MICROBANKING IN THE DEVELOPED WORLD:

A COMPARATIVE ANALYSIS OF COMMUNITY BANKS AND BRANCH BANKS AS SUBSTITUTE LENDERS TO SMALL BUSINESSES

by

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Lastly, I would also like to thank my loved ones for their encouragement and patience, including my parents, my siblings and Colin McArthur. Additionally, it has been an honour for me to investigate an issue of significant importance to both my father, Domenic Meffe, and my grandfather, Nicola Meffe, each of whom run their own small business. Consequently, they have encountered various financing obstacles that have been a result of the very problems discussed in this paper. I am therefore committed to further pursuing this subject in order to improve the banking landscape for future generations of small business owners.

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I. Introduction

The last three decades of deregulation in the United States has fundamentally changed the landscape of the banking industry. More specifically, deregulatory policies have played a key role in increasing the disparity between large commercial and investment banks and smaller community banks, in terms of both their market share and services offered. Despite their declining share of the banking industry, community banks maintain their role as the primary supplier of credit to small businesses. Their decline is largely the result of the rapid expansion of commercial and investment banking through mergers and acquisitions, coupled with the proliferation of branch banking in local communities. This paper will argue that despite the ambition of branch banking to emulate the benefits of local lending relationships, community banks maintain their competitive advantage due to their specific organizational structure and lending practices. They will therefore remain viable competitors in the banking market.

More broadly, the topic of primary concern in this paper is microbanking – banking that involves small scale relationships such as community and branch banks. Microbanking primarily targets low-to-middle income individuals and small businesses, both of which tend to have limited access to financial resources. Microbanking encompasses both large financial institutions that have locally-based branch networks and small-scale financial institutions that emerge within one specific community. In Canada, the financial sector is characterized by a large disparity between the five large dominant banks and investment institutions; and smaller credit unions and independent banks. Credit unions are member-owned financial cooperatives, meaning that the members

operate the institution, while sharing the profits equally.[1] Similarly, there is a large disparity in the United States as the financial sector is comprised of many large commercial and investments institutions, existing alongside community banks. Within the broader topic of microbanking, this paper is concerned with a comparison between the two divergent sets of institutions in terms of efficiently servicing their target clients – in particular small businesses. It will utilize the microbanking industry in the United States as a case study. The paper's focus on the United States is for two reasons: firstly, the literature on the Canadian microbanking industry is poorly developed in comparison to that of the Unites States. Secondly, community banks in the United States are relatively more homogenous in terms of their behaviour and characteristics, and thus easier to analyze as a whole. The final section of this paper moves beyond the United States and addresses the microbanking industry in Australia. The banking industry in Australia is similar to that in Canada because it is dominated by a handful of large financial institutions, existing alongside many small and independent banks. However, there has been an Australian innovation that has not occurred in Canada. Over roughly two decades, Australian Community Branch banks emerged as a hybrid-institution which combined elements of community banks from the United States with elements of large financial institutions. Moreover, the number of Community Branch banks has expanded significantly since their inception two decades ago. This can be contrasted with the experience of community banks in the United States and credit unions in Canada that have both seen a steady decline over the last three decades. Therefore this particular

[1]Investopedia, "Credit Union," Last modified 2011, http://www.investopedia.com/terms/c/creditunion.asp#axzz1VEtVgTs0.

hybrid-institution is an interesting application of microbanking, and relevant to this paper's discussion of the community bank decline.

A community bank is broadly defined by two key characteristics: they are small in size, and do most of their business in the local community in which they are situated.[2] Community banks are defined as banks that hold less than $1 billion in total assets.[3] More formally, DeYoung, Hunter, and Undell (2004, 87) shaped the following definition: "a community bank is a financial institution that accepts deposits from and provides transactions services to local households and businesses, extends credit to local households and businesses, and uses the information it gleans in the course of providing these services as a comparative advantage over large institutions." Compared to large, commercial banks, community banks tend to focus on relationship lending, which Keeton (2003) defines as the use of personal knowledge of the creditworthiness of clients and a keen understanding of business conditions in the local community. As noted by DeYoung et al. (2004), community banks also rely on the production of soft information, which develops from relationships maintained over time through the accumulation of information. More specifically, they assert that soft information includes the collection of qualitative information regarding the character of the business owner, the strength of the business based on interactions between the loan officer and the business owner, and the condition of the local market. Berger (2010) argues that soft information is not necessarily easy to process nor is it easy to transmit beyond the loan officer who initially collected it.

[2]William Keeton, (2003), "The Role of Community Banks in the U.S. Economy," *Economic Review, Federal Reserve Board of Kansas City* QII: 17.
[3]Keeton, "The Role of Community Banks in the U.S. Economy," 17.

Conversely, large banks tend to rely on impersonal transaction lending in which client contracts are evaluated based on the information collected at the time of the loan application, as defined by Berger (2010). Large banks also rely on the production of hard information which DeYoung (2010) defines as information about the borrower that can be quantified, and includes formal financial statements and the observation of collateral. Berger (2010) argues that hard information is relatively easy to process and transmit within a banking institution.

Keeton (2003, 18) observed that by the end of 2002, there were over 6,900 community banks in the United States, which is roughly half that present in 1980. Due to this relatively significant decline, many have come to wonder if community banks still play a sufficiently important role in the economy to warrant public interest.[4]

The viability of community banks is particularly worrisome given their importance in key American sectors. For example, Keeton (2003, 20) notes that community banks account for 58 percent of all banking offices in rural communities and hold 49 percent of all deposits; and in metro areas with less than one million people, community banks account for 31 percent of all banking offices, and hold 23 percent of all deposits. Community banks are also important for small businesses. Keeton (2003) defines a small business as a non-real estate, non-financial firm with fewer than 500 employees. In 2002, small businesses accounted for just over half of the private sector output and employment in the United States.[5] According to Keeton (2003, 26), in 2002 community banks in the United States accounted for only 4 percent of large business loans – commercial and industrial (C&I) loans over $1 million in size – but 33 percent of

[4]Keeton, "The Role of Community Banks in the U.S. Economy," 16.
[5]Keeton, "The Role of Community Banks in the U.S. Economy," 24.

small business loans – C&I loans of $1 million or less. Thus a discussion surrounding the viability of community banks is important because of the implications for the supply of credit to low-to-middle income households and to small businesses. This particular paper will focus on small business lending, though the same analysis applies for other clients of community banks.

In comparison to the existing literature, this paper will offer an explicit comparison between community banks and branch banks, within the broader topic of microbanking. Branch banking is defined as engaging in banking services, including accepting deposits and processing loans, at facilities away from the bank's operating headquarters.[6] There is not a substantial wealth of literature on the topic of microbanking. Of the existing literature, that which is particularly relevant compares small community banks with larger commercial banks or large financial institutions, but tends to neglect the role of branch banks specifically. This is important however, because branch banks are a substitute for community banks, in that they seek to provide local and more relationship-based services to the community, thereby directly competing with community banks. Additionally, this paper will provide complete coverage on the topic of community banks by looking first at the relevant history of the banking industry leading up to the current circumstance. This paper will then present the current circumstance in terms of theory and empirical evidence. Therefore, the discussion in this paper is relevant to the current circumstance of the banking industry and can offer practical insights. Once again, this type of comprehensive analysis is absent from the existing literature. This is likely due to the fact that most scholars have tended to focus

[6]Investopedia, "Branch Banking," Last modified 2011, http://www.investopedia.com/terms/b/branch-banking.asp.

on one specific avenue of analysis, rather than looking at the complete picture. Lastly, this paper is relevant for the discussion of small business lending – another weak strand of the literature. As previously mentioned, small businesses are a primary client of both community banks and branch banks. Small businesses are also particularly affected by the different lending practices of each type of institution. Consequently, small businesses have been negatively impacted by the decline of community banks in terms decreased credit availability. Therefore this paper will seek to address this concern and offer practical insights for the market of small business lending.

The remainder of the paper proceeds as follows. Section II explores a brief history of the banking sector in the United States over the last half-century. Section III develops the theoretical framework. Section IV reviews the relevant empirical literature. Lastly, section V discusses the Bendigo and Adelaide Bank Community Bank project in Australia, as a case study. Section VI concludes.

II. History of the U.S. Banking Industry

The dichotomous American banking industry is comprised of both large commercial banks and small community banks. Large banks are very complex and provide a range of products. Keeton (2003) also asserts that large banks are characterized by their reliance on hard information, computer models as screening devices and a centralized decision-making body. Conversely smaller community banks focus on relationship banking and the production of soft information. Berger (2010) argues that such relationship-based lending practices are often favoured among small businesses because they are generally more informationally opaque and lack certified audited

financial statements. Consequently, he argues that small businesses often face difficulties in providing the necessary information to borrow from branch banks, and are thus more compatible with the lending practices of community banks. Over the last three decades, the banking industry has faced substantial deregulation and various other policy initiatives designed to allow for the growth of financial institutions – including new information technologies, new financial instruments and markets, and substantial increases in competition.[7] As a result, the number of community banks has significantly declined over the last three decades, complimenting a rise in merger activity and geographic expansion of large banks including the rising presence of branch banks.[8] The remainder of this section will utilize the work of DeYoung (2010) to outline a brief history of the American banking industry over the last half-century, as it pertains to the role of community banks.

During the 1970s the banking industry was protected because of government regulation, and was used to shield the industry from geographic competition, product competition and price competition.[9] This situation evolved from the McFadden Act of 1927 which was enacted to address some of the geographic competitive inequalities of state level and nation-level banks.[10] DeYoung (2010) notes that the McFadden Act protected banks from competition outside of their home state by prohibiting interstate branch banking. Additionally, as observed by DeYoung et al. (2004), most states imposed intrastate branch regulations. The Glass-Steagall Act of 1927 effectively separated commercial banking from investment banking, by prohibiting commercial

[7]Robert DeYoung, (2010), "Banking in the United States," in *The Oxford Handbook of Banking,* ed. Allen N. Berger, Philip Molyneux, and John O.S. Wilson, 777-806. (New York: Oxford University Press), 778.
[8]Keeton, "The Role of Community Banks in the U.S. Economy," 15.
[9]Robert DeYoung, William C. Hunter, and Gregory F. Undell, (2004) "The Past, Present, and Probable Future for Community Banks," *Journal of Financial Services Research* 25: 88.
[10]Google Sites, "CSBS," Last modified September 15, 2008, https://sites.google.com/site/bankinglaw101/.

banks from owning securities brokerage firms.[11] By isolating commercial banking as a separate and highly regulated financial sector, DeYoung et al. (2004) argue that the Glass-Steagall Act protected the industry from product competition from investment banks, insurance companies, and brokerage firms. The Glass-Steagall Act also established a temporary deposit insurance program, the Federal Deposit Reserve System (FDIC), under the Federal Reserve.[12] Lastly, the Glass-Steagall Act included Regulation Q which prohibited the ability to pay interest on commercial chequing accounts and imposed interest rate ceilings on all deposit rates except for Negotiable Certificates of Deposit (NCD) above $100,000, thus protecting the industry from price competition.[13] According to DeYoung (2010), the aforementioned policies resulted in a relatively constant number of commercial banks in the United States between the 1960s to early 1980s. In 1970 there were roughly 14,000 federal or state charted commercial banks, of which over 95 percent were community banks.[14] Collectively, these small community banks accounted for approximately one-third of the industry's total assets. Due to the aforementioned regulation surrounding both interstate and intrastate banking, community banks had a competitive advantage in lending and holding deposits at the local level. They also had a competitive advantage because of the predominantly paper-based payment system of the time. This meant that clients demanded a bank with a physical location that was safe and convenient. Consequently, community banks held a substantial market position because larger banks were constrained from competing in local markets.[15]

[11]Google Sites, "CSBS."
[12]Google Sites, "CSBS."
[13]DeYoung et al. "The Past, Present, and Probable Future for Community Banks," 88.
[14]DeYoung, "Banking in the United States," 780.
[15]DeYoung et al. "The Past, Present, and Probable Future for Community Banks," 89.

In addition to their competitive advantage, community banks thrived in spite of the market environment. For example, investments were processed through banks during the 1970s because mutual funds had not yet been well-established. DeYoung (2010) asserts that banks also dominated the residential mortgage market because the information technology necessary for modern mortgage banking had also not yet been developed. During the 1970s, commercial banks were also the main supplier of credit to businesses. More specifically, community banks were the primary source of credit for small businesses, allocating between 20 to 30 percent of their loan portfolios to commercial lending during the 1970s.[16] Therefore, DeYoung (2010) argues that commercial banks – as opposed to other financial institutions – dominated the market for most of the average household's financial needs, including credit, investments, transactions, and safekeeping during the 1970s. Furthermore, community banks had a competitive advantage because of prevailing technologies and regulatory conditions.

i. The 1970s

Over the 1970s and 1980s, "volatile economic conditions, technological change, and an anti-regulation evolution in political and economic thought… led to the dismantling of these banking regulations, and brought an end to the comfort zone of community banks."[17] DeYoung (2010) asserts that the emergence of Money Market Mutual Funds (MMMF) in 1971 transformed large-denomination money market instruments into smaller denomination investments that become affordable to the average

[16]DeYoung, "Banking in the United States," 781.
[17]DeYoung et al. "The Past, Present, and Probable Future for Community Banks," 91.

household. Thus over the course of the decade, the market faced disintermediation when household funds flowed from low-yielding bank deposits into higher-yielding MMMFs.

In combination with other innovations, there emerged numerous alternatives to traditional deposit banking.[18] DeYoung (2010) argues that the invention of the automated teller machine (ATM) during the 1970s improved service quality by offering greater convenience, increased bank revenue from transaction fees, and greater productivity among branch branks. Ultimately such innovations increased the efficiency of branch banks which enabled greater competition with community banks for substitute services. Over-time electronic-payment technologies rapidly replaced paper-based systems which encouraged households to hold smaller precautionary balances. This caused a decline in the fraction of household financial assets held in transactions accounts, which were primarily held in banking institutions such as community banks. DeYoung (2010) argues that internet banking also eroded the importance of geographic convenience and reduced the cost of producing basic banking services. It is clear that over the course of the 1970s, the characteristics of community banks that initially gave them a competitive advantage were quickly eroded and replaced by technological innovations that allowed for greater competition in the local market.

ii. The 1980s

According to DeYoung (2010), by the 1980s, policy makers were having difficulty both maintaining a regulatory environment while also ensuring a vibrant and healthy banking industry. The Garn-St. Germain Depository Institutions Act of 1982

[18]DeYoung et al. "The Past, Present, and Probable Future for Community Banks," 92.

allowed banks to offer Money Market Deposit Accounts (MMDAs) which enabled them to compete directly with MMMFs.[19] The Garn-St. Germain Depository Institutions Act also dismantled Regulation Q which allowed thrift institutions – small, community based banks focused solely on taking deposits and originating home mortgages[20] – to compete directly with community banks by processing commercial loans.[21]

DeYoung (2010) argues that another important innovation of the 1980s that eroded the role of community banks was securitization. Securitized lending was a strategy utilized predominately by large commercial banks and other financial institutions who no longer had to finance the loans they distributed.[22] Securitization began in the 1960s but exploded in the 1980s, by which time it had spread from the residential mortgage market to include many other types of financial assets including consumer loans.[23] The securitization market had grown from several hundred billion dollars in the 1970s to almost $4.5 trillion in 2001 – almost as large as the entire $5.7 trillion asset market in the banking industry.[24] On one hand, securitization became important for ommunity banks by allowing them to geographically diversify their "otherwise locally concentrated loan portfolios."[25]

On the other hand community banks were at a funding disadvantage compared to branch banks. Loan securitization facilitated two government sponsored enterprises, the Federal National Mortgage Association (Fannie Mae) in 1938 and the Federal Home

[19]DeYoung, "Banking in the United States," 784.
[20]Investopedia, "Thrift Bank," Last modified 2011, http://www.investopedia.com/terms/t/thriftbank.asp.
[21]DeYoung, "Banking in the United States," 784.
[22]DeYoung, "Banking in the United States," 782.
[23]DeYoung et al. "The Past, Present, and Probable Future for Community Banks," 94.
[24]DeYoung et al. "The Past, Present, and Probable Future for Community Banks," 94.
[25]DeYoung et al. "The Past, Present, and Probable Future for Community Banks," 94.

Loan Mortgage Corporation (Freddie Mac) in 1970.[26] At the time, roughly one-half of total existing residential mortgage debt had become securitized by or held in portfolios in one of these two institutions.[27] As a result, they were deemed "too big to fail"[28] and thus received an implicit government subsidy because investors essentially treated their debt as if it were backed by a guarantee from the U.S. government.[29] Community banks did not have the same financial security.

iii. The 1990s

Between 1980 and 1994, DeYoung et al. (2004) observed that 32 states gradually liberalized any geographic restrictions, often circumventing the McFadden Act. Thus by the end of the decade, all but six states allowed for interstate banking, which prompted policy makers to erect two more deregulatory acts. First, the Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994 repealed the McFadden Act at the national level, thus permitting adequately capitalized and well managed bank holding companies to acquire banks in any state, subject to concentration limits.[30] Second, the Gramm-Leach-Bliley Financial Services Modernization Act of 1999 repealed the Glass-Steagal Act by allowing commercial banking institutions to process broad-based securities and insurance products.[31] Following the implementation of these two acts, there was a historic series of mergers and acquisitions among commercial banks –

[26]DeYoung et al. "The Past, Present, and Probable Future for Community Banks," 94.
[27]DeYoung, "Banking in the United States," 783.
[28]DeYoung, "Banking in the United States," 783.
[29]DeYoung et al. "The Past, Present, and Probable Future for Community Banks," 95.
[30]Google Sites, "CSBS."
[31]DeYoung, "Banking in the United States," 785.

predominately between community banks, but there were also several 'mega-mergers'.[32] Refer to Figure 1 to trace the steady decline in the number of FDIC-insured community banks from the 1980s onward.

Additionally, DeYoung et al. (2004) observed that there was a widespread adoption of new financial and information technologies among most American banks during the 1990s. Most significantly, they argue, was the adoption of credit scoring which was associated with an increase in overall lending, and ultimately enabled banks to reach the more marginalized class of borrowers. On one hand, the combined impact of deregulation and technological innovation eroded the role of community banks in servicing the low-to-middle income households. On the other hand, however, this particular innovation helped to carve out a niche for community banks because of their reliance on personal, relationship-based lending rather than the adoption of formal and standardized processes – that which was occurring throughout most of the banking industry.

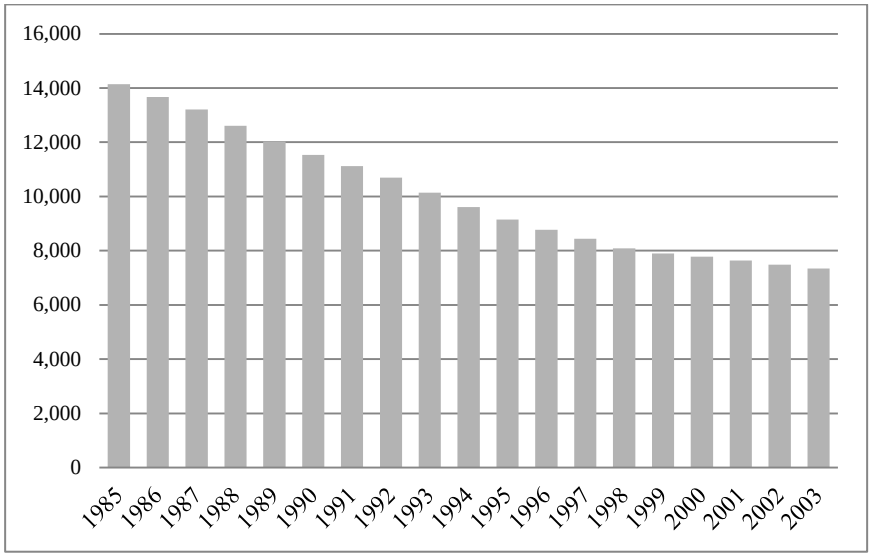

Figure 1: Number of FDIC-Insured Community Banks, 1985-2003 (End of Year)[33]

[32]DeYoung et al. "The Past, Present, and Probable Future for Community Banks," 96.

DeYoung et al. (2004) assert that during the 1970s, community banks had a competitive advantage that was attributable mostly to their local monopoly power. In particular, they argue that community banks served an important role as a primary source of consumer finance and a key provider of financial services to small businesses. Today there are fewer community banks because of the large series of mergers and acquisitions.[34] Additionally, they argue that changes in the payment system have disadvantaged community banks relative to their larger competitors because various electronic innovations have diminished the importance of location. Depository institutions in general have also become less important as an investment option for consumers since there is less need for transactions accounts and less reliance on savings accounts. Lastly, DeYoung et al. (2004) argue that the high degree of commoditization on the lending side of banking services has pushed community banks out of the market for credit card lending among other services. They suggest that this has occurred because returns on such services now depend on large scale production – that which is simply not possible for community banks. Refer to Figure 2 to compare the market share of community banks in 1984 to that in 2003.

According to DeYoung et al. (2004), relationship-based lending to small businesses, however, seems to have remained somewhat unaffected over the last few decades. Much of the recent literature suggests that community banks have a competitive advantage in the processing of soft information and extending relationship-based loans because of their organizational structure.[35] More specifically, the hierarchal structures of

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[33]Data from FDIC, "FDIC Banking Review," Last modified February 2005. http://www.fdic.gov/bank/analytical/banking/2005jan/art1table1.html.
[34]DeYoung et al. "The Past, Present, and Probable Future for Community Banks," 102.
[35]DeYoung et al. "The Past, Present, and Probable Future for Community Banks," 106.

large banks make it difficult to process and communicate soft information, compared to community banks. There is much empirical evidence to support the view that community banks still remain a viable competitor in the banking market because of their advantages in relationship lending. Prior to investigating these results it is necessary to understand the theory that underlies the fundamental difference between community banks and branch banks.

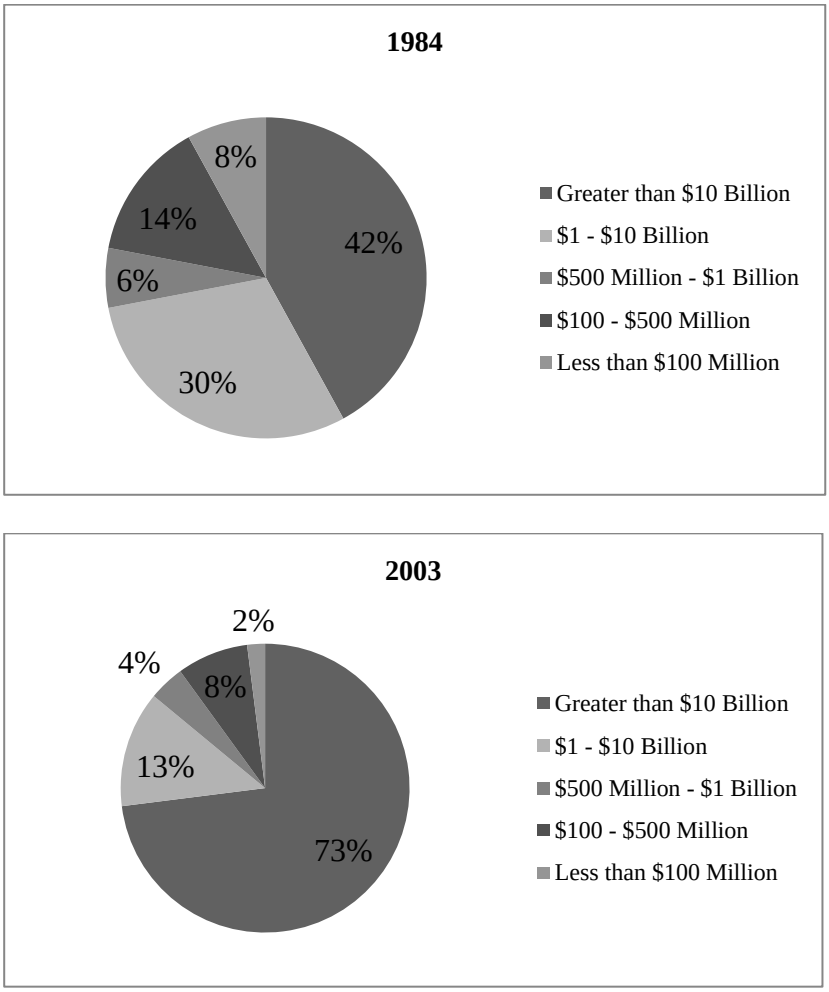

Figure 2: Share of Banking Industry Assets by Size Group[36]

[36]Data from Kenneth D. Jones and Tim Critchfield, (2005) "Consolidation in the U.S. Banking Industry: Is the "Long, Strange Trip" About to End?" *FDIC Banking Review* 17 (4): 35.

III. Theoretical Framework

Despite the efforts of branch banks to emulate both the relationship-based lending services and local market presence offered by community banks, they are unable to do so efficiently because of different organizational structures between the two institutions. Community banks operate as a decentralized institution, which Stein (2002) defines as an institution that is small and relies on a single-manager to choose between relatively few projects. Conversely, branch banks operate as one single part of a large hierarchical institution, which Stein (2002) defines as an institution that is larger and relies on multiple layers of management to evaluate many projects. The hierarchical structure of branch banks is fundamentally more inefficient in the production of soft information compared to that within community banks. In particular, branch banks have been unable to provide adequate services to small businesses because they are often more informationally opaque and thus present various agency problems. As a result, there has been a decline in the supply of credit to small businesses over the last three decades which retards economic growth.

Cole, Goldberg, and White (2004) argue that relationship-based lending services are perhaps more important for community banks compared to branch banks because the former operate more autonomously while the latter operate within a larger institution and thus face a greater likelihood of distorting soft information. Williamson (1967) first presented the importance of organizational structure in his theory of hierarchal control.[37] The proceeding explanation of Williamson's theory comes from the work of Cole et al.

[37]Rebel A. Cole, Lawrence Goldberg, and Lawrence J. White, (2004) "Cookie-Cutter versus Character: The Micro Structure of Small Business Lending by Large and Small Banks," *Journal of Financial and Quantitative Analysis* 39: 229.

(2004). His theory asserts that as the size of an organization increases, it loses control between successive hierarchies, which then distorts managerial orders and directions that are then transmitted to successive hierarchical levels. Consequently, large banking institutions need explicit rules in the lending process to avoid or minimize any distortions. Conversely, within community banks there are fewer intermediaries between top management and lending officers, which minimizes potential information distortions. Thus management can grant greater autonomous discretion to loan officers in the lending process. Therefore, Cole et al. (2004) argue that community banks are less likely to rely on a standardized set of rules and processes in terms of evaluating loan applications from small businesses.

Additionally, Cole et al. (2004) argue that the use of branch branks increases the size and expands the distribution of large banking institutions, making it more difficult for the top management to monitor the behaviour of employees and thus gives rise to greater agency problems. Once again, this motivates the top management to establish fixed procedures and standards that are easy for loan officers to follow and that supervisors can readily monitor and enforce. Consequently, branch banks are homogenous across the industry as opposed to being community–based and attentive to local needs. In contrast, Cole et al. (2004) argue that community banks face less severe agency and control problems because the top management can more easily monitor the behaviour of loan officers and coordinate processes. Moreover, ownership and management are more likely to be the same entity or closely associated within the community bank which further reduces owner-management agency problems. Therefore, community banks can rely on borrower-specific information that is obtained from developing a relationship with the client, and thus more attentive to the needs of the local market.

Stein (2002) presents a clear framework which outlines the efficiencies of a decentralized versus hierarchical banking institution. He argues that the key distinctive characteristic of small business lending is that it relies on soft information, which cannot be easily verified by anyone other than the loan officer who produces it. The following discussion will present Stein's (2002) main arguments.

A decentralized organizational structure has an advantage in the production of soft information because it strengthens the research incentives of loan officers. Under full decentralization, a loan officer is also the CEO of the bank and thus has the authority to allocate the bank's funds as he sees fit. For example, knowing that adequate research effort will result in more capital for the bank, the loan officer has a relatively strong incentive to adequately research his clients. Therefore, Stein (2002) argues that decentralization rewards an agent who develops expertise by ensuring he will have access to some capital. Conversely, a loan officer who is working inside a branch bank of a larger hierarchical institution faces the risk that someone higher up will disregard the proposed investment. For example, say a loan officer wants to approve a particular loan application for a small business. The loan application might be dismissed if successive management levels decide that there are better investment opportunities elsewhere. Thus Stein (2002) argues that the research efforts of a loan officer at a branch bank have gone to waste since he cannot act on the information that he has produced. Therefore, in the case of branch banks, authority to allocate capital is separate from expertise, which tends to dilute incentives to become an expert. Hence the advantage of decentralization relative to hierarchy in the production of soft information is higher-powered research incentives and better capital allocation within the operating units.

i. The Model

The following model is based on the work of Stein (2002). There are two divisions, i and j, which will be organized as two separate stand-alone institutions in the decentralized case (community bank) or as subsidiaries under a single integrated institution in the hierarchy case (branch banks). Within each division there are two potential investment projects, each of which can be allocated zero, one, or two units of capital. Additionally, each project can end up in either a good state (G), or a bad state (B), each outcome with probability ½. A project that is in the G state yields a net output of $g(1) > 0$ if it gets one unit of capital investment and $g(2) > 0$ if it gets two units. Likewise, a project that is in the B state yields a net output of $b(1)$ if it gets one unit of capital investment and $b(2)$ if it gets two units; where $g(2) < 2g(1)$ meaning there are decreasing returns to scale in the good state; and $g(2) > g(1) + b(1)$ meaning that it is better to give both units of capital to a G project in the event that a division has a G project and a B project. Moreover, Stein (2002) sets $b(1) = 0$ in order to reduce any notational clutter; and assumes both that $-1 < b(2) < 0$ and $b(2) + g(2) < 0$ in order to ensure there will be credit constraints in equilibrium.

There is a division manager for each of the two divisions, who are able to receive signals about the projects they supervise. If manager i makes the effort e_i then he has a probability $p(e_i)$ of observing signals for both projects; where the function is increasing in e_i, concave, and takes on values over the interval [0,1). Additionally, Stein (2002) assumes that each division manager has a reservation utility of zero and thus satisfies any participation constraint. Also, in the hierarchy case there is a CEO that must oversee the projects within each of the two divisions – or branch banks – thus ultimately

responsibility for four projects. The CEO, however, does not have sufficient research technology to learn as much about each project individually as the division managers.

Stein (2002) assumes that any of the k agents has a utility function in the following form:

(1) $$U_k = (y_k + I_k) - \gamma e_k$$

where y_k is the expected net output of agent k's division (or of the whole institution when k is the CEO); I_k is the amount of capital that is initially invested into the division (or the whole institution); and γ is a measure of the degree of effort aversion. Stein (2002) asserts that each agent seeks to maximize the expected gross output from the assets under his control, less the cost of effort. An implication of this problem is that "each agent prefers more capital to less, but conditional on being granted a certain budget, tries to allocate it efficiently."[38]

ii. Decentralized Case

If a division manager is successful in his research and observes the outcomes $\{G, B\}$ for his two projects, then he will behave efficiently ex-post by giving both units of capital to the G project. Stein (2002) therefore explores the question as to how much effort the division manager will put into his research ex-ante. On one hand, in the case that the division manager did know the states of the projects, he would allocate the two units of capital based on this knowledge and thus have the expected net output $\frac{(g(2)+g(1))}{2}$. On the other hand, however, in the case that the division manager is

[38]Jeremy C. Stein, (2002) "Information Production and Capital Allocation: Decentralized versus Hierarchical Firms," *The Journal of Finance* 57 (5): 1896.

uninformed, then he will invest one unit of capital into each project and have the expected net output $g(1)$. Therefore, the division manager's gain in utility from being informed, within in a community bank, is the following:

(2) $$\Delta_2^d = \frac{(g(2)-g(1))}{2}$$

where Δ_2^d denotes the gain in utility in the decentralized case with a budget of two units of capital. In combination with equation (1), it follows that the division manager's first-order condition is $\Delta_2^d - \gamma p'(e_2^d)$ where e_2^d is the level of research effort under decentralization with two capital units of investment. Therefore the resulting level of research effort satisfies the following:

(3) $$p'\left(e_2^d\right) = \frac{\gamma}{\Delta_2^d}$$

Lastly, given that there are two divisions behaving in this same way, then the total expected net return on four units of capital under decentralization, which is denoted $Y^d(4)$, is given by the following:

(4) $$Y^d(4) = p\left(e_2^d\right)\left(g(2) + g(1)\right) + (1 - p\left(e_2^d\right))(2g(1))$$

This is derived by considering the probability that the division manager does not observe a signal about the state of his projects and the probability that he does observe such signal, and then invests capital into each project accordingly in both cases.

iii. Hierarchical Case

In the hierarchical case there is a CEO overseeing the operations within the whole institution who must decide how much capital to allocate to each division according to her own research. Let q denote the probability that the research efforts of the CEO are

successful, and let $(1-q)$ denote the probability that they are unsuccessful. Stein (2002) asserts that when the research efforts of the CEO are unsuccessful then the best that she can do is to allocate two units of capital to each division, which results in the same outcome as that described in the aforementioned decentralized case. When the research efforts of the CEO are successful then she may choose to give one division more capital than the other division – an outcome that results only when one division is identified as star and the other is not.

If the research incentives of the division managers in a hierarchy were the same as that under decentralization, then it would follow that hierarchy is the strictly dominant form. This results because ex-post, the hierarchy allows for some intervention on the part of the CEO. On one hand, if the CEO does not know anything about the divisional prospects than she does not interfere and the outcome is no better but also no worse than under decentralization. On the other hand, if the CEO does know something, than she has the ability to shift funds accordingly, which leads to an improved allocation of capital across all divisions. The ex-ante research incentives of the division managers, however, are weaker in a hierarchy when producing soft information, compared to decentralization. Suppose that the research efforts of the CEO have been successful and she has identified division j as a star, while division i has one G and one B project. In the hierarchy the CEO will allocate all four units of capital to division j so that division i will get nothing. Consequently, the research efforts of the division i manager will not be put to use. Alternatively, in a decentralized institution, the division i manager would make use of his effort by allocating both units of capital to the G project; in addition to that allocated efficiently within division j. Therefore Stein (2002) argues that in a hierarchal institution

the division manager produces less information because the marginal return to his research effort is reduced compared to a decentralized institution.

To illustrate this point further, Stein (2002) assumes that the timing is such that each of the division managers in both of the two branch banks must choose his level of research effort before he knows whether or not the research efforts of the CEO have been successful. Let Δ_4^{hs} denote the gain in expected utility that each individual division manager obtains when, in a hierarchal institution with soft information and four units of capital, his own research efforts are successful. Then in a similar process to that in the decentralized case, the following is derived:

(5) $$\Delta_4^{hs} = \frac{(1-q)(g(2)-g(1))}{2} + \frac{3q(g(2)-g(1))}{8} = (1-q)\Delta_2^d + \frac{3q\Delta_2^d}{4}$$

Therefore the resulting level of research effort of each division manager satisfies the following:

(6) $$p'\left(e_4^{hs}\right) = \frac{\gamma}{\Delta_4^{hs}}$$

From equation (5) it is clear that $\Delta_4^{hs} < \Delta_2^d$ which then implies that $e_4^{hs} < e_2^d$.[39] It then follows that the expected net output in a hierarchal institution with soft information and four units of capital is given by:

(7) $$Y^{hs}(4) = (1-q)\left\{p\left(e_4^{hs}\right)\left(g(2)+g(1)\right) + \left(1-p\left(e_4^{hs}\right)\right)\left(2g(1)\right)\right\}$$
$$+q\left\{p\left(e_4^{hs}\right)\left(\frac{6g(2)+g(1)}{4}\right)\left(1-p\left(e_4^{hs}\right)\right)\left(\frac{3g(2)+4g(1)}{4}\right)\right\}$$

Comparing equations (7) and (4) it should be clear that it is possible, though not always the case, that decentralization leads to a higher expected output since $Y^{hs}(4) < Y^d(4)$. Most importantly, however, is the conclusion a decentralized institution always results in

[39]Stein, "Information Production and Capital Allocation," 1903.

a greater level of effort compared to a hierarchy, because $e_4^{hs} < e_2^d$. This means that individual division managers within a community bank are encouraged to produce adequate soft information about their clients since their efforts will be rewarded in terms of capital availability.

As previously mentioned, the relationship-based lending services provided by community banks seems to be most compatible with the financial needs of small businesses. The fact the branch banks cannot provide this service, does erode their competitive viability for this particular market. While branch banks seek to emulate the local-specific services provided by community banks, the inherent inefficiencies associated with their hierarchical organizational structure prevent them from doing so effectively. Hence there remains a niche in the banking industry for community banks to not only compete, but thrive in the small business lending market. This view is not only supported by the previously discussed theory, but also held across the literature.

IV. Empirical Literature Review

The number of branch banks has increased steadily since the 1990s, perhaps as a means for larger banks to reach marginalized, local markets and thus compete directly with the services provided by community banks.[40] That being said, there is much empirical evidence across the literature which suggests that community banks still maintain their competitive advantage in local markets because of the nature of their organization and their lending decisions. Additionally, branch banks themselves

[40]Beverly Hirtle, (2007) "The Impact of Network Size on Bank Branch Performance," *Journal of Banking and Finance* 31: 3783.

expanded in a way that has proven inefficient, thus limiting their competitive presence. The remainder of this section will explore each of these characteristics by discussing the relevant literature.

Berger, Miller, Petersen, Rajan, and Stein (2005) investigate the nature of banks' organizational structures and its effects on business activity. More specifically, they present evidence that community banks are better able to provide particular services compared to large banks. This particular investigation pertains to the divergent organizational structures between community banks and large banks. They suggest that large banks should tend to shy away from small business lending because it relies on the production of soft information. The following discussion will present the work of Berger et al. (2005).

As discussed in the previous section, large banks are at a disadvantage in the production of soft information because it cannot easily be verifiably documented in a report. Thus there are weaker incentives within a branch bank, as one single entity within a larger banking institution, to produce high quality information. Alternatively, the decision to lend credit to large businesses relies more heavily on the use of verifiable documents, which is more compatible with the incentives of loan officers in branch banks. Consequently, large banks should have an advantage in the production of hard information pertaining to large business clients. Thus, the organizational structure within branch banks undermines their ability to efficiently emulate the relationship-based lending services of community banks. Berger et al. (2005) develop five pieces of evidence to support this view. The following evidence compliments the theory presented in the previous section.

First, large banks are more inclined to lend to stronger businesses, defined as those with better accounting records. Since large banks have a comparative advantage in the production of hard information and community banks in the production of soft information, than those businesses that are better able to produce hard information should tend to borrow from large banks. Consistent with this view, the authors find that bank size is strongly correlated with both the size of the business and size of the loan – proxies used to measure a business' ability to produce hard information. For example, upon doubling business size and loan size, the results would suggest that total bank assets will increase by roughly 40 percent.[41] Moreover, controlling for business size, businesses that have formal financial records borrow from banks that are roughly 24 percent larger than banks that service clients without such information.[42] Again this is consistent with the view that all else equal, larger banks have a competitive advantage in lending to businesses that have hard information more readily available.

Second, Berger et al. (2005) find that controlling for business and market-specific characteristics, the distance between the branch bank and the business client increases with the size of the client. For example, increasing the bank size from $163 million to $7.69 billion in assets – from the 25th to the 75th percentile – raises the predicted distance between a business and its lending institution by 114 percent.[43]

Third, relationships between businesses and large banks are more impersonal compared to that with community banks. Berger et al. (2005) find strong, statistically significant results that bank size does influence the mode of communication between the

[41]Allen N. Berger, Nathan H. Miller, Mitchell A. Petersen, Raghuram G. Rajan, and Jeremy C. Stein, (2005) "Does Function Follow Organizational Form? Evidence from the Lending Practices of Large and Small Banks," *Journal of Financial Economics* 76: 250.
[42]Berger et al. "Does Function Follow Organizational Form?" 250.
[43]Berger et al. "Does Function Follow Organizational Form?" 254.

loan officer and the client. For example, an increase in bank size from the 25th to the 75th percentile increases the probability of impersonal communication from 15 percent to 38 percent.[44] Additionally, as the number of branch banks present in the local market rises, there results a significant reduction in impersonal communication.

Fourth, relationships between community banks and businesses are stronger in terms of longevity and exclusivity. Berger et al. (2005) suggest that the length of time of the relationship between a bank and its client should decrease with bank size. The production of soft information depends on a relationship between the loan officer and its client that develops overtime. Thus among banks that rely on soft information, including community banks, it is reasonable to expect evidence of longer and more exclusive relationships. Furthermore, as the relationship develops overtime, the information gathered gives the loan officer a competitive advantage relative to his competitors who do not have access to such information. As a result, the loan officer may be inclined to offer more favourable loan terms to their client, once again prompting a more exclusive relationship between the two. Consistent with these views, the results found by Berger et al. (2005) suggest that relationships between large banks and their clients are significantly shorter. For example, an increase in bank size from the 25th to the 75th percentile decreases the predicted length of a relationship from roughly 8.8 years to 4.5 years.[45] The results also suggest that there is a very strong effect of bank size on exclusivity; such that an increase in bank size from the 25th to the 75th percentile decreases the probability of forming an exclusive relationship from 74 percent to 27 percent[46]. Once again these results support the view that community banks maintain a competitive advantage in the

[44]Berger et al. "Does Function Follow Organizational Form?" 255.
[45]Berger et al. "Does Function Follow Organizational Form?" 257.
[46]Berger et al. "Does Function Follow Organizational Form?" 257.

production of soft information by developing exclusive and lengthy relationships between the loan officer and its client.

Fifth, all things being equal, a business that borrows from a large bank is more likely to repay its credit late. Berger et al. (2005) suggest that perhaps community banks better ease the credit constrains of their clients because the loan officers are more flexible and autonomous in their lending decisions. This could also indicate the desire of community banks to maintain an exclusive relationship with their clients. In the event that the bank limits the supply of credit to their client, than he may want to also borrow from other financial institutions, thus eroding the importance of their relationship with the community banks. Conversely, businesses that borrow from large banks are more likely to pay a greater fraction of their borrowed credit late. Furthermore, the fraction of borrowed credit that is paid late could measure the extent to which the business is credit rationed, thus indicative of a more credit constrained client. The empirical results imply that an increase in bank size from the 25th to the 75th percentile increase the fraction of credit that is paid late from 26 percent to 43 percent.[47] This means that businesses that borrow from large banks seem to be more credit constrained than those that borrow from community banks.

Overall, the empirical results presented by Berger et al. (2005) seem to suggest that community banks still maintain a vital role in the banking industry. Community banks have a competitive advantage in the production of soft information which attracts clients better able to provide soft information rather than more formally documented hard information.

[47]Berger et al. "Does Function Follow Organizational Form?" 260.

The second piece of empirical evidence supporting the competitive role of community banks in the banking industry is presented by Cole et al. (2004), who look at the systematic differences between the loan approval processes at large and community banks. More explicitly they test the hypothesis the "formal financial data provided by an applicant better explain the lending decisions of large banks than of small banks."[48] Cole et al. (2004) find evidence that large banks tend to rely on standardized quantitative criteria in assessing loan applications from small businesses – that which they call the "cookie-cutter" approach – compared to community banks that tend to rely on personal interactions between loan officers and loan applicants – that which they call the "character" approach. The primary source of data used by Cole et al. (2004) is that from the Federal Reserve Boards' 1993 National Survey of Small Business Finances (NSSBF), which represented 4,637 small businesses operating in the United States as of year-end 1992. At the time of the survey there were roughly 5 million small businesses operating in the United States. The following discussion outlines the three main conclusions drawn from the empirical work of Cole et al. (2004).

First, the evidence seems to suggest that large banks rely on standard quantitative criteria in their decision to extend or deny credit to small businesses. Comparatively, community banks tend to rely more on qualitative criteria that is based on personal interactions between the client and loan officer.

Second, large banks employ a cookie-cutter approach to small business lending in an effort to keep on top of any agency problems associated with informationally opaque clients, and to maintain a consistent set of loan standards. This is consistent with the view that branch banks cannot easily transmit personal client-specific data within the larger

[48]Cole et al. "Cookie-Cutter versus Character," 228.

institution. Conversely community banks, who seem to face less severe agency problems and thus have superior knowledge of their clients, seem to rely on a more discretionary, character approach based predominately on pre-existing relationships. For example, only 12 percent of community banks in the data use credit-scoring models to evaluate small business loans, compared to more than two-thirds of large banks.[49]

Third, the evidence suggests that large banks are more likely to rely on formal financial data for loan assessment. Additionally, large banks are more likely to extend credit to firms that keep formal financial records, are larger, have a longer track record, and have greater cash reserves. Furthermore large banks are less likely to extend credit to small businesses that have greater leverage or minority ownership – that which Cole et al. (2004) use as a proxy for wealth, income and credit history of the owner. Conversely, community banks are more likely to extend credit to businesses with which they have pre-existing deposit relationships and are less likely to extend credit to firms with whom they had pre-existing loan relationships. Cole et al. (2004) suggest that, among other reasons, a pre-existing deposit relationship could be beneficial because it provides information about the loan applicant. More generally, a pre-existing deposit relationship allows the bank to track the financial status of its client, thus providing more soft information. Also, if the pre-existing deposit relationship was profitable for the bank, than the loan officer might be more inclined to approve another loan to this client rather than a riskier new client. The evidence also suggests that community banks are less likely to extend credit to businesses asking for large loan amounts – likely indicative of a larger business – and to businesses with past delinquencies. Perhaps this reflects relatively more risk-averse decisions of loan officers within community banks.

[49]Cole et al. "Cookie-Cutter versus Character," 249.

Overall Cole et al. (2004) find empirical evidence that the lending decisions of large banks are more likely to be dependent on financial variables, compared to that of community banks which are more likely to be dependent on variables that indicate pre-existing relationships between the bank and its client. Evident from previous discussions in this paper, there remains an important role for community banks given that their lending decisions are primarily reliant on pre-existing relationships or soft information. Given the difficulty for small businesses in producing the relevant hard information for large banks, community banks offer a viable alternative.

The last piece of evidence supporting the competitive advantage of community banks follows from the work of Hirtle (2007), who discusses the impact of network size on branch bank performance. Combined with the two previously presented papers, it should become clear that community banks do in fact maintain a viable role in the banking industry despite the efforts of large banks to emulate their services. The following discussion presents the work of Hirtle (2007).

Hirtle (2007) asserts that between 1993 and 2004 the steady rise in the number of FDIC-insured banks has been accompanied by a change in the distribution of banking institutions. More specifically, branches have become increasingly consolidated into the largest branch networks during past decade. For example, in 1994 banks and thrift organizations with more than 100 branches held 53 percent of the country's deposits and 46 percent of branches; by mid-2003 these numbers had risen to 61 percent of deposits

and 51 percent of branches.[50] The biggest change in terms of greater market presence occurred among those institutions with more than 1,000 branches.

These changes have had various implications for banks and their clients, particularly small businesses – traditional clients for branch bank services and community banks. Such implications present a trade-off; on one hand, large banking institutions and other financial institutions that operate in multiple markets tend to charge higher fees and offer smaller deposit rates than single-market institutions. Thus branch-dependent clients could face additional costs as branches are increasingly consolidated into large branch networks. On the other hand, large branch networks offer greater convenience due to greater geographic representation. This could also provide clients the option to avoid ATM surcharges and other related user fees by staying within the bank's own network. Thus research suggests that depositors value geographic reach and local branch density when selecting deposit institution. Hence greater scale and scope of large branch network are qualities valued by clients – that which directly competes with the services offered by community banks.

Hirtle (2007) suggests that the expansion of branch bank networks has implications for the cost structure within banks themselves. Full-service branches impose a significant cost that must be covered by banks through the revenue that is generated by the branches – primarily through the implicit and explicit income associated with deposit accounts. The idea of continued branch expansion seems consistent with the view held within these institutions that branches will continue to be an effective channel for generating retail banking revenues. Other research, however, suggests that banks

[50]Hirtle, "The Impact of Network Size on Bank Branch Performance," 3783.

seem to be "over-branching"[51]; meaning that the individual branches are smaller than would be justified purely on the grounds of cost efficiency through increasing returns to scale for individual branch banks. Hirtle (2007) suggests that such inefficiencies could relate to the desire by banking institutions to provide greater convenience to clients. This implies that while large branch networks may be inefficient from the perspective of cost minimization, they may be effective at generating revenue. The following discussion will present the main findings of Hirtle (2007) with respect to branch network performance.

First, Hirtle (2007) finds that deposits-per-branch increase as the size of the branch network grows. For small business loans, however, the average deposits-per-branch decline with the size of the branch network. The evidence suggests that only asset size seems to consistently influence the average volume of deposits-per-branch, which increases significantly across the asset size groups.

Second, Hirtle (2007) finds that banks operating in multiple states seem to be associated with a higher volume of deposits-per-branch. Additionally, there is evidence that a higher network density in local markets is associated with lower deposits-per-branch, which is consistent with the over-branching hypothesis. The data also seems to suggest that bank institutions that have between 101 and 500 branches tend to have lower deposits-per-branch, all else being equal, compared to institutions at both the lower and upper end of the branch network size. These results clearly outline inefficiencies associated with branch banking, while also suggesting that perhaps these services are displaced by those offered by community banks.

Third, in terms of small business loans, Hirtle (2007) finds that, all else equal, the average number of small business loans per branch tends to be higher for institutions with

[51]Hirtle, "The Impact of Network Size on Bank Branch Performance," 3786.

100 or fewer branches compared to bank institutions at the larger end of the branch network size. This could be associated with specific strategies, such that larger banks tend to be focused on transactional loans while smaller bank networks tend to focus on relationship-based loans. Again this could also be indicative that community banks have better captured the specific market of small businesses, thus forcing branch banks to target other clients.

Overall, Hirtle (2007) suggests that banking institutions with mid-sized branch networks (101-500 branches) may face competitive pressure in their branch banking activities. Mid-sized branch networks tend to have lower deposits and roughly the same volume of small business loans per branch compared to institutions at both the upper and lower end of branch network size. Moreover, Hirtle (2007) has observed that institutions with smaller and mid-sized branch networks have grown faster and devoted more of their overall branch activity to further expand their client outreach, compared to institutions with larger branch networks. This is consistent with the view that bank institutions have adopted a branch network growth strategy, arguably to compete with the specific services offered by community banks.

With respect to bank institution performance, Hirtle (2007) admits that the results reveal no consistent relationship between branch network size and profitability. She suggests that perhaps branch network size has no systematic influence on institution profitability, or that the estimation techniques used were insufficient. Thus overall, the empirical evidence surrounding the efficiency of branch banking seems to suggest various inadequacies. Complementing the theoretical framework presented earlier, these results support the view that while branch banks attempt to compete directly with community banks by offering substitute services, they fail to do so efficiently.

It should now be clear that community banks maintain a vital role in the banking industry. There is sufficient empirical evidence in support of the theoretical framework, suggesting that community banks still maintain their competitive advantage in local markets because of the nature of their organization and their lending decisions. Additionally, the greater presence of branch banks as a means of reaching more localized clients and thus offering a competitive product to that offered by community banks, is not as efficient. As a result community banks remain a viable competitor next to larger banking institutions and their branch bank network.

V. Case Study

To explore the issue further regarding the viability of community banks, it is interesting to examine the Bendigo and Adelaide Bank in Australia. Between 1993 and 2000 roughly 2,050 bank branches from various major banking institutions across Australia closed.[52] This represented roughly a 29 percent reduction in the number of branch banks, meaning that many communities were left without access to proper banking facilities.[53] Then in 1998 Bendigo Bank partnered with the small communities Rupanyup and Minyip to start the Community Bank initiative, in an effort to return banking services to local towns.[54] The Community Bank initiative provides banking services to local communities that often have limited access to banking institutions.[55] In addition, this initiative provides tangible social and economic benefits to the local

[52]Bendigo and Adelaide Bank Limited. "Bendigo Bank." Last modified 2011. http://www.bendigobank.com.au/public/.
[53]Bendigo and Adelaide Bank Limited, "Bendigo Bank."
[54]Bendigo and Adelaide Bank Limited, "Bendigo Bank."
[55]Bendigo and Adelaide Bank Limited. (2011) "In the Community: A Report into the Community Activities of Bendigo and Adelaide Bank," 5.

community – that which is not offered by any other banking institution.[56] For example, Bendigo and Adelaide Bank has implemented the following projects: Community Enterprise Foundation (charitable division); Community Sector Banking (banking services for non-for-profit organizations); Community Energy Australia and Generation Green (environmental and sustainability programs); Lead On (youth development program); Community Telcos; and PlanBig (community facilitation initiative).[57]

A Community Bank branch is a half-locally-owned and operated branch bank that is a franchise of the larger Bendigo and Adelaide Bank institution.[58] Community members collectively agree to purchase shares in a local publicly owned company which then enters into a commercial franchise with the Bendigo and Adelaide Bank.[59] Therefore, community members are shareholders of the local Community Branch bank.[60] Bendigo and Adelaide Bank provide the banking infrastructure including licencing, ongoing support, staff training, and a full range of banking products.[61] In turn, the community company manages the branch on behalf of the bank, and is responsible for paying operating costs.[62] Additionally, the community company collaborates with the local community to raise capital and develop local structures and skills.[63] Therefore, Bendigo and Adelaide Bank own 50 percent of the branch bank, while the remaining 50 percent is owned by the local company.[64] In return, both groups share the revenue

[56]Bendigo and Adelaide Bank Limited, "In the Community," 5.
[57]Bendigo and Adelaide Bank Limited, "In the Community," 5.
[58]Bendigo and Adelaide Bank Limited, "Bendigo Bank."
[59] Bendigo and Adelaide Bank Limited, "Building Better Communities," 5.
[60] Bendigo and Adelaide Bank Limited, "Building Better Communities," 8.
[61]Bendigo and Adelaide Bank Limited, "Bendigo Bank."
[62] Bendigo and Adelaide Bank Limited, "Building Better Communities," 5
[63] Bendigo and Adelaide Bank Limited, "Building Better Communities," 5
[64]Bendigo and Adelaide Bank Limited, "Bendigo Bank."

generated at the Community Bank branch, while the surplus is reinvested into the local community through grants, sponsorships and dividends to local shareholders.[65]

Community Bank has been one of the fastest growing banking networks in Australia.[66] It started in rural communities, but has since spread to metropolitan areas as well.[67] In the last four years, the number of Community Bank branches has doubled while the value of assets held within the banks has tripled.[68] Since its inception in 1998, more than $60 million[69] have been channelled into the community, and more than $18 million have been paid in dividends to local shareholders.[70]

In terms of the organizational structure within the Community Bank branches, there is a hierarchy system that intertwines with the parent institution, Bendigo and Adelaide Bank. At the top of the hierarchy there is a Board that acts in accordance with the Board Charter.[71] Board approved delegations have been established with respect to group expenditure, document execution, equity investments, loan approvals, balance sheet and off balance sheet risk, credit risk, and operation risk management.[72] Additional responsibilities of the Board include approving strategy and financial objectives, and monitoring and implementing such strategy objectives.[73] Below the Board are a set of committees (including audit, credit, risk, governance and human resources, and IT), and a managing director who oversees a management team.[74] The Board has established a set of

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[65] Bendigo and Adelaide Bank Limited, "Building Better Communities," 5
[66]Bendigo and Adelaide Bank Limited, "Bendigo Bank."
[67]Bendigo and Adelaide Bank Limited, "Bendigo Bank."
[68]Bendigo and Adelaide Bank Limited, "Bendigo Bank."
[69]Bendigo and Adelaide Bank Limited, (2011), "Building Better Communities: Bendigo's Community Bank Story," 2.
[70]Bendigo and Adelaide Bank Limited, "Building Better Communities," 7.
[71]Bendigo and Adelaide Bank Limited, (2010) "Governance Framework," 2.
[72]Bendigo and Adelaide Bank Limited, "Governance Framework," 2.
[73]Bendigo and Adelaide Bank Limited, "Governance Framework," 2.
[74]Bendigo and Adelaide Bank Limited, "Governance Framework," 2.

procedural rules which apply to all Board committees.[75] Then the managing director appoints an executive committee who provides centralized oversight of the activities of the Bendigo and Adelaide Bank.[76] Such oversight deals with operational matters and approves all policies that are below the oversight of the Board.[77]

The Bendigo and Adelaide Community Bank initiative has been in the news recently because of doubts surrounding its actual success. Williams[78] provided disappointing statistics, which reflect potentially both inexperienced management who are unfamiliar with proper cooperate governance and an overwhelmingly rapid expansion.[79] Williams pointed out that 66 Community Bank branches reported a loss in 2010 – that being one-third of the 193 branches.[80] Additionally, 20 Community Bank branches had lost all the capital initially raised by local clients; while another 8 branches have less than $100,000 of their capital remaining.[81] So while the Bendigo and Adelaide Bank itself has proclaimed such obvious success, others have found evidence to the contrary. Hence the use of this particular bank as the case study because of the predicament of its situation that may very well reflect the inherent branch banking problems discussed in this paper.

As mentioned earlier, while the Bendigo and Adelaide Bank initiative attempts to operate like the small community banks in the United States, it still maintains the hierarchical organizational structure that is inherently inefficient in the branch banking

[75]Bendigo and Adelaide Bank Limited, "Governance Framework," 2.
[76]Bendigo and Adelaide Bank Limited, "In the Community," 23.
[77]Bendigo and Adelaide Bank Limited, "In the Community," 23.
[78]Adele Ferguson and Rafael Epstein, (2011) "Bendigo's Community Spirit Has a Hefty Price," *The Age*, 14 May, http://www.theage.com.au/business/bendigos-community-spirit-has-a-hefty-price-20110513-1emk8.html. John Williams is a retired auditor in Australia whose investigation provided much of the evidence in this article.
[79]Ferguson, "Bendigo's Community Spirit Has a Hefty Price."
[80]Ferguson, "Bendigo's Community Spirit Has a Hefty Price."
[81]Ferguson, "Bendigo's Community Spirit Has a Hefty Price."

system. The fact that Community Banks operate as a branch bank that is part of the larger Bendigo and Adelaide Bank, does shed some doubt on the viability of its structure. On the one hand the Community Bank branches operate in the local market in the same way as community banks in the United States. Management is comprised of local individuals who are aware of the local market conditions, and are able to develop relationships with the clients; especially given that they might know them outside of work or through a friend. On the other hand, however, the inherent organizational system does rely on a set of processes and standards that have been developed by top level centralized management. Additionally, there are multiple layers of management through which loan approvals are to be discussed and evaluated. Thus, while Community Banks seek to emulate the local services offered by traditional community banking systems, the hierarchical nature of the institution that is inherently flawed in American branch banks are present in this case and will therefore serve to limit both the efficient production of information and efficient level of services offered.

VI. Conclusion

This paper has shown that despite the substitute services that branch banks have attempted to offer in an effort to compete in local markets, community banks still have a number of advantageous features. Both the decentralized organizational structure and lending decisions inherent within the community bank offer a competitive advantage compared to the hierarchy structure of branch banks. Additionally, potential over-branching of large banking institutions results in further inefficiencies inherent within branch banks.

Furthermore, the past three decades of deregulation has worked against small businesses, among other clients, by fostering an economic environment less compatible with their financial abilities and unique demands. Given the large portion of small businesses in the aggregate economy, such a hostile environment has perhaps retarded economic growth. Therefore, a potential policy prescription would be to enact more regulatory policies within the banking industry to protect the interests of community banks.

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