the Bank of Canada was quoted by the Canadian Press (in December 2006) as saying, "unless regulators lift rules preventing mergers among the country's financial institutions, Canada could become increasingly less efficient and be left behind by the global economy," and "unless we can get greater economies of scale then we will be less efficient than the global standard and over time, as consolidation goes on in the rest of the world, increasingly less efficient."[5] More recently, the Organization for Economic Co-operation and Development (OECD) has also voiced support for large-scale bank mergers in Canada. In their 2008 Economic Survey of Canada, the OECD indicates "it is now time, ten years after the first merger proposal were blocked by government, to welcome competition in financial markets by allowing Canada's leading financial

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[2] Competition Bureau. "Statement by Konrad von Finckenstein, Q.C., Director of Investigation and Research, Competition Bureau to the Financial Services Institute", January 22, 1999. Accessed online at www.competitionbureau.gc.ca.
[3] Ibid.
[4] The evidence and argument presented by the Competition Bureau aided the Minister of Finance in his ultimate decision to intervene and prevent the bank mergers.
[5] Quoted in Price Waterhouse Coopers, *Canadian Banks 2007: Perspectives on the Canadian Banking Industry,* March 2007:2. Accessed online at www.pwc.com.

institutions to become global players by lifting the ban."[6] This was further echoed in a recommendation of the Competition Policy Review Panel which states that "the Minister of Finance should remove the *de facto* prohibition on bank, insurance, and cross-pillar mergers of large financial institutions subject to regulatory safeguards, enforced and administered by the Office of the Superintendent of Financial Institutions and the Competition Bureau."[7]

Citing their limited size as a hindrance to effectively competing on the international stage, Canadian banks have continued to advocate large scale bank mergers among the industry's major players. In their annual publication on the banking industry in Canada, Price Waterhouse Cooper has consistently conducted analysis to gauge the political and economic atmosphere toward bank mergers, which suggests continued interest in bank mergers within the industry. For example, in their 2006 report, Price Waterhouse Cooper indicates that there were "positive signs through 2005 that political opposition to mergers was softening in Ottawa."[8] More recently, major banks have begun publicly expressing interest in a re-evaluation of federal merger policy through the Competition Policy Review Panel submission process. In its submission paper, RBC indicated that "the government's policy prohibition on mergers between large banks . . . should be removed."[9] This sentiment was echoed by Scotiabank (Bank of Nova Scotia,

[6] OECD. *OECD Economic Surveys: Canada* 11, (June 2008): 13.
[7] Competition Policy Review Panel. *Compete to Win: Final Report*, June 2008: 52. Accessed online at http://www.ic.gc.ca/epic/site/cprp-gepmc.nsf/en/h_00040e.html.
[8] Price Waterhouse Coopers, *Canadian Banks 2006: Perspectives on the Canadian Banking Industry,* March 2006:45. Accessed online at www.pwc.com.
[9] Royal Bank of Canada. *RBC Submission to the Competition Policy Review Panel*: 6. Accessed online at www.ic.gc.ca/ epic/site/cprp-gepmc.nsf/vwapj/Royal_Bank_Canada.pdf/$FILE/Royal_Bank_Canada.pdf.

BNS) Group president Rick Waugh who advocated that "Canadian banks . . . be permitted to restructure, including the option to merge."[10]

Given that the primary rationale cited by banks for allowing mergers is to allow them to "embrace international competitiveness"[11] and to "better compete on the global stage,"[12] these claims beg the question, how do Canadian banks measure up against their international counterparts? The Banker produces an annual publication in which it ranks the *Top 1000 World Banks.* In its 2008 edition, RBC, Canada's highest ranked bank, only places 38th, followed by TD (45), BNS (48), BMO (51), and CIBC (54). What is most staggering about these results is how much smaller Canada's banks are compared to world leaders. RBC, Canada's largest bank has less than one-half the pre-tax profit of the global leader. If the pre-tax profit of Canada's top five banks were combined, their aggregate total would only rank 7th in the world. Even after taking into account the substantial debilitating effects of the sub-prime crisis felt by other banks, Canada does not fare well. With respect to assets, RBC is less than one-third the size of a diminished Citigroup.[13]

While Canada's banks are significantly smaller than the largest in the world, this was not always the case. Where Canada's banks had previously excelled in international

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[10] Waugh, Rick. "What Banks Need." *National Post,* January 15, 2008, FP17.
[11] Scotiabank. *Scotiabank's Submission to the Competition Policy Review Panel*, (January 10, 2008): 14. Accessed online at www.ic.gc.ca/epic/site/cprp-gepmc.nsf/vwapj/Scotiabank.pdf/$FILE/Scotiabank.pdf.
[12] RBC. *RBC Submission to the Competition Policy Review Panel*: 6. Accessed online at www.ic.gc.ca/epic/site/cprp-gepmc.nsf/vwapj/Royal_Bank_Canada.pdf/$FILE/Royal_Bank_Canada.pdf.
[13] Results are taken from The Banker's *Top 1000 World Banks 2008* publication, based on the fiscal position of banks for the year 2007. While some sub-prime crisis effects will be reflected in this data, current estimates and totals are expected to be significantly different due to deepening crisis in the financial sector and increasing market volatility.

rankings and competition due to progressive regulatory and policy considerations, more recently Canadian banks have been increasingly falling behind their international counterparts. Canadian banks have been decreasing with respect to asset size and income, relative to some of the world's major competitors. In 1995, the average assets of a big five Canadian bank was slightly larger than the assets of Chase Manhattan Bank. Today the average assets of a big five Canadian bank is less than a third of JP Morgan Chase. In 1985, the average assets of Canada's five largest banks equaled about 38% of the average assets of the top 10 global banks. Today that ratio has fallen to about 19.5%.[14] Much of the decline in the relative size of Canada's banks has been attributed to the *de facto* prohibition on bank mergers in Canada.[15]

As a result, Canadian banks have attempted to increase their assets and growth potential through the purchase of other foreign subsidiaries. Since the initial review process in 1998, Canadian banks have spent $56 billion on foreign acquisitions.[16] (See Figure 1 for an account of mergers and acquisitions by major Canadian banks from 2000 to 2006.) However, as competing international banks grow to become larger and more powerful, Canadian banks not only lose market share and influence in the international market, but also, as banks in other countries are permitted to merge, the foreign targets Canadian banks intend to acquire become unreachable. As this effect grows stronger, the need for change in Canada's policy toward bank mergers becomes more urgent.

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[14] Canadian Bankers Association. *Strengthening Canada's Competitiveness: The Canadian Bankers Association Submission to the Competition Policy Review Panel*, January 10, 2008: 17. Accessed online at www.ic.gc.ca/epic/site/cprp-gepmc.nsf/vwapj/Canadian_Bankers_Association.pdf/$FILE/ Canadian_Bankers_Association.pdf.
[15] Ibid.
[16] Silcoff, Sean. "Over Before it Began: Bankers own mistakes cause 1998 merger failures, insiders say," *National Post*, January 19, 2008, FP3.

Figure 1. Mergers and Acquisitions by Canada's Major Banks From 2000 to 2006[17]

Bank & Region	Number of Acquisitions	Bank & Region	Number of Acquisitions
RBC	**32**	**BMO**	**18**
Asia & Oceania	1	Asia & Oceania	1
Off-Shore Financial Centres	1	UK	1
Latin America	1	US	16
UK	1		
US	28	**TD**	**8**
		UK	2
BNS	**19**	US	6
Asia & Oceania	1		
Off-Shore Financial Centres	2	**CIBC**	**5**
Latin America	16	Off-Shore Financial Centres	2
		US	3

Source: Financial Post Mergers and Acquisitions database.

The current official position of the Government of Canada toward bank mergers is that they are "not a priority".[18] However, the government has taken some action within the past 10 years that suggests a willingness to re-examine the bank merger issue. In late fall 2002, John Manley, then Minister of Finance, and Maurizio Bevilacqua, Secretary of State for International Financial Institutions, requested a review of the public interest tests entrenched in the bank merger process. Stakeholders had expressed an interest in clarifying these provisions and in response, the House of Commons Standing Committee on Finance and the Standing Senate Committee on Banking, Trade, and Commerce were tasked with providing recommendations and feedback with respect to the implications of

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[17] Inclusion criteria: Equity acquired transactions must have transfer of ownership of at least 10% of a company's equity where the purchase price is at lease $1,000,000. Assets acquired transactions must have the purchase price of at least $1,000,000. Figures include any transaction where the target is situated outside of Canada.

[18] Minister of Finance, Jim Flaherty, quoted in O'Meara, Dina. "Mergers 'not a priority' for Flaherty", *Edmonton Journal,* January 16, 2008, E7.

bank mergers for the public interest. The Senate Standing Committee found that, upon receiving approval from the Competition Bureau and the OSFI (Office of the Superintendent of Financial Institutions), a bank merger would likely strengthen the Canadian economy and benefit Canadian consumers, and thus the government should limit interventions for the sake of protecting the public interest.[19] The House of Commons Standing Committee took a more pro-active approach to protecting the public interest in bank mergers by recommending that merging parties be required to demonstrate increased access to capital for small and medium sized enterprises (SMEs), continued service to rural and remote communities, comparable or lower prices for banking services, and minimal job losses, among other criteria, as a result of the proposed merger.[20] More recently, the federal government initiated the Competition Policy Review Panel which was mandated to review the effectiveness of Canada's competition and investment policies with respect to productivity and competitiveness. Major players in the Canadian banking industry were active players in this process, submitting analysis and recommendations. It is possible that, as a result of its recommendation to remove the *de facto* ban on bank mergers, the Panel will renew discussions of bank mergers in Canada.

[19] Senate Standing Committee on Banking, Trade and Commerce. *Competition in the Public Interest: Large Bank Mergers in Canada,* December 2002. Accessed online at www.parl.gc.ca.
[20] House of Commons Standing Committee on Finance. *Large Bank Mergers in Canada: Safeguarding the Public Interest for Canadians and Canadian Businesses,* March 2003. Accessed online at www.parl.gc.ca.

3. Background Information

1998 Proposed Bank Merger Analysis

In January 1998, the Bank of Montreal and the Royal Bank of Canada announced their intention to merge which was shortly followed by a similar announcement by the Canadian Imperial Bank of Commerce and the Toronto-Dominion Bank. The proposed mergers were evaluated by the Competition Bureau through an extensive, data intensive, 10 month review. The review identified problematic areas for both mergers that it determined would lead to a significant lessening of competition, specifically "higher prices and lower levels of service and choice."[21] After defining the relevant product and geographic markets, the Bureau proceeded to calculate market shares and concentration levels in the identified markets. Based on the thresholds of no more than a 35% market share of the merged entity and a maximum of 65% combined market share by the four largest competitors post merger within the established geographic market, the Competition Bureau identified three troublesome product areas. The three product areas identified were branch banking services, credit cards, and the securities industries.

For both mergers, branch banking services included both businesses and personal transactions. Personal banking services in the areas of personal transaction accounts, residential mortgages, and personal loans/lines of credit were identified as problematic, likewise with business banking services for business transaction accounts and operating loans, especially for SMEs. The geographic market for personal products was

[21] Competition Bureau. *The Competition Bureau and Bank Mergers*, December 11, 1998. Accessed online at www.competitionbureau.gc.ca.

determined to be local while business products were considered regional (i.e., provincial). With respect to the RBC and BMO merger proposal, it was concluded that out of a total possible 224 local markets, competition would decrease substantially in 104 markets, with another 71 additional markets being classified as problematic. Competition in business services would be substantially lessened in five provinces (B.C., Sask, Man, ON, NS). The detrimental effects on competition in personal banking products from the proposed CIBC and TD proposed merger was less pronounced, of a total of 179 possible markets, only 36 were identified as decreasing competition with certainty, and 53 were labeled problematic. Similarly, for business services the CIBC and TD merger would lessen competition in only 3 provinces (PEI, Yukon, NWT). In both cases, the Competition Bureau's concerns stemmed from the substantial sunk costs and investments required to establish branches contributing to significant barriers to entry, as well as ineffective remaining competition, and the increased capacity for collusive behaviour.

Credit card competition was of greater concern in the RBC and BMO merger than the TD and CIBC merger. Because credit cards are often made available to consumers by mail, the geographic market for both individuals and businesses was determined to be national in scope. RBC, TD, and CIBC were all Visa members while BMO was a member of MasterCard. The existing rules and policies of Visa and MasterCard force member financial institutions to choose only one card to market to their customers by prohibiting members from issuing both cards. While general purpose credit card issuing was a concern for the Competition Bureau, of primary importance was the expected effects of the proposed mergers on the credit card network services, largely due to significant barriers to entry. Through creating brand awareness and improving their systems, credit card networks, such as Visa or MasterCard, hope to make their cards widely accepted for the purchases of goods and services. Competition also occurs within each of these networks, with credit card issuing institutions competing for customers by offering various rewards and incentives.

The Canadian market is comprised of four players which are, in decreasing order of market share, Visa, MasterCard, American Express, and Diners Club/enRoute. Of the four, Visa and MasterCard are the most widely accepted and most vigorous competitors. The competition between these two entities has had positive effects for consumers, for example, MasterCard has introduced lower fees and more liberal membership rules. The primary concern in the Bank of Montreal and Royal Bank merger was the potential conversion of the Bank of Montreal’s MasterCard portfolio to Visa. As the dominant issuer and the only national merchant acquirer of MasterCard in Canada, the conversion of the Bank of Montreal’s MasterCard portfolio would likely severely reduce the number of MasterCard transactions in Canada and would undermine MasterCard’s funding base. As a result, MasterCard would likely no longer be an effective competitor in credit card network services. As TD and CIBC are already both Visa members, this merger is unlikely to affect the existing market shares.

The Competition Bureau also raised concerns regarding primary merchant acquiring for credit cards. The Bureau’s analysis defines primary merchant acquiring as “a package of services sold to merchants, which includes both the provision of terminal services and the provision of either Visa or MasterCard acquiring services."[22] Similar to credit card network concerns, the RBC and BMO merger posed a more significant threat to lessen competition than the TD and CIBC merger. These four banks were the largest national primary merchant acquirers, with RBC having the highest market share and BMO having the second highest market share. Combined, the market share of these two banks in primary merchant acquiring exceeded the 35% threshold. Estimates of the combined market share of TD and CIBC were lower, between 30% and 40%, but still raised cautionary flags.

With respect to securities, full-service brokerage was identified as a concern for both proposed mergers. It was estimated that the RBC and BMO merger would have resulted in a lessening of competition in 39 of 63 markets, with a further 16 markets identified as being problematic. The substantial lessening of competition expected due to the merger arises because BMO and RBC represent the first and second largest full-service brokers in Canada. The expected harmful effects on competition of the TD and CIBC merger on full-service brokerage were significantly less, substantially lessening competition in 1 of the relevant 22 markets, with only 2 additional markets being considered problematic.

After conducting analysis on the likely adverse competitive effects of the mergers on the Canadian banking industry, the Competition Bureau recommended that the mergers be prevented due to the potential anti-competitive effects. The mergers were

[22] Competition Bureau. "The Competition Bureau's Letter to the Royal Bank and Bank of Montreal," December 11, 1998. Accessed online at www.competitionbureau.gc.ca.

also strongly opposed by many lobbyists, interest groups, and the public in general. As a result, the Minister of Finance acted on the recommendation of the Competition Bureau and intervened in the merger process.

To aid in bank merger considerations, the Competition Bureau published the *Merger Enforcement Guidelines as Applied to a Bank Merger*. These guidelines serve as the standard against which future merger proposals could be measured. While the analysis conducted by the Competition Bureau is key to the merger approval process it is only one element required by legislation.

Bank Merger Review Process in Canada

Bank mergers in Canada are subject to an extensive three part review process in addition to being subject to Ministerial discretion. The proposed mergers must be examined by the Competition Bureau to evaluate issues related to competition. In particular, the Competition Bureau will establish the relevant product and geographic markets, identify substitutes (if any), calculate market shares, evaluate any efficiency gains that will likely arise from the merger, and assess the barriers to entry, foreign competition, and the effectiveness of the remaining competition, among other considerations.

The Office of the Superintendent of Financial Institutions (OSFI) is also required to conduct a review of the proposed merger. The focus of OSFI's review is on more prudential matters, specifically the potential effects of the merger on the stability of the financial sector. For example, in the two proposed bank mergers in 1998, OSFI was tasked with answering two questions: "If the merger proposals were to be allowed, would there be circumstances or issues which would be likely to have a material, adverse impact on the financial viability of either merged bank going forward, or would there be other material concerns as to the safety and soundness of either merged bank?" and "If the merger proposals were to be allowed and one of the merged banks were to experience serious financial problems, would the resolution of those problems be more difficult than would be the case if any one of the predecessor banks experienced such problems?"[23]

Lastly, any bank merger must be evaluated by the House of Commons Standing Committee on Finance and the Standing Senate Committee on Banking, Trade and Commerce to determine its impact with respect to the public interest. Public hearings may be conducted to inform a Public Interest Impact Assessment. The Public Interest Impact Assessment would review:

• "the business case and objectives of the merger;
• the possible costs and benefits to customers and small and medium-sized businesses, including the impact on branches; availability of financing; and the price, quality and availability of services;
• the timing and socio-economic impact of any branch closures or alternative service-delivery measures that might mitigate the impact;
• how the merger proposal would contribute to the international competitiveness of the financial services sector;
• how the proposal would affect direct and indirect employment and the quality of jobs in the sector, distinguishing between transitional and permanent effects;
• how the proposal would increase the bank's ability to develop and to adopt new technologies;

[23] Office of the Superintendent of Financial Institutions. "Proposed Mergers between the Royal Bank of Canada and the Bank of Montreal, and the Canadian Imperial Bank of Commerce and the Toronto-Dominion Bank: Report to the Minister of Finance", December 10, 1998. Accessed online at www.fin.gc.ca/OSFI/osfirpt_e.html.

• what remedial or mitigating steps the banks would take in respect of the public interest (such as divestitures, service guarantees and other commitments) and to ensure fair treatment of those whose jobs are affected; and
• the impact that the transaction might have on the overall structure of the industry."[24]

Any additional issues required by the Minister of Finance or deemed to be relevant by the parties to a merger proposal might also be reviewed.

Finally, the Minister of Finance considers the advice and decides whether to let the merger proceedings continue. While this approach has remained popular with the public as it is seen as protecting the public interest, including domestic jobs, it has also generated much criticism. There is concern that politics and political will may impede a merger that should be permitted based on economic rationale.[25]

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[24] Reed, G.E. *The Canadian Financial Services Industry: The Year in Review* (Canada: Conference Board of Canada, 2004): 39.
[25] In "Global Rhetorics, National Politics: Pursuing Bank Mergers in Canada", Adam Tickell argues that the 1998 bank mergers "failed because oppositional forces were able to portray these efforts as self-serving and against the Canadian national interest" (159). The work of other authors also supports this concern by demonstrating that the 1998 bank mergers may have proceeded based on economic rationale alone (e.g., Clemens J. et al. "Bank Mergers: The Rational Consolidation of Banking in Canada", *1998 Fraser Institute Critical Issues Bulletin*, Canada: The Fraser Institute, September 1998).

4. Key Changes Relevant to a Bank Merger Proposal

It has been 10 years since the Bank of Montreal and the Royal Bank of Canada as well as the Canadian Imperial Bank of Commerce and the Toronto-Dominion Bank announced their intention to merge. To evaluate whether a similar bank merger proposal would result in the same conclusion from the Competition Bureau, OSFI, and Minister of Finance today, it is important to identify changes in economic conditions, potential differences in the market structure of the banking industry, gauge the political atmosphere, and identify any modifications in the analytical and evaluation procedures used by the Competition Bureau.

Economic Context

Recent economic conditions have justified and demonstrated the need for concern with respect to the stability of the financial sector. Because the banking industry is integrated with many other aspects of the economy, preserving its stability and efficiency are both important objectives of policy makers. Financial instability can result in lost output, can act to amplify an economic shock, and can ultimately result in reduced effectiveness of monetary and fiscal policy tools. As a result, supervisory agencies such as the Office of the Supervisor of Financial Institutions (OSFI) and the Financial Institution Supervisory Committee (FISC) help to monitor the stability of the financial services industry from a macro level. These institutions are necessary because the private sector does not have the appropriate incentives to ensure stability of the banking industry. Private sector participants weigh potential gains and risks in an effort to maximize profits but do have the incentive to consider the effect of their actions on other participants or the industry as a whole. Wider economic risks and vulnerabilities with respect to the banking industry can arise as a result of economic conditions that have consequences for the financial sector and, in turn, the wider economy, or as a result of structural "arrangements within the financial sector that have the potential to transmit and potentially amplify a shock within or outside that sector."[26] Because banks play a central role in the economy, changes to the industry, such as a large scale merger, must be analyzed carefully to anticipate the full implications of the end result.

To further emphasize the importance of ensuring stability in the financial sector, banks are generally more vulnerable to instability than other industries for several reasons:

- "A bank's balance sheet consists of short-term deposits on the liability side and long-term assets that can be difficult to liquidate quickly. This leaves the bank vulnerable to runs in the absence of deposit insurance or maturity-matching technologies.
- Highly leveraged firms have an incentive to engage in risky behaviour. If the gamble works, shareholders benefit; if it does not work, the lenders bear the cost. This agency problem is particularly strong for banks: banks tend to be very highly leveraged; a large share of the debt-holders are depositors who have small claims, are widely dispersed, and may not be well-informed of banks activities and potential risks; and the existence of deposit insurance further lessens depositors' incentives to monitor the risk-taking behaviour of the bank."[27]

Technological advances have increased both the magnitude and speed of episodes of financial instability. Real-time transactions have often lead to more volatile market fluctuations. Technology has facilitated greater integration between financial institutions

[26] Freeman, C. and C. Goodlet. "Financial Stability: What It Is and Why It Matters," *C.D. Howe Institute Commentary*, No. 256 (November 2007): 15.
[27] Northcott, Carol Ann. "Competition in Banking: A Review of the Literature." *Bank of Canada Working Paper* 2004-24 (June 2004): 1.

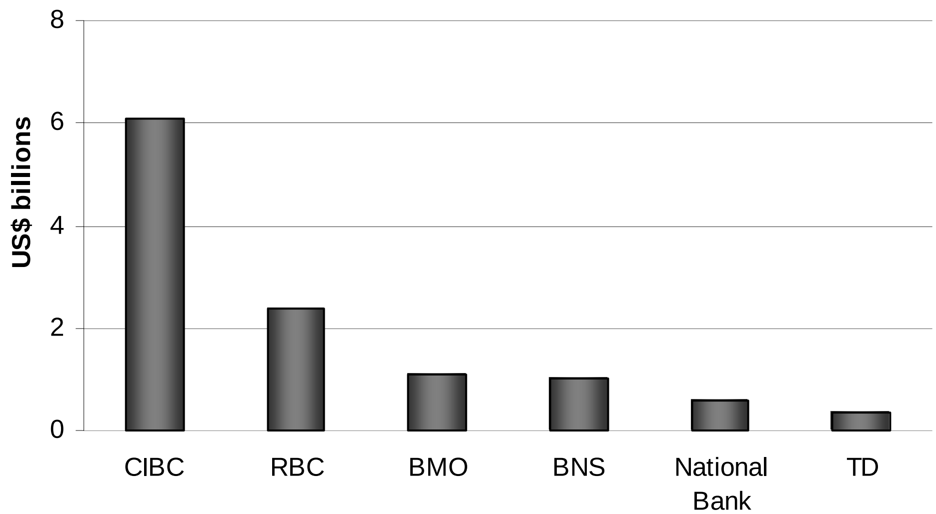
both domestically and internationally which further augments the vulnerabilities of the banking industry.[28]

Recent events confirm these vulnerabilities. Although its effect is most substantially pronounced in U.S. financial institutions, the sub-prime mortgage crisis has also affected the Canadian banking industry. To date, Canadian financial institutions have announced nearly $12 billion in writedowns due to exposure to the subprime crisis in the United States.[29] As the hardest hit of all major Canadian financial institutions, CIBC has already announced over $6.1 billion ($U.S.) in sub-prime related writedowns, with a significant possibility of further writedowns in the future. Writedowns by RBC, BMO, National Bank and BNS have been substantially less than CIBC, however, they have not escaped exposure to the subprime mortgage crisis. Even TD, which had until recently been the only bank to have avoided sub-prime related losses, has announced $350 million in writedowns.[30] These writedowns and the corresponding damaging effects on consumers' and investors' confidence have weakened not only Canada's major banks but also financial markets in general. Because a failing banking system has extensive economy-wide implications, concerns over the stability of the financial system have been expressed. Some debate has taken place over what actions would be required or permitted to ensure stability if conditions were to worsen in Canada to the point where a financial institution was facing bankruptcy. Would a stronger financial institution be permitted to merge with or takeover the firm facing bankruptcy? This question becomes

[28] Freeman, C. and C. Goodlet. "Financial Stability: What It Is and Why It Matters," *C.D. Howe Institute Commentary*, No. 256 (November 2007): 4.
[29] Bank of Canada. *Financial System Review*, December 2008: 9.
[30] Values obtained from the Department of Finance.

particularly acute in light of the failing and takeover of Bears Sterns, among other financial institutions, in the United States.

Figure 2. Total Writedowns and Credit Losses by Canada's Major Banks



While the sub-prime mortgage crisis has led to increased interest in bank mergers, it is not clear that the situation would improve the viability of a bank merger proposal. Worsening conditions have led many banks to raise service fees and enforce more restrictive processes for granting access to credit and loans which may detract from the viability of a merger proposal. However, current economic conditions may also create a more positive public climate toward bank mergers if they are shown to offer greater or renewed stability for the financial sector.

Market Structure

The Competition Bureau's original analysis of the proposed 1998 bank mergers primarily relied on data provided by the Canadian Banker's Association (CBA). The dataset provided by the CBA consisted of branch level data which, combined with Statistics Canada population information, allowed the Competition Bureau to evaluate service levels and market shares at the local level. Since then, the CBA has elected to discontinue this dataset and is no longer collecting or organizing bank data at the local level. However, OSFI and Statistics Canada, among other organizations, collect national and industry level data that provide insight into the market structure of the banking industry.

The Canadian banking industry is made up of 20 domestic banks, 24 foreign bank subsidiaries, and 30 foreign bank branches.[31] Together these institutions represent $2.6 trillion in assets, with roughly 90 percent of these assets held by Canada's six major banks.[32] In addition to these institutions, there are a variety of other competitors in the Canadian financial market that offer substitute products and services to consumers. These include approximately 35 trust companies, 190 finance companies, more than 70 life insurance companies, and over 1000 credit unions and caisses populaire.[33] "While banks have over 80% of deposits, they have only two-thirds of consumer loans, 57% of residential mortgages, under 40% of mutual funds and just over a quarter of non-residential mortgages."[34] Since the original 1998 merger review period, several notable new players have entered or gained market share in the industry. The Canadian Tire Bank and President's Choice Financial are examples of new retail players entering the

[31] Data obtained from the Office of the Superintendent of Financial Institutions website at www.osfi-bsif.gc.ca.
[32] Koeppl, T. and J. MacGee. "Branching Out: The Urgent Need to Transform Canada's Financial Landscape and How to Do It", *C.D. Howe Institute Commentary, Financial Services,* No. 251 (June 2007): 4.
[33] Canadian Bankers Association. *Fast Stats 2007,* December 2007. Accessed online at www.cba.ca.
[34] Canadian Bankers Association. *Strengthening Canada's Competitiveness: The Canadian Bankers Association Submission to the Competition Policy Review Panel,* January 10, 2008: 4.

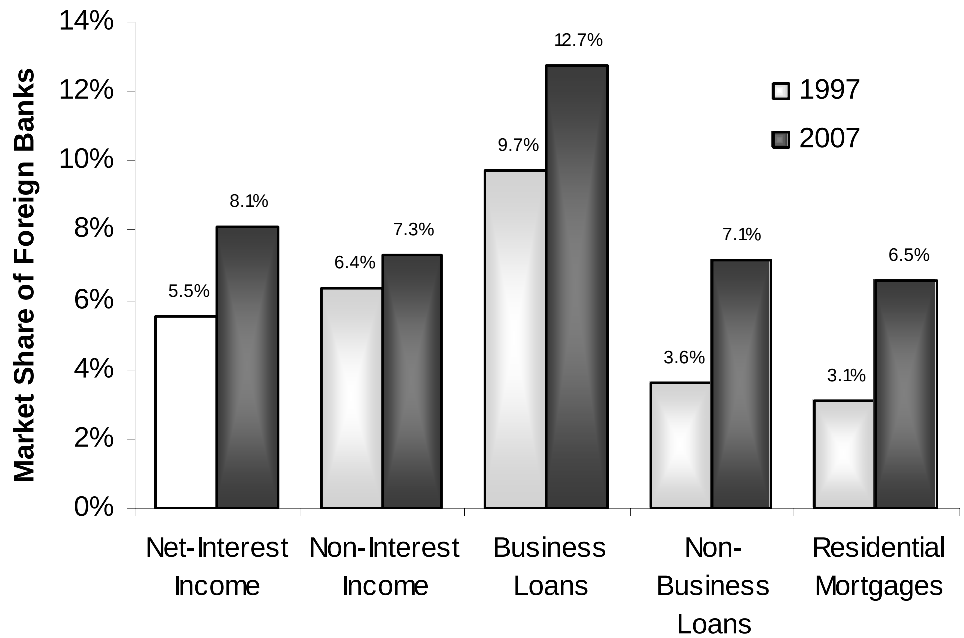
industry and offering consumers more choice. Other global competitors gaining market share and entering the Canadian market include more electronically based retailers such as ING and MBNA, as well as HSBC and ICIC. While more limited in its target consumer base, Islamic banking has been growing steadily abroad and in Canada over recent years and could also become a competitive alternative to current financial institutions going forward.[35] These new entrants provide examples of the increasingly competitive nature of the Canadian banking industry.

Legislative changes to the *Bank Act* since the original merger decisions in 1998 have also increased the degree of competition in the financial services market. In 1999, legislative changes were introduced that removed barriers to entry for foreign competitors in the Canadian market. Foreign banks were now permitted to operate in Canada by establishing their own branches instead of being required to open a separately-capitalized subsidiary. While this increased the ability of foreign banks to enter the Canadian market, concerns over risk and insurability led to restrictions on the minimum value of deposits at these foreign bank branches. Largely limited to wholesale activities at a minimum deposit value of $150,000, the legislation had a smaller impact than if the foreign branches were given the same banking authority as domestic banks. Further changes to the *Bank Act* in 2001 also encouraged more competition in the Canadian banking industry. For small banks, ownership limitations were reduced allowing a single shareholder to own 100% of a small bank. These changes have increased the presence of foreign competitors in the Canadian market.

[35] See Cihak, M. and H. Hesse, "Islamic Banks and Financial Stability: An Empirical Analysis", *IMF Working Paper*, January 2008 or Choudhury, M. A. *The Growth of Islamic Banking*, internet article available at http://faculty.uccb.ns.ca/mchoudhu/Islamicbanking.htm, for additional information .

As a result of these legislative amendments, foreign banks have been playing a larger role in the Canadian banking industry, gaining market share at the expense of domestic banks. Foreign banks have experienced gains in market share in both net-interest income as well as non-interest income, although the gains are most pronounced in net-interest income. Between 1997 and 2007, foreign banks gained 2.7 percentage points in market share with respect to net-interest income and 0.7% in non-interest income. Significant gains were made in consumer loans with a 3.5 percentage point increase in non-business loans and a 3.0 percentage point increase in business loans, compounded by a 3.4 percentage point increase in residential mortgages. These legislative changes have facilitated the entry of several foreign banks in Canada and have had a positive impact on the level of competition in the Canadian banking industry.

Figure 3. Market Share of Foreign Banks in Canada, 1997 – 2007



Source: Author's calculations using OSFI data.

Over the past ten years, a combination of both foreign and domestic entrants have increased competition within the banking industry. Since 1997, collectively, Canada's six largest banks lost market share with respect to net-interest income, non-interest income, loans for both business and non-business purposes, and residential mortgages (see Annex A). New entrants have been attracting consumers by offering competitive services and fees. For example, Canadian Tire Bank, established in 2003, has gained 2% of the market for non-business loans. Other competitors have also made significant gains in market share. ING Bank Canada has entered the residential mortgage market and now holds 3.3% market share. These new and growing entrants have been putting increased pressure on Canada's major banks to offer competitive rates and services to Canadian consumers.

Among Canada's six largest banks, relative market shares have varied but, overall, have remained largely consistent (see Annex A). RBC had the largest gains of the major six banks in non-interest income (6.8 percentage points), loans for businesses (6.7 percentage points), and securities (7.6 percentage points), but also the highest loss in market share in non-residential mortgage (14.9 percentage points). TD saw significant increases in net-interest income (6.8 percentage points), non-business loans (13.1 percentage points) and non-residential mortgages (28.6 percentage points), but had the largest market share loss in residential mortgages (2.9 percentage points). When comparing post-merger market shares of the two proposed 1998 mergers in 1997 and in 2007, in most cases the 2007 post-merger market shares are lower, on a national level. Gains by one merging party are either nearly or entirely offset by the other party. In particular, using business and non-business loans and residential and non-residential mortgages to represent branch banking services, the TD and CIBC merger would only exceed the 35% market share threshold for non-residential mortgages, and the RBC and BMO merger would only exceed the 35% market share threshold for business loans. With respect to securities the RBC and BMO would still be problematic as market shares remain largely unchanged from 1997 levels. These results suggest there is a sufficiently competitive environment in Canada to warrant a re-examination of large scale bank mergers.

Market share analysis is supported by evidence that suggests Canadian consumers have both a wide range of choice and good accessibility to banking services. The Financial Consumer Agency of Canada offers a *Cost of Banking Guide* which has identified over 100 different account packages at over 18 financial institutions, including basic banking options, with service fees as low as $4 at eight major banks.[36] According to the World Economic Forum's *Global Competitiveness Report*, since 1998, Canada's score with respect to the ease of access to loans has increased from 3.68 to 4.3 demonstrating a significant improvement in consumer's access to credit.[37] Ease of access is further demonstrated by the fact that over 96% of Canadians have a bank account with a financial institution.[38] Comparatively, in the United States, only 87% of Americans have an account with a financial institution.[39] Canadian banks offer a wealth of access

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[36] Financial Consumer Agency of Canada. *Cost of Banking Guide*. July 4, 2008. Interactive guide available online at www.fcac-acfc.gc.ca.
[37] Porter, E., Xavier Sala-i-Martin, and Klaus Schwab. *The Global Competitiveness Report 2007-2008*, (Geneva: World Economic Forum, 2007): 470.
[38] Canadian Bankers Association. *Competition in the Financial Services Sector*, May 2008.
[39] Canadian Bankers Association. *Strengthening Canada's Competitiveness: The Canadian Bankers Association Submission to the Competition Policy Review Panel*, January 10, 2008: 4.

points for banking services. Canada leads the world in ABMs per capita and has "the highest combined number of bank branches and ABMs per capita in the world."[40] These examples demonstrate the choice and accessibility available to consumer as a result of a more competitive market.

As mentioned previously, another trend in the Canadian banking industry is the growing importance of foreign operations and income for Canadian banks. As a result of the increased international merger and acquisition activity, Canadian banks have become more diversified in their sources of revenue and the location of assets. While all of the major six banks hold the majority of their assets in Canada, a significant portion of assets are maintained outside of Canada. At 31%, BMO maintains the highest percentage of assets in the United States. BNS has the highest percentage of its assets located outside of Canada and the United States (27%). National Bank is Canada's most domestic bank in the sense that 84% of its assets as located within Canada. Overall, the Royal Bank holds the lowest percentage of assets in Canada, at 55%.[41]

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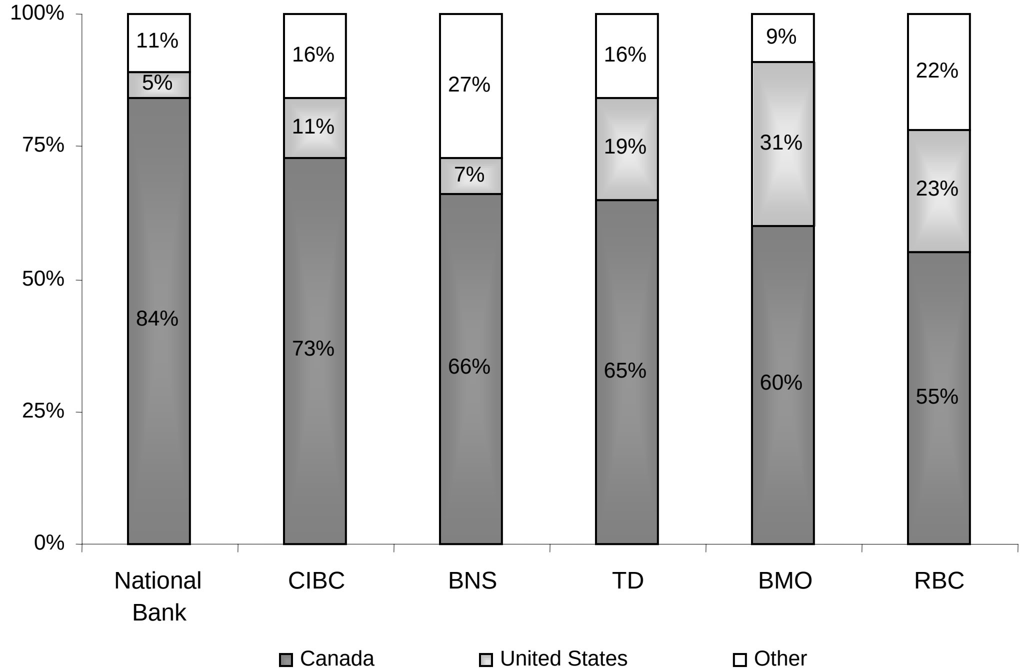
[40] Ibid.

[41] Price Waterhouse Coopers, Canadian Banks 2008: Perspectives on the Canadian Banking Industry, March 2008: 55. Accessed online at www.pwc.com.

Figure 4. Assets by Geographical Location



Source: Price Waterhouse Coopers, *Canadian Banks 2008: Perspectives on the Canadian Banking Industry*.

Accordingly, income from foreign sources has become an increasingly important part of bank revenues. On average, Canada's five[42] largest banks rely on foreign sources for 31% of their net-interest income. BNS and TD had the highest percentage of foreign net-interest income at 42%. RBC had the lowest at percentage of net-interest income from foreign sources in 2007 at 15%.[43] This increased reliance on foreign income sources points to the increasingly global context of the banking industry and the need for Canadian banks to compete on an international stage. Changes to the market structure of the Canadian banking industry since 1998, including new foreign and domestic entrants,

[42] Despite generally being considered one of Canada's largest banks, National Bank was excluded from this analysis because of its smaller size and corresponding limited ability to obtain foreign targets relative to Canada's other major financial institutions. As a result, National Bank's foreign revenues are marginal and thus have not been included.
[43] Author's calculations using 2007 Annual Reports of 5 major banks.

the ensuing evidence of greater choice and access for consumers, and the growing importance of income from foreign sources, demonstrate a significant shift in some of the data analysis underlying the failure of the 1998 bank merger.

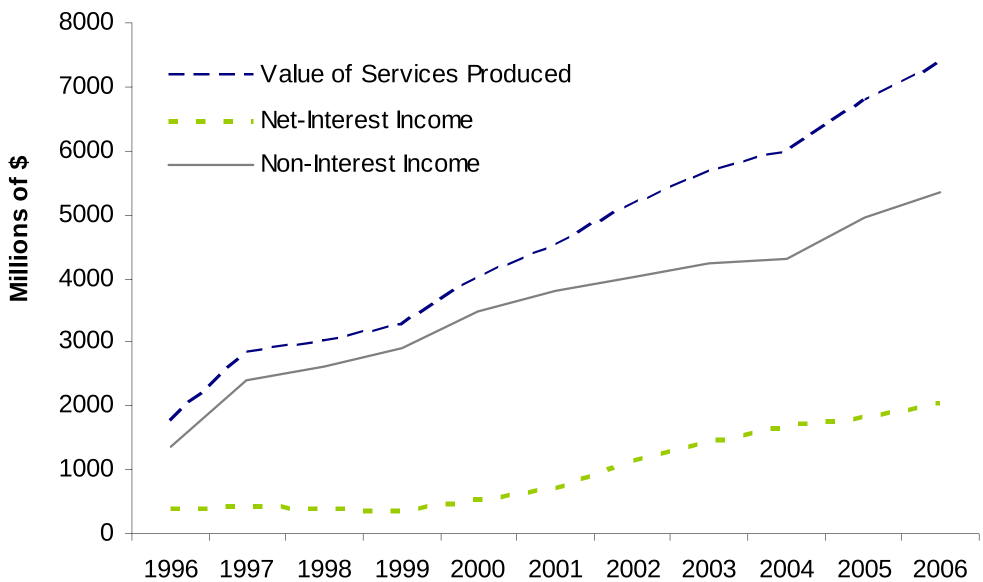
Method of Banking

Widespread technological advances in banking services have significantly changed the way Canadians bank, especially since the initial merger reviews of 1998. Electronic banking has become an important banking tool and service and Canada's largest banks have invested heavily in developing these services, over $40.6 billion since 1996.[44] As a result of this investment, the banking industry has seen substantial increases in the use and value of these electronic services. The Statistics Canada Survey of Deposit-Accepting Intermediaries finds that between 1997 and 2006, the value of services produced by electronic financial services increased over 76% to nearly $7.4 billion. Accordingly, bank revenues generated from electronic services over this time period also increased. Net-interest income resulting from electronic financial services increased by over 81% along with non-interest income which increased by over 74%. Increases in retail banking services were significantly less, only 32% and 52% respectively. Consumer behaviour confirms this shift toward more electronic based mediums for financial transactions. Card-based payments (debit or credit cards) now exceed paper-based payments (cash or cheque) by nearly two to one.[45] This evidence

[44] Canadian Bankers Association. *Taking a Closer Look: Electronic Banking,* May 2005, and Canadian Bankers Association. *Quick Facts.* All accessed online at www.cba.ca.
[45] Canadian Bankers Association. *Taking a Closer Look: Technology and Banking,* August 2006. Accessed online at www.cba.ca.

demonstrates that Canadian consumers are adopting a more electronic approach to conducting financial transactions.

Figure 5. Growth in Electronic Financial Services, 1996 – 2006



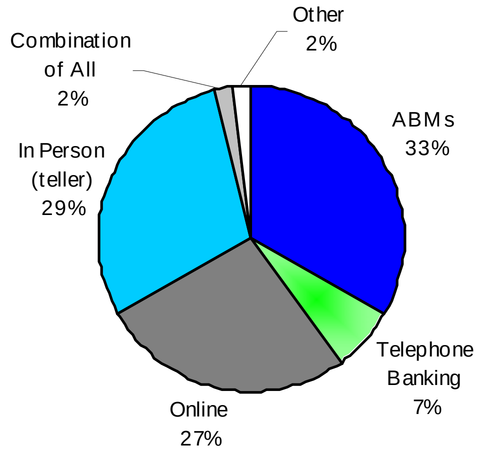
Source: Statistics Canada, *Survey of Deposit-Accepting Intermediaries: Chartered Banks, Trust Companies, Caisses Populaires and Credit Unions,* CANSIM Table 182-0001.

Electronic banking options provide flexibility to consumers to meet their banking needs without being restricted by the operating hours of bank branches. Evidence shows that Canadian consumers have embraced these electronic services. Over 69% of Canadians now use electronic sources as their primary method of banking. The largest gains in primary method of banking are found in internet banking which increased from 8% in 2000 to 27% in 2006.[46] A large range of services are accessible to consumers through online banking mediums, from routine transactions such as bill payments and account balance inquiries, to expanded credit and investment services such as mortgages,

[46] Canadian Bankers Association. *Taking a Closer Look: Ways Canadians Bank,* February 2007. Accessed online at www.cba.ca.

car loans, mutual funds, securities purchase, and small business loans, among others. As a result of the increased accessibility of these services, 53% of Canadians now report using the internet to complete at least some banking transactions.[47] From 2001 to 2006, the number of internet banking transactions increased from 100 million to over 340 million.[48] As internet usage continues to increase,[49] online banking will likely become more popular and widely used.

Figure 6. Canadians' Primary Method of Banking



Source: Canadian Bankers Association. *Taking a Closer Look: Ways Canadians Bank,* February 2007

In addition to internet banking, consumers can also meet their banking needs through telephone banking, ABMs, and even digital cell phones and mobile devices.

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[47] Canadian Bankers Association. *Technology and Banking,* October 2008. Accessed online at www.cba.ca.
[48] Canadian Bankers Association. *Select Transactions by Delivery Channel,* October 2007. Accessed online at www.cba.ca.
[49] Statistics Canada has demonstrated consistent increases in internet usage for several years. This trend is expected to continue.

There is an extensive network of over 55,000 ABMs in Canada[50] resulting in Canadians being among the top ABM users in the world.[51] The major banks also participate in international ABM networks giving Canadians access to their banking information through ABMs around the world. Telephone banking provides another avenue for non in-branch banking services. Customers can take out a loan, buy a GIC, or contribute to a RRSP by speaking to a customer service representative. These methods of banking offer a viable alternative to in-branch banking for many consumers.

Through the increased use of online and telephone banking, ABMs, as well as debit and credit cards, Canadian consumers are offered more choice, convenience, and ultimately, greater competition. Greater availability of information on the products and services offered by banks, through electronic distribution channels, has increased the tendency of consumers to shop for banking services based on price and convenience. As a result, consumer loyalty is decreasing in importance as consumers switch between financial institutions and products more readily.[52] Electronic banking tools have also led to several electronic based banks and banking services becoming accessible to Canadians. ING Bank Canada is one of these electronic banking institutions. By offering innovative products and services primarily through the internet, ING Bank Canada has been able to successfully enter the Canadian market and gain market share. As indicated previously, ING Bank Canada has been particularly successful in infiltrating the Canadian residential mortgage market, having a 3.3% market share. With the increased usage of online and

[50] Canadian Bankers Association. *Fast Stats 2007*, December 2007. Accessed online at www.cba.ca.
[51] Quoted from a Bank of International Settlements Survey in Canadian Bankers Association. *Taking a Closer Look: Ways Canadians Bank*, February 2007. Accessed online at www.cba.ca..
[52] Task Force on the Future of the Canadian Financial Services Sector. *Change Challenge Opportunity*, September 1998. Accessed online at http://www.fin.gc.ca/taskforce/rpt/pdf/Main_E.pdf.

other virtual based mediums available to customers to conduct banking, the need for in-branch banking has diminished.

This may have significant implications for a future proposed merger. The closure of duplicative branches is an expected outcome of any bank merger. There is a concern that the removal of competing branches may significantly lessen competition in the industry. However, increases in the usage of electronic banking as well as new electronic competitors suggest that it is no longer necessary to have access to a branch to complete most banking services. This is supported by evidence of a decline in the number of bank branches in Canada despite an effective prohibition on large scale bank mergers. Between 1997 and 2004, the number of the big five bank branches in Canada declined from 6,600 to 6,200, roughly 6%.[53]

Bank branches still play an important role in the banking industry but are now primarily used for dispensing financial advice on available products and longer-term financial planning. Because these services are not needed on a regular basis, consumers may be more willing to travel farther distances to access these services on a less frequent basis. Expanding the geographic market in this way may introduce additional competitors into the Competition Bureau's analysis. New banks may be more likely to enter the industry if fewer branches, which represent a significant investment and sunk cost, are required. While electronic banking services are not a complete substitute for in-branch banking services, a decreased reliance by consumers on in-branch services for

[53] Koeppl, T. and J. MacGee. "Branching Out: The Urgent Need to Transform Canada's Financial Landscape and How to Do It", *C.D. Howe Institute Commentary, Financial Services,* No. 251 (June 2007): 14.

day-to-day banking needs implies that a reduction in the number of available branches may not substantially lessen competition.

Public Opinion

Because a significant element in Canadian bank merger analysis rests on a merger's impact on consumers and the approval of political figures (who have a vested interest in the opinion of Canadians), the attitudes and opinions of the Canadian public can provide some insight when assessing the likelihood of approval for potential mergers. Recent public opinion polls suggest that Canadians remain resistant to bank mergers. Consumers are concerned with the potential for higher banking fees, fewer branches, reduced services, and potential job losses. In 1998, an Ekos poll found that 66% of Canadians expected a significant number of bank closures as a result of a bank merger. By 2003, this had increased to 73%. Similarly, in 1998, while 47% of Canadians expected a reduction in the level of personal service received as a result of bank mergers, in 2003, this had increased to 55%. An Ipsos-Reid August 2004 poll found that 60% of Canadians thought it would be in their best interest for Ottawa to prevent bank mergers.[54] However, a more recent poll finds that consumers' opinions toward bank mergers may be softening. A Harris/Decima survey conducted in May 2008 found that only 50% of Canadians opposed bank mergers, while 37% offered support (the remaining percentage did not have an opinion).[55]

[54] Lott, Susan. *Bank Mergers and the Public Interest*, (Ottawa: Public Interest Advocacy Centre, 2005): 10.
[55] Harris/Decima. *More Willingness to Consider Bank Mergers?* June 3, 2008. Accessed online at www.harrisdecima.com.

For the business community, concerns are centered around the potential for higher costs of and limited access to financing post-merger. While most SMEs are not against bank mergers in principle, many are concerned about the effects of reduced competition. A poll conducted by the Canadian Federation of Independent Businesses (CFIB) in 2003 finds that 57.6% of SMEs would be supportive of bank mergers if the presence of additional competition was made a pre-requisite. However, opposition in the business community toward bank mergers remains and fewer individuals are sympathetic to the banks' reasons for pursuing mergers. The same CFIB survey finds nearly 30% of survey respondents indicated that banks should not be allowed to merge under any condition.[56] An additional poll of SMEs on bank mergers commissioned by the Financial Post demonstrates that while, in 2002, 61% of respondents found the need for Canada's banks to compete in global markets a persuasive reason for bank mergers, in 2006, this had dropped to 46%. In 2006, 35% of respondents did not find any of the reasons given for bank mergers to be persuasive.[57] This mistrust of the banking industry and generally negative attitude towards bank mergers presents a significant political obstacle to a re-examination of bank mergers in Canada.

[56] CFIB. *Should Additional Competition in the Banking Industry be a Prerequisite for Allowing Major Canadian Banks to Merge with Each Other?* January 2003. Accessed online at www.cfib.ca

[57] COMPAS Inc. *Bank Mergers: Business Opposition Digging in its Heels Despite Bank of Canada Governor's Entreaty,* December 2006. Accessed online at www.bdo.ca.

5. New Approaches to Merger Analysis

The development of anti-trust policy is a dynamic process, evolving over time with changes in knowledge, theory, and societal preferences. Since the 1998 bank merger proposals, some realized and potential changes in the application of anti-trust legislation to merger reviews warrants consideration. The following section explores anticipated changes in the Competition Bureau's treatment of efficiencies, the use of weighted welfare analysis, and theoretical developments with respect to endogenous mergers and merger waves.

Efficiencies

Efficiency gains play an important role in Canadian competition policy and have often been a source of controversy and debate. Common international practice suggests that while efficiency gains are considered by most competition policy review agencies, in general, a higher priority is placed on the potential efficiency gains of a merger that benefit consumers. Canada's approach to efficiency gains marks somewhat of a departure from this practice through the use of the total surplus standard, which does not differentiate between the value of benefits awarded to consumers or producers.[58] With respect to mergers, the *Competition Act* stipulates that the Competition Tribunal, a specialized adjudicatory body created under the *Competition Act,* must take into consideration the likely efficiency gains that may result from the merger. In particular, the Tribunal cannot prevent a merger where the expected efficiency gains "will be greater

[58] Many experts feel that this neutrality between efficiencies benefiting consumers and producers is a result of Canada's economic position and size relative to other nations. It has been argued that Canadian companies must be permitted to become larger in Canada to better compete internationally, even at the expense of Canadians consumers. Also, Canada's lagging productivity performance places a stronger emphasis on finding and exploiting efficiencies.

than, and will offset, the effects of any prevention or lessening of competition."[59] This then creates a tradeoff between the anti-competitive effects of the merger and the efficiency gains resulting from the merger. The expected efficiency gains can result from better use of inputs to achieve higher levels of output (productive efficiency), the introduction of new products, the development of more efficient processes, and/or the improvement of product quality and service (dynamic efficiency). When present in sufficient quantity (i.e., when the total gain in efficiencies exceeds the anti-competitive effects of a merger), these efficiencies can form the basis of an efficiency defense for a merging party, allowing a merger to proceed despite some detrimental effects on competition. As a result, the potential efficiency gains arising from a merger can play a significant role in determining the likelihood that a merger will be allowed to proceed.

Canada's approach to efficiency gains has evolved over the past ten years, since the original bank merger analysis was conducted in 1998. While the legislation remains largely unchanged, precedence, as set in the *Superior Propane* ICG merger case, has been established for an anti-competitive merger to proceed based on the efficiency defense. While legislation dictates that a merger's efficiency claims are generally not required to be considered until the merger reaches the Competition Tribunal, where relevant, merging parties are encouraged by the Competition Bureau to "provide detailed information about gains in efficiency arising from as merger as early as possible in the

[59] *Competition Act.* Section 96 (1). Accessed online at http://laws.justice.gc.ca/PDF/C-34.pdf.

merger review process."[60] This demonstrates an increased interest by the Competition Bureau in accounting for the potential efficiency gains of a merger.

The efficiency defense is particularly relevant to bank mergers because the potential efficiency gains are significant. Estimates at the time of 1998 review place expected efficiency gains in a range of 10% to 30% of non-interest expenses (e.g., salaries, benefits, rent, utilities, etc.).[61] Even at the lowest estimate of 10% of non-interest expenses, the cost savings are substantial. If both mergers were permitted, the potential cost savings, at only 10% of non-interest expenses, amounts to nearly $3.6 billion in 2007. If the 30% estimate is used instead, this increases to over $10.6 billion.

Other more recent studies have estimated the possible efficiency gains related to economies of scale. A recent study finds increasing returns to scale of between 6% and 20% in the Canadian banking industry. [62] Returns to scale refers to the change in output corresponding to a change in inputs. Increasing returns to scale suggests that for an increase in inputs by some factor x, the corresponding change in output would be greater than x. Specifically, as applied to the findings of the Allen and Liu study, a 1% increase in inputs would yield a minimum of a 6% and a maximum of 20% increase in outputs. Thus, efficiencies would be realized by increasing the size of Canada's financial institutions. Additionally, the study found that, after controlling for scale economies,

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[60] Competition Bureau Canada. *Draft Bulletin on Efficiencies in Merger Review,* August 7, 2008:1. Accessed online at www.cba.ca.
[61] Clemens J. et al. "Bank Mergers: The Rational Consolidation of Banking in Canada", *1998 Fraser Institute Critical Issues Bulletin*, (Canada: The Fraser Institute, September 1998): 23.
[62] Allen, J. and Y. Liu. "Efficiency and Economies of Scale of Large Canadian Banks", *Bank of Canada Working Paper* 2005-16, (May 2006): 16.

larger banks were generally more cost-efficient than smaller banks. Attributing this to factors such as management skills and the adoption of new technologies, it is concluded that larger banks have inherent cost advantages over smaller banks. These findings suggest that a bank merger may be defensible on account of merger efficiencies. This, in combination with evidence of a more active interest in efficiency considerations by the Competition Bureau suggest that a future bank merger proposal may be dealt with more favorably.

Weighted Welfare Analysis

The *Superior Propane* case was a seminal case in Canada's anti-trust history. In addition to setting a precedent with respect to the allowance of an anti-competitive merger, several interesting methods and approaches were introduced as alternate merger criterion. One of these methods, introduced by expert witness Peter Townley, suggested applying weights to consumer and producer surplus, reflective of their relative wealth, when evaluating the overall effect the merger has on welfare. In this way, societal preferences and values could be systematically introduced in the merger analysis.[63]

The anticipated change in welfare as a result of a merger can be expressed by the following equation:

$$\Delta CS + \Delta \Pi = \Delta welfare$$

[63] The Competition Bureau, in its *Draft Bulletin on Efficiencies in Merger Review*, indicates that it will "generally follow the direction given by the Competition Tribunal . . . by applying the balancing weights standard when considering trade-off analysis." (4)

where ΔCS represents the gains (or losses) to consumers as a result of the merger and $\Delta\Pi$ represent the gains (or losses) to producers. For a merger to be permitted to proceed, at a minimum, it must not be welfare reducing, that is:

$$\Delta CS + \Delta\Pi \geq 0$$

Weights are introduced into the equation as follows:

$$w\Delta CS + (1 - w)\Delta\Pi \geq 0$$

By calculating the change in the consumer surplus (ΔCS), the change in producer surplus ($\Delta\Pi$), and setting the equation equal to 0, a critical value for w is defined. Then, for comparison purposes, an appropriate value for w is determined using information on the relative wealth of consumers and producers. The merger is then evaluated by comparing the appropriate value of w against the critical value of w to see if it is greater than or less the critical value of w.

This method is unique in that it allows the analysis to incorporate re-distributional objectives, as well as certain distinguishing characteristics of consumers and producers, into merger criterion. For example, when applied to the total surplus standard, w is set equal to 0.5 so that changes in consumer and producer surplus are considered equivalent. Changing the value of w to 1 would make use of the price standard, which only places value on changes in consumer surplus, effectively preventing any merger that did not result in gains in consumer surplus from proceeding.

While this method provides a useful analytical tool, it presents another challenge: finding the correct appropriate value for w. In the case of *Superior Propane*, analysts relied on cues from Canada's tax and social insurance systems to inform the selected value of w. The progressive nature of each of these systems suggested that a higher value was to be placed on citizens with lower income or wealth levels. Citizens slated to receive a heavier weighting were those that were among the "poorest and neediest"[64] 20% of Canadians.

Ross and Winter explore the implications of introducing weights on relatively poor and needy citizens in their article examining the efficiency defense in anti-trust policy.[65] Based on their calculations, the authors show that the net effect of implementing the weighting scheme is relatively minor, with little divergence from the total surplus standard approach. In deriving the appropriate value for w, the authors examined the expenditure of the poorest 20% of Canadians and find that it represents only 6.7% of total expenditure on goods. Applying this statistic to propane usage of the poorest 20% of consumers and assuming an income elasticity of demand approximately equal to 1, the authors find that even when the weight placed on the change in consumer surplus of the poorest 20% of Canadians is doubled, the critical value of w only increases to 0.516. This is a difference of only 0.016 from the total surplus standard value where $w = 0.5$ and demonstrates that the weighting approach yields similar results as the total surplus standard approach.

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[64] Quoted in Ross, T. and R. Winter. "The Efficiency Defense in Merger Law: Economic Foundations and Recent Canadian Developments," *Anti-trust Law Journal* 72, No. 2 (2004):489.
[65] Ross, T. and R. Winter. "The Efficiency Defense in Merger Law: Economic Foundations and Recent Canadian Developments," *Anti-trust Law Journal* 72, No. 2 (2004):471-504.

The same would be expected when applying the weighted welfare analysis to a bank merger. While the public would likely demand a significantly higher weighting on consumer surplus , several factors indicate that the critical value of w would be set close to the total surplus standard value (of 0.5). Similar to *Superior Propane*, in the banking industry it is unlikely that the poorest 20% of Canadians consume 20% of the bank's services. Lower income individuals are often denied access to credit due to a reduced ability to assume sizable loans. The majority of the bank's customers are expected to be higher income individuals with strong credit ratings, and thus access to loans, in addition to investment portfolios. As such, the additional weight placed on citizens with lower relative levels of wealth will be diminished by their disproportionate use of bank services.

Another consideration that would support a value of w very close to 0.5 is related to the composition of bank shareholders. While the precise wealth distribution of bank shareholders is not known, most Canadians are bank shareholders, either directly or indirectly. Investing information available from the Canada Pension Plan (CPP) Investment Board suggests that all Canadians are shareholders in Canada's financial institutions. Of the CPP Investment Board's total holdings of Canadian equities, over 8% is invested in Canada's largest 5 financial institutions with an additional 8% invested in smaller Canadian financial institutions. Collectively, the CPP Investment Board's Canadian equity holdings in Canadian financial institutions accounts for 16.3% of its total holdings.[66] In addition, a wide variety of other publicly held pensions funds invest in Canada's banking institutions (see Figure 7 below).

[66] Canada Pension Plan Investment Board. *Canadian Equity Holdings*. As of March 31, 2008. Accessed online at http://www.cppib.ca/files/PDF/CDN_Equity_Holdings_March31_2008_ENG.pdf.

Figure 7. Bank Shares as a Percentage of Pension Fund Canadian Equity Holdings

Fund[67]	Members	Bank Shares as a Percentage of Canadian Equity Holdings
Ontario Teachers Pension Plan (2006)	350,000	4.1%
Ontario Municipal Employees Retirement System	380,261	15.7%
Ontario Pension Board	77,200	19.0%
OPSEU Pension Trust	80,589	11.3%
Nova Scotia Public service & Teachers Pension Plan (2005)	25,889	19.8%
Alberta Local Authorities Pension Plan	179,188	10.2%
Caisse de depot et placement du Quebec (2006)	n/a	2.6%
Saskatchewan Pension Plan	30,000	21.9%
BC Investment Management Corporation	400,000	17.3%

Source: Canadian Bankers Association. *Banking and the Economy*, September 2008.

This information has bearing on the determination of weights. Generally, Canada's elderly population is counted among its most vulnerable citizens. Additionally, individuals who are solely dependent on CPP for their retirement income could justifiably be considered among Canada's most poor and needy. The fact that the CPP Investment Board is significantly invested in Canadian financial institutions implies that some of the poorest and neediest citizens would also be shareholders in a potential merger situation. This provides further evidence that the application of weighting to welfare analysis would not significantly deviate from the total surplus standard. In addition, the substantial efficiency related gains in producer surplus that are expected to result from a large-scale bank merger would not be substantially discounted by the application of this weighting methodology.

[67] Data is for 2007 unless otherwise noted.

Endogenous Mergers and Merger Waves

Additional developments in anti-trust theory since the 1998 merger proposals may also influence current merger evaluation, should another merger be proposed. Theoretical tools can expand and enhance the methods used to analyze prospective mergers. In the case of the 1998 bank mergers, certain patterns emerged that can inform future merger analysis. In particular, the announcement of the intention to merge by two parties was quickly followed by a similar announcement from other industry players. This behaviour is consistent with similar merging patterns in other industries and is referred to in the literature as merger waves.

Merger waves generally occur when mergers are thought to be strategic complements, observed as previous mergers stimulating future mergers in an industry. In response to a merger, non-merging firms in the industry will increase their output and free-ride on the output reduction induced by the original merger. To reduce this free-riding effect, firms may initiate further mergers to reduce the number of free-riders, making the merger more profitable. In this way, firms may engage in mergers strategically. While the literature on endogenous mergers is still limited, it provides an interesting perspective through which the proposed 1998 bank mergers, and future mergers, can be examined.

Of note, a study by Qiu and Zhou[68] presents a model of endogenous mergers that determines the dynamic process by which firms will choose to merge. The model is set

[68] Qiu, Larry and Wen Zhou. "Merger waves: a model of endogenous mergers," *RAND Journal of Economics* 31, No. 1 (Spring 2007): 214-226.

out as a two stage game. In the first stage, a randomly selected firm is given the opportunity to either acquire or be acquired by another firm. Following that, another firm is given the same opportunity. This process continues until mergers no longer occur. In the second stage of the game, firms engage in Cournot competition and receive their payoffs.

The model is based on several key assumptions. Firms are assumed to have differing constant marginal costs, with marginal costs increasing from the first firm through the n^{th} firm ($c_1 \le c_2 \le \ldots \le c_n$). Demand is given by $p = \alpha - Q$, where p represents the market price, Q is the total industry output, and α is a measure of market size. Mergers are triggered by a negative demand shock and are allowed to proceed up to a duopoly, but full monopolization is prohibited. The equilibrium number of mergers in a given market (k) is influenced by the size of the market (α), the marginal costs of the firms in the industry, and the overall number of firms (n). The authors set α^* as the maximal value of α and k^* equal to its maximizer and thus the optimal number of mergers. Given that there are k^* mergers, the authors find that the k^* least efficient firms are acquired, and, in the case of mergers to duopoly, the last merger is between the first firm and the n^{th} firm.

Through their analysis, the authors are able to make conclusive predictions about a dynamic merger process, extending it to the general case. In all cases, firms are acquired in the order of $n-1, n-2, \ldots, n-(k^*-1)$. The order in which the acquiring firms merge is based on two differing values of k^*. When $k^* = n-2$ (i.e., the merger wave results in a duopoly) the analysis suggests that the first and second firms take turns acquiring the other $n-2$ firms in the order specified previously (i.e., $n-1, n-2, \ldots, 3$). When $k^* \neq n-2$, the authors find that k^* is usually small ($k^* < \frac{n}{2}$) and acquiring firms are lead by firm k^*, followed by firm $k^*-1, k^*-2, \ldots, 2, 1$, to acquire firms $n-k^*$ in the same order specified previously.

This analysis then implies two scenarios for the 1998 bank mergers, when $k^* = n-2$ (which implies $k^* = 3$) and when $k^* < \frac{n}{2}$ (which implies $k^* = 2$).[69] When $k^* = 3$, the dynamic endogenous merger equilibrium suggests that firm 1 would merge with firm 4, followed by firm 2 acquiring firm 3, and finally, conclude with firm 1 acquiring firm 5. Following the practice used by the authors where the firms are ranked according to their market share, this implies that RBC (firm 1) would first firm merge with BNS (firm 4), to be followed by a merger between CIBC (firm 2) and BMO (firm 3), with a final merger of RBC (firm 1) acquiring TD (firm 5) (see Figure 8 below). In the alternate scenario, where $k^* = 2$, it is expected that CIBC (firm 2) would merge with BNS (firm 4), followed by RBC (firm 1) acquiring BMO (firm 3).

[69] This is based on the assumption that $n = 5$. There also exists an alternate possibility where k*=1. However, this is discounted for the 1998 proposed bank mergers because at least two mergers were proposed. If k*=1, the only merger will be the same as the first merger when k*=3 (i.e., firm 1 will acquire firm 4). (If k*=0 there would be no merger, in which case no analysis of post-merger effects would be required.)

Figure 8. Projected Merger Scenarios based on 1997 Market Shares

Bank	Ranking by Market Share	k* = 3	k* = 2
RBC CIBC BMO BNS TD	1 2 3 4 5	RBC + BNS ⇩ CIBC + BMO ⇩ RBC + TD	CIBC + BNS ⇩ RBC + BMO

Source: Author's calculations using OSFI data.

In all cases, BNS is anticipated to be involved in one of the first two mergers. This prediction contradicts actual events. However, by changing the ranking assumption, the appropriate pattern can be found. In the model, firms are ranked not based on their market share, but based on their marginal costs. Because firms engage in Cournot competition where in equilibrium all firms charge an identical optimal price, the marginal cost of each firm is directly proportional to their profitability and market share, hence market share should be reflective of differences in marginal costs. However, in the banking industry, because similar products can be diversified in terms of services in addition to price, and also because the profitability of a bank is dependent on the price it charges for services as well as the rate of return offered to consumers, some comparable measure of profitability could be useful in determining the appropriate ranking. Based on information contained in the five major bank's annual reports, net-income and net-interest income per branch are presented in the table below.[70]

[70] In addition, market share may not necessarily be a good indicator with which to rank banks and infer marginal costs because of consumers' hesitation to switch from one banking institution to another. Bank loyalty still remains a consideration for many consumers in choosing between bank products. However, due to more frequent use of online banking features and retailers, the strength of bank loyalty to prevent consumers from switching institutions has been decreasing. (see Task Force on the Future of the Canadian Financial Services Sector. "Change Challenge Opportunity", September 1998).

Figure 9. Projected Merger Scenarios Based on 1997 Income Per Branch

Bank	No. of Branches	Net-Interest Income/Branch	Ranking	k* = 3	k* = 2
CIBC	916	$ 4,931.36	1	CIBC + TD ⇩ BMO + RBC ⇩ CIBC + BNS	BMO + TD ⇩ CIBC + RBC
BMO	976	$ 4,178.19	2		
RBC	1400	$ 3,571.44	3		
TD	904	$ 3,121.27	4		
BNS	1300	$ 2,859.61	5		

Bank	No. of Branches	Net Income/Branch	Ranking	k* = 3	k* = 2
CIBC	916	$ 1,693.67	1	CIBC + RBC ⇩ BMO + TD ⇩ CIBC + BNS	BMO + RBC ⇩ CIBC + TD
BMO	976	$ 1,337.13	2		
TD	904	$ 1,204.06	3		
RBC	1400	$ 1,199.23	4		
BNS	1300	$ 1,164.69	5		

Source: 1997 Annual Reports of Big 5 Banks, author's calculations using OSFI data.

While precise estimates on the number of domestic branches are not available for all of the major banks, the previous data shows that, based on these calculations, BNS should be ranked as the fifth firm. This data re-enforces the equilibrium suggested by the model where the fifth firm would not enter into a merger transaction either (1) at all or, (2) at a minimum, until after the first two mergers were complete. Furthermore, based on the data available on net-income per branch, the realized merger pattern of RBC and BMO followed by CIBC and TD suggests that k* = 2.[71]

[71] Net-interest income per branch also yields the anticipated result with respect to the correct merging parties, but it does predict the order of mergers correctly. However, given that net-income per branch includes some sunk costs such as expenditure on building facilities, net-interest income, with k* = 3, may be a better approximation of marginal cost. It could be inferred that the incorrect order of the proposed mergers is due to an additional outside factor. For example, RBC and BMO may have assumed that the Competition Bureau would evaluate the mergers individually in the order they were proposed such that they tried to preempt the CIBC and TD merger.

Replicating these calculations with current estimates of net income and net-interest income per branch, suggests the merger patterns displayed below, dependent upon the size of $k*$. Of note, in all scenarios, BNS would now be included in one of the first two mergers. Extending the scenario that correctly predicted the merger pattern in 1998 to the 2007 data, it is expected that BNS would propose to merge with CIBC, followed by RBC proposing a merger with TD. Using net-interest income to rank banks and assuming $k* = 3$, it is expected that BNS would merge with BMO, followed by RBC merging with TD, and lastly, BNS would merge with CIBC.[72]

Figure 10. Projected Merger Scenarios Based on 2007 Income Per Branch

<table>
<tr><th>Bank</th><th>No. of Branches</th><th>Net Income/Branch</th><th>Ranking</th><th>k* = 3</th><th>k* = 2</th></tr>
<tr><td>RBC</td><td>1146</td><td>$ 4,792.58</td><td>1</td><td rowspan="5">RBC + CIBC
⇩
BNS + TD
⇩
RBC + BMO</td><td rowspan="5">BNS + CIBC
⇩
RBC + TD</td></tr>
<tr><td>BNS</td><td>1005</td><td>$ 4,024.63</td><td>2</td></tr>
<tr><td>TD</td><td>1070</td><td>$ 3,735.93</td><td>3</td></tr>
<tr><td>CIBC</td><td>1048</td><td>$ 3,144.67</td><td>4</td></tr>
<tr><td>BMO</td><td>977</td><td>$ 2,181.57</td><td>5</td></tr>
</table>

<table>
<tr><th>Bank</th><th>No. of Branches</th><th>Net-Interest Income/Branch</th><th>Ranking</th><th>k* = 3</th><th>k* = 2</th></tr>
<tr><td>BNS</td><td>1005</td><td>$ 7,062.54</td><td>1</td><td rowspan="5">BNS + BMO
⇩
RBC + TD
⇩
BNS + CIBC</td><td rowspan="5">RBC + BMO
⇩
BNS + TD</td></tr>
<tr><td>RBC</td><td>1146</td><td>$ 6,572.42</td><td>2</td></tr>
<tr><td>TD</td><td>1070</td><td>$ 6,471.01</td><td>3</td></tr>
<tr><td>BMO</td><td>977</td><td>$ 4,956.60</td><td>4</td></tr>
<tr><td>CIBC</td><td>1048</td><td>$ 4,349.24</td><td>5</td></tr>
</table>

Source: 2007 Annual Reports of Big 5 Banks, author's calculations using OSFI data.

[72] It is interesting to note that in 2002, a possible merger between the Bank of Nova Scotia (BNS) and the Bank of Montreal (BMO) was discussed, as predicted under net-interest income/branch rankings when k*=3 (or when k*=1). (As indicated previously, when k*=1, a merger is expected between the first and fourth ranked firms, the same as the first merger proposed when k*=3.)

Research on endogenous merger dynamics could have policy implications for the Competition Bureau's merger review process. The 1998 bank merger reviews created a precedent for the simultaneous consideration of multiple merger proposals in an industry. In its *Merger Enforcement Guidelines as Applied to a Bank Merger,* the Competition Bureau signaled an intention to follow this precedent in the future stating that, "the Bureau will assess, to the best of its ability, the current transactions in relation to the probable evolution of the financial services sector as a whole."[73] However, these guidelines are in place to facilitate predictability in merger review and are not legally entrenched in the *Competition Act*.

The *Competition Act* does not specify the correct course of action for the Competition Bureau with respect to simultaneous merger proposals or the potential for merger waves. In the general case, in the absence of a simultaneous merger proposal, the Competition Bureau would be unlikely to consider any equilibrium beyond the initial merger proposal in question. Endogenous merger theory could provide greater insight into future merger patterns and facilitate a greater focus on the end point of all merger transactions. After receiving an initial merger request and determining the rankings of the relevant firms, a probable value of k^* could be assessed. Furthermore, this literature could then help reveal the anticipated merging parties and merger patterns to follow the initial merger proposal, enabling a shift from a fundamentally sequential approach to merger review to a more forward-looking, simultaneous approach.

[73] Competition Bureau. *Merger Enforcement Guidelines as Applied to a Bank Merger*, January 2003:2. Accessed online at www.competitionbureau.gc.ca.

In the event that bank mergers were to be proposed again in the future, the Competition Bureau could consider the literature on endogenous mergers to better predict the response of other banks to the initial merger and evaluate the final equilibrium. This literature helps to justify the Competition Bureau's approach to the 1998 proposed bank mergers of evaluating the post-merger effects as if both mergers were to proceed, as opposed to analyzing them in the order the proposals were initiated. Of course, given the regulation and merger criteria in place, even if a dynamic equilibrium would suggest further mergers, the Competition Bureau could impede the ensuing merger if it could provide evidence that the merger would substantially lessen competition. However, future research and analysis in this area could lead to significant developments in the Competition Bureau's merger review process.

6. Current Assessment of Key Problematic Areas

The previous evidence identifies several factors that influence the bank merger approval process that have changed since or could add value to the original bank merger review in 1998. Given this, what follows is a more detailed examination of problematic areas identified by the Competition Bureau in their analysis.

Individuals: Mortgages and Credit Cards

In any merger review, significant consideration is given to the effects of the merger on consumers. With respect to bank mergers, a major concern for policy makers is the post-merger expectation of potentially higher service charges, less competitive products and services, and, in general, reduced access to credit. In particular, individuals with little credit history or income that is not well documented may be more likely to be denied access to credit as a result of large scale bank mergers. This issue is particularly acute in the area of housing finance where the recent subprime crisis would be likely to compound efforts to limit access to credit. In fact, the Government of Canada has recently announced its intention to no longer back mortgages with amortization periods longer than 35 years as well as the introduction of a requirement for all government backed mortgages to have a minimum of a 5 percent down payment.[74,75] If banks were to be permitted to merge, current economic and fiscal market conditions may increase the

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[74] Department of Finance Canada. "Government of Canada Moves to Protect, Strengthen Canadian Housing Market", Department of Finance News Release, July 9, 2008. Accessed online at ftp://ftp.fin.gc.ca/fin/News_Releases_2008/2008-051e.doc.

[75] The Government facilitates the purchase of housing by offering mortgage loan insurance via the Canadian Mortgage and Housing Corporation (CMHC). This insurance acts to protect lenders from borrower default and effectively allows banks to transfer risk associated with most mortgage lending to the Government. In order for the loan to qualify for CMHC, it must meet certain conditions. An announcement by the Minister of Finance on July 9, 2008, stipulated changes to the loan-to-value ratio requirements (decreased maximum to 95% from 100%), amortization period (now a maximum of 35 years instead of 40 years), as well as credit scores and loan documentation, among other parameters.

risk of post-merger financial institutions significantly reducing access to credit for many consumers.

A large number of foreign born individuals and a high rate of self-employment in Canada point to the need for housing finance for individuals with little credit history and those that are lacking a formal salary contract.[76] While there are many types of institutions involved in housing finance in Canada, the market is dominated by chartered banks which have shown little interest in this segment of the population. In 2006, 58% of mortgages in Canada were held by chartered banks with the big five banks accounting for the majority of these mortgages.[77] While local data (on which the Competition Bureau based its analysis of the 1998 merger proposals) is unavailable, national level data reveals some interesting trends. Four of the major five banks have lost market share in 2007 compared to 1997 levels. The only big five bank to gain market share was BNS, and its gain was marginal at 0.6 percentage points. Larger gains have been achieved by new and growing entrants such as ING (3.3 percentage points) and foreign banks (3.4 percentage points).[78] Consumers are also consulting other sources of financing to obtain the best rates. The percentage of Canadians relying on a mortgage broker has increased from 14% in 1999, to nearly 30% in 2006.[79] The increased competition in the industry is reinforced by high home ownership rates that imply access to housing financing is good. Results from the 2006 census, released in June 2008, place home ownership rates at

[76] Klyuev, V. "Show Me the Money: Access to Finance for Small Borrowers in Canada", *IMF Working Paper* (January 2008): 15.
[77] Ibid.
[78] See Annex A for full tabular results.
[79] Klyuev, V. "Show Me the Money: Access to Finance for Small Borrowers in Canada", *IMF Working Paper* (January 2008): 21.

nearly 70%, its highest level since 1971.[80] These indicators suggest that increased competition in personal banking services may lessen the Competition Bureau's concerns should a bank merger be proposed.

Another area flagged by the Competition Bureau as an area of caution for individual consumers was credit cards. However, significant increases in credit card issuers and providers indicate that a bank merger may no longer result in a substantial lessening of competition in this product market. There are now 24 major issuers of Visa and MasterCard cards in Canada compared to only 15 in 1997. While Visa still dominates the market with total purchase volume, MasterCard has seen the highest increases in most other growth areas. In 2007, MasterCard had the highest increases in purchase transactions of 12.7% over 2006 values. As a result of consistent double-digit increases since 2001, MasterCard now has a market share of 35.5% of all credit card purchase transactions. This is a notable increase from the 28.4% market share MasterCard held in 1997. MasterCard has also seen the highest increase in number of cards in 2007, up 4.1 million, ahead of Visa with the next highest increase at 1.7 million. Of the 15 top ranked Visa and MasterCard issuers in Canada, 10 of them are issuing MasterCard cards. This marks an increase from 7 of the top 15 in 1997.[81] This evidence demonstrates the substantial growth in market share by MasterCard, largely at the expense of Visa.

[80] Statistics Canada. "2006 Census: Changing Patterns in Canadian Homeownership and Shelter Costs", *The Daily*, June 4, 2008. Accessed online at www.statcan.gc.ca/daily-quotidien/080604/dq080604-eng.pdf.

[81] *The Nilson Report* 897, (February 2008): 9-11 and *The Nilson Report* 668, (May 1998): 8-9.

Figure 11. Changes in Market Share of Major Credit Card Companies

	Number of Cards			Volume of Purchases			Number of Transactions		
	Market Share		Change	Market Share		Change	Market Share		Change
	1997	2007	1997-2007	1997	2007	1997-2007	1997	2007	1997-2007
VISA	60.2%	42.0%	-18.1	66.1%	61.3%	-4.8	66.0%	58.2%	-7.8
MC	34.7%	50.3%	15.6	24.3%	29.8%	5.5	28.4%	35.6%	7.2
AMEX	4.5%	6.0%	1.5	7.3%	8.8%	1.5	4.7%	6.3%	1.6

Source: The Nilson Report, Issues 897 and 668.

Not only is MasterCard increasing its ability to compete with Visa, Canada's largest six banks are experiencing significant competition from other issuers. All of Canada's major six banks lost market share with respect to number of cards over the 1997 – 2007 period, collectively amounting to an overall decrease in market share of 24%.[82] "Between 1998 and 2007, the number of credit cards issued by the 'big six' banks grew by 15.4%, compared to 21.7% by credit unions and caisses popularizes, 37.4% by foreign banks, and 61.6% by other domestic banks."[83] Additionally, recent developments in the credit card industry will now permit duality and dual governance of credit card networks. The Competition Bureau has weighed in on this change indicating that "the Bureau is no longer concerned that there is a potential for a member, or group of members, of one credit card network to negatively influence the competitive operations of another card network through dual governance" and, more importantly, that "by allowing banks to issue multiple credit cards, consumers will benefit from increased choice and better service."[84] This increased competition in the credit card segment of the

[82] See Annex A.
[83] Canadian Bankers Association. *Competition in the Financial Services Sector,* May 2008. Accessed online at www.cba.ca
[84] Competition Bureau Canada. "The Competition Bureau's Letter to Financial Institutions — Duality and Dual Governance of Credit Card Networks in Canada", November 7, 2008. Accessed online at www.competitionbureau.gc.ca.

banking industry suggests that post-merger market share concerns in today's market would be significantly reduced.

Figure 12. Changes in Credit Card Market Share by Bank

	Volume of Purchases			Number of Cards		
	Market Share		Change	Market Share		Change
	1997	2007	1997-2007	1997	2007	1997-2007
RBC	18.6%	20.0%	1.4	16.8%	10.0%	-6.8
BMO	13.9%	13.8%	-0.1	20.3%	15.0%	-5.3
TD	11.0%	10.9%	-0.1	14.0%	10.4%	-3.6
CIBC	23.2%	23.9%	0.7	12.7%	9.7%	-3.0
BNS	6.9%	7.2%	0.2	8.1%	6.5%	-1.6
National	3.8%	2.5%	-1.3	6.3%	2.9%	-3.4
Canadian Tire	0.5%	3.8%	3.3	1.7%	7.3%	5.6

Source: The Nilson Report, Issues 897 and 668.

Businesses: Loans for Small and Medium-Sized Enterprises (SMEs)

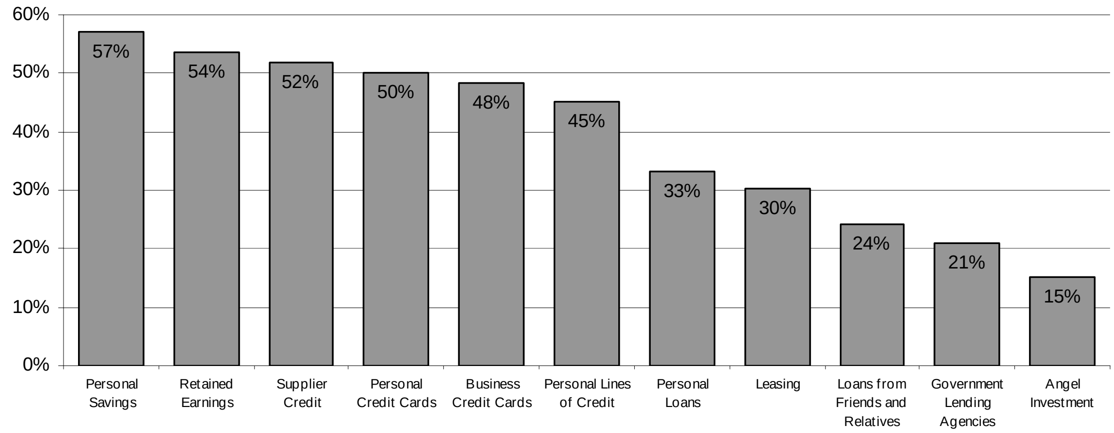
Of particular concern for policy makers are the potential impacts of a bank merger on access to financing, especially for those consumers and businesses that carry a higher risk. This concern is particularly pronounced for small and medium-sized enterprises[85] (SMEs) in Canada where domestic banks are generally unwilling to exceed a fairly low risk threshold[86] and the venture capital market for higher risk projects is relatively weak compared to other nations.[87]

[85] Industry Canada defines SMEs as businesses with fewer than 500 employees and with annual revenue less than $50 million. Unincorporated firms with less than $30,000 in revenues, non-profit organization, government organizations, cooperatives, and financing and leasing companies are excluded from the SME category.
[86] Klyuev, V. "Show Me the Money: Access to Finance for Small Borrowers in Canada", *IMF Working Paper* (January 2008): 9.
[87] The 2007-08 World Economic Forum Global Competitiveness Report ranks Canada 20th in terms of venture capital availability. This is behind Germany (19), Australia (13), the United Kingdom (6), and the United States (1).

SMEs play a significant economic role in Canada, numbering over two million, employing over 48 percent of the total labour force in the private sector,[88] and having a direct contribution of up to 45% of GDP.[89] SMEs are also a valuable source of innovative ideas, services, and products and, in general, comprise a significant portion of entrepreneurial pursuits. Access to financing is a necessity for most SMEs but can present a significant challenge. Due to a lack of credit history and uncertainty regarding potential returns, financial institutions often decline SME loans or are hesitant to provide financing for SMEs. Overall local rejection rates by Canadian banks in 2006 were 13.7%, down from 16.0% in 2003, but an increase from 2000 levels of 10.5%.[90] SMEs with fewer than 20 employees were significantly more likely to have a loan application rejected than larger businesses.[91] As a result of the low risk tolerance of Canadian financial institutions, SMEs in Canada seek financing from more informal sources such as loans from individuals and trade credit from suppliers. At present, approximately two thirds of debt owned by Canadians SMEs is financed through informal sources.[92]

[88] Industry Canada. *Key Small Business Statistics*, July 2008: 6. Accessed online at www.ic.gc.ca.
[89] CFIB. "Banking on Competition: Results of the CFIB Banking Survey" October 2003: 1.
[90] CFIB. "Banking Matters: Survey Results of Small Business Owners on Banking Issues", *CFIB Research* (November 2007): 5.
[91] Ibid.
[92] Klyuev, V. "Show Me the Money: Access to Finance for Small Borrowers in Canada", *IMF Working Paper* (January 2008): 5.

Figure 13. Alternative Sources of Financing



Source: Statistics Canada, Survey of Financing of SMEs, 2004.

While this evidence suggests that access to credit through Canadian financial institutions for SMEs could be improved, it also confirms that there are alternate methods and sources for SME financing. "In 2004, of the 18 percent of SMEs that applied for a loan from a financial institution, [only] 64 percent were received by the banks."[93] Since 2004, domestic bank market share in credit to SMEs has been trending downward with gains in market share being made by credit unions and finance companies. As a share of total lending, credit issued to SMEs by Canada's major banks has been decreasing.[94] The Canadian Federation of Independent Businesses (CFIB) also confirms these findings through their annual survey where 19% of respondents report an increase in business banking services by foreign banks and 33% for credit unions.[95] Similarly, between 2000 and 2003 there has been a significantly increased usage by Canadian SMEs of specialized financial institutions. Fewer SMEs are choosing to pursue financing through large banks.

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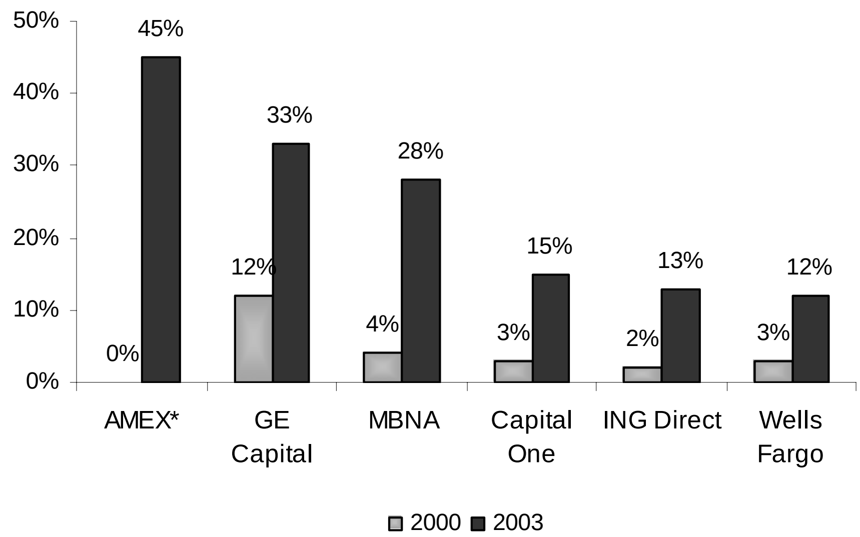
[93] Ibid.
[94] Statistics Canada. *Survey of Suppliers of Business Financing*. 2006 data was released in March 2008.
[95] CFIB. "Banking on Competition: Results of the CFIB Banking Survey" October 2003: 6.

Figure 14. SME Use of Major Specialized Financial Institutions, 2000 – 2003



* AMEX was not included in the 2000 Banking Survey
Source: CFIB. "Banking on Competition: Results of the CFIB Banking Survey", October 2003.

Through the use of these alternative and more traditional sources of financing, it appears that SMEs do have adequate access to credit. A survey of international business owners by the Grant Thornton consulting firm indicates that the cost of finance, shortage of working capital, and the shortage of long term finance are not major constraints on growth for the significant majority of Canadian SMEs. Less than 10 percent of firms list the cost of finance (8%) and the shortage of long term finance (9%) as a major constraint (4 or 5 on a 5 point scale) on growth. Comparatively, the average among OECD countries was 23% for both constraints. At 13%, the percentage of firms whose growth was significantly limited by the shortage of working capital, was low.[96] These findings are consistent with other surveys of SMEs. In a 2006 CFIB survey, of the nine issues proposed as being important to an SME's business, business owners ranked six of the

[96] Grant Thornton International. *Grant Thornton International Business Owners Survey 2008.* Accessed online at www.grantthorntonibos.com/index.asp.

nine issues above availability of financing with only provincial labour laws and "other" having lower rankings.[97]

However, banking services are still an important part of a successful SME business community. A survey of SMEs conducted by CFIB in 2005 found that overall, over 92% of respondents indicated that access to a full service local branch was very important (78.2%) or somewhat important (14.6%). Results varied by region but were especially pronounced in the Yukon where respondents unanimously selected access to a full service local branch as very important. By contrast, only 48% of respondents indicated access to an ABM for business purposes was very (30.8%) or somewhat (17.8%) important.[98] While innovative online products, such as an online application for a small business loan, have been developed, the market for SME lending is still largely regional. Despite the availability of an online business loan application process, only 4 percent of SMEs applying for a loan did so over the internet.[99] This is reinforced by a CFIB survey where 78% of SMEs indicated that access to a full-service local branch is "very important" which is significantly higher than the 31% and 46% (respectively) which indicated access to ABMs or to telephone or internet banking was "very important". Many SMEs are still heavily reliant on in-branch banking services.

[97] CFIB. "Our Members' Opinions No. 56", *CFIB Research Results*, (January – June 2005): 2. Accessed online at www.cfib.ca.
[98] CFIB. "Our Members' Opinions No. 56", *CFIB Research Results*, (January – June 2005): 1. Accessed online at www.cfib.ca.
[99] Klyuev, V. "Show Me the Money: Access to Finance for Small Borrowers in Canada", *IMF Working Paper* (January 2008): 6.

The CFIB publishes bank market share data by provincial region in Canada. While market shares are not calculated on the same basis as the CBA data used by the Competition Bureau to analyze the 1998 mergers, it does provide some insight into the potential outcomes of a major bank merger under current conditions. Instead of being based on the monetary value of the banks' business client portfolio, market shares are calculated based on the number of business clients. Based on this data, when evaluating the post-merger market share of the proposed 1998 mergers against the 35% threshold, only the CIBC and TD merger in Ontario would be problematic. In contrast, when considering the effects of the mergers on the interdependent exercise of market power, both mergers fail to meet the required threshold in all regions. However, the market shares calculated by the CFIB only take into consideration financing options offered through financial institutions. As evidenced previously, it is apparent that most SMEs have adequate access to financing through the use of alternative sources. If the market definition is expanded to include alternative sources of financing products, the post-merger market shares may produce different results.

Using the 2004 Industry Canada figure that only 64% of SME loans are obtained from financial institutions[100] as a proxy for adjusting the bank market shares in SME financing, it is apparent that this is the case. An examination of endogenous merger theory suggested two merger scenarios based on current banking information: (1) a merger between BNS and CIBC, followed by a merger between RBC and RD, or (2) a series of three mergers beginning with BNS and BMO, followed by RBC and TD, and

[100] Klyuev, V. "Show Me the Money: Access to Finance for Small Borrowers in Canada", *IMF Working Paper* (January 2008): 5.

finally, ending with BNS and CIBC.[101] Consider alternative forms of financing, for all scenarios, the post-merger market share of the projected merging parties is now well below the 35% threshold required to eliminate concerns of the unilateral exercise of market power. Of greatest concern is the third merger between BNS and CIBC (when $k^* = 3$) where post-merger market share amounts to 32% in the Atlantic region. Additionally, all mergers would be permitted in all regions under the concentration threshold of 65% for the four largest players (see Figures 15 and 16 below). This analysis suggests that under current market conditions, business loans, particularily for SMEs, may not longer be a concern in approving the projected bank mergers.

Figure 15. Market Share Threshold Test of Projected Mergers by Region (Geographic Market)

	Market Share Threshold Test (%)					
Merger	**Atlantic**	**QC**	**ON**	**MN & SK**	**AB**	**BC**
Scenario 1						
BNS + CIBC	25.0	4.6	20.3	13.2	13.7	19.9
RBC + TD	20.5	8.4	26.9	17.9	17.9	19.1
Scenario 2						
BNS + BMO	24.7	6.2	19.6	11.8	14.1	19.0
RBC + TD	20.5	8.4	26.9	17.9	17.9	19.1
BNS (+ BMO) + CIBC	32.2	9.4	28.7	18.6	20.1	27.0

Source: CFIB data from "Banking Matters", November 2007 and author's calculations.

[101] When k*=1, the anticipated merger is the same as the first merger when k*=3, thus a merger between BNS and BMO is expected. The effects of this individual merger are outlined in Figures 15 and 16 by examining the change in market share and market concentration for the first merger under Scenario 2 (when k*=3).

Figure 16. Concentration Threshold Test of Projected Mergers by Region (Geographic Market)

	Concentration Threshold Test (%)					
Merger	**Atlantic**	**QC**	**ON**	**MN & SK**	**AB**	**BC**
Scenario 1 [102]						
BNS + CIBC	54.6	53.6	55.6	56.1	44.7	52.0
RBC + TD	53.3	56.3	55.6	56.1	47.4	50.5
BNS + CIBC ⇩ RBC + TD	60.5	56.3	60.2	61.4	53.4	58.5
Scenario 2 [102]						
BNS + BMO	54.6	55.0	55.6	55.9	45.1	52.0
RBC + TD	53.3	56.3	55.6	56.1	47.4	50.5
BNS + BMO ⇩ RBC + TD	60.5	57.7	60.2	61.4	53.8	58.5
BNS + BMO ⇩ RBC + TD ⇩ BNS (+ BMO) + CIBC	61.8	60.9	61.1	62.3	59.8	63.0

Source: CFIB data from “Banking Matters”, November 2007 and author’s calculations.

Despite receiving approval from the Competition Bureau, the proposed mergers may still be blocked because of opposition from within the business community. The bank merger evaluation process is subject to a public impact assessment and general political scrutiny which may hinder the merger process. However, it is important to recognize that the government can use and has employed various policy tools to mitigate some of the detrimental effects of a merger. Certain tax benefits, like those in place for enterprises with an annual income of less than $400,000, can be expanded and extended to Canadian businesses and financed investments. Additionally, taking measures to

[102] For the evaluation of concentration thresholds, the mergers predicted by the endogenous merger theory for each scenario are first considered individually, then collectively, as if all mergers occur.

increase the availability of venture capital could provide more opportunities for riskier SMEs to obtain necessary financing. Other endeavors such as the Small Business Financing Program and the Business Development Bank of Canada offer Canadian business alternative sources of financial planning and financing and act to increase competition in the SME financial sector.

7. Conclusion

Significant changes have occurred since the original 1998 bank merger proposals. Changes related to market structure and the way in which the Competition Bureau reviews merger proposals suggest that a bank merger review in the current environment would likely lead to a different conclusion than in 1998. In addition, continually worsening conditions in financial markets are increasing the probability that a bank merger could be proposed not to maximize shareholder profits but instead, in response to the potential insolvency of a financial institution. In this c ase, the bankruptcy would result in the loss of an effective competitor regardless of the Competition Bureau's or Minister of Finance's decision, consumers with significant savings and investments would likely be harmed as a result of the bankruptcy, and the bankruptcy would foster general market instability. For these reasons, among others, a proposed bank merger would almost certainly be permitted to proceed. However, the paper has shown that even without the collapse of a financial institution, a bank merger proposal could be permitted based on economic rationale.

The market structure and nature of competition in the banking industry have evolved since the 1998 merger review due to legislative and other changes which have facilitated the entrance of both foreign and domestic entrants. These entrants, and the potential threat of new entrants, assist to encourage a competitive environment in the banking industry in the event of a bank merger. Technical advances and new banking models are challenging traditional thinking, decreasing the need for in-branch services and providing opportunities for cost efficiencies. Following the merger pattern predicted by endogenous merger theory, problematic areas previously identified by the Competition Bureau in the 1998 merger review would be expected to be less controversial. While still unpopular with the public, opposition toward bank mergers has been shown to be softening and support from the academic community is growing, evidenced by recommendations in the reports of the Competition Policy Review Panel and the OECD.

The benefits of bank mergers are starting to be acknowledged. Substantial efficiency gains can help increase the productivity of Canadian banks and have the potential to be passed on to consumers. Mergers would also empower Canadian financial institutions to better compete in international financial markets. Taking into account current economic conditions, bank mergers could also forge greater stability in the Canadian financial system. These gains, when taken into consideration with a reduction in the anticipated anti-competitive effects of a potential bank merger, contribute to the determination that a re-consideration of Canadian bank mergers would likely lead to an alternate end result.

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Annex A

	Net - Interest Income			Non-Interest Income			Securities		
	Market Share		Change	Market Share		Change	Market Share		Change
	1997	2007	**1997-2007**	1997	2007	**1997-2007**	1997	2007	**1997-2007**
Total Domestic	94.4%	91.7%	**-2.7**	93.6%	93.0%	**-0.7**	93.4%	95.7%	**2.3**
Total Foreign	5.6%	8.3%	**2.7**	6.4%	7.0%	**0.7**	6.6%	4.3%	**-2.3**
Excluding Big 6	1.5%	3.4%	**1.9**	1.0%	1.5%	**0.5**	0.5%	0.5%	**0.0**
Big 6 Banks	92.9%	88.3%	**-4.7**	92.6%	91.5%	**-1.1**	92.9%	95.2%	**2.3**
RBC	21.7%	20.7%	**-0.9**	22.5%	29.3%	**6.8**	21.9%	29.5%	**7.6**
BMO	17.7%	13.3%	**-4.3**	15.7%	10.4%	**-5.3**	20.0%	12.1%	**-7.8**
TD	12.2%	19.0%	**6.8**	13.9%	16.9%	**3.0**	12.0%	18.3%	**6.3**
CIBC	19.6%	12.5%	**-7.0**	20.9%	17.2%	**-3.7**	20.7%	12.0%	**-8.8**
BNS	16.1%	19.5%	**3.4**	14.1%	12.4%	**-1.7**	15.2%	18.0%	**2.8**
National Bank	5.7%	3.1%	**-2.6**	5.5%	5.3%	**-0.3**	3.0%	5.2%	**2.2**
Recent Entrants									
Canadian Tire	0.0%	1.1%	**1.1**	0.0%	0.4%	**0.4**	0.0%	0.0%	**0.0**
PC	0.0%	0.1%	**0.1**	0.0%	0.4%	**0.4**	0.0%	0.0%	**0.0**
ING	0.0%	1.0%	**1.0**	0.0%	0.1%	**0.1**	0.1%	1.0%	**0.9**
HSBC	2.1%	3.4%	**1.2**	1.3%	1.6%	**0.4**	1.4%	1.1%	**-0.3**
MBNA	0.0%	0.6%	**0.6**	0.0%	1.0%	**1.0**	0.0%	0.0%	**0.0**

Source: Author’s calculations using OSFI data.

Annex A (continued)

	Loans for Non-business			Loans for Business			Residential Mortgages			Non-residential mortgages		
	Market Share		Change	Market Share		Change	Market Share		Change	Market Share		Change
	1997	2007	**1997-2007**	1997	2007	**1997-2007**	1997	2007	**1997-2007**	1997	2007	**1997-2007**
Total Domestic	96.4%	92.9%	**-3.5**	90.3%	87.3%	**-3.0**	96.9%	93.5%	**-3.4**	93.0%	95.7%	**2.6**
Total Foreign	3.6%	7.1%	**3.5**	9.7%	12.7%	**3.0**	3.1%	6.5%	**3.4**	7.0%	4.3%	**-2.6**
Excluding Big 6	1.6%	4.5%	**2.8**	0.5%	1.0%	**0.4**	3.6%	3.0%	**-0.6**	10.8%	12.7%	**1.9**
Big 6 Banks	94.8%	88.4%	**-6.4**	89.7%	86.3%	**-3.5**	93.3%	90.5%	**-2.8**	82.2%	82.9%	**0.7**
RBC	22.4%	20.8%	**-1.6**	16.9%	23.6%	**6.7**	23.7%	22.1%	**-1.6**	28.8%	14.0%	**-14.9**
BMO	16.9%	11.6%	**-5.4**	17.0%	16.2%	**-0.8**	14.8%	13.2%	**-1.6**	17.5%	15.1%	**-2.4**
TD	10.4%	23.6%	**13.1**	13.1%	11.9%	**-1.2**	14.2%	11.3%	**-2.9**	2.3%	31.0%	**28.6**
CIBC	20.4%	12.8%	**-7.6**	22.3%	11.9%	**-10.4**	18.2%	18.8%	**0.6**	19.9%	17.3%	**-2.6**
BNS	18.8%	15.9%	**-2.9**	15.8%	18.8%	**3.0**	16.2%	21.8%	**5.6**	10.0%	2.5%	**-7.5**
National Bank	5.8%	3.7%	**-2.0**	4.6%	3.9%	**-0.7**	6.2%	3.4%	**-2.9**	3.8%	3.1%	**-0.6**
Recent Entrants												
Canadian Tire	0.0%	2.0%	**2.0**	0.0%	0.0%	**0.0**	0.0%	0.0%	**0.0**	0.0%	0.0%	**0.0**
PC	0.0%	0.1%	**0.1**	0.0%	0.0%	**0.0**	0.0%	0.0%	**0.0**	0.0%	0.0%	**0.0**
ING	0.0%	0.1%	**0.1**	0.0%	0.1%	**0.1**	0.0%	3.3%	**3.3**	0.0%	0.6%	**0.6**
HSBC	1.4%	1.3%	**-0.1**	1.8%	4.6%	**2.8**	2.8%	2.9%	**0.1**	2.2%	0.2%	**-2.0**
MBNA	0.0%	1.5%	**1.5**	0.0%	0.0%	**0.0**	0.0%	0.0%	**0.0**	0.0%	0.0%	**0.0**

Source: Author’s calculations using OSFI data.