Consolidation of the Financial Services Industry: Implications for Credit Unions

A Colloquium at Stanford University

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Filene Research Institute and Center for Credit Union Research

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The name of the institute honors Edward A. Filene, the “father of the U.S. credit union movement.” He was an innovative leader who relied on insightful research and analysis when encouraging credit union development.

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Progress is the constant replacing of the best there is with something still better!

— Edward A. Filene
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INTRODUCTION

The effect of mega-banks on credit unions has become an increasingly compelling issue as financial services consolidation continues to accelerate. To address this issue, the Filene Research Institute; the Center for Credit Union Research, University of Wisconsin-Madison; Graduate School of Business, Stanford University; and Stanford Federal Credit Union jointly sponsored a colloquium, held at Stanford University in March 1999. This monograph contains two key papers that were presented at the colloquium, as well as selected portions of the discussion of participants. Those participants included a mixture of credit union CEOs and academics.

At a colloquium, every participant takes away his or her own views based on the papers presented and the ensuing discussion. In this overview, we present our own view of the key points presented in the papers and discussions, along with our view of the most important implications for credit unions. Others may not agree with all of these points, but we hope the ideas will serve as a basis for healthy discussion and more informed strategic thinking about how credit unions can adapt to a rapidly changing landscape financial services landscape.

CONSOLIDATION TRENDS

The first paper in this volume, Financial Consolidation: Implications for Small Financial Services Firms and their Customers, summarizes key consolidation trends in the financial services industry since 1988 and the underlying causes for these changes.

Some key findings are:

- Deregulation seems to have caused less consolidation than one might expect. For example, California has allowed branch banking since 1909. Therefore, national deregulation would be expected to have little effect on consolidation there. Yet the degree of consolidation that took place among small banks in California during the period 1988 to 1997 is similar to that which took place in the U.S. as a whole during this period. This means that U.S. credit unions should not expect consolidation to decrease as deregulation nears completion. It appears that new
changes in the marketplace, such as technological innovation, rather than deregulation, may be primary causes of consolidation.

• Although the number of bank charters and the number of bank holding companies has declined since 1988, the number of bank offices has risen. While this data does not measure the degree to which these offices are full service, it does contradict the perception that consolidation has reduced the total number of branch offices available to customers.

• Consolidation has increased banking concentration in the country as a whole. For example, the largest eight banking institutions had 22.3% of deposits nationally in 1988, increasing to 35.5% in 1997. However, households usually buy their financial services in local markets. Metropolitan Statistical Areas (MSA’s), on average, showed a slight decline in concentration during the same period, as did counties outside MSA’s.

We see two important implications from this relatively constant level of bank concentration in local markets. First, despite consolidation, consumers have benefited from essentially the same level of competition among banks in their local market, even though more banks may have non-local headquarters. Second, despite consolidation, the competition credit unions face in their local markets has not decreased in terms of the size and number of institutions. However, more competing institutions are branches of large banking institutions headquartered outside the local area. Competition from these institutions is characterized by both the advantages and disadvantages which the branches of large banks exhibit toward consumers.

• Consolidation has reduced the national market share of banks with less than $300 million in assets, from 12.6% in 1988 to 9.9% in 1997. This suggests small banks compete less effectively in the marketplace than larger banks. Banks under $50 million in assets fared even less well. During the same period, their national market share dropped from 8.4% to 5.9%.

During the same period, credit union assets increased from $197 billion to $360 billion. However, the percentage of assets held in credit unions with under $300 million in assets fell from 83% to
63%, and the percentage held in credit unions under $50 million dropped fell from 38% to 19%.\textsuperscript{1} Therefore, even though credit unions serve primarily consumers and banks serve primarily commercial customers, smaller institutions as defined above have clearly lost ground during this period.

### REASONS FOR CONSOLIDATION

Why has consolidation taken place? Dozens of research studies have examined the reasons for bank consolidation. Many studies find considerably less evidence of economies of scale than one might expect from looking at changes in the market share of smaller institutions. Researchers have employed a variety of statistical approaches and data periods without reaching a clear consensus on the question of optimal size. Some estimates find little evidence of operational economies in banks beyond sizes as small as $100 million. Other studies provide evidence for economies of scale up to $1 billion, and a few even higher. However, mergers producing $50 billion banks and larger are puzzling in light of the existing state of research on economies of scale in banking.

The implication is that either the very largest banks are merging past the point of gaining economies of scale, perhaps even making themselves less efficient, or researchers have not yet hit upon reasons why these mergers occur. For now, the implication for credit unions is that the cost advantages of very large banking competitors, as reported in much of the trade and popular press, could be exaggerated.

If that's the case, then branches of very large banks may not offer more favorable rates to consumers than credit unions offer. If this is true, mega-banks may be able to out-compete credit unions only on the number or quality of services offered. This suggests that competing with mega-banks on services offered may be more important than competing on price, where bank advantages could be exaggerated.

Empirical evidence over a number of years indicates that credit unions consistently outperform banks in consumer satisfaction surveys. This suggests that credit unions excel at high quality service, where their local roots and relatively small size may be an

\textsuperscript{1} Source: CU NA Economics and Statistics
advantage. However, credit unions operating individually could be at a disadvantage in service offerings that require economies of scale. This implies the following key strategy for credit unions: to innovate in ways that allow them to be the initial point of contact with the member, while a source much larger than the credit union provides as much as possible of the remainder of such services. At the same time, credit unions should retain and even enhance the key roles they play in offering services that can be more effectively produced at the level of the individual credit union, such as lending.

**LOCAL BANK COMPETITION**

Recent studies on economies of scale in banking provide significant implications for credit unions' strategic outlook. These studies have found significant economies of scale for banks that practice geographical diversification of their loan portfolios. Although consumer loan defaults are reasonably stable in the face of local economic declines, banks face more risks because their loans are typically to local businesses. Therefore, by merging across states, they can diversify their loan portfolio more effectively.

This doesn't change the average return on their portfolio. However, it does reduce the fluctuation around the average. They need a lower capital ratio to guard against fluctuations of a portfolio with the same return. Since bank capital is primarily the equity of stockholders, geographical diversification means banks can get the same average return with less equity invested; hence stockholders receive a higher return on their equity. To make this happen, banks acquire existing smaller institutions in diverse geographical areas. It doesn't mean that the banks acquired were poorly managed or had other problems, or that the acquiring bank could necessarily run the local bank any better than the existing owners. The implications for credit unions are:

- **First**, if a large, out-of-state bank buys a local bank, it does not necessarily mean that the local bank will be run any more effectively or more competitively than it was before. It may even be run less effectively.

- **Second**, as out-of-state ownership creates a void in service to commercial customers who prefer local decision-making, a
newly chartered bank may well enter the market. During the period 1988 to 1997, when rapid consolidation occurred, new banks entered the market at a median rate of 148 per year, compared to a median rate of 171 cross-market mergers per year. This explains in part why local market concentration did not rise over this period while national concentration did.

**EXPERIENCES ABROAD**

Much of the banking consolidation that has taken place in recent years in the U.S. was experienced long ago in Europe. Credit unions have existed in Europe since the middle of the nineteenth century. Therefore, it is instructive to know what happened to credit unions there during banking consolidation. This is especially important because the credit union model that was implemented in the U.S. came from Europe via Canada, so the original organization of credit unions here resembled closely that of European credit unions at the time. U.S. and European credit unions share common roots.

The fundamental, defining characteristics of U.S. and European credit unions remain unchanged. That is, they are not only owned, but also effectively controlled, by members. One-member, one-vote democratic procedures elect members of the board. However, European credit unions have adapted to competition against mega-banks differently than U.S. credit unions have. And European credit unions have thrived.

As described in the second paper here, *Consolidation of Financial Services Industries In Europe: The Response of German and French Credit Unions*, European credit unions have competed successfully with mega-banks by using a three-tiered delivery system. This system allows local credit unions to deliver a wide variety of services, with gains from economies of scale exploited at the regional and national levels. The system is more thoroughly developed than in the United States. Germany and France differ in the degree to which local credit unions are committed to the system. In Germany the commitments are by choice, although in practice almost all credit unions participate. In France, commitment is required and credit unions have less local autonomy. However, in both systems, the use of a common name within a given national system is used to give a greater national
presence. In Germany there is more than one national group, and local institutions have more flexibility about local identification within the national system.

A few other key differences developed as European credit unions competed with mega-banks. Local credit unions in Europe are larger than in the U.S. For example, German credit unions average about $235 million in assets. They have innovated in how they build capital, so that they do not depend entirely on retained earnings. They can serve anyone they wish and, along with banks, they can offer insurance and securities services. They also pay taxes within the European tax system.

With these changes from common roots they have surpassed the U.S. in some respects and lag a bit in others. They hold nearly a fifth of net bank deposits in Germany and about a quarter in France. However, their membership penetration in the population is somewhat less than the U.S. For example, the 14 million German members are a smaller fraction of its population than the 76 million members in the U.S. This could reflect the fact that the European credit unions provide commercial as well as consumer services.

**CONCLUSIONS**

A common perception of how credit unions must respond to the U.S. trend toward mega-banking can be expressed as “grow or die.” Our view, based on the research presented and the related discussion at the Stanford colloquium, is different. While the growth doctrine has an element of truth, it is far from the whole truth. A more accurate implication is to exploit the economies of scale where they benefit the member. This can be done through innovative support arrangements for smaller institutions as well as through very large institutions that work alone. Further, the efficiencies of large and small depend on what types of support arrangements are available or created.

The European experience provides a tangible and thriving example of using such a support system in competing with mega-banks, without local credit unions growing to the size of large banks. The European experience also provides examples of innovation in raising capital and broadening service offerings.
In light of these findings, one participant at the colloquium suggested that a more accurate perception of how U.S. credit unions must respond to mega-banks could be expressed as, “merge or cooperate.” U.S. credit unions can choose merger, and develop into very large institutions working alone, or they can choose cooperation and innovation in order to develop as relatively smaller institutions working together.

We see clear opportunities for credit unions to operate at a variety of successful sizes using local roots, personal service and cooperation. The option of merging into very large organizations that work alone is the traditional choice of banks. Studies of competitive strategies show that those, which attempt to avoid competition, are ineffective. A better strategy is to embrace competition as a dynamic, changing presence, but to maintain an advantage by competing from a position of strength.
CHAPTER 1: Financial Consolidation: Implications for Small Financial Services Firms and their Customers

INTRODUCTION

The structure of the financial services industry in the U.S. has changed dramatically in recent years as consolidation, particularly in the banking sector, has taken off. While there has been considerable research on financial services industry consolidation, much is yet to be understood. The main purposes of this article are to bring together the most up-to-date research on the topic, and to discuss the implications of consolidation for small financial service providers and the traditional customers of these firms – small depositors and small businesses.

We begin by reporting the facts of financial consolidation in the U.S. over the past decade. We then outline a framework to understand this consolidation. In particular, we argue that the main motivation behind consolidation is to maximize shareholder value, although we also consider the motives of other stakeholders, particularly managers and governments. Value may be maximized through mergers and acquisitions (M&As) primarily by increasing the participating firms’ market power in setting prices, by improving their efficiency, and in some cases by increasing their access to the safety net. Our framework predicts that the pace of consolidation will be determined primarily by changes in economic environments that alter the constraints faced by financial service firms. We discuss four such changes that may be partially responsible for the recent rapid pace of consolidation – technological progress, improvements in financial condition, excess capacity or financial distress in the industry or market, and deregulation of geographical or product restrictions.

Next, we describe the consequences of consolidation for market power and efficiency. Our framework divides the research on the consequences of consolidation into static analyses and dynamic analyses. Static analyses relate the potential consequences of consolidation to certain characteristics of financial institutions associated with consolidation, such as size. While static studies do not use data on M&A’s and are not necessarily intended to provide information about the effects of consolidation, they may be useful in predicting the consequences of M&A’s.

For example, static analyses of scale efficiency may give valuable information on the efficiency effects of M&A’s in which the institutions substantially increase their size. Dynamic analyses
compare the behavior of financial institutions before and after M&As or compare the behavior of recently consolidated institutions with other institutions that have not recently engaged in M&As. Dynamic analyses take into account that M&As are dynamic events that may involve changes in organizational focus or managerial behavior. These analyses also incorporate any short-term costs of consummating the M&A (legal expenses, consultant fees, severance pay, etc.) or disruptions due to downsizing, meshing of corporate cultures, or turf battles. Dynamic studies can also account for the external effects of consolidation, defined here as the reactions of other financial service providers to M&As in their markets.

The literature suggests that potential for gains in market power may provide a motivation for consolidation. However, measures of local-market concentration have changed little over the past decade, suggesting that market power has not been greatly affected. By contrast, the efficiency effects of consolidation have been very important. Consolidation seems to permit increases in scale, scope and profit efficiency, and to help diversify the portfolio risks of the participants on average. This finding is particularly strong in more recent studies that have used data from the 1990s, suggesting that technological changes in financial services may have increased economies of scale and scope. The likely increase in the efficient scale of production in banking may be reducing the role of small banks and, along with deregulation, helps explain their declining market share. While there is much less research on the scale and scope economies of nonbank financial institutions, these results suggest that other small financial services firms such as thrifts and credit unions may also experience a declining share as a result of consolidation.

We also review the research literature on the potential consequences of consolidation for the availability of services to small customers, which have traditionally been disproportionately served in large part by small financial service firms. The research suggests that the effects of consolidation on the availability of services to small customers are likely to be small. Large banking organizations generally devote fewer of their assets to loans to small businesses, and M&As involving large banks are generally found to reduce small business lending by the participants. When small banks merge, however, small business lending appears to
increase. In addition, limited evidence suggests that other institutions in the local market may make up most of the lost credit supply. M&As may also reduce service availability to small depositors through branch office closings, although the limited evidence suggests these closures occur infrequently and generally occur only when there is another branch office nearby.

A DECADE OF FINANCIAL CONSOLIDATION

Tables 1-4 report aggregate statistics on trends in financial consolidation in the U.S. Structural changes in the U.S. banking industry from M&As, de novo entry, and failure are shown in Table 1. Several hundred M&As occurred each year, about half of the in-market type and half of the market-extension type. During this period, “megamergers” – M&As between institutions with assets over $1 billion each – became common, most of them occurring between institutions in different states. Although not shown in the table, some very recent M&As in the U.S. and elsewhere have increased dramatically in size, some reaching the scale of “supermegamergers” – M&As between institutions with assets over $100 billion each. Based on market values, nine of the ten largest M&As in U.S. history in any industry occurred during 1998, and four of these – Citicorp-Travelers, BankAmerica-NationsBank, Banc One-First Chicago and Norwest-Wells Fargo – occurred in banking (Moore and Siems, 1998). In addition, the recent UBS-Swiss Bank Corp. supermerger created the largest bank in Europe.
Other changes in industry structure occurred as high rates of failure reduced the number of banks while high rates of de novo entry increased the number of banks. During the latter part of the 1980s, each year about 200 banks failed and about 200 new banks were formed, although the de novo banks were generally much smaller than the failed banks. Both failure and entry declined in the early 1990s, while rates of entry picked up in the mid-1990s as industry profitability rose.

Table 1
M & A s, Failures, and Entry in the Commercial Banking Industry

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>In-Market</th>
<th>Market Extension</th>
<th>Mega-Mergers [Interstate]</th>
<th>De Novo Entry</th>
<th>Failures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>344</td>
<td>115</td>
<td>229</td>
<td>20 [16]</td>
<td>110</td>
<td>6</td>
</tr>
<tr>
<td>1996</td>
<td>311</td>
<td>190</td>
<td>121</td>
<td>26 [14]</td>
<td>148</td>
<td>5</td>
</tr>
</tbody>
</table>

Source: Rhoades (1996, Tables 4, 10, 18) and Meyer (1998). Figures for 1997 are estimated. Mergers are defined here as combinations that bring together under common ownership banks that had been independent. Mergers of affiliated banks are not included. When a multibank holding company is acquired, each commercial bank in that holding company is counted as a separate merger. Market extension mergers are defined as those where the target bank is located in a different market from the acquirer, where a market is defined as a Metropolitan Statistical Area (MSA) or non-MSA county. Both the target banking organization and the acquiring banking organization must have total assets over $1 billion to be considered a megamerger.
As a result of this consolidation and restructuring activity, the number of U.S. banks and banking organizations – stand-alone banks and top-tier bank holding companies (BHCs) – both fell by almost 30% between 1988 and 1997 (Table 2). During this period, the share of total nationwide assets held by the largest eight banking organizations rose from 22.3% to 35.5%. We also look at measures of concentration at the local level - defined as a Metropolitan Statistical Area (MSA) or non-MSA county - given the evidence discussed below that markets for most retail banking products are local. Despite consolidation activity, the average local market deposit Herfindahl index actually declined slightly over the period, falling by about 4% for MSAs and by about 5% for non-MSA counties. Total bank offices rose by 16.8%, although total bank plus thrift offices declined by 0.1% in part because banks acquired branches formerly owned by failed thrifts.

### Table 2
Concentration, Ownership, and Number of Firms in the Commercial Banking Industry

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of U.S. Bank Charters</th>
<th>Number of Banking Organizations</th>
<th>Number of Banking Offices</th>
<th>Number of Offices in Banks plus Thrifts</th>
<th>Eight Firm Concentration Ratio</th>
<th>Deposit Herfindahl in MSAs</th>
<th>Deposit Herfindahl in Non-MSA Counties</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988</td>
<td>13,130</td>
<td>9,881</td>
<td>59,518</td>
<td>84,714</td>
<td>22.3%</td>
<td>2,020</td>
<td>4,361</td>
</tr>
<tr>
<td>1989</td>
<td>12,727</td>
<td>9,620</td>
<td>60,720</td>
<td>84,377</td>
<td>22.6%</td>
<td>2,010</td>
<td>4,318</td>
</tr>
<tr>
<td>1990</td>
<td>12,370</td>
<td>9,391</td>
<td>62,753</td>
<td>84,363</td>
<td>22.3%</td>
<td>2,010</td>
<td>4,291</td>
</tr>
<tr>
<td>1991</td>
<td>11,949</td>
<td>9,168</td>
<td>63,896</td>
<td>83,460</td>
<td>25.7%</td>
<td>1,977</td>
<td>4,257</td>
</tr>
<tr>
<td>1992</td>
<td>11,496</td>
<td>8,873</td>
<td>63,401</td>
<td>81,171</td>
<td>26.4%</td>
<td>2,023</td>
<td>4,222</td>
</tr>
<tr>
<td>1993</td>
<td>11,001</td>
<td>8,446</td>
<td>63,828</td>
<td>80,707</td>
<td>28.1%</td>
<td>1,994</td>
<td>4,234</td>
</tr>
<tr>
<td>1994</td>
<td>10,491</td>
<td>8,018</td>
<td>65,597</td>
<td>81,709</td>
<td>29.7%</td>
<td>1,976</td>
<td>4,208</td>
</tr>
<tr>
<td>1995</td>
<td>9,984</td>
<td>7,686</td>
<td>66,454</td>
<td>81,933</td>
<td>30.4%</td>
<td>1,963</td>
<td>4,171</td>
</tr>
<tr>
<td>1996</td>
<td>9,575</td>
<td>7,421</td>
<td>67,318</td>
<td>82,456</td>
<td>34.3%</td>
<td>1,991</td>
<td>4,145</td>
</tr>
<tr>
<td>1997</td>
<td>9,216</td>
<td>7,234</td>
<td>69,463</td>
<td>83,914</td>
<td>35.5%</td>
<td>1,949</td>
<td>4,114</td>
</tr>
</tbody>
</table>

Source: Reports of Income and Condition and NIC, 1988-97, FDIC Historical Statistics on Banking, and Meyer (1998). A banking organization is a top-tier bank holding company or a stand-alone bank. The concentration ratio is based on total assets of domestically chartered banks. The Deposit Herfindahl is 10,000 times the sum of squared market shares based on deposits for banking organizations operating in Metropolitan Statistical Areas (MSAs) or Non-MSA counties. All figures are year-end.
The market shares of very small and small banking organizations - defined as banking organizations with total assets below $50 million (1997 dollars) - and banking organizations with total assets between $50 and $300 million fell sharply between 1988 and 1997. The share of domestic assets held by small banking organizations fell from 12.6% to 9.9%, and the share of assets held by very small banking organizations fell from 3.5% to 1.8% (Table 3). As we discuss in the next section, the accelerated pace of consolidation has occurred, in part, because states deregulated their restrictions on banks' ability to expand both within and across state lines.

![Table 3](image)

It has been argued that California provides a simple benchmark for what the U.S. banking system would look like in the absence of regulations restricting bank expansion (Berger, Kashyap and Scalise, 1995). California has a large and well-diversified economy that is bigger than the economy of most nations. In addition, branching has been permitted there since 1909, and California has permitted interstate banking since 1987 (Jayaratne and Strahan,
1998). The share of assets held by very small and small banking organizations in California was 1.1% and 8.4% in 1988, compared to 3.5% and 12.6% overall (Table 3). The much lower shares for very small and small banking organizations in California supports the idea that bank regulation restricting expansion in other states artificially raised the market share of small banks, and deregulation may have reduced their market share over time. However, trends in the market shares of very small and small banking organizations suggest that other factors are also at work, since these share have declined in recent years by similar proportions in both California and the U.S. as a whole. Very small banking organizations lost nearly three-quarters of their market share in California between 1988 and 1997, while very small banking organizations lost about half of their market share in the U.S. as a whole.\footnote{The market share figures in Table 2 are for commercial banks only. Similar trends emerge using both banks and thrifts.} The market share for small banking organizations shows the same pattern. The share of assets held by these banking organizations declined by about 30% in California, compared to a decline of about 20% overall. So, deregulation of restrictions on bank expansion cannot provide a full explanation for declines in the market share of small banking organizations.

Table 4 gives data for U.S. nonbank financial institutions. The life insurance, property-liability insurance, and securities brokerage industries have changed much less than banking. Note that these segments did not face restrictions on geographical expansion like the banking segment, nor did they experience significant deregulation. The securities and life insurance segments were somewhat less concentrated in the mid-1990s than in the late 1980s, while the property-liability insurance segment was somewhat more concentrated. There was a substantial reduction in the number of thrift institutions and a corresponding increase in concentration due to the high rate of thrift failure in the late 1980s and early 1990s. The credit union industry remains very unconcentrated, presumably because of its not-for-profit status and because its members must have a “common bond,” such as employment at the same firm.
THE CAUSES OF FINANCIAL CONSOLIDATION

In our framework, the primary motive for consolidation is maximizing shareholder value. In the absence of capital market frictions, all actions by the firm, including consolidation activities, are geared toward maximizing the value of shares owned by existing shareholders. The preferences of other stakeholders are taken into account only insofar as they affect the value of shares through the cost of funds, supply of labor or other factors of production, or the demand for services. In practice, however, managers and government often affect consolidation decisions more directly.

### Table 4

**Concentration in Nonbank Segments of Financial Services**

<table>
<thead>
<tr>
<th>Year</th>
<th>Life Insurance</th>
<th>Property-Liability Insurance</th>
<th>Securities Firms</th>
<th>Savings Institutions</th>
<th>Credit Unions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Firms</td>
<td>Asset Share of 8 Largest Firms</td>
<td>Number of Firms</td>
<td>Asset Share of 8 Largest Firms</td>
<td>Number of Firms</td>
</tr>
<tr>
<td>1988</td>
<td>1,367</td>
<td>41.7%</td>
<td>940</td>
<td>32.5%</td>
<td>6,432</td>
</tr>
<tr>
<td>1989</td>
<td>1,288</td>
<td>40.4%</td>
<td>1,193</td>
<td>32.4%</td>
<td>6,141</td>
</tr>
<tr>
<td>1990</td>
<td>1,223</td>
<td>39.0%</td>
<td>1,272</td>
<td>32.4%</td>
<td>5,827</td>
</tr>
<tr>
<td>1991</td>
<td>1,221</td>
<td>38.1%</td>
<td>1,267</td>
<td>32.2%</td>
<td>5,386</td>
</tr>
<tr>
<td>1992</td>
<td>1,177</td>
<td>37.2%</td>
<td>1,232</td>
<td>32.2%</td>
<td>5,260</td>
</tr>
<tr>
<td>1993</td>
<td>1,187</td>
<td>36.4%</td>
<td>1,197</td>
<td>31.5%</td>
<td>5,292</td>
</tr>
<tr>
<td>1994</td>
<td>1,082</td>
<td>35.3%</td>
<td>1,187</td>
<td>31.3%</td>
<td>5,426</td>
</tr>
<tr>
<td>1995</td>
<td>1,054</td>
<td>34.9%</td>
<td>1,179</td>
<td>33.7%</td>
<td>5,451</td>
</tr>
<tr>
<td>1996</td>
<td>1,001</td>
<td>34.7%</td>
<td>1,138</td>
<td>36.1%</td>
<td>5,553</td>
</tr>
<tr>
<td>1997</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>5,597</td>
</tr>
</tbody>
</table>

In this section, we outline and review the literature on the value maximizing and non-value maximizing motives for financial consolidation. We then identify four types of changes in the economic environment that may have led to the recent accelerated pace of consolidation.

**Value-Maximizing Motives**

Financial service firms can maximize value in one of two main ways through consolidation – by increasing their market power in setting prices, or by increasing their efficiency. It is difficult to determine the goals of M&A participants, but there is evidence consistent with the notion that some M&As are designed to increase market power. Research described below suggests that in-market M&As that substantially increase market concentration may increase market power in setting prices on retail services. Presumably, this was an expected consequence of many M&As, and provided at least part of the motivation.

Research described below also suggests that M&As may increase efficiency, consistent with the presumption that expected efficiency improvements provide part of the motivation for M&As. In addition, a number of studies have found that in a substantial proportion of M&As, a larger, more efficient institution tends to take over a smaller, less efficient institution, presumably at least in part to spread the expertise or operating policies and procedures of the more efficient institution over additional resources. In the U.S., acquiring banks appear to be more cost efficient than target banks on average (Berger and Humphrey 1992; Pilloff and Santomero 1998). Another study of U.S. banks found that acquiring banks are more profitable and have smaller nonperforming loan ratios than targets (Peristiani 1993). Simulation evidence also suggests that large X-efficiency gains are possible if the best practice banks merge and reform the practices of the least efficient banks (Savage 1991; Shaffer 1993). Case studies of U.S. bank M&As support the idea that potential efficiency gains act to motivate some M&As as well (Calomiris and Karkeski 1998; Rhoades 1998). However, one study of U.S. banks found that while poorly-capitalized banks are more likely to be acquired, banks with a high degree of cost inefficiency are, ceteris paribus, less likely to be acquired without government assistance (Wheelock and Wilson 1998).
Some evidence also suggests that efficiency concerns may motivate consolidation in other segments of the financial industry. Acquirers in the U.S. life insurance industry tend to be more efficient than average, and targets tend to be financially impaired (Cummins, Tennyson, and Weiss 1999). In the credit union industry, acquirers tend to be larger than average, while targets tend to be smaller and in weaker financial condition than non-target credit unions (Fried, Lovell and Yaisawarng 1999).

M&As may also improve efficiency, as broadly defined here, if greater diversification improves the risk-expected return tradeoff. Consistent with this idea, one study found that U.S. acquiring banks bid more for targets when the consummation of the M&A would lead to significant diversification gains (Benston, Hunter and Wall 1995). Diversifying M&As may also improve efficiency in the long term through expanding the skill set of managers (Milbourn, Boot and Thakor 1999). However, studies outside of financial services suggest that diversifying M&As are generally value-reducing, and that increases in corporate focus are value-enhancing (Lang and Stulz 1994; Berger and Ofek 1995; John and Ofek 1995).

In addition, although it is not exactly market power or efficiency, some institutions may try to increase the value of their access to the government’s financial safety net (including deposit insurance, discount window access, payments system guarantees) through consolidation.2 If financial market participants perceive very large organizations to be “too big to fail” – i.e., that explicit or implicit government guarantees will protect debtholders or shareholders of these organizations – there may be incentives to increase size through consolidation, lower the cost of funding, and increase the value of shares. International comparisons over a 100-year period show how changes in the structure and strength of safety net guarantees may affect financial institution risk-taking, and by extension, the motive to consolidate to increase the value of access to the safety net (Saunders and Wilson 1999).

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2 Regulators may also help protect large financial institutions by encouraging other institutions to lend to or invest in a financially distressed institution.
Non Value-Maximizing Motives

As noted above, stakeholders other than shareholders may have a direct effect on consolidation decisions. We consider here the roles of managers and governments, who appear to have more influence over consolidation decisions for financial institutions than for nonfinancial firms.3

Managers may be able to pursue their own objectives in consolidation decisions, particularly in banking where corporate control may be relatively weak. Banking regulations in the U.S. weaken the corporate control market by generally allowing only other banks and BHCs to acquire a bank. The regulatory approval/disapproval process may also deter some acquirers. In addition, most U.S. banks are small and are not publicly traded. Perhaps as a result, hostile takeovers that replace management are rare in U.S. banking (Prowse 1997). However, corporate control appears to improve when intrastate and interstate banking deregulation increases the number of potential acquirers, which increases market discipline, reduces the market share of poorly run banks, and generally raises profitability (Schranz 1993; Hubbard and Palia 1995; Jayaratne and Strahan 1996,1998).

One managerial objective may be empire-building. Executive compensation tends to increase with firm size, so managers may hope to achieve personal financial gains by engaging in M&As, although at least in part the higher observed compensation of the managers of larger institutions rewards greater skill and effort. To protect their firm-specific human capital, some managers may also attempt to reduce insolvency risk below the level that is in shareholders’ interest, perhaps by diversifying risk through M&A activity.

There is evidence that banking organizations may overpay for acquisitions when corporate governance structures are not sufficiently well-designed to align managerial incentives with those of owners. For example, banks that have addressed managerial agency problems through high levels of managerial shareholdings and/or concentrated ownership experience higher (or less negative) abnormal returns when they become acquirers.

3 Debtholders may play a lesser role in the consolidation decisions of financial institutions than nonfinancial firms. This is because financial institution debtholders may be protected in whole or in part by the safety net, and by government supervision which tends to block M&As that create substantial risks.
than banks that have not addressed these agency conflicts as well. In addition, abnormal returns at bidder banks are increasing in the sensitivity of the CEO’s pay to the performance of the firm and to the share of outsiders on the board of directors (Allen and Ceboyan 1991; Subrahmanyam, Rangan and Rosenstein 1997; Cornett, Hovakimian, Palia and Tehranian 1998). This evidence suggests that entrenched managers with little pay sensitivity to performance or outside directors may make acquisitions that do not maximize shareholder wealth.

Managerial entrenchment may also prevent some value maximizing M&As by reducing the willingness of some financial institutions to become targets of M&As. One study found that banks in which managers hold a greater share of the stock are less likely to be acquired and that this effect is much larger at banks where management leaves following an acquisition (Hadlock, Houston, and Ryngaert 1999). This is consistent with the idea that management teams with large ownership stakes can block outside acquisitions.

The government plays a direct role in consolidation decisions through restricting the types of M&As permitted (e.g., limits on interstate or international M&As, or M&As between banks and other firms), and through approval/disapproval decisions for individual M&As. In part, this is to limit the government’s liability and prevent exploitation of “too big to fail” and expansion of the safety net. Regulatory review of bank M&A applications in the U.S. attempts to prevent consolidation in which excessive increases in risk are expected. Regulators also prevent in-market M&As if the increases in concentration are expected to result in excessive increases in market power. Regulators may block M&As to promote other policy goals as well. For example, U.S. banking organizations may be prevented from making acquisitions if they do not meet the lending standards of the Community Reinvestment Act (CRA). 4

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4 For a review of CRA issues, see Thomas (1998). Community advocates may reinforce this government motive by petitioning regulators to block proposed M&As on these grounds. In some cases, consolidating banks make well-publicized pledges to provide credit to small businesses and make loans in low-income neighborhoods during the regulatory approval/denial process.
In contrast to these restrictions on M&As, government may also encourage consolidation beyond the safety net incentive discussed above. During periods of financial crisis, the government may provide financial assistance or otherwise aid in the consolidation of troubled financial institutions. For example, the FDIC provided financial assistance to allow healthy banks to purchase over 1,000 insolvent U.S. banks between 1984 and 1991. In other nations, governments have acquired troubled institutions themselves.

**WHY HAS CONSOLIDATION ACCELERATED?**

Our framework predicts that the pace of consolidation will be determined primarily by changes in economic environments that alter the constraints faced by financial service firms. A relaxation of constraints may allow consolidation that increases shareholder value or make it easier for managers to pursue their own goals through consolidation. We identify four key changes that may help explain the recent fast pace of M&A activity – technological progress, improvements in financial condition, excess capacity/financial distress, and deregulation.

**New Technologies**

Technological progress may have increased scale economies in producing financial services, creating opportunities to improve efficiency and increase value through consolidation. New financial engineering tools such as derivative contracts, off-balance-sheet guarantees and risk management may be more efficiently produced by larger institutions. Some new delivery methods for depositor services, such as phone centers, ATMs, and on-line banking may also give greater economies of scale than traditional branching networks (Radecki, Wenninger, and Orlow 1997; and Mishkin and Strahan, forthcoming). Advances in payments technology may also have created scale economies in back-office operations and network economies. The advent of these new technologies, and the associated scale economies, help explain the decline in the market share of small banks documented above, even in states experiencing little deregulation (e.g. California).

A n important caveat is that technologies embodying scale economies may in some cases be accessed at low cost by small financial institutions. The new tools of financial engineering, advanced depositor delivery services or payments technologies
may be distributed to small financial institutions through correspondent banking systems, through franchising or outsourcing to firms specializing in the technologies, shared ownership or mandatory sharing of payments networks, etc.\(^5\) However, some evidence discussed below suggests that scale economies in banking have increased in the 1990s, consistent with technological progress that favors larger institutions.

**Improved Financial Condition**

Recent improvements in the financial condition of institutions may be another factor behind the increase in M&As. In the U.S., bank profitability broke records in the mid-1990s. Low interest rates and high stock prices also reduced financing constraints on M&A activity, although they raised the price of target firms as well. Evidence from outside banking suggests that financial condition can affect investment, although the reason why condition matters is less clear (Fazzari, Hubbard and Petersen 1988; Froot and Stein 1991; Hoshi, Kashyap, and Shafstein 1991; Lamont 1996; Kaplan and Zingales 1997). One possibility is that external finance is more costly than internally generated funds, so firms may invest in more positive net present value projects when they are flush with cash. It is also possible that as more “free cash flow” becomes available, managers may choose to acquire other firms to suit their own goals (Jensen 1986). The data suggest that M&A activity in banking appears to respond more to the low interest rate and high stock price environment of the U.S. during the mid-1990s than M&A activity in nonfinancial industries, despite the fact that stock deals are more common than cash acquisitions in banking (Esty, Narasimhan, and Tufano 1999).

**Removal of Excess Capacity**

Consolidation may also be an efficient way to eliminate excess capacity that has arisen in the consolidating firms’ industry or local market. When there is excess capacity, some firms may be below efficient scale, have an inefficient product mix, or be inside the efficient frontier. M&As may help solve these efficiency problems. M&A s may also help remove excess capacity more efficiently than

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\(^5\) Despite economies in sharing technology, some institutions may keep their own information and back-office technologies to improve their future options for expansion into different activities (Thakor 1999).
bankruptcy or other means of exit, in part by preserving the preexisting franchise values of the merging firms.

There is some evidence of excess capacity problems arising for U.S. banks, which have lost market share to competing financial institutions on both sides of the balance sheet since the end of the 1970s. On the asset side, U.S. banks have lost a substantial proportion of corporate lending to foreign banks, other intermediaries, and capital markets, although they have made up for some of this lost business through off-balance sheet activities (Boyd and Gertler 1994; Berger, Kashyap and Scalise 1995). On the liability side, households now hold a greater share of their wealth outside of bank deposits as the supply of substitutes provided by competing financial institutions, such as mutual funds, grows.

Consolidation may similarly be an efficient way of resolving problems of financial distress, which are not entirely distinct from excess capacity problems. Institutions troubled because of excess capacity in their industry or markets, their own inefficiency, or underperforming investments are often taken over as an efficient alternative to bankruptcy or other means of exit. The evidence cited earlier that target financial institutions tend to be relatively inefficient, have high nonperforming loan ratios, and have low capital ratios is consistent with financial distress motivating consolidation. As noted above, regulators may also act to spur consolidation in periods of financial crisis.

**Deregulation**

Restrictions on banks’ ability to expand geographically were relaxed in the 1980s and early 1990s in the U.S. with a series of removals of restrictions on intrastate and interstate banking, concluding with the Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994, which permits interstate branching in almost all states. The prior geographic restrictions on competition may have allowed the survival of some inefficient banks such as those operating below the minimum efficient scale.

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6 See Berger and Humphrey (1997) for a summary of evidence on the effects of inefficiency and nonperforming assets on the probability of financial institution failure.

7 See Berger, Kashyap, and Scalise (1995) for year-by-year details on the changes in state laws.
The removal of these constraints allowed some previously prohibited M&As to occur, which may have forced inefficient banks to become more efficient by acquiring other institutions, by being acquired, or by improving management practices internally.8

The evidence suggests that consolidation accelerated as a result of deregulation. M&A activity increased in states after they joined interstate banking agreements (Jayaratne and Strahan 1998). In addition, the percentage of deposits held by subsidiaries of out-of-state BHCs in the typical state expanded from 2% to 28% between 1979 and 1994 (Berger, Kashyap, and Scalise 1995). Removal of in-state branching restrictions also spurred consolidation in the U.S., as multibank BHCs often merged their subsidiary banks into branching systems. The deregulation also appeared to result in significant entry into local markets via de novo branching, and a significant decline in the market share of small banks (Amel and Liang 1992; Calem 1994; McLaughlin 1995). However, as noted above, states such as California that have permitted branching for many years have also experienced a sharp decrease in the market share of small banks in recent years, suggesting that deregulation cannot fully account for their decline.

There has also been limited deregulation of restrictions on bank powers in the U.S. Restrictions on investment banking and other powers of commercial banking organizations were put in place by the Banking Act of 1933 (the Glass-Steagall Act), the Bank Holding Company Act of 1956 and its 1970 amendment. Liberalization of these powers began in 1987, when the Federal Reserve expanded BHCs’ abilities to underwrite corporate debt and equity through “Section 20” affiliates, but the revenue from such underwriting could not exceed 5% of the subsidiary’s total revenue. This restriction was raised to 10% in 1989, and then to 25% in 1996.9 Following this last deregulation, Bankers Trust acquired Alex. Brown, Inc., BankAmerica acquired Robertson

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8 Deregulation is not strictly exogenous. The emergence of new technologies in both deposit-taking and lending may have encouraged deregulation (Kroszner and Strahan, forthcoming). Another impetus may be the rash of bank and thrift failures in the 1980s, which increased awareness of the advantages of geographically diversified institutions (Kane 1996).

9 As of 1996, BHCs’ share of the U.S. corporate debt underwriting market was 16.3% of dollar volume or 20.4% of issues, while their share of corporate equity underwriting was 2.2% of dollar volume or 1.9% of issues (Gande, Puri, and Saunders 1998).
Despite the geographic and bank powers deregulation, the remaining regulations likely will continue to restrain consolidation activity. The Riegle-Neal Act caps the total amount of insured deposits that any banking organization may reach by M&A to 30% in a single state and 10% nationally. The 1998 BankAmerica-NationsBank M&A created an institution with more than 8% of insured deposits in the U.S., so the ability of the consolidated institution to make further acquisitions may be limited. This cap may make it difficult for any banking organization to have deposit-taking offices in all 50 states, although an institution may exceed the 10% cap through internal growth, or may circumvent the restriction in part by using non-deposit funding or reduce the need for funding by moving assets off the balance sheet. The bank powers restrictions also appear to hamper consolidation. As of this writing, regulatory/legislative hurdles remain for the insurance underwriting component of the 1998 Citicorp-Travelers M&A.

THE CONSEQUENCES OF FINANCIAL CONSOLIDATION

Market Power

M&As among institutions that have significant local market overlap ex ante may increase local market concentration and allow the consolidated firm to raise profits by setting prices less favorable to customers. This may affect rates and fees on retail deposits and small business loans, as these products are typically competed for on a local basis. M&As of the market-extension type that join institutions in different parts of a nation or in different nations are less likely to increase local market power.

The focus on local markets is partly because of policy guidelines used in the M&A approval/denial process in the U.S. (the cluster approach), partly because research discussed below finds that local market concentration is statistically significantly related to prices, and partly because research indicates that households and small businesses almost always choose a local financial institution.

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10 A recent event study found positive wealth effects of the 1987 liberalization, but negative wealth effects and positive measured risk effects of subsequent liberalizations (Bhargava and Fraser 1998).
Wholesale financial services, such as large corporate loans, derivative contracts, and group insurance products generally trade in national or international markets. It seems unlikely that consolidation would create substantial market power against the large clients for these services, who typically can choose among many suppliers.\footnote{One exception may be the market for clearing U.S. government securities, in which two banks serve most of the market.}

The static literature on market power usually examines the effects of local market concentration on financial institution profits and prices, but does not use information on M&As, whereas the dynamic literature directly examines the profits and prices of firms that have recently engaged in M&As. An issue in the market power research is whether statistical controls for efficiency are included. If efficiency is not controlled for, then the measured effects of market concentration or M&As on prices or profits will be the combined effect of market power and efficiency, not the effect of market power alone. Another concern about the extant empirical evidence is that antitrust authorities often block, alter, or deter M&As that are expected to result in substantial increases in market power. As a result, it may be difficult to find evidence of large gains in market power from M&As, even if the potential for such gains exists.

**Static Studies**

Most of the studies of the effects of local market concentration on prices and profits used data on U.S. banks from the 1980s, and defined local markets as MSA's or non-MSA counties. This research may give evidence of the static effects of in-market M&A's, which generally increase local market concentration. Studies usually found that banks in more concentrated markets charge higher rates on small business loans and pay lower rates on retail deposits (Berger and Hannan 1989, 1997; Hannan 1991). This result generally held whether or not differences in efficiency were controlled for statistically. Other studies found that in more concentrated markets, bank deposit rates were “sticky” or slow to respond to changes in open-market interest rates, and that this stickiness was greater with respect to rate increases than decreases, consistent with market power (Hannan and Berger 1991; Neumark and Sharpe 1992; Hannan 1994; Jackson 1997).
Despite this evidence of market power by banks in the 1980s, there are some reasons to suspect that market power may have declined since that time. First, there may be an increase in the degree of contestability of financial services markets because the removal of geographic restrictions on banking organizations allow existing institutions to enter or threaten to enter more local markets. In addition, some financial services have become more like commodities, making competition more perfect than in the past (Santomero 1999). Moreover, changes in the delivery of financial services – such as ATM kiosks, telephone banking, online banking, expanded use of credit and debit cards, etc. – may also have made local markets more contestable and expanded their effective geographic size.

The empirical evidence on this issue is mixed. The relationship between local market concentration and deposit rates seems to have dissipated somewhat in the 1990s (Hannan 1997; Radecki 1998), although the relationship between local market concentration and small business loan pricing still appears to be strong (Cynnak and Hannan 1998). The recent data also suggest that large banks often set uniform rates for deposits and loans over a state or region of a state rather than over a local market, although the reason for this is not clear (Radecki 1998). Bank fees on retail deposit and payments services in the 1990s show very little relationship to measures of local market concentration in the 1990s, consistent with relatively low market power (fee data are not available for the 1980s, Hannan 1998). However, multistate BHCs tend to charge higher fees to retail customers than other banks, suggesting that these firms may not be exerting competitive pressures on prices in local markets. In addition, the data are mixed as to whether contact between geographically dispersed financial institutions in multiple local markets results in more or less favorable prices for customers (Mester 1987, 1992; Pilloff 1997).

12 In part, the changes in the measured effects of concentration on deposit rates may reflect changes in the survey instruments used to collect the rate data.

13 There are other issues about market definition and competitiveness which we do not have space to discuss, such as whether thrifts should be included as competitors to banks in measuring concentration (Hannan and Liang 1995; Amel and Hannan 1999), whether concentration measures should include small business loans as well as deposits (Cynnak and Hannan 1998), whether large and small banks are equally aggressive competitors (Pilloff 1998), and whether the cost to consumers of switching between institutions is a significant source of market power (Rhoades 1997, Sharpe 1997).
Despite the findings of market power in bank pricing, the static literature usually found quite small effects of concentration on bank profits, especially after statistical controls for efficiency were included in the analyses (Berger 1995; Maudos 1996; Berger and Hannan 1997). Similarly, banks that had persistently high profits relative to the industry generally were not those in local markets with the highest concentration or with the greatest barriers to entry (Berger, Bonime, Covitz, and Hancock 1998). One possible explanation of how market power may have a much greater effect on prices than on profits is that managers of weakly controlled firms may take part of the benefits of the extra revenues as reduced effort to maximize efficiency, or a “quiet life” (Berger and Hannan 1998).

Dynamic Studies

Dynamic market power analyses examine the effects of the M&A’s themselves on prices and profits, incorporating any effects of changes in organizational focus or managerial behavior or transition costs of the M&A’s, as well as the market concentration effects considered in the static literature.

One dynamic study of bank pricing found that bank M&A’s that involve increases in market concentration severe enough to violate the U.S. Justice Department bank guidelines (Herfindahl over 1800, increase of over 200) substantially reduced the deposit rates paid by M&A participants, consistent with market power effects of M&A’s (Prager and Hannan 1999). Another dynamic study that included a larger sample of M&A’s – many of which did not involve substantial increases in market concentration – found that some M&A categories lowered deposit rates and others raised deposit rates relative to what was predicted by the level of concentration (Simons and Stavins 1998). The mixed results are not surprising, given the inclusion of M&A’s for which substantial market power effects were not expected. Neither of these studies

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14 Some of the early research on this topic controlled for market share, rather than efficiency, and debated whether market share better represented efficiency or market power. For examples in the banking literature, see Smirlock (1985) for arguments favoring efficiency and Rhoades (1985) for arguments favoring market power. For examples in the general industrial organization literature see Smirlock, Gilligan, and Marshall (1984, efficiency) and Shepherd (1986, market power).

15 A related study also showed that high profitability from market power or other sources increased the probability of entry that subsequently lowered profits, but that this competitive process often did not occur and was relatively slow (Amel and Liang 1997).
accounted explicitly for the efficiency effects of the M & A s, so their results give the combined effects of changes in market power and efficiency on prices and cannot disentangle the two effects. One other study did account for efficiency and found very small price changes and much larger efficiency changes for M & A s among large U.S. banking organizations, although this study did not focus on M & A s involving substantial increases in local market concentration (Akhavein, Berger, and Humphrey 1997).

A number of studies compared bank profitability ratios, such as the return on assets (R O A ) or return on equity (R O E ) before and after M & A s relative to peer groups of banks that did not engage in M & A s. Some found improved profitability ratios associated with M & A s (Cornett and Tehranian 1992; Spindt and Tarhan 1992; Rhoades 1998), although others found no improvement in these ratios (Berger and Humphrey 1992; Linder and Crane 1992; Pilloff 1996; Akhavein, Berger, and Humphrey 1997; Chamberlain 1998). A problem with drawing conclusions from profitability ratios is that they incorporate both changes in market power and changes in efficiency, which cannot be disentangled without controlling for efficiency.

Similarly, some dynamic studies have compared simple cost ratios, such as costs per dollar of assets, before and after M & A s (Rhoades 1986, 1990, 1998; Srinivasan 1992; Srinivasan and Wall 1992; Linder and Crane 1992; Pilloff 1996). Again, the problem arises of disentangling changes in market power from changes in efficiency. These studies did not control for input prices, and so a reduction in costs per unit of output or assets could reflect either lower interest expenses due to increased market power in setting deposit interest rates or greater efficiency in input usage. Some studies examined operating cost ratios that exclude interest expenses, and so would not be subject to this problem (Cornett and Tehranian 1992; Linder and Crane 1992; Srinivasan 1992; Srinivasan and Wall 1992; Rhoades 1998). However, these studies may be biased toward showing benefits from M & A s. As banks merge and grow larger, they often substitute interest cost-intensive purchased funds for operating cost-intensive core deposits, which would tend to make the operating cost ratio lower even if there is no decrease in total costs. Use of the cost ratios also does not account for the fact that some product mixes cost more to produce than others.
Several dynamic studies have employed event study and similar techniques to look at the effects of bank M&As on market values. The change in the combined market value for the acquiring and acquired institutions together (adjusted using a market model for changes in overall stock market values) provides an estimate of the effect of the M&A on the present value of future profits of the consolidated institution. As was the case for the profitability ratios, the results were mixed. Some studies found increases in the combined value around the times of M&A announcements (Cornett and Tehranian 1992; Zhang 1995), others found no improvement in combined value (Hannan and Wolken 1989; Houston and Ryngaert 1994; Pilloff 1996), while still others found that the measured effects depended upon the method of financing chosen, the degree of office overlap, and other factors (Houston and Ryngaert 1996, 1997; Siems 1996). A study of domestic and international M&As involving U.S. banks found more value created by the international M&As, although it also found that more concentrated geographic and activity focus had positive effects on value (DeLong 1998).

Interpretation of event studies is subject to a number of well known problems, including that information may have leaked prior to the M&A announcement or that markets may anticipate M&As prior to their announcements. These problems may be particularly severe during “merger waves,” such as those that have been occurring in U.S. markets (Calomiris 1999). M&A announcements may also incorporate signals about the underlying values of the consolidating firms in addition to the change in value created by M&As. In addition, as was the case for the simple profit and cost ratios, there is no way to determine whether changes in market values are from changes in market power or efficiency, since markets evaluate expected changes in profitability from all sources equally.

Recall that the total effects of M&As also include the external effect - the reactions of other financial service providers in the same markets. Other firms could be expected to charge similar prices for similar products and so would change their prices by a like amount as the consolidating institutions when an M&A results in a price change. The data are consistent with this expectation. The static findings regarding concentration above embody an external effect of consolidation on the market power
of other firms in the local market, since their concentration is also increased by in-market M & A s. Two of the dynamic studies also found that prices of the rival banks in the same market changed by similar amounts and in the same direction as those of the consolidating institutions (Prager and Hannan 1999).

**Efficiency**

Consolidation may increase or decrease efficiency in a number of different ways. M & A s may allow the institutions to achieve a scale, scope, or mix of output that is more profitable. Consolidation also may be a means to change organizational focus or managerial behavior to improve X-efficiency. Our broad definition of efficiency gains also includes improvements in the institution's risk-expected return tradeoff. Such gains may be particularly important in financial institution M & A s, which often offer the possibility of diversification gains through investing across regions, industries, and/or through entering other industries. Reductions in risk may increase shareholder wealth because financial distress, bankruptcy, and loss of franchise value are costly, and because regulators may restrict activities or impose other costs as a firm's financial condition worsens. Efficiency gains are made by changing input or output quantities in ways that reduce costs, increase revenues, and/or reduce risks to increase value for a given set of prices.

**Static Studies**

Research on financial institution scale efficiencies in the late 1980s and early 1990s usually used data on U.S. banks from the 1980s, and specified multiple banking products. These studies generally used costs and not revenues, and usually specified a translog functional form, which imposes a U-shape (in logs) on the multiproduct ray average cost curve. The consensus finding was that the average cost curve had a relatively flat U-shape with medium-sized banks being slightly more scale efficient than either large or small banks. Only small banks had the potential for economically significant scale efficiency gains and the measured inefficiencies were usually relatively small, on the order of 5% of costs or less. The location of the scale-efficient point – the bottom of the average cost U – differed among studies, but was usually between about $100 million and $10 billion in assets, with a larger scale efficient point generally being found when the banks in the

Despite the different findings, almost all of the early studies suggested that there were no significant scale efficiencies to be gained and possibly some slight scale efficiency losses to be suffered from M&As involving large banks.16 Similarly, studies of cost scale efficiency in the insurance industry typically found most firms to be below efficient scale, but found the largest firms to be above efficient scale (Grace and Timme 1992; Yuengert 1993; Gardner and Grace 1993; Cummins and Zi 1998). In the securities industry, small, specialized firms appeared to exhibit economies of scale, while large, diversified firms exhibited scale diseconomies (Goldberg, Hanweck, Keenan, and Young 1991).

Research on financial institution cost scope and product mix efficiencies often came out of the same research studies and used the same cost functions as the scale efficiencies. Scope efficiencies were measured by comparing the predicted costs of an institution producing multiple financial services and a set of institutions that each specialize in producing a subset of these services. Scope efficiencies are often difficult to estimate because there are usually no specializing firms in the data sample, creating extrapolation problems.17 Studies of product mix efficiencies often reduce these problems by evaluating somewhat different output points, such as points near zero outputs, or by using concepts such as

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16 Some research also suggests very little potential for scale efficiency gains at the bank branch office level through in-market M&As by closing offices and transferring the deposits and loans to nearby offices. Although offices may be considerably smaller than the scale efficient point, the estimated potential savings in cost scale efficiency are relatively small — about 3% of total branching costs in one study — because the average cost curve for branches appears to be quite shallow (Berger, Leusner, and Mingo 1997). Moreover, anything near these potential gains is unlikely to be achieved because the branches of the consolidating institutions need to be near each other, and this is relatively rare. Only 6.8% of urban U.S. banking offices in 1985 and only 3.3% of rural banking offices were acquired over the next 10 years by banking organizations with offices in the same ZIP code (Avery, Bostic, Calem, and Canner 1999). Moreover, there is often a run-off of deposits and assets when branch offices are closed due to the loss of convenience and other factors (Savage 1991).

17 The problems of extrapolation, often combined with the problems of the trans-log specification and the problem of measuring scope efficiencies away from the best-practice efficient frontier (where scope efficiencies are defined), can yield measured scope efficiency estimates that are erratic and beyond credible levels (Berger and Humphrey 1991; Pulley and Humphrey 1993; Mester 1993).
expansion-path subadditivity which combine scale and product mix efficiencies. The empirical results and implications for consolidation of scope and product mix efficiency studies were qualitatively similar to those for the scale efficiency studies - very few cost savings were implied from consolidating the outputs of different banks (Berger, Hanweck, and Humphrey 1987; Hunter, Timme, and Yang 1990; Pulley and Humphrey 1993; Noulas, Miller, and Ray 1993; Ferrier, Grosskopf, Hayes, and Yaisawarng 1993).

Despite this early research, some recent research using different econometric techniques, different efficiency concepts, and/or more recent data from the 1990s suggests that there may be more substantial scale, scope, and product mix efficiency gains available from consolidation. A recent analysis found the 1990s data displayed substantial cost scale economies, on the order of about 20% of costs, for bank sizes up to about $10 billion to $25 billion in assets (Berger and Mester 1997). The data on larger banks were too thin to draw firm conclusions, but the prospects for cost scale efficiency savings or at least little or no losses from M&As among large banks appears to be greater in the 1990s than in the 1980s. This change may in part reflect technological progress that increased scale economies in producing financial services as described earlier. The change in scale efficiency may also partially reflect regulatory changes such as the elimination of geographic restrictions on bank branching and BHC expansion, which may make it less costly to increase scale. Finally, the data suggest that part of the change in scale efficiency reflects the lower open-market interest rates of the 1990s, given that a greater proportion of large banks’ liabilities tend to be sensitive to open-market rates (Berger and Mester 1997).

Recent studies have also examined the effects of bank scale, scope, and product mix on revenue and profit efficiency. The scale results are ambiguous, with some evidence of mild ray scale efficiencies in terms of joint consumption benefit for customers (Berger, Humphrey, and Pulley 1996), and profit efficiency sometimes being highest for large banks (Berger, Hancock, and Humphrey 1993), sometimes being highest for small banks (Berger and Mester 1997), and sometimes about equal for large and small banks (Clark and Siems 1997). In terms of scope and product mix economies, one study found little or no revenue scope
efficiency between deposits and loans in terms of charging customers for joint consumption benefits (Berger, Humphrey, and Pulley 1996) and another study of profit scope economies found that joint production is optimal for most banks, but that specialization is optimal for others (Berger, Hancock, and Humphrey 1993).

As noted above, we also include improvements in the risk-expected return tradeoff from improvements in risk diversification as potential efficiency gains from consolidation. Some studies have found that bank managers act in a risk-averse fashion, trading off between risk and expected return, and therefore may tolerate additional costs expended to keep risk under control (Hughes, Lang, Mester, and Moon 1996,1997; Hughes and Mester 1998). Taking risk into account adds the potential for scale, scope, and product mix efficiencies in managing risk. A greater scale, a more diverse mix of financial services provided, or an increased geographical spread of risks usually implies the potential for improved diversification, so the same protection against financial distress can be attained with fewer resources. For example, one early study found scale efficiency from diversification of loan risk – as bank loan portfolios increased in size up to about $1 billion, the standard deviation of the rate of return on loans fell precipitously, presumably because of diversification benefits (McAllister and McManus 1993). This does not necessarily mean that large banks choose lower levels of overall risk, as they may choose to take on risk elsewhere in their portfolios to achieve a higher expected rate of return.

Several studies found that higher ratios of equity capital are associated with greater resources devoted to managing risks, and that these resource costs were lower for the largest U.S. banking organizations, consistent with scale efficiency (Hughes, Lang, Mester, and Moon 1996,1997; Hughes and Mester 1998). Another study found that large banking organizations are better diversified but no less risky than small institutions – large organizations take the benefits of an improved risk-expected return tradeoff primarily in higher expected returns by increasing their holdings of risky loans and reducing their equity ratios (Demsetz and Strahan 1997).

Finally, one study looked directly at the diversification gains from improvements in the risk-expected return tradeoff by examining
the tradeoffs among expected profit, variability of profit, profit inefficiency, and insolvency risk for large U.S. banking organizations in the early 1990s (Hughes, Lang, Mester, and Moon 1999). They found that when organizations are larger in a way that geographically diversifies, especially via interstate banking that diversifies macroeconomic risk, efficiency tends to be higher and insolvency risk tends to be lower. However, greater scale and greater numbers of branches without geographic diversity was associated with lower insolvency risk but no difference in efficiency. Thus, scale alone, holding the scope of operations constant, did not necessarily improve performance. Rather, gains came primarily from operating in multiple states, especially when this diversified macroeconomic risk. Similarly, one of the other studies found efficiency increased with the number of states of operation, confirming the benefits from geographical expansion (Hughes, Lang, Mester, and Moon 1996).

**Dynamic Studies**

The dynamic studies of changes in efficiency associated with M&As take into account changes in X-efficiency – how much closer to or further from the optimal point on the best-practice efficient frontier these firms have moved – in addition to changes in scale, scope, and product mix efficiency. These studies use the cost frontier, the profit frontier, or the risk-expected return frontier. Ex ante, there is great potential for X-efficiency improvement from financial institution M&As, X-inefficiencies on the order of 20% or more of total industry costs, and about half of the industry’s potential profits have been found.18

There are a number of studies of the effects of M&As on bank cost X-efficiency. These studies employed cost functions to control for input prices, product mix, and other factors. The cost function studies also take into account the different costs of different product mixes. Despite the differences in methodology from the cost ratio studies, the results of the cost X-efficiency studies were quite similar. The studies of U.S. banking generally show very little or no cost X-efficiency improvement on average from the M&As of the 1980s, on the order of 5% of costs or less (Berger

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18 We review here only the X-efficiency effects of M&As. For a general review of X-efficiency studies of financial institutions, see Berger and Humphrey (1997), and for a recent survey of insurance industry studies, see Cummins and Weiss (1999).
and Humphrey 1992; Rhoades 1993; DeYoung 1997; Peristiani 1997). If there were technological gains on average from consolidating branches, computer operations, payments processing, etc., these may have been offset by managerial difficulties in monitoring the larger organizations, conflicts in corporate culture, or problems in integrating systems.\(^{19}\)

Cost efficiency studies using data from the early 1990s are mixed. One set of studies of M&As of large U.S. institutions, most of which were in-market M&As, found modest cost X-efficiency gains in most cases (Rhoades 1998). Another study found very little improvement in average cost X-efficiency for M&As of either large or small banks (Berger 1998). Some recent case studies suggest that the cost efficiency effects of M&As may depend on the type of M&A, the motivations behind it, and the manner in which the management implemented its plans (Frei, Harker, and Hunter 1995; Frei and Harker 1996; Calomiris and Karceski 1998; Rhoades 1998).

The profit efficiency effect of M&As is the most inclusive. It embodies the scale, scope, product mix and X-efficiency effects for both costs and revenues and also includes at least some of the diversification effects. Two studies of the profit efficiency effects of U.S. bank M&As from the 1980s and early 1990s found that M&As improved profit efficiency, and that this improvement could be linked to improved diversification of risks (Akhavein, Berger, and Humphrey 1997; Berger 1998). After consolidation, the banks tended to shift their asset portfolios from securities to loans, have more assets and loans per dollar of equity, and raise additional uninsured purchased funds at reduced rates, consistent with a more diversified loan portfolio. In effect, capital market participants gave consolidated banks “credit” for diversification by allowing them to increase their lending without penalty of more equity or higher rates on uninsured funds. One study used a Tornqvist productivity index, a value-weighted output index divided by a value-weighted input index, which is similar to profit efficiency and obtained consistent findings (Fixler and Zieschang

\(^{19}\) The findings of little improvement in either cost ratios or cost X-efficiency do not necessarily conflict with the findings of large cost savings on the order of 30% or more of the operating expenses of the target often made in consultant studies. These differences can be explained primarily by differences in the way in which the cost savings are stated. See Berger and Humphrey (1992) for a detailed discussion.
The study of the diversification gains discussed above (Hughes, Lang, Mester, and Moon 1999) also conducted a dynamic analysis by evaluating how their measures differed for organizations that were recent acquirers versus those that were not recent acquirers. The diversification benefits were still present, but were weaker for the recent acquirers.20

**Are Efficiency Consequences Predictable?**

Some of the dynamic studies also examined the extent to which the efficiency consequences of individual M&As could be predicted ex ante. If ex ante conditions that make a specific M&A very likely or unlikely to improve efficiency can be identified, this may provide valuable information to help policy makers trade off between expected efficiency changes and other expected consequences in the M&A approval/denial process.

Some studies measured whether “mergers of equals,” in-market M&As, or those in which the acquiring institution was much more efficient than the acquired institution were helpful in predicting efficiency changes from consolidation. The results were mixed, with some studies finding these factors to predict future efficiency improvement and others finding that these factors were not significant predictors. Two of the studies found that substantial efficiency gains were predicted if either or both of the participating banks were less efficient than their peers prior to consolidation, and this result held for cost and profit efficiency, and for M&As involving large or small banking organizations (Akhavein, Berger, and Humphrey 1997; Berger 1998). These findings suggest that the M&A event itself may have awakened management to the need for improvement or may be used as an excuse to implement substantial unpleasant restructuring (“rightsizing”) needed to improve efficiency that might otherwise create substantial morale problems.

Some studies have examined the external effect of consolidation on the efficiency of other institutions in the market. One study found that out-of-state entry is associated with reduced cost efficiency in the short term, but increased cost efficiency in the long term (DeYoung, Hasan, Kirchhoff 1998). One common

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external response to M&As is de novo entry. One study found that de novo banks begin less efficient than mature banks of similar size, make up most of the difference within three years, and become equally efficient by about age nine (DeYoung and Hasan 1998).21

**THE CONSEQUENCES OF CONSOLIDATION FOR SMALL CUSTOMERS**

**Background**

A reduction in the availability of services to small customers is not a direct motivation for consolidation, but may occur indirectly as a result of other motives. As discussed above, some in-market M&As may increase market power, resulting in less favorable prices for retail depositors and small business borrowers, which may reduce the number of small customers who avail themselves of these services. Consolidated institutions may also exercise additional market power by directly reducing the availability of these services (e.g., closing branch offices).

Improvements in efficiency associated with consolidation may also reduce the availability of services to some small customers. M&As may help resolve control problems with managers who made non-value maximizing choices, possibly including unprofitable branch offices or small business loans. It is also possible that more efficient managers will increase the supply of services to small customers because the more efficient institutions are able to serve more customers profitably.

The increases in size and/or organizational complexity associated with M&As may also create opportunities to improve efficiency by changing focus away from or toward serving small customers. The large institutions created by consolidation may shift away from providing retail-oriented services for small depositors and borrowers because of new opportunities to provide wholesale services for large capital market participants. Small institutions

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21 As a caveat, we note that the efficiency measures do not incorporate any benefits or costs of changes in efficiency that may be passed through to customers through changes in prices or quality of service because of competitive pressures. For example, an improvement in bank productivity that is partially passed on to depositors through higher interest rates paid or increased convenience will not fully appear in measured efficiency. This is because prices are taken as given and service quality is difficult to control for when measuring efficiency.
generally cannot make large business loans, underwrite new securities issues, or provide the full array of risk-management services because of insufficient scale of operations, lack of diversification, legal lending limits, etc.

The larger institutions created by consolidation may also choose to provide fewer retail services to small customers because of Williamson (1967,1988) type organizational diseconomies of providing these services along with providing wholesale capital market services to large customers. That is, it may be scope inefficient for one institution to produce outputs that may require implementation of quite different policies and procedures. These diseconomies may be most likely to arise in providing services to informationally opaque small businesses for whom intimate knowledge of the small business, its owner, and its local market gained over time through a relationship with the financial institution is important. Large institutions may be inefficient at providing these relationship-based services along with the transactions-based services provided to large, relatively informationally transparent customers.²²

A financial institution's organizational complexity may also make it costly to provide locally-based services to small customers. For example, a multibank BHC with multiple layers of management that acquires an independent bank in another region or another country may find it costly to process relationship-based information acquired through contact over time by a local loan officer in a distant market.

²² The empirical research on relationships between banks and small businesses generally supports the notions that banks use these relationships to garner information and that small businesses benefit from these relationships. The research using U.S. data generally found that small businesses with stronger banking relationships received loans with lower rates and fewer collateral requirements, had less dependence on trade credit, enjoyed greater credit availability, and protection against the interest rate cycle than other small businesses (Petersen and Rajan 1994,1995, Berger and Udell 1995, Blackwell and Winters 1997, Berlin and Mester 1998, Cole 1998, Hubbard, Kuttner, Palia 1998). The data also suggest that banks gather valuable private information from depositors and in some cases use this information in credit decisions (Allen, Saunders, and Udell 1991, Nakamura 1993, Frieder and Sherrill 1997, Mester, Nakamura, and Renault 1998). The evidence using European and Asian banking data also usually shows support for the value added of relationships, although some of the European evidence suggests exceptions (Hoshi, Kashyap, and Sharfstein 1990, Ongena and Smith 1997, Elsas and Krahen 1997, Harhoff and Korting 1997, Angelini, Di Salvo, and Ferri 1998). For a general review of small business finance, see Berger and Udell (1998).
These arguments do not suggest that the large, complex financial institutions created by consolidation would reduce services to all small customers, rather just to those customers who rely on relationships. Small customers with strong financial statements and valuable collateral may receive essentially the same transactions-based services as large customers, and could see an increase in available services from their consolidated institutions, such as underwriting or risk management services.

An alternative theory may suggest improved availability of services to small customers from consolidation, especially during times of financial stress. Large, organizationally complex, diversified financial institutions may be better able to withstand financial crises and continue to provide services. In contrast, small, unaffiliated, undiversified institutions may more often have to withdraw credit and other service from small customers in times of financial stress. Moreover, even in periods without financial stress, the large, organizationally complex institutions created by consolidation may act as efficient internal capital markets that can allocate financial resources where and when they are most needed.\textsuperscript{23}

The total effect of consolidation on the availability of financial services to small customers also depends upon the external effect of consolidation on the supply of these services by other institutions in the same local markets. For example, if institutions participating in M&A\textsuperscript{s} reduce the availability of small business services, other financial service firms may pick up these customers if it is value-maximizing for them to do so.

These theories have been tested using both static and dynamic methods. The static analyses tested the effects of financial institution size and organizational complexity on the supply of services to small customers, but did not distinguish institutions that had recently engaged in M&A\textsuperscript{s} from other institutions. The dynamic analyses compared the availability of these services before and after M&A\textsuperscript{s} or between institutions that have recently engaged in M&A\textsuperscript{s} and those that have not.

\textsuperscript{23} Other changes in organizational focus/managerial behavior associated with consolidation may also alter the availability of services to small customers. For example, the consolidated institution may change the policies and procedures of the acquired part of the institution to bring them into accord with the acquirer’s pre-M&A focus on either small or large customers.
Static Studies

Static analyses have shown that large banking organizations devote lesser proportions of their assets to small business loans than do small organizations (Berger, Kashyap, and Scalise 1995; Keeton 1995; Levonian and Soller 1995; Berger and Udell 1996; Peek and Rosengren 1996; Strahan and Weston 1996; Cole, Goldberg, and White 1997). As of the mid-1990s, U.S. banks with less than $100 million in assets invested about 9% of their assets in domestic small business loans (loans to business borrowers with bank credit less than $1 million), as opposed to only about 2% of assets for banks with over $10 billion in assets.24

This finding does not necessarily imply that small businesses can only receive significant amounts of bank credit in markets with a preponderance of small banks. One study found that in the long run, the probability that a small firm obtains a line of credit or pays late on its trade credit does not depend in an important way on the presence of small banks in the market (Jayaratne and Wolken 1999). These results are consistent with the possibility that the number of small banks in the market may endogenously arise as a function of the demands of the local small businesses. These results are also consistent with the finding of a strong positive external effect of consolidation on the lending of other banks in the same local market discussed below.

The effects of organizational complexity – measured by additional layers of management, operation in multiple states, being in more financial lines of business, etc. – are ambiguous. Studies that examined a number of dimensions of complexity found that some dimensions were empirically associated with more small business lending and others were empirically associated with less of this lending (Berger and Udell 1996; Berger, Saunders, Scalise, and Udell 1998). One study found a negative effect of multibank BHC affiliation (DeYoung, Goldberg, and White 1999), and two studies split on the direction of the effect of out-of-state ownership of banks (Keeton 1995; Whalen 1995).

24 Very little research has been published regarding the effects of consolidation on specific types of business or consumer loans. One exception is a study that found that U.S. banks and savings and loans with over $1 billion in assets provided about 81% of the dollars of community development lending in 1996, close to proportionate with their percentage of assets controlled (Bostic and Canner 1998).
The Williamson (1967, 1988) organizational diseconomies theory discussed above predicts that it will be relationship-based small business lending that will be relatively unavailable from large, complex organizations, rather than small business loans as whole. Two studies provide evidence consistent with this prediction. One study found that large banks tend to charge about 100 basis points less on small business loans and require collateral about 25% less often than small banks, other things equal (Berger and Udell 1996). These data are consistent with the view that large banks tend to issue small business loans to higher-quality transactions-based credits, rather than relationship-based loans that tend to have higher interest rates and collateral requirements. Another study found that large banks tend to base their small business loan approval decisions more on financial ratios, whereas the existence of a prior relationship with the borrowing firm mattered more to decisions by small banks (Cole, Goldberg, and White 1997).

As noted above, the large, organizationally complex, diversified institutions created by consolidation may provide a better buffer against financial institution stress or may be more efficient at allocating scarce financial capital than small, unaffiliated, undiversified institutions. Consistent with these arguments, one study found that during the U.S. credit crunch of the early 1990s, a $1 decline in equity capital at a small bank reduced business lending more than a $1 decline at a large bank (Hancock and Wilcox 1998). Moreover, this study found that the financial distress of small financial institutions adversely affected the health of small businesses in the same state, reducing employment, payroll, and number of small businesses in the state. Other studies found that BHCs serve as internal capital markets or sources of strength for funding loans. Loan growth by banks in multibank BHCs was less constrained by the banks’ own financial conditions than the financial condition of their BHC (Houston, James, and Marcus 1997; Houston and James 1998).

Diversification of markets, as well as diversification of financial institutions, can help spread risks. Studies found that the nationwide consolidation of U.S. securities markets significantly diversified income risks across individual states, whereas the smaller scale and fragmented structure of European securities markets provided much less diversification of income risks across individual nations (Asdrubali, Sørensen, and Y osha 1996; Sørensen and Y osha 1997).
Dynamic Studies

A number of dynamic studies examined the effects of U.S. bank M&As on small business lending (Keeton 1996,1997, Peek and Rosengren 1996,1998; Strahan and Weston 1996,1998; Craig and Santos 1997; Kolari and Zardkoohi 1997a,b; Zardkoohi and Kolari 1997; Walraven 1997; Berger, Saunders, Scalise, and Udell 1998). The measured effects of consolidation on lending by the participating institutions appear to depend on the type of M&A, the sizes of the institutions, the econometric technique employed, and the number of years of data used after the consolidation date. The most common findings are that consolidations of large banking organizations tend to reduce small business lending, whereas consolidations involving small organizations tend to increase small business lending, although there are exceptions. Given that large-bank M&As account for most of the assets involved in M&As, the overall effect on small business lending by consolidating institutions is generally negative. One study examined the probability that small business loan applications will be denied by consolidating banks and other banks in their local markets and found no clear positive or negative effects (Cole and Walraven 1998). One study of Italian banks found that M&As tended to reduce lending to small businesses by the consolidated institution, with larger reductions when larger banks were involved (Sapienza 1998).

One of these studies measured the external effect of M&As on the lending of other banks in the same local markets and found that changes in the supplies of small business credit by these other banks tended to offset much, if not all of the negative effects of M&A participants (Berger, Saunders, Scalise, and Udell 1998). Part of the external effect may be from de novo entry. Several studies found that de novo banks tend to lend more to small businesses as a percentage of assets than other small banks of comparable size and that this high percentage lasts for a number of years, consistent with a positive external effect of M&As on small business lending (Goldberg and White 1998; DeYoung 1998; DeYoung, Goldberg, and White 1999).

There has been limited study of the effects of consolidation on bank branch offices, which provide much of the deposit and loan services to small consumers and small businesses. One dynamic study of the effects of M&As on the number of bank branches in
local markets in the U.S. incorporated both the actions of the M&A participants and the external effects on other banks in the same markets (Avery, Bostic, Calem, and Canner 1999). They found that M&As of banks with branches in the same ZIP codes reduced the number of branches per capita, but that other M&As had little effect on branch office availability. Given that ZIP codes are fairly small geographic areas, the within-ZIP branch office closings may not substantially reduce the convenience or availability of services to the affected small customers.26

CONCLUSIONS AND IMPLICATIONS

M&A activity in the U.S. financial services sector has accelerated dramatically in recent years, particularly in the banking sector. As a result, the U.S. banking sector has become more concentrated nationally, although local market concentration has not increased. In addition, small banks’ shares of banking assets fell sharply over the past 10 years. To some extent, this acceleration has occurred in response to deregulation of restrictions on bank expansion. Deregulation can help explain why banking experienced much more consolidation and M&A activity over the past decade than other segments of the financial services industry, such as insurance and securities. Deregulation cannot fully account for this consolidation, however, because even states like California that did not experience important deregulation over the past decade experienced sharp declines in the market share of small banks.

The overview of the findings suggests neutral or possibly favorable consequences for customers from the continued nationwide consolidation of the U.S. banking industry. Although data are consistent with significant market power consequences for small business loans and retail deposits following some types of in-market consolidation, they raise questions as to the importance of

26 We caution about extrapolating the results on the availability of services to small customers in the future. There are very few studies of the external effects of consolidation on these customers, and very little research outside of U.S. banking. It is also possible that technological change may alter the effects of institution size and complexity on the supply of these services. Technological improvements such as credit scoring and securitization may diminish the importance of relationships to small businesses. Similarly, improved technology and marketing that changes the delivery of financial services to small customers may make traditional branch offices less important in the future. In addition, heightened legislative, regulatory, and public concern over service to small customers may make it difficult for consolidating institutions to reduce the supplies of these services.
these effects. In particular, concentration in local U.S. banking markets has declined slightly over time while large numbers of in-market M&As were occurring, suggesting that other market and/or regulatory actions may have prevented large increases in local market power on a widespread basis. Efficiency studies suggest that consolidation is often motivated by the desire to increase scale, scope and profit efficiency, and to help diversify the portfolio risks of the participants. Although there was little or no cost efficiency improvement on average following M&As, consolidations involving previously inefficient firms appeared to improve both cost and profit efficiency as the M&A event itself may have “woken up” management to the need for improvement or may have been used as an excuse to implement unpleasant restructuring.

The research also suggests that the effects of consolidation on the availability of services to small customers are likely to be small. Consolidation involving small banks tends to increase lending to small businesses. Large banking organizations generally devote fewer of their assets to loans to small businesses, however, and M&As involving large banks are generally found to reduce small business lending by the participants, although this evidence is not always consistent across different studies. In addition, some limited evidence suggests that other institutions in the same local market may make up most of the lost credit supply. In part, this external dynamic effect may be driven by de novo entry, given that de novo banks were found to lend more to small businesses as a percentage of assets than other small banks of comparable size. M&As may also reduce service availability to small customers through branch office closings, although the limited evidence suggests these closures occur infrequently and generally occur when there is another branch office nearby.

While customers are expected to be largely unaffected or slightly better off, the research suggests that small financial service providers may have an increasingly difficult time competing against larger providers in the future. Studies using data from the 1990s find that there may be some scale, scope, and product mix efficiency gains available from consolidation, even among fairly large institutions, although more research is needed to verify the existence of these gains. An important caveat is that new technologies with scale economies such as electronic payments
networks may, in some cases, be available to small financial institutions through the correspondent banking system, franchising or outsourcing to firms specializing in the technologies, shared ownership or mandatory sharing of payments networks, etc. Of course, these conclusions are drawn largely from research on banking, and there is much less research on other financial services firms typically dominated by smaller providers such as the thrift and credit union segments.
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I’ve worked for Bank of America and Wells Fargo bank, as well as three savings and loans. Of the three savings and loans, two were acquired and one was merged. Our credit union also merged with another credit union last year. I could be the poster child for this paper, although most of my career has been in banking.

There’s a professor at University of Southern California who said that in the future “we’ll have two employees, a man and a dog. The man will be there to feed the dog, and the dog will be there to make sure that the man doesn’t touch the equipment.” After reading this paper, I wonder if that’s the future of banking? Two employees - a man and a dog, or a woman and a dog.

In San Diego we have lots of large credit unions, lots of members, lots of opportunity. Our county has more large credit unions than most, and we’ve had great consolidation in San Diego.

Every large hometown financial institution in San Diego - those with billion-dollar head offices - has either been acquired or failed. San Diego was the headquarters for several thrifts that merged or failed. With the merger of San Diego Trust & Savings, the acquisition by First Interstate, and First Interstate by Wells Fargo, we have seen tremendous consolidation. I believe this presents an opportunity for credit unions to not only pick up market share, but to gain community presence by stepping into the void left by large banks which used to provide financial assistance for community activities, events, and civic and cultural activities.

The paper’s contention that bank customers on average don’t suffer is certainly supported by the data. But as was pointed out earlier, in certain market areas that’s not the case. And while the banks may say that their number of touch points is the same, the type of touch point has changed considerably in our community. Wells Fargo says: “we have the same number of touch points as before.” However, many of its customers couldn’t find their touch points, and those customers don’t like the touch points that are being established. That gives credit unions an opportunity to pick up market share.
The credit union philosophy of “people helping people”, a high-touch environment, is very attractive to the consumer. However, the paper demonstrates that delivery system technology has become so significant that credit unions need to find an economical way to provide it to their members. Only if small credit unions can piggyback on, or form cooperative arrangements with, large credit unions will they be able to maintain the capital positions that they have now.

I came from small banks that grew to medium sized banks. They suddenly had to respond to their customers saying, “well, that’s very nice, we love you. You’re a local community bank, but we want to have this and this and this and this.” A serious erosion of capital occurs when an institution has to acquire two, three, or four million dollars worth of technology in a single year. This forced a lot of small banks to either lose their return on assets profitability or to consider merger as a strategic alternative.

One of the things that I was looking for in the paper, which I did not find, was a single efficiency point based on optimal size. What is this efficiency point? This paper contains a lot of data that says bigger is not always better. Many of the studies say “on the one hand, but on the other hand,” and “it depends,” and “when the smoke clears.” I was very disappointed that I did not get a clearer answer. The paper does say “the location of the scale efficient point, the bottom of the U-shaped average cost curve, differed among the studies, but was usually between 200 million and 10 billion in assets.” That’s a really big range.

I think there are some interesting comments in the paper about board control of mergers versus management control of mergers. From the perspective of someone who’s been in lots of bank board rooms the rationales based on control were very clear. It’s all about control. Having now been in the board room of a credit union that has gone through a merger, I found the discussion very different. However, I’m not sure that the discussion in the credit union board room is the right one all the time. Board members should read this paper as background to think about the cost of technology. Our members are no longer willing to say, “We love you so much we’re willing to not get what we want.”
Both professionals and board members have to look at what is right for the member. Regulators claim that they support mergers for troubled institutions. I’m not sure the regulators are helping either the credit union or the members with this attitude. My experience in banks and S&Ls tells me that when you limit mergers to troubled institutions you force institutions to the point where they’re troubled. That’s not good for the membership, because it forces merger at a time that may not be best for members.

The paper is definitely worth reading, but the issues it raises may keep you up at night!

**EXCERPTS FROM QUESTION & ANSWER SESSION**

*Q:* Could you elaborate on consolidation among average-sized banks?

*A:* If you look at the distribution of banks, every segment from the very small all the way up to what you probably consider large, $35 billion, is losing market share. It’s only at the very top that you see market share going up, and there it’s growing very quickly.

*Q:* One of the perceived consequences of merger and acquisition activities seems to be increased fees to the consumer. Does the data bear that out?

*A:* Yes, the data does bear that out. The amounts of fees has gone up in banking. I don’t know about thrifts or credit unions, but in banking it’s true. It has been overplayed somewhat because people are outraged by ATM surcharges. The amount isn’t really as bad as you might think, if you focus on the particular kind of fees, which are new, such as ATM surcharges.

*Q:* Some papers I’ve seen say that over the last 25-30 years, the overall share of financial assets held by the intermediary banking system has been declining. Is there any evidence that mergers and acquisitions are going to

*Unless otherwise noted, questions are from the colloquium audience and answers are from the researchers.*
change that? Or are we consolidating within an industry that’s shrinking relative to the rest?

A: That's the excess capacity explanation of what's going on. The idea is that technology, like securitization, allows more kinds of borrowers to have access to the capital markets, and can rely less on financial intermediaries. This tends to reduce the share of assets in intermediaries.

But that's a somewhat naïve way of measuring importance. If you think about securitization, for example, financial intermediaries are very important. Banks have a very important role in the process. For example, sometimes creators of securitized loans will repackage things so that the incentive for the financial institution to monitor loans remains, because they're in the first loss position. But much of the funding comes from the capital market.

So you have to be very careful when you think about how important financial institutions are relative to capital markets, and how that's changing over time. It's not a simple calculation. The value added, which in the past could be measured by looking at the size of the balance sheet, is not measured as well now as it used to be. Much more off-balance-sheet activities are becoming important.

Q: Did you ever look at the diminishing role of financial intermediaries in the financial system in general and how that relates to the growth in capital markets?

A: This goes back to what I was saying earlier. It's a theme many people have talked about, that financial intermediaries seem to be becoming less important in the financial system, and markets seem to be becoming more important. As I said before, we have to be very careful about measuring that. Financial institutions do a lot of things that facilitate capital market activities, and there can be a lot of value added in that process. In reality, the borrower's not going to have access to the capital markets. An example of this is securitization. The borrower's not going to be able to go to the investment bank, they're going to have to go to the bank or someone who is going to bundle their loan up with other similar kinds of loans and certify its safety to potential buyers in the capital market. So intermediaries still add lot of value.
**Q:** In the brokerage business, there are a lot of people going directly into markets versus going to a financial institution, and that’s entirely different in the last decade.

**A:** But it’s not the case that any individual can borrow in capital markets. They still have to go to financial institutions.

**Q:** The study seems to say that concentration’s okay. Consumers and small businesses are going to be okay with concentration. From a public policy or economic policy standpoint perhaps the niche players will not be important anymore as a check and balance on the market. But in terms of their efficiencies or services, niche players are needed. Is that a fair statement?

**A:** I think it’s too extreme to say that niche players are not needed to foster competition. That’s not what we’re saying. What we’re saying is that, on average, the banking system seems to be becoming more efficient, and that helps the average person who is using banking services. However, there are some customers who need to use the niche financial company, and that’s why we’re seeing things like a lot of entry into the banking industry.

We have to be careful. You might say we should protect the average consumer by not allowing smaller banks to be acquired. You have to be very careful about doing that because you run the risk of not getting all the benefits of having an open process where managers are always worrying about the next takeover to threaten their position. This can be a very healthy discipline and lead to a more efficient financial institution. Policy makers need to be careful about doing away with that process.

**Q:** Can you comment on that with regard to credit unions?

**A:** One needs to study the process in credit unions separately. It’s totally different. Without the profit motive, it changes the dynamics especially with restriction on who can be a member.

The thing that we do learn from looking at banks is the importance of the new technologies that put the smaller financial company at a disadvantage. This means you need to
think about ways of getting access to the technology while remaining small. That means buying them from third parties or getting into cooperative agreements with other credit unions. But in terms of research, you need to look at the credit union segment separately.

Q: I have a question for the audience. It’s related to this issue of technology and how much it’s really changing the world. For better or for worse, I can remember when the only institutions that had computing were very large institutions. I thought the revolution in computing and information technology allowed everybody access of standardized programs. This makes me wonder if it isn’t possible now for smaller institutions to provide the same services that larger institutions do.

Now we’re talking about how we need to be big because of the way information technology works. My question is: Is it true that computing power is so expensive now that you have to be extremely large to afford it.

A: (from the audience) Credit unions, especially small credit unions, see themselves as talking to the same members that they have known personally for many years. They don’t understand that their most profitable members, the people who have the dollars in this institution and are responsible for its capital are going to leave unless they have the technology to provide services. I don’t believe it is that expensive. There are a lot of ways smaller institutions can compete, but they just don’t do it.

A: (from the audience) A $5 million credit union can afford home banking. It might not be able to afford a branch, but it can afford home banking. The more significant cost may be intellectual capital in a small organization, simply not having the knowledge base to be as progressive and proactive as the competition requires.

A: (from the audience): Here in California there’s been a lot of talk about why Bank of America didn’t get taken over. I’ve heard it said that they never would get their information technology systems right, and they basically threw up their hands and said, “Let’s get bought by somebody who knows how to do this.”
A: (from the audience) That’s consistent with intellectual capital, which is not a problem confined to small organizations.

A: (Dr. Strahan): On the question of small credit unions, when you talk about technology, the systems are much more manageable than they used to be. The basic issue for small credit unions is not having the range of products they need.
CHAPTER 3:
Consolidation of Financial Services in Europe:
The Response of German and French Credit Unions

Timothy Guinnane

INTRODUCTION

Consolidation in the financial services sector in the United States poses challenges for credit unions and other small institutions. The large banking groups that are the product of current mergers and acquisitions have advantages of scale and can offer a variety of financial services beyond the reach of many credit unions. These developments in the U.S. invite comparison to Europe, where the banking system has long been dominated by large, diversified banking institutions. This paper describes the way credit unions in two European countries, Germany and France, faced the challenges posed by the banking sector in those countries. The credit union systems in Germany and France are very old and command a much larger share of their respective markets than do U.S. credit unions. They have lived with, and competed successfully against, the large, diversified bank that is causing concern for small financial institutions in the U.S. today.

This paper asks a simple question: how have credit unions in Germany and France managed to thrive in the face of very concentrated commercial banking systems? Understanding how these credit unions have managed requires an understanding of both the credit-union system itself and the larger financial services industry in these two countries. This paper lays out the basic structure of credit unions and other financial institutions in these two countries as background to a discussion of how credit unions are faring today.

Continental credit unions are very different from their U.S. counterparts. The first feature of German and French credit unions that strikes the American observer is their comparatively large size and great weight in their respective banking systems. The 2400 credit unions in Germany at the end of 1997 is a smaller number than the 11,700 or so in the United States, and Germany’s 14.2 million members are a smaller fraction of the German population than are the 73.5 million credit union members in the U.S. population. But German credit unions are much larger, on average, than U.S. credit unions: the average German credit union has nearly 400 million Marks (about $235 million) in assets,
dwarfing the $31 million in assets of the average U.S. credit union.1 French credit unions have a more complicated structure that makes it difficult to compare them in size to U.S. credit unions, but they are also a very large part of the French banking system. Crédit agricole, the largest of the French credit-union groups, is the largest bank in France and one of the largest in the world.

Table 1 presents data from 1995, the last year for which standardized data are available.

<table>
<thead>
<tr>
<th>Relative Size of Institutions in Banking Sector (1995 OECD Data)</th>
<th>Germany</th>
<th>France</th>
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<tr>
<td>Percentage of all banking assets</td>
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<tr>
<td>□ For-profit Banks</td>
<td>34</td>
<td>53</td>
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<td>□ Savings Banks</td>
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<td>6</td>
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<td>□ Credit Union Institutions</td>
<td>18</td>
<td>23</td>
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<tr>
<td>Percentage of all non-bank deposits</td>
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<tr>
<td>□ For-profit Banks</td>
<td>130</td>
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<td>□ Credit Union Institutions</td>
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Percentages do not sum to 100 because of other banking institutions

“Non-bank” deposits are reported to eliminate the enormous inter-bank deposits that are an important feature of the multi-tiered system common to credit cooperatives in both countries. German cooperatives in 1995 accounted for nearly one-fifth, and French cooperatives nearly one-fourth, of all banking assets. Their share of non-bank deposits was even greater, reflecting their role in the savings products discussed below.

The origins of German and French credit unions are similar. In fact, the German system exerted considerable influence in the formative period of the French system. But they have different

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1 Throughout this paper I use the exchange rates $1=1.7$ Marks and $1=5.9$ Francs. Unless otherwise noted, banking statistics reported in this paper are for the end of 1997. On an individual bank or credit-union level, German balance sheets are similar to their American equivalents. But some published data on the banking sector nets out inter-bank obligations. Thus “balance sheet total” equals assets for an individual institution, but for groups the sum of balance sheet totals is usually much larger than the total assets of institutions in that sector.
organizations today, and their recent evolutions are rather different. Credit unions in Germany and in France have a similar, three-tiered structure. At the bottom are local credit unions, in the middle are regional cooperative banks, and at the top is a national banking institution. But there are two important differences between the German and French systems. German credit unions are all combined into a single loose federation that permits an individual institution to work as much or as little as it wants with the rest of the credit-union system. Individual institutions within the group can and do compete with one another. France, on the other hand, has four different credit-union groups. Most credit unions within a French group have less autonomy than their German counterparts, and groups compete with one another for business.

A second difference between the credit unions in Germany and France reflects the greater degree of government support in the history of the French system. German cooperative leaders were always suspicious of the government, and the government there never provided much support for the cooperative movement. In France some types of cooperatives were essentially government creations, and until the 1980s the French treasury actually managed the assets of some credit unions. While this level of control has relaxed considerably in recent years, there are vestiges of government control in France that account for some features of the current system, and the greater degree of centralization within some French cooperative groups reflects the role of the government in their formation.

These differences between German and French credit union groups, and their clear differences from U.S. credit unions, should not obscure a basic common feature that sets credit unions apart from commercial banks here and abroad: credit unions in Germany and France are both controlled and owned by their members. The three-tiered systems used in both countries means that the apex bank is a long way from the practical control of its membership (in both cases the apex bank is owned largely by regional institutions that are in turn owned by local cooperatives which are owned by their members), but this is in some ways the problem of any large institution. There are also some differences in voting procedures. Most German cooperative institutions observe the principle of one member, one vote, while
in France some institutions allow members with multiple shares additional votes. German credit unions can, if they wish, allow those with multiple shares up to three votes on some matters, but this is not the universal practice. These minor differences do not change the basic similarity of the respective institutions.

The huge size of German and French credit union institutions, and the much wider range of services they offer, is evidence that a very different kind of banking institution than the one found in the U.S. is compatible with mutual organization. This paper draws two lessons for U.S. credit unions from the German and French experience. First, the German and French cooperative banking sectors have used scale, scope, and a national presence to achieve many of the benefits associated with large universal banks in Europe. Emulating some aspects of German and French credit cooperatives in the U.S. would be nearly impossible, however, as it would require significant alterations in the rules governing credit unions here. Second, German and French credit unions have also used regional and national entities to centralize the costs of developing and offering services to cooperative customers, the cooperatives themselves, or both. These specialist organizations within the cooperative system allow local cooperative banks to concentrate on their core banking activities and also earn fees from related activities such as insurance. They also preserve the essential distinction of a credit union system, which is member-control. This aspect of German and French practice has some parallel in the U.S. today, but U.S. credit unions could move in this direction to meet some of the challenges of the banking system developing in the U.S. today.

The remainder of the paper is divided into five sections. Section one outlines the banking systems in Germany and France, including recent regulatory changes that have encouraged further consolidation. Section two describes the credit union systems in Germany, and section three does the same for France. Section four discusses the niche filled by German and French credit unions, and how that niche has been protected from competing banking institutions. Section five uses the German and French experience to draw some lessons for credit unions in the United States, and concludes.
The challenges facing credit unions in Germany and France are very different from those at work in the United States. Some of the difference reflects the disparate banking systems of the three countries. The most important difference between banks in the United States and those in either Germany or France is that in the latter, many but not all banks are universal banks. The term "universal bank" is unfortunately used to mean several different things. From an American perspective, the point to emphasize is that a universal bank is allowed to offer a wide variety of services that could not, until recently, be offered by the same firm in the United States. A universal bank can, for example, offer payment services, business loans, consumer savings and lending products, and retail foreign-exchange service, like an American commercial bank; it can underwrite the sale of securities, like an American investment bank; it can provide trust and related services; and it can offer brokerage services and sell insurance and related products. The financial press sometimes uses the term "financial supermarket" to describe the emerging system in the United States. This term conveys the essence of universal banking. In recent years these products have all started to appear under one roof in the United States, but only because of the formation of bank holding companies and the deregulation of United States banks. We should bear in mind that many German or French banks that are allowed to offer the full range of universal-bank services do not do so. Most banks concentrate on several areas of banking business and do not try to cover the full range allowed by law.

A second important difference between United States banks and their German or French counterparts is their geographical spread. For the most part, German and French banks can be, if they desire, national institutions that do business in every part of the country. The Deutsche Bank, to take one example, has offices in every city and most larger towns in Germany. The prohibition on interstate banking in the United States prevented this kind of system for a long time, and only now are bank holding companies developing truly national retail banking services.

Universal banks are objects of admiration for many economists. They have two supposed advantages over the system that has been in place in the United States. First, a full-scale universal bank’s customers are never forced to go to another financial institution
because they need some new product. This permits the development, in theory, of long-term relationships in which the bank manager and the customer know each other well and can use the information gathered in earlier transactions to lower the costs of doing new business in the future. For business borrowers this potential for a long-term relationship may be especially important. A universal bank such as the Deutsche Bank can provide venture capital for a start-up firm, loans for the firm as it grows, and potentially securities underwriting if the firm decides to raise capital through bond or equity issues. The advantages of the universal bank to consumer needs are less obvious but still real. In addition to the convenience of dealing with a single institution for several different products – payment services, insurance, etc – a universal bank’s retail customers may value their institution’s ability to bundle products, allowing consumers to save on fees and more easily transfer funds between different savings vehicles. Economists also tend to admire the larger, more regionally diversified banks of a national system such as those in Germany and in France because they are more stable and less vulnerable to local shocks such as the shutdown of a large industry (Pittsburgh in the 1970s, Kansas during a recent drought). These very large institutions can also make much larger loans without endangering the diversification of their loan portfolio.

A History of Concentration

The banking industry in the United States has become significantly more concentrated in the past decade. Berger, et al (1998, Table 1) report that the eight-firm concentration ratio for U.S. banks has risen from 22 percent in 1988 to 35 percent in 1997. This is a dramatic development and the reason for concern among credit unions and other small U.S. financial institutions. The German and French banking systems, on the other hand, have long been much more concentrated than U.S. banks.

Precisely comparable figures are not available, but the five-firm concentration ratio for France was 34 percent in 1987, rising to 41 percent by 1993, and in Germany was 25 percent in 1987, rising to 27 percent by 1993 (Molyneux et al 1996, Table 3.10).\(^2\) Edwards

\(^2\) Precisely comparable concentration figures are not available. Note that the eight-firm figure for the United States, because it includes a larger number of banks, may imply a less concentrated banking system today here than in Germany.
and Fischer (1994, pp. 107-109) argue that German data significantly understate the degree of concentration in that country because the largest German banks own controlling interests in smaller banks and direct the operations of the smaller banks almost as if the latter were branches. And neither Germany nor France has experienced anything like the rapid extinction of small banks that has taken place here.

Between 1988 and 1997 nearly four thousand bank charters in the U.S. lapsed, amounting to nearly one-fourth of all charters in existence in 1988. This degree of concentration in both Germany and France goes back to the nineteenth century, and in fact it is the United States that is unusual for its (until recently) very large number of comparatively very small banks. The details are less important than the general trend: German and French credit cooperatives developed and thrived in the face of large, universal for-profit banks, the type of banking firm that is only now becoming the norm in the U.S.

**Regulatory Change**

Both the German and French banking systems have faced considerable regulatory change in the past few years. These changes affect credit unions even when aimed at other institutions. For countries belonging to the European Union two levels of regulatory change are important: regulation at the national level and regulation at the European level. The basic legal and regulatory outlines of the German banking system have not changed in decades. Future consolidation of German banks will reflect market forces or European Union rules, not changes in German rules.

In France the situation is quite different. The entire French banking system was redrawn by a banking act in 1984, which re-privatized some banks and relaxed rules on most others. The most important change in France in 1984 was the creation of universal banks. Prior to that date French banks had been strictly divided into commercial banks and investment banks, as in the United States. Related French legislation in 1984 mutualized Crédit agricole and other institutions discussed below, freeing them of most state involvement and turning them into institutions that resemble the German credit unions in their range of activities.
Subsequent legislation has continued the deregulation of French banks, expanding their range of services and permitting greater degrees of investment in other financial institutions. The expansion of Crédit agricole and other French credit union groups into investment banking and other activities reflects that legislative change. The French banking system may experience further consolidation and other changes as a result of recent domestic regulatory movement.

Two other recent developments have taken place at the level of the European Union. The creation of a single currency has received tremendous attention in popular and academic accounts, but for banks it is arguably no more important than the elimination of all barriers to capital mobility that the European Union enacted in 1993. What this means in a strictly legal sense is that a Belgian citizen can now have a checking account in France, take a car loan from a German credit union, buy life insurance in Britain, finance his Irish vacation cottage with a Dutch mortgage, and keep his savings in an Austrian savings bank. At a more practical level it means that European financial institutions can invest in each other and offer services outside the country in which they are incorporated without the legal obstacles sometimes erected against foreign ownership. This has not yet happened to the degree expected. There has been considerable consolidation of non-bank financial institutions, but not of European banks. The purchase of Indosuez or WGZ-Bank’s acquisition of foreign subsidiaries (two counter-examples discussed below) are important to the cooperative movement, and show that German and French credit unions are as willing to take advantage of new opportunities as any other banking institution. But so far this kind of acquisition remains far less common than the huge mergers and acquisitions in the U.S. Among the explanations offered for the weakness of European consolidation is lack of a common currency and remaining institutional differences, such as payments mechanisms, that impede common banking practice within a single multi-national firm.3

This lack of further consolidation in banking means that French and German credit unions have not faced much new competition in their domestic markets. The intent of the 1993 act was to shake up European financial markets by forcing German banks to

3 This evidence is reviewed in Berger, Demsetz, and Strahan (1998).
compete with English banks for German customers, but this has not happened. Whether it will ever happen depends in part on the success of the Euro. French banking customers may be more likely to switch to non-French banking institutions. The French have long been more enthusiastic about financial innovations than many people. France was a leader, for example, in telephone and PC banking services. Germans tend to be extremely conservative about banking. Many observers claim that Germans will be most reluctant to switch their accounts to banks identified with other countries.

**Effect of The Euro**

The larger question mark in European financial services consolidation is the effect of a common currency. By June of 2002 most but not all of the countries of the European Union will stop using their own currencies and instead use a common currency called the Euro. Euro countries have already adopted a fixed exchange rate and the Euro exists as an accounting currency, so for many important economic matters the single currency system is already in place. Yet it takes time for banks or any other institution to adjust to institutional innovations of this sort, so the Euro's impact is yet to be realized. There is no historical precedent for a monetary integration of this sort, and its effects on credit unions are especially hard to predict because they depend in part on how other financial institutions react. Several major European Union economies, most notably Britain, have not yet agreed to join the Euro group, and it is not clear whether the lack of a common currency is the most important bar to European bank consolidation. To the extent that the Euro provokes a new wave of bank consolidation, credit unions in Germany and France may find themselves facing new and energetic competition from foreign banks. There is also a real possibility that non-European banks, especially American banks, will find the Euro zone a worthwhile market and expand their operations to provide serious competition to European banks. But given their strength and flexibility, German and French credit unions are well-positioned to enter other markets themselves. For example, German credit unions’ customers travel a great deal and often own vacation property in other European countries. The Euro might usher in new possibilities to serve credit unions’ domestic customers’ financial needs abroad. Against this, however, must be balanced
the obvious loss of foreign-exchanged business. Once the Irish punt and German mark are subsumed into the new common currency, no banks, credit unions included, will earn revenue from foreign exchange within the Euro zone.

The advantages to credit unions of these new possibilities must be weighed against the implications of more competition in the banking sector, and the resulting pressure on prices. A Price Waterhouse prospective study of the potential impact of the single European market implies that the average price of a bundle of German banking services would fall 33 percent (as of 1992). The expected price decline in France is 25 percent. These estimates combine a range of banking products, so the actual impact on credit unions is not necessarily this large. And in Germany the estimated decline in prices for insurance and securities prices was much smaller, implying that universal banks would be less hard-hit than suggested. But plausible estimates this large suggest that if the European single market in financial services succeeds, German and French banks, and credit unions will face serious price competition.

**The German Banking System**

The basic outlines of the German banking system have not changed since World War II. Germany has a wide variety of banking institutions, some of which have no direct counterpart in the United States. Banks fall into two groups: the universal banking group (which includes credit unions) and others. The "other" group includes several specialist banks, mortgage banks, and postal savings and clearing banks. Some of these “other” institutions compete with credit unions for some business, but we will focus on their main competitors in the universal banking group.

There are three types of universal bank in Germany: the “credit bank” (a large, for-profit, joint-stock bank); savings banks (Sparkassen); and credit unions. Credit banks range in size from the three “Great Banks” (Deutsche Bank, Dresdner Bank, and Commerzbank) down to smaller and more geographically limited institutions. At the end of 1997 there were 513 credit banks in

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4 Some English-language works call the credit banks “commercial banks,” but this terminology is confusing because it sounds like a U.S. commercial bank, as opposed to an investment bank.
addition to the Great Banks. These credit banks are the most famous face of German banking. Between them they account for about 34 percent of bank balance-sheet totals.

Savings banks are sometimes compared to savings and loans in the United States, but are actually very different. Originally German savings banks were chartered by the city in which they were located, and intended to provide safe places for working-class people to deposit savings. They are, to use an awkward phrase, private institutions of a public character, which is to say that they exist distinct from their chartering government but are owned and controlled by the chartering entity. Savings banks’ assets used to be focused on loans to governments and high-quality real estate and business loans. But in the past two decades they have expanded into all types of consumer loans. The net revenue of savings banks accrues to their chartering government.

Savings banks developed regional banks similar to the cooperative centrals, but their need for liquidity was not as great because their assets were weighted to safe, long-term loans. In recent decades the savings banks have undergone their own merger wave, and some are now very large institutions. They have also expanded their range of services considerably, although they still focus heavily on retail banking. They offer a full range of payment services, credit cards, and the like, but most Germans still associate them with safe, low-interest savings accounts, some homeowner mortgages, and other consumer loans. Savings banks account for 24 percent of assets within the universal banking group, and slightly more than half of all savings deposits in Germany.

Credit unions in Germany are also universal banks. We discuss them in detail in section 2 below.

The French Banking System

France also has a universal-banking system, but until 1984 its banks had to focus on specific types of business and have only recently begun to offer the full range of products found in their German counterparts. The French banking system also differs from the German in that over the past 15 years a number of important legislative initiatives have revised the rules governing French banks. This process set off a wave of mergers and acquisitions within the system. In part this reflects the re-
privatization of some banks nationalized in the early 1980s, and part reflects the loosening of restrictions on the credit unions and some specialist banks. Until recently one could clearly distinguish three types of banks in France. The AFB banks (“Association Française de Banques”) correspond to the German credit banks. They are large, for-profit institutions. Although AFB banks were forbidden to operate as universal banks in the German sense until recently, they have long been much larger and more concentrated than banks in the United States. In the years since the beginning of deregulation they have rapidly diversified in the direction of complete universal banking. Credit unions are the second large group, described in detail below. France also has savings banks (although their organization and operations differ from their German counterparts) and a range of specialist banks as in Germany. French banks are more difficult to categorize because there is a much greater tendency for a bank of one type to own a bank of another. As we shall see, several fairly large AFB banks are owned by a member of the credit union group.

**CREDIT UNIONS IN GERMANY**

Germany’s credit unions are the forerunners of virtually all credit unions in the world. The original movement, which started in the late 1840s, was split between rural institutions led by F.W. Raiffeisen, and urban institutions led by Hermann Schulze-Delitzsch. A third branch, also primarily rural, started in the 1870s under the leadership of Wilhelm Haas. There were several attempts to unite the three credit union groups starting in the early 1900s, and today all three groups are combined into a single organization. The late nineteenth century also witnessed the formation of strong cooperative movements in other areas of German economic life, and these cooperatives worked with credit unions to varying degrees.

German credit unions tend to have one of two words in their title: either *Raiffeisenbank* or *Volksbank*. The term “Raiffeisen” is an obvious reference to the founder, while *Volksbank* (people’s bank) was the term used by Schulze-Delitzsch. There have been many consolidations on the local level that combined a *Raiffeisenbank* with a *Volksbank*. But even today urban credit unions tend to be much larger and offer a different range of services. Some rural credit unions are still “mixed” cooperatives, and have, in addition to their banking department, departments that sell agricultural
supplies and agricultural commodities. The public also thinks of the two strands of credit unions as different. Sometimes a credit union will change its name from Raiffeisenbank to Volksbank because the managers think it will help them appeal to a younger, more sophisticated market.

Today in Germany the three tiers of the credit union sector are fairly clearly distinguished. At the bottom are local credit unions, which are independent from any regional or national entity. Similarly, the regional centrals are independent institutions, controlled by their members, and not beholden to the national cooperative bank. Despite their size, credit cooperatives in Germany are similar to U.S. credit unions in one important respect: they are owned and controlled by their members. Local credit unions are all incorporated under the same laws. There is no equivalent of the federal and state chartering system in the United States. All have the legal form of a cooperative with limited liability. Some cooperative entities (such as some regional service organizations, and the D G-Bank itself) have switched charters to become joint-stock firms. In these cases shares are voted strictly by ownership, and larger shareholders have more say in the institution’s operation.

German credit unions at one time did not pay most taxes so long as they restricted their lending to members. This special status has been dropped. They are now obliged to pay all taxes, including corporate income taxes, payroll taxes and property taxes. Some specific rural cooperatives (but not the cooperative banks) are exempt from certain taxes, but even these exemptions have been narrowed in recent years.

Credit unions are just one type of cooperative in Germany. The law on cooperatives was established to provide a common structure for such small corporate bodies, and at the same time achieve the shelter from liability that comes with incorporation. This feature of the system provides some political cover. Any law aimed at credit unions will affect many other institutions. In addition to consumer cooperatives, which are on the wane, agricultural cooperatives assist farmers in purchasing inputs and marketing output. Most of these agricultural cooperatives are part of the national organization uniting all cooperatives. The degree to which a single credit union identifies with and participates in more general cooperative issues is determined by each institution.
Rural credit unions are much more likely to see themselves as part of a broader movement than urban credit unions.

**Regional and National Cooperative Banks**

The first cooperative regional central banks were established in the nineteenth century to assist rural credit cooperatives. The smaller cooperatives especially had badly diversified portfolios, subject to strains at peak agricultural seasons. Centrals provided liquidity by borrowing from cooperatives with excess deposits and from the national cooperative bank or other sources. Some regional centrals also played an important role in financing agricultural cooperatives such as creameries. Credit cooperatives with excess deposits would send them to their central, which would then lend money to the creameries. This allowed small credit cooperatives to invest in the larger cooperative movement without risking diversification in their loan portfolio. The national cooperative bank was established in the 1890s to assist the regional centrals and in some instances acted as the central for local cooperatives. In theory this three-tiered system remains in place today. But the role and status of regional and national credit union banks is less clear than in the past. A long process of combination has left Germany with only three very large regional centrals, and these centrals are increasingly anxious to expand their services and to cease working through the national bank. The three remaining centrals are the WGZ-Bank (Düsseldorf), the SGZ-Bank (Frankfurt/Karlsruhe), and the GZB-Bank (Stuttgart), while the national bank is the more famous DG-Bank, also located in Frankfurt. Table 2 summarizes the main German cooperative banking entities discussed in this section. The DG-Bank and the SGZ-Bank have recently changed their legal form to joint stock corporations, while the two other regional centrals remain cooperatives, legally identical to local credit unions. The DG-Bank dwarfs the three regional banks, but even the WGZ-Bank is a very large institution. To make a rough comparison, in mid-1998 the DG-Bank’s 216 billion Marks in assets amounted to $127 billion, comparable to the seventh largest bank holding company in the United States. At the same time the WGZ-Bank’s 52 billion Marks in assets would make it comparable to the 33rd largest bank holding company in the U.S.
The DG-Bank and the three regional centrals all continue to play major roles in the credit union movement in Germany. But as their size suggests, they undertake a wide variety of business that is unconnected to credit unions. A brief look at the WGZ-Bank conveys a sense of these developments. The WGZ-Bank group is still centered on the central cooperative bank. At the end of 1997, 401 of this cooperative's 821 members were local credit unions. The other members were other types of cooperatives and a few individuals. These credit unions had average assets of about 480 million Marks, and a total membership of 2.4 million.

The WGZ-Bank's member credit unions are concentrated in the Rhineland-Westphalia area, that is, in western Germany. At the end of 1997 credit extended to its member credit unions accounted for 25 percent of WGZ-Bank's assets, and deposits from its member credit unions comprised 35 percent of its liabilities. Other banks, including the DG-Bank, accounted for 25 percent of its assets and 31 percent of its liabilities. But the WGZ-Bank has grown far beyond its origins as a cooperative central. The bank now provides, either through in-house departments or subsidiary entities, venture capital, stock underwriting and other traditional...
investment-banking services, as well as international banking facilities focused on the needs of importers and exporters.

The WGZ-Bank’s list of international affiliates is long. It has subsidiary banks in Ireland, and Luxembourg, owns wholly or in large part financial institutions in Switzerland and in the Netherlands, and has close correspondent relationships with many others around the world. The other two regional centrals are smaller than the WGZ-Bank but still sizeable institutions. One rapidly changing feature in the German credit union system reflects the size and strength of these centrals. The WGZ-Bank lacks a clear reason to work through any higher institution such as the DG-Bank.

The DG-Bank is a continuation of a government bank established in the late nineteenth century to provide credit for agriculture, working primarily through credit unions. Today it is a private institution but retains some public character. Its charter requires a federal commissioner, and its supervisory board includes representatives from the federal and state governments. The DG-Bank is the central bank for about half of all German credit unions (which thereby skip the intermediate level entirely). It provides services to the three regional centrals, and also undertakes an impressive array of activities on behalf of small and medium-scale business, similar to but more expansive than those of the WGZ-Bank.

In addition to the regional centrals and the DG-Bank, the credit union group has a variety of regional and national entities that provide specialized services to credit unions and their customers. Some, like the GAD (Gesellschaft für automatische Datenverarbeitung eG), which provides data-processing services and advice to cooperatives in western Germany are free-standing cooperatives in their own right. Local cooperatives are free to contract with the GAD and similar institutions, to purchase services from for-profit firms unrelated to the cooperative movement, or in some cases from their Central. Others institutions, like DG HYP (Deutsche Genossenschafts-Hypotheken A G), a joint stock mortgage bank, are owned wholly or in large part by other cooperative entities such as the regional
centrals or the DG-Bank.\footnote{The abbreviation eG means “registered cooperative.” AG is the legal firm comparable to a large corporation in the United States. eV means “registered association,” and is used for everything from social clubs to the auditing associations that watch over Germany’s cooperatives.} R+V Versicherung sells insurance products through credit unions, while VR finances commercial leasing. Union Investment Group manages investment funds, and DIFA (Deutsche Immobilien Fonds AG) manages and sells real estate investment trusts. In addition, the DG-Bank and some of the regional centrals provide their member credit unions with electronic banking and other products designed to help them win customers from for-profit banks. Collectively this credit union network means that individual credit unions can go to a sympathetic and experienced institution for help with back-office and other services, and at the same time market a wide range of sophisticated financial products to its customers without going outside the group.

**Governance**

German credit unions fall under two distinct sets of legislation. In addition to the cooperative laws, they are subject to German banking law. Their primary banking regulators are eleven regional auditing associations set up specifically for this purpose. The auditing associations, which are distinct from the regional centrals, train and deploy specialist auditors whose annual audits satisfy the provisions of German banking law. This reliance on regulation by private organizations is not specific to the credit unions in Germany, although they were the first to establish the system.

The national association represents the entire cooperative movement in political issues, to both the German and European Union governments. For example, the new German government has proposed changes in the accounting rules for depreciation, and the national cooperative federation has responded with a vigorous campaign to forestall this development. The national group also provides some ancillary services to the cooperative movement. The national association runs a deposit insurance system for credit union deposits. German credit unions have always been very safe. Until the 1950s most credit-union members carried unlimited liability for their institution's debts, and it is often noted that no depositor has lost money in a German credit union since the Great Depression.
German credit unions have two distinct committees comparable to the board of directors in a U.S. corporation. The board of managing directors (Vorstand) runs the credit union on a day-to-day basis. This committee consists of senior managers. The oversight or supervision committee (Aufsichtsrat) meets less often, sets long-term policy and functions as an internal auditor. Members of these two committees are approved for terms of fixed length by the membership. This dual-committee structure is typical of the largest German firms. It was adopted by cooperatives in the nineteenth century when they were still new and untested. Most credit unions have an annual meeting of the membership and allow limited voting by proxy. Attendance at meetings varies from place to place. In some rural areas the credit union’s annual meeting is a major social event.

German credit unions are not legally restricted to a specific membership base, as are U.S. credit unions by their field of membership. Most German credit unions, especially in rural areas, are very local institutions and have few members outside of a small area. Urban credit unions can be quite large and have many branches in a single city and surrounding area. Some have an occupation-based membership. One very large credit union based in Berlin focuses on pharmacists, doctors, and other health professionals. But the occupational basis reflects a marketing decision rather than law, as in the U.S. Credit unions are no longer required to restrict their services to members, which accounts for the much lower membership rates in Germany than in the United States.

To become a member an individual must buy at least one share. How many shares a single person can own is a matter of policy for each credit union. Membership brings two benefits: the right to vote on managers and other policy matters, and a dividend on the member’s share. The only cost of membership, besides the fee for joining and the cost of the share, is possible liability. Most cooperatives in Germany retain a system of supplementary liability (Nachschusspflicht). In theory, an individual who owns a 100-Mark share in a cooperative could, in the case of the cooperative’s bankruptcy, be sued for an additional sum that is fixed in size and proportional to the amount he has paid in for his share. Given the safety of the cooperative banks this liability is rarely an issue.
CREDIT UNIONS IN FRANCE

The French credit-union sector is more complex than the German because there are several different credit union groups. Three of these groups are very large and will be the focus of our discussion. These groups exist in part to serve different groups of customers, but also because historical differences defined those who promoted cooperative credit. All were formed in the late nineteenth century, and their differences reflect serious conflict over organizational matters. The French system has a three-tiered system somewhat like the Germans, but the lines of authority and the degree of autonomy of local credit unions differ from group to group. Table 3 summarizes the main French cooperative banking entities discussed in this section.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type of Institution</th>
<th>Legal Form</th>
<th>Assets: 1997, in $ millions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crédit agricole</td>
<td>Credit union group</td>
<td>Apex bank is joint-stock; other elements cooperatives</td>
<td>426,271</td>
<td>Largest bank in France</td>
</tr>
<tr>
<td>Banques populaires</td>
<td>Credit union group</td>
<td>Cooperative</td>
<td>112,881</td>
<td>Originated in Schulze-Delitzsch strand of German cooperative movement</td>
</tr>
<tr>
<td>Credit mutual</td>
<td>Credit union group</td>
<td>Cooperative</td>
<td>98,983</td>
<td>Originated in Raiffeisen strand of German cooperative movement</td>
</tr>
<tr>
<td>Credit coopératif</td>
<td>Credit union group</td>
<td>Cooperatives</td>
<td>3,600</td>
<td>Specialized in lending to other non-profits</td>
</tr>
<tr>
<td>Predica</td>
<td>Credit Agricole life insurance subsidiary</td>
<td>Cooperatives</td>
<td>44,915</td>
<td>Assets under management at the end of 1996</td>
</tr>
</tbody>
</table>

The Crédit agricole group is the largest and most famous part of the French credit union system. This group is now free of government control, but was largely a creation of the French government in the nineteenth century. The Banques populaires, often called by their old name, Crédit populaire de France is a group of 31 large regional credit unions that have a membership
heavily weighted to artisans and merchants. This system was founded by French cooperators who admired the work of Schulze-Delitzsch in Germany and sought to import his ideas into France. The Crédit mutuel is similar to German credit unions in that the local institutions are autonomous, a feature that distinguishes Crédit mutuel from the Crédit agricole group. Crédit mutuel is also German-inspired. It was founded by French cooperators who preferred Raiffeisen’s approach to the heavy State involvement that characterized Crédit agricole. Neither of the two German-inspired French credit unions were ever precise imitations of the German original, but bear the strong imprint of their forerunners.

The Crédit coopératif group is different from most credit-union systems in that it exists to assist private and public non-profit organizations. The clientele for this group includes cultural, sports, and leisure groups as well as city governments.

Crédit agricole is the largest bank in France and one of the largest in the world. At the end of 1997 this group had assets of 2,515 billion Francs ($427 billion). Throughout France it has 8,174 branches that collectively make 17 percent of all business loans and take 22 percent of all deposits. Crédit agricole’s 15 million customers comprise 30 percent of the French population. As its name suggests, it retains a special emphasis on agriculture and on rural communities, but has gone far beyond that base into other activities. The group has a dual vertical structure: the banks per se and the organizations that, as in the German system, provide ancillary services. At the bottom of the banking group are some 3000 local caisses, or credit unions. These local credit unions are the point of contact with customers, but they do not have much authority. They can collect deposits but only play an advisory role in granting credit. Thus they are more like branches of a bank than independent credit unions.

The second tier in the system is the regional banks. They have fixed territories to prevent competition within the group. The regional banks are also credit unions, whose members are primarily local credit unions along with some agricultural cooperatives. The regional credit unions control all credit decisions for the customers of the local caisses in their territory, and decide how to invest deposits collected at the local level. At the top of this group lies the CNCA (Caisse nationale de crédit agricole), a joint-stock company in which 90 percent of shares are
owned by the regional banks. This national bank is a private institution but retains some vestiges of its former quasi-public status. The French government must approve its general director, and the minister of agriculture is the chair of the board of directors. Recent press accounts suggest some conflict between the management of the CNCA, which favors aggressive diversification and expansion into overseas markets, and the managers of the regional banks, who do not want to neglect their traditional markets.

*Crédit agricole* is a mutual organization: members own the caisses, which own the regional banks, which own most of the CNCA. Thus on the level of ownership the *Crédit agricole* group is much like the German cooperatives and also bears similarities to U.S. credit unions. But the top-down decision-making of the *Crédit agricole* group implies something very different from either German or U.S. practice. In some ways the huge size of the *Crédit agricole* may indicate that control by members is impossible, just as stockholder control of very large corporations is not always possible.

At one time the *Crédit agricole* was restricted to operating in certain rural areas and small towns, and in return had a privileged role in disbursing French government loans for agriculture. This is no longer the case, but the group does retain its strong position in the agricultural sector. A combination of French government and European Union policies serve to protect French farmers to a degree unknown in the United States, and *Crédit agricole* profits from these policies directly, by continuing to disburse subsidized loans, and indirectly because rural markets remain a viable and profitable business.

All French credit unions devote considerable attention to the self-employed and to firms that the French call PME (small and medium-scale enterprises). This emphasis is similar to German credit unions. *Crédit agricole* and other French credit unions have established special units and products that help small enterprises with credit and payment needs, along with advice on tax and economic issues.

The CNCA has several related functions, from approving the directors of the regional banks to providing them with liquidity to investing surplus deposits generated within the system. Unlike the
German credit-union group, where the auditors are not part of any level of the banking system per se, one function of the national bank in the Crédit agricole system is to audit the regional banks. The national bank also provides some back-office services, such as research and information systems support, for the group as a whole. Finally, and in a fairly spectacular way, CNCA controls several for-profit subsidiaries and has recently moved heavily into international investments. In 1996 CNCA bought Banque Indosuez, a large French AFB bank with extensive dealings in France and the Far East. After some reorganization Crédit agricole now has two units, Crédit Agricole Indosuez and Indocam. The group is using the former as a basis for a foray into the European securities underwriting and brokerage markets, as well as continuing Indosuez’s strong position in international commodities trading. Indocam is one of the largest asset-management firms in Europe, with 650 billion francs ($110.5 billion) under management at the end of 1997. The CNCA has also made some investments in North America, purchasing Dean Witter’s futures business in 1997.

Partly as a result of this growth and diversification the Crédit agricole group is really a universal bank in ways that other French credit unions are not. The group retains its emphasis on savings and credit products for households and small businesses, and remains a major lender in agricultural and agrobusiness areas, but it has moved aggressively into other areas as well. For example, Predica, the insurance subsidiary of the Crédit agricole group, is the second largest life insurance company in France, and its Pacifica subsidiary offers property, casualty, and medical insurance. The Crédit agricole has also taken the lead in payment systems. The group as a whole accounts for 25 percent of all bank cards in use in France, and it processes about 25 percent of all checks each year.

Crédit agricole’s purchase of Indosuez marks an important departure in cooperative practice. This is not the first time a cooperative entity purchased a for-profit institution, but the scale is very different from such transactions in the past. Most of the joint stock entities affiliated with either the German or French credit-union systems were created by the cooperative group itself, and grew as part of the movement.
Banques populaires

This system consists of 31 regional banks with fixed territories, along with a national central bank. The Banques populaires have only two tiers: they lack the primary cooperatives that form the base in Germany. Also included in the system is CASDEN-Banque populaire, a bank that deals with personnel and institutions related to the French educational system. This group is much smaller than the Crédit agricole group, but with seven percent market share it counts as France's sixth largest bank. The regional banks in this group have a great deal of autonomy from the national organizations. They are run by locally elected managers and make all decisions concerning credit and related policies themselves. Borrowers in this group must be members of a credit union, but membership is open to all. The Banques populaires accept deposits from anyone, member or not. The national bank is run by a board elected from the regional banks. The national bank has responsibility for inspecting the regional organizations. There is no distinct auditing group as in Germany. The national bank also provides technical services for the regional banks, and its parallel national organization operates a deposit-guarantee system.

The Banques populaires are not restricted by law to any particular clientele. But for historical as well as practical reasons they concentrate their efforts very heavily on artisans and small shopkeepers, both as consumers and as small business people. In this respect they are like the urban part of the German cooperative movement (the Volksbanken), of which they are the lineal descendent. (Schulze-Delitzsch was very doubtful about agriculture as a field for cooperative credit.) They also have a strong presence in the agricultural sector and among the PMEs, bringing them into direct competition with the much larger Crédit agricole group, similar to their German cousins. The Banques populaires have expanded into insurance, brokerage, and other services, just like the Crédit agricole group, but on a more modest scale.

Crédit Mutuel

The clientele of this group is similar to that of the Banques populaires, but the organization of the system is more like that of Crédit agricole. At the base of this group are about
2000 independent credit unions. Unlike the local banks in the Crédit agricole group, those in the Crédit mutuel system are autonomous institutions. Only members can borrow, but membership is open to all. While there are no restrictions on who may deposit, at least half of all deposits must come from members. At the regional level there are two organizations much like those in the German system. The regional federations audit local credit unions and provide some back-office services. The regional banks provide liquidity and an outlet for excess deposits collected by local credit unions.

At the top of this group are two national organizations. The national federation plays a role in auditing, research, and other functions beyond the capability of local credit unions. The national bank in this group provides a conduit to the outside capital market for the group as a whole, and performs some services mandated by law. Local credit unions in this group actively manage much more of the deposits they raise; only about 2 percent of all deposits are forwarded to the national bank.

Crédit mutuel is not restricted to any specific markets, but its strength lies in agriculture, small business loans and in business and retail mortgages. In its markets and comparatively decentralized structure one can see its origins in the Raiffeisen strand of the German cooperative movement. Collectively, this group is the fifth-largest French bank in terms of deposits. Members of Crédit mutuel retain a special privilege that is an increasingly rare vestige of the formerly strong role of the government in the French credit union system. Certain savings banks in France offer a savings account with a low, fixed rate of interest, and interest on these accounts is tax-free. Crédit mutuel credit unions can offer savings accounts with similar terms, although the tax advantages are gradually being phased out.

Crédit Coopératif

This group is smaller and more loosely organized than the other French credit union systems. Given its clientele, it has an unusual role for any banking institution: its market consists of non-profits, private voluntary groups, local and regional governmental entities and the employees of these institutions. The national central has two kinds of affiliates, those to which it provides only services and those that are for all practical purposes its branches. At the end of
1997 its apex bank, Banque Francaise de Crédit Cooperatif, had assets amounting to about $3.6 billion, making it much smaller than any of the other three parts of the French system.

THE COOPERATIVE NICHE IN GERMANY AND FRANCE

Most studies of U.S. credit unions emphasize their special niche in the banking system. The German and French credit unions also occupy a special niche, although in a less obvious way. They are, as we have seen, much more like for-profit banks than their U.S. counterparts. By American standards they are enormous, and they have moved into businesses that U.S. credit unions avoid or are forbidden to pursue. But there are some common features that characterize their basic markets and their identity within the system. Credit unions in Germany and France provide a full range of consumer banking products, including savings accounts, credit products, payments, and bank cards. They have used their flexibility as universal banks to offer other products, such as insurance and investment vehicles, at the retail level. German and French credit unions also have a strong presence in small and medium-sized business markets that were, in fact, their original niche. In both countries credit unions tend to market themselves to the middle classes, and emphasize an expansive definition of middle class that includes professionals and virtually all small and medium-sized firms.

Their competitors offer most if not all of the same services, but are identified with different products and services in a way that has helped credit unions preserve their niche. In Germany the main competitors are credit banks and savings banks. Both sets of institutions are in theory able to serve the same customers, but are viewed by the public as different from credit unions in ways that make them inferior in some respects. Large German banks have a reputation, fair or not, for haughtiness and unfriendliness to consumers and small business people. Credit banks are universal banks, but with some exceptions they do not have the presence in retail markets that this name would suggest. Savings banks are much more similar to credit unions and focus on many of the same markets. Savings banks tend to be more conservative than other banking institutions; they were, for example, comparatively late in adopting automatic teller systems.
The situation for French credit unions is similar. On the one hand they face competition from the large AFB banks, and on the other they compete, especially for retail deposits, with French savings banks. The eventual niche of French credit unions is less clear than in Germany because their system is undergoing rapid change.

German and French credit unions have combined their special abilities with many of the efficiencies that come with scale. In both countries, but more obviously in Germany, credit unions are local, independent institutions that can easily turn to specialist institutions for back-office functions, specialized services such as software or economic research, and networks such as automatic teller systems. Thus they have achieved the best of two worlds: the focus on specific markets and clienteles that characterizes U.S. credit unions, and the advantages that come from scale and diversification that underlie the formation of large bank holding companies in the U.S.

CONCLUSIONS: IMPLICATIONS FOR U.S. CREDIT UNIONS

Credit unions in Germany and France occupy a much larger place in their countries' banking systems than do U.S. credit unions. Cooperative banking originated in Germany and in France in the nineteenth century, and has enjoyed a success in these countries unsurpassed elsewhere. Several institutions owned by their cooperative groups, such as the DG-Bank in Germany and the CNCA in France, are among the largest banking institutions in the world. This success invites a search for lessons for U.S. credit unions today. What aspects of the German or French experience could be imitated here? German and French cooperative banks operate in very different regulatory environments, and it is wise to distinguish between features of their practice that would require regulatory change to be adopted here, and features of their practice that could be imitated by U.S. credit unions without regulatory change.

German and French credit cooperatives are relatively large taken on an individual basis, and their central institutions such as the DG-Bank and the CNCA dwarf any cooperative institution in the United States. The reasons for this are many, but two are paramount: credit unions in Germany and France do not have
anything corresponding to fields of membership that limits the growth of U.S. credit unions, and they can offer a wide range of financial services. Their great size brings with it all the advantages of scale enjoyed by large banks in the U.S. and their ability to provide a wide range of services offers the advantages of scope that are a major motivation behind the formation of bank holding companies in the U.S. Further growth for U.S. credit unions requires either a more elastic definition of the field of membership, more intensive efforts to serve all those currently within the field, the ability to serve non-members, or all three. But these strategies seem unlikely, with few exceptions, to bring about the huge credit unions we see in Germany and France.

To experience growth on that scale U.S. credit unions would have to serve virtually anyone and offer a much wider range of products to consumers and business alike. Both state and federally-chartered credit unions in the U.S. would be in violation of their charters if they emulated German and French credit unions.

But there are some lessons for U.S. credit unions, even without regulatory change. Two types of institution in Germany seem especially worthy of emulation. Some German credit cooperatives have allied themselves in groupings that share a common name and some back-office functions. The Sparda group is the largest of these. In other places, such as in the area around Berlin, the merger of many credit unions has led to a large institution that can spread the marketing, product development, and special services overhead among many offices. Cross credit union alliances of this sort seem a promising avenue for U.S. credit unions, either through outright mergers, which are already taking place, or through looser associations like the Sparda group.

A second type of institution in Germany which has parallels in France is something like the Credit Union Service Organization (CUSO) that plays a role in the U.S. credit union movement. Cooperative entities that provide back-office services, insurance products, leasing products and mortgages allow even relatively small German credit cooperatives to offer their customers most of the services of much larger banks. Some of these entities were formed specifically to offer these services, while others have developed products that centrals offer through member cooperatives. Centralizing the costs of developing and offering all these products under one national or regional entity allows for
lower prices and preserves the autonomy of the primary credit cooperatives. Movements in this direction in the U.S. either through new or existing CUSOs or through corporate credit unions would allow American credit unions to offer a wider range of services at competitive rates.

One important virtue of the approach taken by either the Germans or the smaller elements of the French system should be especially appealing to credit unions in the United States. Crédit agricole is an impressive financial institution, but its highly centralized, top-down structure makes it unclear how it is a mutual institution in anything other than name. The German cooperative system, on the other hand, along with the smaller groups in the French system, have managed to combine the benefits of large financial institutions with local credit unions that are relatively small, locally controlled, and truly autonomous from regional and national entities. This approach seems best suited to helping U.S. credit unions grow and thrive without losing their distinctive identity within the American financial system.
SELECTED REFERENCES


The World Wide Web contains sites for individual credit union groups in Germany and France, including balance-sheet data, product information, and other data.
CHAPTER 4: Discussion of Consolidation in Europe

DISCUSSANT COMMENTS

by Henry W Wirz
S.A.F.E Credit Union
North Highlands, California

To me the good news is that German and French credit unions are doing very well in an environment that I think we could logically predict we’ll see here in the United States. And credit unions there are competing successfully with banks that offer all kinds of services under one umbrella, the universal bank concept.

What’s a bit frightening about the comparison between our system and theirs is that they’re not comparable. American credit unions, and more importantly, the American credit union system, are not comparable to the French and German credit union systems. In fact, their system may be a model for our future, and I think it is a better model than the one we’re likely to develop if we don’t look at their model seriously.

Tim said much of what they do is illegal in the United States. We’ll come back to that. That is a key to the problem. The obstacles to becoming more like French and German credit unions in my mind are particularly troubling in two areas. An article by Chip Filson in Credit Union Journal indicated we have a large number of credit unions under $20 million in assets and these are credit unions, according to statistics that Chip presented, that are really noncompetitive. They have not adapted to the market place. They’re still operating under the model that we had when we served primarily rural and industrial populations. They offer limited basic financial services. Today the marketplace we need to serve is urban service economy workers that are asking for more sophisticated services. But many small credit unions are operating as if the market is unchanged.

Seventy-four percent of all credit unions in the United States are less than $20 million in assets. According to the statistics in the Filson article, 45% offer checking; 30% offer credit cards; 15% offer mortgage loans. These are key or primary services, important in a consumer’s world.

Small credit unions also pay lower dividend rates. In fact, according to Filson’s numbers, if these members switched to a credit union with $50 million in assets or above they would earn
$67 million a year more dividends they earn at the smaller credit unions. If they had loans with these larger credit unions, they would pay $97 million less in interest than at the smaller credit unions. In fact, a large percentage of American credit unions are not offering their members value or the services that they need. These credit unions are destined to be merger candidates.

I think what’s interesting about the French and German system is that it offers an alternative to merger. In fact, we ought to consider that alternative because unlike France and Germany, this is a much more spacious, diverse country that should have numerous credit union locations. French and German credit unions are independent local institutions that provide specialized service and an extensive delivery network. These credit unions have the local character of American credit unions and the scale and diversity of a large bank. To me that’s the ideal situation.

I asked myself a question when I read this article: why aren’t American credit unions comparable to French and German credit unions? We certainly have a common heritage. I believe the primary differences go back to the regulation Tim Guinnane referred to. We have a regulatory environment that prevents us from having more efficient credit unions. I’ll give you some examples.

Field of membership: Our credit unions are limited to sharing a common bond and are limited to a local defined geographic area. My sense of German and French credit unions is that they’re not limited in those ways. That allows them to achieve economies of scale and greater market share. French and German credit unions are able to serve non-members and to have significant business with non-members. American credit unions have that same potential through for-profit CUSOs.

The French and German credit union systems have a much greater affiliation between credit unions. They appear more like franchise operations than independent credit unions. The credit union system provides the expertise and economies of scale that allow individual credit unions to offer the broad range of services their members need, and allows individual credit unions to choose how much or how little to participate in the system. It’s much like franchise owners of McDonald’s outlets. They get the product development and support, and marketing that comes
with a major corporation, but they are also individual entrepreneurs in their community.

Credit unions in France and Germany also have a broader range of services that allows them to meet their members' financial needs. Many of them choose to be niche players, but I believe there are no walls between insurance, equities and savings which prevent those services from being offered through the same delivery channels. I think American consumers want and deserve the same easy access to one-stop financial services.

Compared to the French and German systems, our CUSOs are less well developed. Our CUSOs tend to be regional. They don't provide services to the entire country and we would benefit from having CUSOs with a national scope that would provide identity, economies of scale and greater expertise.

German and French credit unions feast on lending to small and mid-sized businesses, while we face severe limitations on business lending. That's ridiculous in an environment where personal computers make it easier for our members to start their own business. American credit unions need to meet the financial needs of those consumers, and yet today law and regulation handcuff us.

There are a number of things we need to consider before we copy the French and German credit union system. The level of competition in Germany and France is lower than in the United States, and they have yet to tussle with Citicorp. When American banks go overseas and apply their methods in the marketplace, it may change the European financial landscape.

French and German consumers also appear more conservative than American consumers. That may account for some of the large market share of credit unions there. We shouldn't be optimistic that in copying their system we can achieve the same levels of market share.

European credit unions also operate under a common brand identity that gives them national and international recognition. The credit unions there appear ready and willing to subordinate their identity to a national brand. American credit unions tend to have weak brands, and there's not much desire to subordinate our identity to a national or regional brand identity.
It would be to our advantage to duplicate the French and German credit union system. It would allow us to consolidate in a more rational way, one that would maintain the diversity we have today. I’m not very optimistic that’s the way it’s going to happen. Merger is the more likely path. But I would offer to you the European system as a wonderful alternative that we ought to look at and consider, and that means building a stronger credit union system.

**EXcerpts from question and answer session**

**Q:** One thing that strikes me about the German and French credit union systems is their involvement with institutions that are not themselves cooperatives. How has this come about?

**A:** Both the Germans and the French have included in their systems banking and other institutions that have a joint-stock charter. This has come about in three distinct ways. In Germany especially, some parts of the system such as the DG-Bank decided that the cooperative form impeded their growth, and simply switched their charter to that of a joint-stock corporation. The DG-Bank grew up within the cooperative system and still remains firmly anchored there, however. Most of its shares are held by other members of the cooperative group. In a few cases, part of the cooperative system bought a for-profit institution. This is the case, for example, with the purchase of IndoSuez by Crédit Agricole. IndoSuez was a very old bank, and Crédit Agricole purchased it as an investment. The same idea applies to the case where Crédit Agricole bought Dean Witter’s futures business. Finally, some cooperative groups have set up new businesses such as insurance by establishing a new firm that is a joint-stock corporation. The cooperative entities own a controlling share of the joint-stock firm.

**Q:** When a cooperative bank buys a for-profit bank, what happens to the profits generated by the for-profit entities?

*Unless otherwise noted, questions are from the colloquium audience and answers are from the researchers.
**A:** In a formal sense, the profits generated by a for-profit subsidiary of a cooperative bank are treated as any other form of net revenue. “Profits” to the for-profit entity accrue to the cooperative owner, and the cooperative owner can deal with them as it sees fit. From a less formal point of view, however, there have been some tensions caused by the purchase of for-profit institutions. The business press, for example, claimed that the directors of Crédit Agricole wanted to use IndoSuez as a source of revenue for the rest of the system, while the managers wanted to invest in it and use it as a springboard for further growth in international banking. These relationships do not always work smoothly.

**Q:** Cooperative banks in both Germany and France pay taxes. How can they accumulate reserves?

**A:** They accumulate reserves out of after-tax revenues, just like any firm. This accumulation process is slower than it would be otherwise, but remember that the cooperative banks in Germany and France are not as limited in their markets as are U.S. credit unions. They are also older than most U.S. credit unions, so they have had more time to build.

**Q:** We tend to think that taxes are always a bad thing. But in Germany and France we see credit unions that grow and thrive even though they are paying taxes. Would it be better for us if we paid taxes and were free to lend to a wider range of customers?

**A:** It would depend on the credit union. The larger ones would be able to make money by serving, for example, small and medium-size firms. At one point long ago the German credit unions had a choice: they could lend to members only, and be tax-exempt, or they could lend to virtually anyone and pay taxes. Most chose the latter, and their experience suggests that it’s a fair trade-off. In the U.S., that kind of trade-off would require new legislation and I would expect that bankers and others would have something to say about it.

**Q:** You said that in both Germany and France cooperative banks could offer services to both consumers and businesses? Wouldn’t that be a good idea here?
A: For federal credit unions that would require a regulatory change. All German credit cooperatives can offer commercial and consumer products. The French groups vary more, but the biggest ones there can, too. It's important to note that lending to farmers and small business was their original purpose, and personal loans came much later. For many small business people the distinction between a personal loan and a commercial loan is, as you know, artificial. Earlier someone noted that if a tradesman needs a truck for his business, that vehicle could also serve his personal transportation needs. There are advantages to the lender in dealing with both sides of someone's needs: if you have made a small-business loan to a plumber then you already know most of what you need to know when he or she applies for a car loan or a personal line of credit. The lender can make the commercial loan without a lot of additional information-gathering.

Q: We've talked about a common marketing strategy for credit unions, even a common credit union brand name. How have the Germans and French handled this?

A: In France the individual components of Crédit Agricole or Crédit Mutuel use the same trademarks and identification. As I noted, Crédit Agricole's credit unions have little autonomy, so for them the common brand is like Fleet Bank using the same symbol for all its branches. For the other parts of the French system the degree of centralization is not so great, but they still have trademarks. In Germany the situation is somewhat different, but amounts to having a common brand. There are some symbols that any German would recognize as pertaining to cooperatives: the double club, or the VR sign. Most credit unions incorporate these into their own logos, and most use the terms “Raiffeisen” or “Volksbank”, or sometimes both to indicate that they are part of the cooperative group. The Germans have created a web site (called “VR Net”) that allows the user to get to the web site of virtually any institution within the system. I can't tell you their usage statistics, but I know that Germans are big web-surfers, and by setting up this system they have made it very easy for someone to find the cooperative bank in their area, or to learn more about the various products offered through the cooperative group.
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