

The Separation of Banking and Commerce*

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In the wake of the passage of the Gramm-Leach-Bliley Act, the separation of banking from commercial activity is now one of the few remaining pieces of Depression-era banking law. In this article I explore the incentives that banks and commercial firms might have to affiliate. I also outline some of the reasons why legislators might be hesitant to permit such affiliations.

1. Introduction

On November 12, 1999, President Clinton signed the Gramm-Leach-Bliley Act (GLB) into law. This landmark legislation does much to unravel the influence of the Glass-Steagall Act on the United States' financial system. Now banks and other providers of financial services have far greater freedom to compete against each other. No doubt, the legislation will prompt an altering of the financial landscape in this country.

This article is not about the changes that will take place now that Glass-Steagall has been largely dismantled. Rather, this article focuses on the main piece of Depression-era financial legislation left intact by GLB—the forced separation of banking from nonfinancial activities.¹ This was hardly an oversight, as many of the architects of GLB argued purposefully for financial reform only on the condition that banking and commerce not be allowed to mix. Under the new act, a financial holding company can engage in only those nonfinancial activities that the Federal Reserve Board of Governors judges to be complementary to financial activity and that pose no threat to the safety and soundness of the depository institution subsidiary. Of course, banks now have the freedom to take equity in commercial firms through newly permissible merchant banking subsidiaries. But it is expected that banks will dispose of these equity claims within a reasonable window of time. Long-term control of commercial firms by banks is still restricted.

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1. See Mester (1992) and Saunders (1994) for earlier surveys of the banking and commerce debate.

I seek to answer two questions in this article. First, why might banks and commercial firms want to own each other? Would bank and nonfinancial firm mergers allow firms to capture operating, funding, or other informational efficiencies? Second, why are lawmakers so hesitant to allow banking and commercial relationships? In making the case for repealing the Glass-Steagall Act, proponents of reform argued not only that there were social benefits to allowing banks to affiliate with other financial services firms, but also that the costs of allowing these affiliations were now very low. It was thought that financial markets and the economy in general had evolved to the point where the Glass-Steagall restrictions were no longer relevant—if, indeed, they ever were. The fact that lawmakers enacted financial reform suggests that this argument has been largely accepted. But does the same argument extend to the debate over banking and commercial affiliations? This is the main policy question in the paper. Have markets evolved to the point where the bad outcomes that the law was intended to guard against are now preventable through market discipline and improved regulatory scrutiny?

These questions are some of the most basic in economics. Whether or not banks and commercial firms would want to own each other is just another version of the question, “What are the boundaries of the firm?” The perceived dangers associated with unions between banks and nonfinancial firms cuts right to the heart of the debate concerning the strength (or fragility) of the financial system and the need for a regulator to ensure fair play in certain markets.

The paper is organized as follows. Section 2 provides background information on the laws governing banking and commercial relationships. Section 3 outlines the possible benefits that could be derived from banking and com-

mercial firm unions. In short, I will argue that these benefits could come in the form of enhanced efficiency, be it operational efficiency or informational efficiency that could lead to lower funding costs for commercial firms. Section 4 addresses the potential dangers that could arise from banking and commercial affiliations. From a public policy perspective, the main fear is that these unions could stifle competition or lead to excessive risk-taking that would jeopardize the safety net. Section 5 concludes.

2. History, the Law, and Some International Comparisons

2.1. History

Historically, banks and commercial firms have been difficult to tell apart. Banking in England is said to have originated as an outgrowth of businesses such as goldsmithing and scrivenering (see Kindleberger 1993). Firms that we recognize today as banks originated as “merchant bankers” whose principal role was to support trading activity. Many famous private banking houses began in this way (for example, the Medici bank, Meyer Amschel Rothschild, and the House of Morgan). Banks such as Chase Manhattan and Wells Fargo first emerged as the finance arms of commercial enterprises.

Restrictions of the kind found in U.S. banking law have their antecedents in medieval Europe. Interestingly, many of the original arguments cited for separating banking and commerce still are offered as reasons for continuing the separation. Early banks in Venice were not permitted to engage in certain import-export activities or trade in commodities such as copper and linens, partly for fear that these activities were too risky and partly for fear that banks would dominate the trade. According to Shull (1999), the Bank of England’s charter forbade it from trading in merchandise. This clause apparently was inserted in order to placate British merchants who worried that the bank’s monopoly in creating bank notes would give it a competitive advantage in other commercial markets.

In this country, the separation of banking from commerce was largely a reaction to the perception that banks wielded a disproportionate amount of economic power in the period leading up to the stock market crash in 1929. In the early part of the 20th century banks played a major role in the industrial expansion by providing both financial and advisory services. Cantillo (1998) reports that in 1912 bankers sat on the boards of (and presumably exercised influence over) companies accounting for 56 percent of GDP. Chernow (1990) writes that Pierpont Morgan, using his position as a board member of various railroad com-

panies, tried to stabilize prices by encouraging competing lines not to encroach on each other’s territory.²

The seemingly ubiquitous presence of bankers in the economy probably led to their downfall. In the years between 1912 and 1915 there were concerted attacks against the “money trust” of bankers. The public’s suspicions about the undue influence of bankers may be summed up in the following story. Bankers sat on the boards of companies. From this position they could allegedly pressure companies into accepting expensive products and services from their banks. Also, the directors (who were bankers) allegedly could encourage the company to take actions that were not necessarily optimal from the stockholders’ point of view but were designed mainly to repay bank debt.

Most of the claims in this story have since been challenged. DeLong (1991) acknowledges that bankers such as J.P. Morgan did earn above-average fees for services. But DeLong tests whether Morgan provided above-average service in return for these fees and finds that the presence of a Morgan man on a firm’s board of directors had a positive effect on a firm’s stock price. Cantillo (1998) finds similar evidence of the value of a relationship with Morgan. He documents declines in the value of “Morganized” companies when bankers unexpectedly resigned from their board positions. Thus, while having a banker on the company board may have been expensive, the stock market perceived these relationships to have added value to the firm. Finally, Kroszner and Rajan (1994) show that the market understood the possible conflicts of interest between banks’ commercial and investment banking operations and demanded a discount on bank-underwritten debt issues relative to issues led by nonbank underwriters.

After the stock market crash and in the ensuing economic difficulty, banks had few political allies and were unable to avoid becoming scapegoats for the disaster. In 1933, the Glass-Steagall Act formally prevented banks from buying equities for investment purposes.

2.2. The Law

The separation of banking and commerce was codified in the Banking Act of 1933, also known as Glass-Steagall. This act defined in broad terms what types of securities commercial banks could hold.

2. Railroads were vulnerable to price-cutting by competitors who built parallel lines. Morgan tried to broker deals in which railroads agreed not to encroach on each other’s territory—i.e., Morgan encouraged price stability through the creation of cartels. The evidence suggests that he failed in these attempts.

The business of dealing in securities and stock by the [National Banking] association shall be limited to purchasing and selling such securities and stock without recourse, solely upon the order, and for the account of, customers, and in no case for its own account, and the association shall not underwrite any issue of securities or stock (12 U.S.C. 24).

Loopholes in the Glass-Steagall Act were quickly identified. The Glass-Steagall prohibitions applied only to commercial banks. Holding companies, which controlled both bank subsidiaries and nonbank subsidiaries, were not subject to the federal banking law unless they registered with the Federal Reserve—which most holding companies managed to avoid. Transamerica Corporation typified the far-flung scope of activities that could be housed under the same holding company structure, at one time engaging in banking, real estate, insurance, and even commercial fishing. These developments provoked the writing of a section in the Bank Holding Company Act of 1956 (12 U.S.C. 1843) prohibiting bank holding companies from acquiring “direct or indirect ownership or control of any voting shares of any company which is not a bank.” Amendments to the act in 1970 restricted banks to engage in only those activities judged to be related to banking by the Federal Reserve Board.

In the other direction, U.S. law permits nonbank financial firms and nonfinancial firms to acquire voting shares in banks. However, this stake cannot exceed 25 percent of the bank’s outstanding equity. Otherwise, the acquiring firm becomes a bank holding company and becomes subject to regulation by the Federal Reserve (12 U.S.C. 1841).³

2.2.1. *The Unitary Thrift and Other Loopholes*

While the separation between banking and commerce is strict in the United States, the separation is not absolute. It is legal for an individual to own controlling interests in both a bank and a commercial firm. Current law also allows both bank holding companies and national banks to hold up to 5 percent of the voting stock and up to 25 percent of the voting and nonvoting equity in any firm.

The best examples of U.S. depository institutions having the freedom to mingle with commercial firms come from the thrift industry.

3. In the 1970 amendments to the Bank Holding Company Act, banking was defined as the activity of accepting deposits and making commercial loans. This definition allowed commercial firms to buy “nonbank banks,” or institutions which did not meet one of the criteria to be considered a bank. Congress closed this loophole in 1986 and capped the future growth of the nonbank banks.

The Savings and Loan Holding Company Act of 1967 (12 U.S.C. 1467) outlines the powers for unitary thrifts (thrift holding companies that control only one savings bank) and multiple thrift holding companies. Unitary thrifts are permitted to invest in a wide array of financial enterprises. Apart from meeting the conditions for qualified thrift lender status, there are no explicit restrictions on the aggregate level of activity at a commercial affiliate of the unitary thrift.

Large firms such as Ford Motor Company and Sears Roebuck took advantage of the unitary thrift loophole and entered the industry in the 1980s. Since then, however, most of these firms have sold their thrifts, leading to speculation that these purchases were motivated more by a desire to capture tax losses at troubled thrifts than by a desire to secure a toehold in the financial services industry.

In 1997, approximately one-quarter of the existing unitary thrifts used their commercial powers to operate in real estate development and either insurance sales or underwriting. As Table 1 shows, aside from real estate and financial activities, there is little discernible pattern to the nonfinancial thrift affiliates.

In the years leading up to the passage of GLB, there were a large number of applications for unitary thrift charters, mainly from nonbank financial companies that may have been hedging against the failure of Congress to pass financial modernization. GLB eliminates the commercial powers of the unitary thrift for all applications received after May 4, 1999. The commercial powers of existing thrifts terminate if they are sold.

2.3. *International Comparisons*

In contrast to the U.S., other developed countries have a more permissive approach to banking and commercial affiliations.⁴ For example, Canadian banks can own as much as 10 percent of the voting stock of a nonfinancial firm, with aggregate holdings not to exceed 70 percent of the bank’s capital; likewise, a single investor is not allowed to control more than 10 percent of a bank’s shares.

Most members of the European Union adhere to the EC Second Banking Directive, which sets limits on the percentage of a bank’s capital that can be invested in nonfinancial firms. No limits are set on the actual percentage of a commercial firm that the bank can own. In the reverse direction, outside investors and commercial firms are free to control banks. The U.K. also complies with the Second Banking Directive. However, banks that own more than 20

4. See Barth, Nolle, and Rice (1997) for a discussion of bank regulation abroad.

Table 1
Nonbanking Activities of Unitary Thrift Holding Companies: 1997

Activity	Number of Thrifts Engaged	Activity	Number of Thrifts Engaged
Real Estate Development/Management	51	Car Rental	1
Insurance Sales/Underwriting	27	Dairy Farming	1
Equity and Fixed Income Investment	12	Data Processing	1
Broker-Dealer	8	Electric Utility	1
Hotel Owner-Operator	4	Energy Exploration	1
Mutual Fund Management	4	Entertainment	1
Pension Fund Management	4	Fast Food Operations	1
Financial Asset Management	3	Food-Bulk Sales	1
Manufacturing	3	Fuel Hauling	1
Telecommunications	3	Grocery Stores	1
Travel Agency	3	Management Services	1
Auto Sales	2	Movie Theatres	1
Canadian Credit Union League	2	Pharmaceuticals	1
Consumer Goods	2	Software	1
Convenience Stores	2	Title Abstract Company	1
Broker-Servicer	1	Transportation	1
Country Club Development	1	Waste Collection	1

Source: Office of Thrift Supervision, *Holding Companies in the Thrift Industry Background Paper*, April 1997

Note: There are 102 unitary thrift holding companies included in the above count. The same holding company may be counted for more than one activity.

percent of a nonfinancial firm must deduct that investment when calculating their risk-based capital. Commercial firms are free to buy banks, subject to the approval of the Financial Services Authority.

In Japan, the story is somewhat different. Japan's anti-monopoly law prevents banks from holding more than 5 percent of another firm's shares. However, the postwar Japanese economy has been dominated by loose-knit groups of firms (keiretsu) organized around a lead bank. It is not uncommon for keiretsu members to hold shares in each other. For most of the large keiretsu, such as Mitsubishi and Sumitomo, internal group holdings can account for as much as 25 percent of the total group equity. Thus, it is possible that a bank can informally control a much larger stake than 5 percent through the cross-holding structure.

In sum, European and Japanese banks have more commercial powers than do U.S. banks. I will refer to the behavior of banks in these countries when discussing the benefits of allowing banking and commercial firms to affiliate. These international comparisons are at once extremely useful and potentially misleading for the task at hand. On the useful side, such international comparisons represent data, without which our discussion of the benefits and costs of reform would be based mainly on speculation. But these comparisons cannot be taken too literally, either. Banking regulations are not the only points of difference between the countries being compared, with the

most obvious point of difference being the evolution of capital markets in the various countries.

3. The Potential Benefits of Banking and Commercial Affiliations

What are the boundaries of the firm? The not too helpful answer is that a firm will organize certain activities internally when doing so is cheaper than keeping those activities external to the firm. The mixing of banking and commerce can potentially come about in many different forms. Banks may want to enter nonfinancial activities, and commercial firms may want to enter banking. Banks may want to take an equity stake in a commercial firm, and likewise for commercial firms. The forms of mixing banking and commerce differ depending on the firms' and banks' motivations.

Much of the first part of this section is concerned with the ways that banks and commercial firms might combine to reduce operating costs or to increase revenues. In this discussion, the mixing of banking and commerce could take the form of banks (commercial firms) engaging in commercial (banking) activities, or simply buying companies (banks) that engage in these new activities.

The second part of this section concerns the role of information in determining the scope of the firm, which economists began to stress starting in the late 1970s. If information asymmetries make it difficult for a firm to

raise finance or to contract for the performance of some activity, then the theory states that the firm will internalize these activities (see Hart 1995). In this case, the mixing of banking and commerce takes the form of an equity investment.

3.1. *Operating Efficiencies*

First and foremost, mergers in any industry are thought to be a source of operating cost savings. These cost savings could come in two different ways. If an organization is able to lower the average cost of production by increasing the scale of production, then economies of scale are said to be present in the industry. Alternatively, if an organization is able to lower its average cost of production by increasing the scope of its operations, then economies of scope are said to be present.

Natural candidates for industries with economies of scale and scope are those where production entails large fixed costs, and banking certainly fits this description. Banks incur large fixed costs when setting up branches, computer networks, and data processing capacity. There also appear to be substantial fixed costs for banks seeking funding from capital markets.

The popular consensus in the banking industry in the 1990s has been that the chief aim of the merger wave was to realize economies of scale. This is reassuring because we should naturally expect to find economies of scale and scope in the banking industry before we conjecture that these economies exist in combined banking and nonfinancial activities, as well. However, establishing empirical evidence for the existence of scale and scope economies in banking has proved to be a surprisingly elusive task. Gillegan and Smirlock (1984) and Berger, Hanweck, and Humphrey (1987) find that commercial banks display economies of scale at low output levels but diseconomies of scale at high output levels. Mester (1987) finds no evidence of economies of scale in a sample from the savings and loan industry. Kwan and Wilcox (1999), however, present evidence that many of the gains in large mergers are obscured by accounting treatment.

These generally negative results are somewhat troubling, and tests for economies of scope at banks are no more encouraging. For the case of commercial banks, Gillegan and Smirlock find evidence of cost complementarities between the production of demand deposits and time deposits. But there appears to be little support to date for economies of scope in production of three or more outputs. Berger, Hanweck, and Humphrey find no evidence for economies of scope between demand deposits, time deposits, and loans (real estate, commercial, and installment). For the case of thrifts, Mester finds no evidence of

cost complementarities between loans (mortgage and other) and investments in real estate and securities.

The lack of scope economies in banking should not, however, lead one to conclude that there can be no cost complementarities between banking and other commercial activities. Quite simply, the experiment has yet to be conducted on a wide enough scale to reject the proposition out of hand. The strongest reason to believe that there are potential economies of scope is that commercial firms have entered into banklike activities already through finance company subsidiaries. These finance companies typically use the parent firm's knowledge of the product or the product demand as a funding advantage over traditional lenders.⁵

Another reason to believe in potential scope economies is that changes in technology have resulted in changes in banks' cost structures that might have taken place in other industries as well. Most of the existing studies try to detect scope economies in the joint production of traditional bank products. But to this author's knowledge, there have been no serious studies of how a bank might better deploy its networking capability, its data processing expertise, or the real estate that is a bank branch.

There could be a limited opportunity, then, for banking and commercial affiliations where elements of the cost function now overlap. To be sure, these kinds of relationships do not have the same allure to investors as, say, unions between banks and investment banks or insurance companies. But there is abundant anecdotal evidence that banks are seeking out these relationships already. Some banks with on-line banking capability have proceeded to act as Internet service providers to their customers. Banks with excess capacity in data entry and printing or publishing have sought to offer these services to outside customers. There are even examples of banks leveraging their real estate by setting up coffee shops in their branches. The striking feature about these examples is how diverse they are. Evidently, banking and commercial affiliations (that are currently permissible) arise out of a confluence of a particular need for a service in a particular market and the ability of a particular bank to provide that service.

If banking and commercial affiliations are motivated by the desire to realize scope economies, then commercial firms should have the same reasons to affiliate with banks as given above. Thus, if the law permitted, we should be equally likely to observe commercial firms buying banks as we observe banks buying commercial firms. But many commentators believe that commercial firms would be

5. See Brennan, Maksimovich, and Zechner (1988) for a nice paper on how a commercial firm can use its finance company subsidiary to price discriminate.

aggressive competitors in banking. It is well beyond the scope of this paper to discuss whether banks are slower moving or less flexible than firms in commercial sectors. What might give credence to the viewpoint that banks would be likely merger targets is the potential for on-line delivery of banking services. For some types of banking services (e.g., payments processing) network externalities imply that the value of a product to a consumer is proportional to the total number of consumers. It is plausible that companies with established on-line networks would want to add banking services to their customers to facilitate e-commerce.

3.2. *Informational Efficiencies*

Much of the current research on firm organization focuses on the informational problems in the economy. This research program has done much to shed light on what kinds of informational problems can be overcome by what kinds of contracts. For the purposes of studying banking and commerce, one of the more important products of this research is a justification for the existence of financial intermediaries. If investors need to monitor firms in order to verify their output, and if monitoring is expensive, then it is efficient for investors to invest their capital through an intermediary (a bank), which then monitors on behalf of everyone. Townsend (1979) and Diamond (1984) prove that the debt contract is the optimal investment contract in such a setting.

Since then, many researchers have constructed models where intermediaries have incentives to take more complicated, state-contingent claims.⁶ But the Townsend and Diamond result provides an important intuitive benchmark. If the assumptions of their models are realistic, then banks should have no desire to take equity claims in a firm.

There are two particular assumptions in the Townsend and Diamond models that deserve closer inspection. First, the monitoring scheme in their models is deterministic, meaning that there is no ex-post renegotiation of contracts. A second important assumption concerns the type of informational problem in the economy: Investors have difficulty verifying the firm's output, but there is no need to verify effort, evaluate the relative risks of alternative investment projects, or judge a firm's managerial performance on an ongoing basis. Both of these assumptions represent simplifications of the real world, and relaxing these assumptions is a natural way to explore the possibil-

ity that banks might have informational reasons to affiliate with commercial firms.

We turn first to the monitoring scheme. It is easy to find real world examples where lenders do not automatically force defaulted borrowers into bankruptcy but choose to renegotiate instead.⁷ In the U.S., banks frequently swap debt for equity when borrowers become distressed. James (1995) studies the characteristics of bank participation in corporate restructurings between 1981 and 1990 and finds that banks take equity in approximately 30 percent of restructurings. Banks are selective in their equity holding, agreeing to swap debt for equity only when subordinated creditors also restructure their debt. This finding is interpreted to be consistent with the story that banks, which are senior creditors, are loath to restructure when too many of the benefits accrue to the less-secured creditors. Another interesting finding is that banks tend to take equity in firms that have good growth options.

If banks are willing to renegotiate debt for equity when a firm is in danger of filing for bankruptcy, is it possible that banks would want this option at an earlier stage? Historically in the U.S., there have been limitations on how much of such a renegotiation could take the form of equity. Thus, it is useful to look abroad for examples of this behavior. In Japan, we observe that banks actually specialize in leading restructurings. Hoshi, Kashyap, and Scharfstein (1990) study a sample of Japanese firms that enter financial distress and find that firms with keiretsu membership are more likely to emerge from financial distress than firms with no formal group or bank relationships. The reason, the authors argue, is that distressed firms within the keiretsu can borrow and then invest more than the stand-alone firms do. Thus, the formal bank relationship appears to have aided distressed firms when raising capital. The authors offer this finding to explain why Japanese firms were so much more highly leveraged than U.S. firms during the 1980s. Of course, dependence on bank debt can have its drawbacks when the banks themselves fall into distress. Kang and Stulz (2000) document how Japanese firms with greater proportions of bank debt invested less than firms without such bank dependence between 1990 and 1993.

The easing of financial constraints through equity holding is made possible by the flow of firm-specific information. An insider bank can make more accurate assessments of the risks facing the firm than an arm's-length bank can. But once banks have insider status, it is possible that they

6. Notably, Bester and Hellwig (1987), Pozdena (1991), and Santos (1997).

7. Mookherjee and P'ng (1989) show that when a principal is risk-neutral and an agent risk-averse, then optimal monitoring should be stochastic, not deterministic. Further, given stochastic monitoring, the optimal contract is never a debt contract.

can provide additional services. Corporate control is allegedly one of the principal roles played by German banks. German banks typically hold voting shares of commercial firms as part of their long-term portfolios. The voting power of these shares is enhanced by the fact that German banks often serve as proxies for small shareholders. Banks also take a more formal role in firm affairs through their membership on supervisory boards.

Gorton and Schmid (1996) provide empirical support for the proposition that equity block holdings by German banks led to improved firm performance in the year 1974, while block holdings by nonbank firms did not lead to improved performance. In 1974, at least, German banks were “special.” By 1985 however, this advantage over nonbanks had disappeared. Firms with large blockholders still outperformed firms with more diffuse ownership structures, but the source of this superior performance could no longer be attributed to banks. Gorton and Schmid attribute these results to the fact that the efficiency and liquidity of the German capital markets improved over the course of the study. Evidently, German banks were good at providing corporate control at a time when, for whatever reason, the capital markets failed to do so.

The U.S. stock market is thought to be least efficient and least liquid in the small cap segment. A large proportion of small businesses are not even publicly traded. The question arises whether U.S. banks, if permitted, would want to play a role in corporate control for these small firms.⁸ Kroszner and Strahan (1998) acknowledge that banks may have the economic incentives to play a role in corporate control, but claim that banks still face legal deterrents. They point out that the Bank Holding Company Act has long permitted bankers to sit on the boards of nonfinancial firms. Bankers, however, have exercised a fair degree of caution about which boards they sit on. Specifically, bankers sit on the boards of companies that are large, have low volatility, and have high ratios of tangible assets to total assets. The authors claim that this fact can be explained by the legal doctrines of equitable subordination and lender liability. A director (who is a banker) deemed to have made decisions that contributed to a firm’s bankruptcy can be held liable to creditors. From a bank’s perspective, this means not only that the bank could be named in a lawsuit, but also that the bank could lose its status as a senior creditor.

The equity claim provides its holder with information and voting power over the issuer of that claim. Unlike the operational reasons cited in the previous section, all of the in-

formational reasons suggested for bank affiliations with commercial firms have called for one-way ownership—banks should acquire equity stakes in commercial firms, not the other way around.

To conclude this section, I note that more has been written on the potential informational incentives for banks to affiliate with commercial firms than on the operating efficiency incentives. In some respect, this bias is natural, as the former topic is more amenable to theoretical research, and the latter is difficult to comment on without data. The historical record in the U.S. and research about the role of banks in Germany and Japan all suggest that bankers have stepped in to solve the informational problems between firms and investors. At the same time, few would argue that differences in per capita wealth and other measures of prosperity between the U.S. and Germany and Japan can be attributed to differences in the degree of commercial power enjoyed by banks in the different countries. Informational asymmetries between investors and firms seem to get solved eventually—if not necessarily by banks.

4. The Potential Costs of Banking and Commercial Affiliations

Policymakers should have no objections to mergers that lower operating costs or improve the flow of information between firms and their investors. The objections focus instead on potentially adverse outcomes that could arise from bank and nonfinancial firm affiliations. At the heart of these objections are fears that banks may have incentives to behave badly and possibly defraud other market participants. If banking markets or commercial markets are not perfectly competitive, then there is a possibility that a bank or commercial firm earning rents in one market can exploit this advantage in the other. Perhaps the most serious regulatory problem posed by banking and commercial affiliations arises because banks are partially subsidized by their access to the federal safety net and might have incentives to shift the risk from their commercial operations to the government.

4.1. Conflict of Interest

It is not hard to imagine scenarios where bank dealings with commercial firms could be marred by conflicts of interest. For example, as was widely suspected at the time of the Glass-Steagall Act’s passage, banks potentially could help firms issue bonds and use the funds to pay off their bank loans, all to the advantage of the bank and the disadvantage of the bondholders. Bankers also could use their

8. Even though banks have expanded merchant banking powers under GLB, banks are not permitted to take part in the day-to-day operations of firms in which they have taken equity.

knowledge as insiders at a firm to trade profitably in the firm's securities.

Some of these concerns have been analyzed more formally. Berlin, John, and Saunders (1996) show that banks might have incentives to hold equity in financially distressed firms if banks could fool the market during a restructuring. This deception could take the form of the bank misrepresenting the true state of affairs at a company and profiting by the subsequent market overvaluation. Boyd, Chang, and Smith (1997) present a model where a bank might have the incentive to hold equity if equity ownership enabled the bank to share with management the consumption of perquisites or diverted funds.

Whether these bad outcomes would actually materialize in a world where banks have commercial powers is an open question. In Kroszner and Rajan (1994), there is evidence that, prior to Glass-Steagall, securities underwritten by banks were discounted in the market relative to securities underwritten by nonbanks. One lesson that can be drawn from Kroszner and Rajan's work is that whenever the market perceives a possibility of fraud or conflict of interest, that risk will be priced. Also, much of the incentive for bad behavior cited in the papers above would be balanced by the need for the bank to preserve its reputation. That said, there exist countless examples where market discipline was unable to deter fraud by an institution or, particularly, by an individual within that institution.

4.2. *Competition*

One of the chief reasons for originally separating banking and commerce was a desire to curtail the amount of economic power in bank hands. It has been a relatively new phenomenon for firms to tap capital markets directly for financing. With banks having control of one of the most important factors of production—capital—there was a fear that a bank with a substantial equity stake in a firm might deprive the firm's competitors of financing in order to earn a greater return on its equity investment. Such behavior would be profitable if the additional return on the equity investment exceeded the opportunity cost of denying the loans. This story can readily be extended to include the bank providing cheap finance to the firm's suppliers and customers or withholding finance to the competition's suppliers and customers.

One must ask under what circumstances a bank would behave this way and whether a bank's actions would have a detrimental effect on the economy. The answer to the second question is obvious. Any successful attempt to stifle competition leads to distortions and a misallocation of resources. As for the first question, however, banks would

engage in this type of behavior only in a setting where competition was already imperfect. Firms being discriminated against must not have alternative sources of finance.

In previous eras it has been clear that there have not been enough banks to ensure competitive practices. Indeed, many of the early European banks were granted monopoly bank charters. In the United States, there are a large number of depository institutions and, with the adoption of interstate branching, competition would seem to be strong. But at the same time there has been a steady trend of consolidation in the banking industry over the past 20 years.⁹ Local banking markets are becoming more concentrated, and there does appear to be evidence that this concentration results in less than perfectly competitive banking markets. In retail banking, Hannan and Liang (1991) reject the hypothesis that banks are price-takers in the market for demand deposits and for money market deposit accounts. They also find evidence that banks wield relatively more market power in small, concentrated banking markets.

But one must be cautious before extending these results to other markets, such as the market for commercial loans. Empirically, it is difficult to duplicate Hannan and Liang's study for commercial loans because it is difficult to define price-taking behavior. Loans are differentiated commodities, potentially differing by price, risk, term, and type of collateral. What is clear, however, is that the number of financial institutions making these types of loans has increased even while the number of banks serving these markets has declined. Newly available data on small business lending typically reveal that there are far more small business lenders in a given market than there are banks with full service branches (see Beauchamp and Krainer 1999).

In short, even though the banking industry appears to be consolidating, it does not immediately follow that this consolidation will have a negative impact on firms' access to credit. Indeed, much of the rationale behind banking consolidation quoted in the popular press suggests that banking consolidation is a reaction to increasing nonbank competition.

4.3. *The Safety Net*

Perhaps the greatest source of risk in allowing banking and commerce to mix is the threat to the safety net. Federal deposit insurance covers the accounts of depositors up to

9. See testimony of Governor Laurence Meyer (1998).

\$100,000. There are, of course, examples where regulators have declared certain institutions “too-big-to-fail” and provided total insurance to depositors. Another component of the safety net is the Federal Reserve’s discount window. If banks are having difficulty meeting their overnight reserve requirements or are suffering from some short-term drain on their liquidity, the Fed lends to these banks at the discount rate. Yet another feature of the safety net is a bank’s access to the payments system through Fedwire—particularly, the ability of banks to run daylight overdrafts with the Federal Reserve.

The significance of the safety net to this discussion is that it renders the bank’s liabilities less risky, allowing banks to raise funds at reduced rates. At first glance, subsidized borrowing appears to be a simple transfer from the public to the bank, no different from a tax break that lowers the bank’s costs. If the bank is located in a holding company and is allowed to lend to the parent or to upstream dividends, then the subsidy escapes the bank and can potentially be shipped to other subsidiaries in the holding company.

Problems begin to emerge when one fleshes out the competitive environment in which the holding company subsidiaries operate. Consider a simple example where a holding company controls both a bank and a commercial firm and exports the bank’s funding subsidy to the commercial firm. Competition in the commercial firm’s product market should cause the firm to pass on its lower costs to its customers. The amount of subsidy that leaks out will depend on the demand for the commercial firm’s products. If demand is elastic, then a drop in price will coincide with a demand for higher quantities. This is the fear of many regulators. Allowing the safety net subsidy to trickle out of a bank will result in an enlarging of the absolute value of the subsidy passed on from the government to the private sector.

While a holding company could shift subsidized funds to its commercial affiliate, it also could shift bad assets from the commercial affiliate to the banking affiliate. A bank could buy assets from the affiliate at inflated prices, or it could lend money at below-market rates in order to effect a capital infusion to the affiliate. Walter Wriston, the former head of Citibank, is quoted as saying that it was “inconceivable that any major bank would walk away from any subsidiary of its holding company” (1981).

To be sure, some of this behavior would be against the law. Transactions between a bank and its affiliates are governed by Sections 23A and 23B of the Bank Holding Company Act. Briefly, Section 23A limits the amount of loans to affiliates, investments in affiliate securities, and other “covered transactions” to 10 percent of a bank’s cap-

ital plus surplus. Section 23B charges that all bank transactions with an affiliate must be at arm’s length. If anything, Sections 23A and 23B would be bolstered in anticipation of banking and commercial affiliations. However, many (notably Corrigan 1987) question whether it ever will be feasible to construct Section 23 firewalls with no loopholes.¹⁰

Regulators are understandably anxious not to extend the safety net beyond its current scope. At best, allowing an expansion of the safety net creates a competitive imbalance. At worst, links between banking and commercial firms would create incentives that would lead to a higher probability of the safety net being tested. Starting with Merton (1977), observers have pointed out that deposit insurance grants an option to banks, and when a bank is close to default, the way to maximize the value of this option is to increase risk. Commercial ventures provide a host of ways for firms to increase risk. Regulators try to temper these risk-taking incentives by monitoring banks and through formal examinations. Clearly, this supervisory task would be more difficult if banks had commercial affiliates. One of the primary implementation issues involved with the enactment of GLB is how financial holding companies will set aside regulatory capital to manage risk in their merchant banking and venture capital subsidiaries.

5. Conclusion

The banking and commerce debate is framed as a question of what are the benefits and what are the costs of permitting affiliations to take place. As is so often the case in weighing alternative policies, it is difficult to estimate these benefits and costs accurately without actually allowing the experiment to happen. History tells us that banks once had incentives to affiliate with commercial firms. But the modern-day economy, with its integrated financial markets, is so different from the economy before the Great Depression that it is unclear whether those same incentives exist today. Similarly, there are large structural differences between the United States and other countries that permit banking and commercial affiliations. Extrapolation from the experience of these other countries also might be misleading.

This survey has contended that the benefits of allowing banks and commercial firms to mingle are not likely to be

10. See Shull and White (1997) and Walter (1996, 1998) for further discussions of the efficiency of firewalls.

huge. Banks have many competitors that intermediate in credit markets, such as finance companies and securities firms. Presumably these competitors provide expertise similar to that of banks in solving informational problems. Now that banks possess expanded merchant banking and venture capital powers, calls for more freedom to hold equities long term have diminished.

By contrast, it appears promising that opportunities will arise for banks to affiliate with commercial firms in order to capture operating efficiencies and synergies. While these opportunities are likely to be available only on a small scale, it is also likely that these opportunities will continue to grow because changes in technology imply that

bank cost structures have become more similar to other firms' cost structures. GLB partially acknowledges these possibilities when it maintains that the Federal Reserve Board has the authority to define "those activities closely related to banking."

Even if the benefits of banking and commercial affiliations are likely to be felt on a small scale, it does not follow that the costs are also likely to be small. Policymakers have correctly identified worst-case scenarios where the federal safety net could be extended beyond the banking sector. While it is always desirable to let the market decide what kinds of industrial structures are optimal, care must be taken to ensure that the safety net is not exploited.

References

- Barth, J., D. Nolle, and T. Rice. 1997. "Commercial Banking Structure, Regulation, and Performance: An International Comparison." Economics Working Paper. Office of the Comptroller of the Currency.
- Beauchamp, J., and J. Kraimer. 1999. "Small Business Lending Patterns in California." *FRBSF Economic Letter* 99-03 (January 22).
- Berger, A., G. Hanweck, and D. Humphrey. 1987. "Competitive Viability in Banking: Scale, Scope, and Product Mix Economies." *Journal of Monetary Economics* 20, pp. 501-520.
- Berlin, M., K. John, and A. Saunders. 1996. "Bank Equity Stakes in Borrowing Firms and Financial Distress." *Review of Financial Studies* 9, pp. 889-919.
- Bester, H., and M. Hellwig. 1987. "Moral Hazard and Equilibrium Credit Rationing: An Overview of the Issues." In *Agency Theory, Information, and Incentives*, eds. G. Bamberg and K. Sprenn. Berlin: SpringerVerlag, pp. 135-166.
- Boyd, J., C. Chang, and B. Smith. 1997. "Moral Hazard under Commercial and Universal Banking." Federal Reserve Bank of Minneapolis Working Paper.
- Brennan, M., V. Maksimovich, and J. Zechner. 1988. "Vendor Financing." *Journal of Finance* 43, pp. 1,127-1,141.
- Cantillo, M. 1998. "The Rise and Fall of Bank Control in the United States: 1890-1939." *American Economic Review* 88(5) pp. 1,077-1,093.
- Chernow, R. 1990. *The House of Morgan: An American Banking Dynasty and the Rise of Modern Finance*. Touchstone Books.
- Corrigan, G. 1987. "A Framework for Reform of the Financial System." Federal Reserve Bank of New York *Quarterly Review* 12(2) pp. 1-8.
- DeLong, B. 1991. "Did J. P. Morgan's Men Add Value? An Economist's Perspective on Financial Capitalism." In *Inside the Business Enterprise: Historical Perspectives on the Use of Information*, ed. Peter Temin. Chicago: University of Chicago Press for NBER, pp. 205-236.
- Diamond, D. 1984. "Financial Intermediation and Delegated Monitoring." *Review of Economic Studies* 51, pp. 393-414.
- Gillegan, T., and M. Smirlock. 1984. "An Empirical Study of Joint Production and Scale Economies in Commercial Banking." *Journal of Banking and Finance* 8, pp. 67-77.
- Gorton, G., and F. Schmid. 1996. "Universal Banking and the Performance of German Firms." NBER Working Paper 5453.
- Hannan, T., and J. Liang. 1993. "Inferring Market Power from Time Series Data: The Case of the Banking Firm." *International Journal of Industrial Organization* 11(2) pp. 205-218.
- Hart, O. 1995. *Clarendon Lectures in Economics: Firms, Contracts and Financial Structure*. Oxford: Oxford University Press.
- Hoshi, T., A. Kashyap, and D. Scharfstein. 1990. "The Role of Banks in Reducing the Costs of Financial Distress in Japan." *Journal of Financial Economics* 27, pp. 67-88.
- James, C. 1995. "When Do Banks Take Equity in Debt Restructurings?" *Review of Financial Studies* 8(4) pp. 1,209-1,234.
- Kang, J., and R. Stulz. 2000. "Do Banking Shocks Affect Borrowing Firm Performance? An Analysis of the Japanese Experience." *Journal of Business* 73(1) pp. 1-23.
- Kindleberger, C. 1993. *A Financial History of Western Europe*. Oxford: Oxford University Press.
- Kroszner, R., and R. Rajan. 1994. "Is the Glass-Steagall Act Justified? A Study of the United States Experience with Universal Banking before 1933." *American Economic Review* 84 (September) pp. 810-832.
- Kroszner R., and P. Strahan. 1998. "Bankers on Boards: Monitoring, Financing, and Lender Liability." Working paper.
- Kwan, S., and J. Wilcox. 1999. "Hidden Cost Reductions in Bank Mergers: Accounting for More Productive Banks." Federal Reserve Bank of San Francisco Working Paper 99-10.
- Merton, R. 1977. "An Analytic Derivation of the Cost of Deposit Insurance and Loan Guarantees: An Application of Modern Option Pricing Theory." *Journal of Banking and Finance* 1, pp. 3-11.
- Mester, L. 1987. "Efficient Production of Financial Services: Scale and Scope Economies." Federal Reserve Bank of Philadelphia *Business Review* (January) pp. 15-25.
- Mester, L. 1992. "Banking and Commerce: A Dangerous Liaison?" Federal Reserve Bank of Philadelphia *Business Review* (May/June) pp. 17-29.
- Meyer, L. 1998. "Mergers and Acquisitions in Banking and Other Financial Services." Testimony before the Committee on the Judiciary, U.S. House of Representatives (June 3).
- Mookherjee, D., and I. P'ng. 1989. "Optimal Auditing, Insurance, and Redistribution." *Quarterly Journal of Economics* 104, pp. 399-415.
- Pozdena, R. 1991. "Why Banks Need Commerce Powers." Federal Reserve Bank of San Francisco *Economic Review*, pp. 18-30.
- Santos, J. 1997. "Debt and Equity as Optimal Contracts." *Journal of Corporate Finance* 3, pp. 355-366.
- Saunders, A. 1994. "Banking and Commerce: An Overview of the Public Policy Issues." *Journal of Banking and Finance* 18, pp. 231-254.
- Sharpe, S., 1990. "Asymmetric Information, Bank Lending, and Implicit Contracts: A Stylized Model of Customer Relationships." *Journal of Finance* 45(4) pp. 1,069-1,087.
- Shull, B. 1999. "The Separation of Banking and Commerce in the United States: An Examination of Principal Issues." OCC Economics Working Paper 99-1.
- Shull, B., and L. White. 1997. "Of Firewalls and Subsidiaries: The Right Stuff for Expanded Bank Activities." NYU Working Paper.
- Townsend, R. 1979. "Optimal Contracts and Competitive Markets with Costly State Verification." *Journal of Economic Theory* 21, pp. 265-293.
- Walter, J. 1996. "Firewalls." Federal Reserve Bank of Richmond *Economics Quarterly* 82(4) pp. 15-39.
- Walter, J. 1998. "Can a Safety Net Subsidy Be Contained?" Federal Reserve Bank of Richmond *Economics Quarterly* 84(1) pp. 1-20.
- Wriston, Walter. 1981. Testimony. Hearings before the Committee on Banking, Housing and Urban Affairs. U.S. Senate, Part II, 97th Congress, 1st Session, pp. 589-590 (October 29).