

Raskovich, Alexander

Working Paper

Should Banking Be Kept Separate from Commerce

Economic Analysis Group Discussion Paper, No. EAG 08-9

Provided in Cooperation with:

Expert Analysis Group (EAG), Antitrust Division, United States Department of Justice

Suggested Citation: Raskovich, Alexander (2008) : Should Banking Be Kept Separate from Commerce, Economic Analysis Group Discussion Paper, No. EAG 08-9, U.S. Department of Justice, Antitrust Division, Economic Analysis Group (EAG), Washington, DC

This Version is available at:

<https://hdl.handle.net/10419/202375>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

ECONOMIC ANALYSIS GROUP
DISCUSSION PAPER

Should Banking Be Kept
Separate from Commerce

By

Alexander Raskovich*
EAG 08-9 August 2008

EAG Discussion Papers are the primary vehicle used to disseminate research from economists in the Economic Analysis Group (EAG) of the Antitrust Division. These papers are intended to inform interested individuals and institutions of EAG's research program and to stimulate comment and criticism on economic issues related to antitrust policy and regulation. The analysis and conclusions expressed herein are solely those of the authors and do not represent the views of the United States Department of Justice.

Information on the EAG research program and discussion paper series may be obtained from Russell Pittman, Director of Economic Research, Economic Analysis Group, Antitrust Division, U.S. Department of Justice, BICN 10-000, Washington, DC 20530, or by e-mail at russell.pittman@usdoj.gov. Comments on specific papers may be addressed directly to the authors at the same mailing address or at their e-mail address.

Recent EAG Discussion Paper titles are listed at the end of this paper. To obtain a complete list of titles or to request single copies of individual papers, please write to Janet Ficco at the above mailing address or at janet.ficco@usdoj.gov. In addition, recent papers are now available on the Department of Justice website at http://www.usdoj.gov/atr/public/eag/discussion_papers.htm. Beginning with papers issued in 1999, copies of individual papers are also available from the Social Science Research Network at www.ssrn.com.

* Economist, U.S. Department of Justice. The views expressed do not necessarily reflect those of the U.S. Department of Justice. I thank Oliver Richard for suggesting this topic and for helpful discussions. I also thank Russ Pittman, Mike Sandfort and Angela Ting for helpful comments.

Abstract

In the U.S., unlike much of the rest of the world, the mixing of banking and commerce is largely prohibited. One exception is industrial loan companies (ILCs), state chartered depository institutions some of which are owned by commercial parents. In 2006, the FDIC put a moratorium on the chartering of new ILCs pending resolution of a controversy sparked by Wal-Mart's application to start up an ILC in Utah. Wal-Mart subsequently withdrew its bid. This paper reviews the major arguments that have been raised against the mixing of banking and commerce, finding most to be theoretically weak or lacking in empirical support, and discusses several efficiencies that may arise from the integration of banking and commerce.

1. Introduction

Beginning with the Depression-era Glass-Steagall Act, banking has largely been kept separate from commerce in the United States. While the Gramm-Leach-Bliley Act of 1999 lifted Glass-Steagall's prohibitions on banks engaging in insurance and securities underwriting, the wall separating traditional banking from commerce remains. For example, a soap manufacturer cannot own a bank, or vice versa. One notable breach in the wall involves industrial loan corporations (ILCs). These are depository institutions that, although chartered at the state level, have access to federal deposit insurance and are subject to FDIC oversight. Some ILCs are owned by commercial parents, such as GMAC, Target and GE Capital. In 2005, Wal-Mart's application for an ILC charter raised a storm of opposition from a number of quarters. The FDIC instituted a moratorium in 2006 on the chartering of new ILCs, pending review of the concerns raised by Wal-Mart's application, and has since extended the moratorium.

This paper reviews and evaluates some of the main issues raised in the ILC debate. At the outset, it is useful to parse the concerns raised by ILCs into two categories. First, ILCs are accorded different regulatory treatment from traditional banks. Abstracting for the moment from the question of whether mixing banking and commerce is inherently problematic, the asymmetric treatment of two categories of financial institution raises issues of its own. There are two such asymmetries: unlike traditional banks, ILCs (1) are not subject to consolidated supervision, and (2) are permitted to mix banking and commerce. Asymmetric treatment can give rise to “regulatory arbitrage,” in which resources flow from one part of the economy to another to take advantage of an artificial regulatory distinction. Greenspan (2006) summarizes the point:

“ The application of important public policies—such as those governing the proper mixing of banking and commerce and the role of consolidated supervision of banking organizations—should not depend on the location of

a banking institution’ s charter or the particular nomenclature used to identify the institution. Rather, these policies should be decided by Congress after a full and careful evaluation and then applied to all organizations.”

If, on balance, mixing banking and commerce is good for the financial system and the economy, then regulatory arbitrage that exploits the ILC “ loophole” tends to advance economic efficiency. But in this case efficiency could arguably be furthered by permitting all banking organizations to engage in commerce, not just ILCs. On the other hand, if mixing banking and commerce is detrimental to efficiency, then arguably ILCs should be subject to the same prohibition as traditional banks.

Hereafter, I set aside issues of asymmetric regulation and regulatory arbitrage to focus discussion on the more fundamental question of whether banking should be kept separate from commerce. In particular, consider a setting in which all banking organizations, including ILCs, are subject to consolidated supervision. What would be the effect of permitting banking organizations to engage in commerce, subject to antitrust review, as compared with a blanket prohibition on such mixing?

The second category of ILC concerns goes directly to this question. I evaluate three main concerns that have been raised about allowing banking and commerce to mix:

- Ownership ties with a commercial firm may lead a bank to foreclose competition by denying loans to rivals of its commercial affiliate.
- Deposit insurance is underpriced, yielding a subsidy. Ownership ties might allow an insured bank to export the subsidy to its commercial affiliate, thereby expanding the aggregate subsidy.
- Ownership ties would subject banks to the risks of their commercial affiliates, worsening the informational burden facing consolidated supervisors and threatening the stability of the financial system.

These concerns are reviewed in Section 2. Section 3 briefly discusses some of the potential benefits of permitting vertical integration between banking and commerce. Section 4 concludes.

2. Concerns with Mixing Banking and Commerce

2.1 Foreclosing Competition

Two concerns involving competition have been raised with regard to the integration of banking and commerce. The first is that banks may lend to their subsidiaries or parents on favorable or “ competitively unequal” terms, creating an unlevel playing field among commercial borrowers. The second is that banks may altogether deny funds to the rivals of their commercial subsidiaries or parents, thereby foreclosing competition if the rivals lack good alternative sources of credit.

With regard to the first concern, so long as commercial rivals have good alternative sources of credit, concerns with “ competitive inequality” in lending are misplaced. Not only is there nothing objectionable about a firm treating the internal movement of resources between divisions or affiliates differently from arm’ s length transactions, such differential treatment is essential to achieving efficiencies from vertical integration.

Coase (1937) first posed the question of why some transactions are organized within firms while others are carried out across markets. The answer, fundamentally, is that transactions tend to be organized in whatever way maximizes the gains from trade for the parties to the transaction. The closer coordination afforded within a firm may help to minimize transaction costs or foster incentives for the parties to undertake investments customized to their particular business relationship.

A simple example suffices to illustrate the broader point. Consider a bank that has significant market power in a local commercial loan market—though not so significant as to enable the bank to foreclose competition among commercial borrowers. The bank’ s market power will tend to be reflected in above-competitive interest rates the bank

charges on commercial loans negotiated at arm's length. Such high loan margins can generate inefficiencies, to the extent that they restrict the quantity of credit commercial borrowers obtain below what borrowers would demand at competitive loan rates.

If the bank then vertically integrates with a commercial borrower, inefficiencies in their credit transactions could be eliminated and joint profits increased by transferring credit within the integrated firm at the firm's cost of funds. As a consequence, the commercial affiliate would obtain additional funding from the financial parent. Final consumers would tend to benefit from such credit expansion. For example, the commercial affiliate might use the additional credit to fund a capital upgrade that lowers marginal cost or improves product quality. Although such changes put rivals of the commercial affiliate at some competitive disadvantage, consumers of the product tend to benefit through lower market prices or improved quality.

Turning to the second competitive concern, consider the case of a bank with substantial market power in commercial loans, sufficient to foreclose competition by denying credit to rivals of its commercial affiliate. By raising downstream rivals' credit costs, a foreclosure of competition accomplished through vertical integration could cause significant harm, as reflected in higher prices or lower quality in the downstream market.

One indication of the extent of competition in a market is the level of concentration among suppliers.¹ A common measure of concentration is the Herfindahl-Hirschman Index (HHI). The HHI can range from an upper value of 10,000, for the case of a single supplier with 100% market share, down to zero, as the number of suppliers expands without limit and individual shares decline toward zero.² Table 1 below reports HHI statistics for banking markets as defined by the Federal Reserve Board (FRB).³

1 For a more complete discussion of issues important to competition analysis, see U.S. Department of Justice and Federal Trade Commission, *Horizontal Merger Guidelines*, revised April 8, 1997. It is important to note that there are conceptual differences between the way the Federal Reserve defines banking markets and the *Guidelines* approach to market definition. The use of FRB markets in Table 1 is convenient because the data is readily available in this form.

2 The HHI is calculated as the sum of squared market shares of market participants.

3 Where shares are measured by deposits held at local bank branches.

Table 1: Concentration in FRB Banking Markets

	<i>Rural</i>	<i>Urban</i>	<i>All</i>
<i>HHI</i>			
<i>Mean</i>	2957	1807	2657
<i>Median</i>	2509	1578	2230
<i>Organizations</i>			
<i>Mean</i>	6.9	21.6	10.8
<i>Median</i>	7	6	15
<i># Markets</i>	1202	424	1626

Source: Laderman and Pilloff (2007); data as of June 2001.

As Table 1 indicates, rural banking FRB markets tend to be more concentrated than urban ones. The median HHI of 2509 for rural FRB markets is equivalent to market participation by four symmetric banking organizations, each of which has 25% share of the local market. Shares are typically not symmetric, however. The median number of banking organizations participating in rural FRB markets is in fact seven. In contrast, the median urban HHI of 1578 is roughly equivalent to market participation by six symmetric banking organizations, each of which has 16% share.

Table 1 suggests that if, hypothetically, a banking organization in a rural FRB market were to vertically integrate and subsequently deny credit to the local rivals of its commercial affiliate, these rivals would typically have three to six alternative bank lenders to which they could turn.⁴ In such circumstances, attempting to foreclose rivals appears unlikely to be an effective or profitable strategy for a vertically integrated bank.

This is not to say that there can never be legitimate foreclosure concerns arising from the vertical merger of a bank and a commercial firm. But neither are foreclosure concerns limited to the banking industry. The relevant question is whether the risk of

⁴ An important caveat is that market shares based on local deposits may not adequately reflect banks' competitive significance in extending commercial loans.

vertical foreclosure is especially acute in banking, so much more so than in other industries as to trump antitrust review and warrant a blanket prohibition on the mixing of banking and commerce. The answer is “no.” In comparison with many other industries, banking appears neither exceptionally concentrated nor unusually susceptible to foreclosure risks.

2.2 Expanding the Safety Net Subsidy

A commonly voiced concern with mixing banking and commerce is that deposit insurance is underpriced, conferring a subsidy on banks, and that vertical integration could allow “the safety net subsidy to trickle out of a bank”⁵ into the coffers of its commercial affiliates, thereby expanding the aggregate subsidy. This concern raises two questions. Is deposit insurance in fact underpriced? If it is, how would vertical integration affect efficiency given the subsidy?

Is Deposit Insurance Underpriced?

Merton (1977) showed that the actuarially fair insurance premium can be estimated using the Black-Scholes options pricing formula, by treating deposit insurance as a put option on a bank’s loan portfolio. Applying this technique to 1979–80 data, Marcus and Shaked (1984) find that deposit insurance assesses a tax on banks, rather than a subsidy. Epps, Pulley and Humphrey (1996) obtain the same result using 1989 data. Whalen (1997), using 1996 data, estimates a small deposit insurance subsidy of between zero and 30 basis points. Once offsetting regulatory costs are factored in, however, Whalen (1997) suggests that deposit insurance may impose a net tax on banks.⁶ As Gorton and Rosen

⁵ Krainer (2000).

⁶ As Walter (1998) has noted, however, Whalen (1997) estimates the *total* regulatory costs facing FDIC insured banks, whereas only the *marginal* costs of regulation are relevant to loan extension decisions. Breaking out regulatory costs into fixed versus variable components is difficult, but fixed costs appear to predominate.

(1995) conclude, “ empirical research has not reached a consensus on whether deposit insurance is underpriced.”

Would Vertical Integration Export a Subsidy?

The “ trickling out” of any deposit insurance subsidy from banks to commercial firms occurs even in the absence of ownership ties. Insured deposits are banks’ primary input into the production of loanable funds. In a competitive industry, an industry-wide reduction in marginal cost is fully passed through to consumers in the form of lower output prices. Even a monopolist facing a downward-sloping, linear demand will find it profit-maximizing to pass along half of any marginal cost savings. Thus it seems likely that under the current regulatory regime much or all of any safety net subsidy is already trickling out to commercial borrowers. If banks supply commercial loans competitively, any subsidy would be fully passed through; vertical integration would engender no further trickling.

To the extent that banks exercise market power in commercial loans,⁷ however, vertical integration would tend to expand a bank’ s lending to commercial affiliates by eliminating the bank’ s markup on interest rates charged internally for loans. This prospect is sometimes decried as favoritism that would create an unlevel playing field in the downstream industry, but it is more properly viewed as a potential efficiency. Whether it is in fact an efficiency depends on the relative magnitudes of the safety net subsidy and the bank’ s margin on external loans. A subsidy tends to depress loan rates below the socially efficient level, while an exercise of market power tends to elevate rates above this level. How loan rates compare with the social optimum depends on the relative magnitudes of these countervailing effects.

The available evidence suggests that the safety net subsidy may be small, while market power in commercial lending may in some circumstances be significant. If the market power effect predominates, so that loan rates are above the social optimum on

balance, vertical integration would tend to improve efficiency by lowering loan rates.

If, on the other hand, the subsidy effect predominates, so that loan rates are inefficiently low, vertical integration would tend to worsen matters by further lowering rates. In this case, however, prohibiting integration would not be the best way to deal with the problem of excessively low loan rates. Maintaining regulatory restrictions to limit the banking industry's output would be an oddly roundabout way to counter the expansionary effects of a subsidy. A more direct approach would be to eliminate the subsidy, by pricing deposit insurance at the actuarially fair premium.

2.3 Weakening Financial System Stability

As discussed in Sections 2.1 and 2.2 above, the first two concerns with the mixing of banking and commerce are, upon examination, quite weak. In contrast, the third concern raises thornier issues. Allowing banking and commerce to mix would “make banks susceptible to the reputational, operational, and financial risks of their [commercial] affiliates” (Kohn, 2007). Further, commercial activities “provide a host of ways for [banking] firms to increase risk” (Krainer, 2000).

Banks are, of course, already susceptible to the risks facing their commercial borrowers. A bank's exposure to risk is currently limited, however, to non-repayment of outstanding loans. For an integrated bank, the insolvency of a commercial affiliate could have graver consequences for its own financial standing. Moreover, vertical integration with a commercial firm would give a bank a wider variety of hiding places in which to book poorly performing assets. All of this suggests that allowing banking and commerce to mix would require a consolidated supervisor to conduct more probing oversight of balance sheets and develop greater expertise in assessing risks in commercial ventures.

7 For some evidence on this point, see Hannan (1991) and Sapienza (2002).

On some dimensions, vertical integration clearly would increase a consolidated supervisor's informational burden. But it could lessen the burden in other ways. The oversight costs facing a consolidated supervisor depend on two categories of risk. The first is the fundamental riskiness, observable to the supervisor, of the types of activities in which banks are permitted to engage. The second is the severity of moral hazard problems with respect to aspects of risk that are observable to banks but not to the supervisor. The aggregate (observable) risk of a bank's asset portfolio can be reduced through diversification, while the severity of moral hazard can be reduced by increasing the equity capital banks have at stake. Vertical integration may help on both counts, as discussed presently.

The net effect of vertical integration on financial system stability is thus not clear as a matter of theory. Ultimately, it is an empirical question. One set of empirical results suggests that vertical integration bolsters financial stability. In their cross-country study, Barth, Caprio and Levine (2001) find that financial systems tend to be less stable where banks face greater regulatory restrictions on their ability to engage in commercial activity.

Allowing Portfolio Diversification

Saunders and Yourougou (1990), using stock return data for the period 1977–1981, find evidence that banks are “special” in the sense that their stock returns are more sensitive to changes in monetary policy than are the returns to commercial firms. This suggests that part of the interest rate risk banks face is diversifiable.

More generally, an investment portfolio that efficiently trades off risk and return would include a diversified mix of assets from sectors other than banking. Wall, Reichert and Liang (2007), using data on corporate tax returns over the period 1994–2002, find that the average return on assets for bank holding companies could be doubled—from 1% to 2%—with no increase in risk, by investing in a portfolio having 55% asset value in banking, 14% in retail, 13% in nonbank financial services, 8% in wholesale, and 6% in

construction. This suggests that tearing down the wall that separates banking from commerce could, by allowing diversification, lower banks' portfolio risks and so tend to limit risks facing the financial system.

Lessening Moral Hazard

The need for active supervision declines as prudential investment becomes incentive-compatible. One possible reform, as already discussed, would be to price deposit insurance at the actuarially fair level to eliminate any subsidy, given that subsidized insurance tends to encourage excessive risk taking. Vertical integration also has the potential to reduce moral hazard, in two ways. First, permitting integration would tend to raise bank profits, making bankruptcy liquidation more costly to holders of bank equity. Second, mixing commerce with banking would expose banks to the reputational capital of their commercial affiliates, which would subject holders of commercial equity to the costs of bank liquidation.

Raising Bank Profits

The present value of a bank charter is the expected stream of rents accruing to operations permitted under the charter. Broadening the scope of permitted operations may raise or lower charter value. A broadened scope of operations can increase the surplus generated by banking relationships, but if it also intensifies bank competition then banks will capture a smaller share of the surplus. The net effect of the deregulatory changes of recent decades, such as permitting banks to operate multiple branches and across state lines, has been to lower bank profits and devalue bank charters.

A bank charter is like a posted bond, forfeitable upon bankruptcy liquidation, that limits the bank's willingness to undertake risky ventures (Chan, Greenbaum and Thakor, 1986). Keeley (1990) finds cross-sectional evidence that banks with less market power tend to carry riskier loans on their books. The sharpening of bank competition that has resulted from past deregulation may thus have worsened moral hazard problems in

lending.

Rolling back deregulation to restrict bank competition, as a means of lessening moral hazard, is neither a practical nor desirable option. Extending deregulation to permit vertical integration between banks and commercial firms, on the other hand, would tend to raise bank profits while advancing economic efficiency by improving coordination between banks and commercial borrowers. The findings of cross-country studies are consistent with this conclusion: bank profits tend to be higher, all else equal, where restrictions on banks engaging in commercial activity are weaker (e.g., Barth, Caprio and Levine, 2001; Shen and Chang, 2006; Vander Venet, 2002). This suggests that allowing banking and commerce to mix in the U.S. might lessen moral hazard problems by increasing the value of bank charters.

Tapping the Reputational Capital of Commercial Firms

Allowing banking and commerce to mix would provide banks with opportunities to tap into the reputational capital of well established commercial firms. While the insolvency of a commercial affiliate could have grave consequences for a bank, the converse is also true: a bank's insolvency could gravely affect its commercial affiliate. Suppose, for example, that a prominent retailer such as Wal-Mart is allowed to own a bank and proceeds to set up branches within its stores, creating more opportunities for "one stop shopping." The integrated bank's customers would typically also be customers of the retailer's other products and services. If the bank were to become insolvent, with depositors experiencing disruptions in service, the retailer's overall reputation would be at risk. A retailer with a well established reputation would have powerful incentives to avoid this contingency.

The wall separating banking from commerce limits the ways in which the economy's stock of reputational capital can be efficiently harnessed. Permitting commercial equity holders to subject themselves to the risks facing banks might relax the burden facing consolidated supervisors by intensifying the private monitoring of bank

risks.

3. Potential Benefits of Mixing Banking and Commerce

There is a large theoretical and empirical literature on efficiencies that can arise with integration between a buyer and seller. Among other things, vertical integration may reduce transaction costs or improve incentives for relationship-specific investment. Permitting banking and commerce to mix may likewise generate efficiencies in the provision of financial services to commercial firms. Some of these potential efficiencies have already been discussed, such as (1) eliminating a double markup when the bank and commercial firm each have market power in their respective markets, (2) increasing portfolio diversification, and (3) lessening moral hazard by enhancing the value of bank charters. This section, while far from exhaustive, discusses some other efficiencies that may flow from the integration of banking and commercial activities.

Reducing Transaction Costs

Permitting vertical integration between banking and commerce might lower transaction costs in a number of ways. In its 2005 application to charter an ILC, for example, Wal-Mart claimed that it could realize substantial cost savings (in the hundreds of millions of dollars) by taking the processing of credit and debit card transactions in-house. Currently, Wal-Mart has an arrangement with First Data to perform such processing. Setting aside the claimed magnitude of potential savings, it is plausible that a large retail firm could achieve benefits by processing transactions internally. Doing so may, for example, allow for a degree of customization of transaction capture at the point of sale and back-office transaction routing that could be more difficult to accomplish when a retailer deals at arm's length with an independent data processing firm.

Second, consumers often seek to lower their transaction costs through one-stop-

shopping, as attested by the popularity of retail superstores and shopping malls. These benefits extend to the collocation of banking services alongside retail goods. Adams, Avery and Borzekowski (2008) study the deposit growth of banks that enter a geographic market by locating within a Wal-Mart store, as compared with banks that enter a market by other means. They find that banks located within Wal-Mart stores experience more rapid and sustained growth in deposits. While these bank branches are not owned by Wal-Mart, the Adams, Avery and Borzekowski (2008) empirical results are at least suggestive of the possibility that the closer coordination that ownership ties would afford might lead to even more effective exploitation of the one-stop-shopping benefits of adding financial services to the retail mix.⁸

Third, an internal capital market, created through the vertical integration of a bank with commercial firms, can also reduce transaction costs. Haubrich and Santos (2005) show that an internal capital market facilitates the disposition of assets seized in a loan default; asymmetries in information about asset quality can render such assets less liquid on an open market.

Monitoring Credit Worthiness

Allen and Berger (1995) find that small business borrowers with longer banking relationships tend to pay lower interest rates and are less likely to pledge collateral. This is consistent with the view that lending relationships generate valuable information about borrower quality. One mechanism through which such information may be generated is the lender's ability to directly view the borrower's inflows and outflows of cash when a line of credit is linked to a merchant banking account. Control rights could further a bank's ability to monitor the credit worthiness of a commercial affiliate.

⁸ In the face of vocal opposition to Wal-Mart's ILC application from the Independent Community Bankers Association, the retailer denied having any intention to eventually use its ILC to roll out in-store bank branches.

Exploiting Bank Reputational Capital

Allowing banking and commerce to mix might allow commercial firms to benefit from banks' reputational capital. This is well illustrated by the record of securities underwriting by banks, which was permitted by the Gramm-Leach-Bliley Act of 1999.

Initial public offerings (IPOs) are typically underpriced relative to the market value the stock attains shortly after the initial offering, yielding unusually high returns to initial investors. Firms that go public to raise capital are typically better informed of their prospects for success than are stock market investors. This gives rise to a lemons problem. Private firms with poorer than average prospects might especially gain from going public, cashing in with an IPO before information about the stock's true value is fully revealed to the market. On this view, IPO underpricing represents a discount demanded by wary investors.⁹

Schenone (2004) finds that underpricing is less severe¹⁰ for IPOs managed by banks that have a pre-IPO relationship with the firm going public. Through an ongoing lending relationship, a bank obtains information about a firm's credit risk. This information is also valuable in assessing the quality of the firm's IPO. Schenone (2004) posits that a bank managing an IPO for a firm with which it has a pre-existing relationship can credibly

9 Allen and Faulhaber (1989), Grinblatt and Hwang (1989) and Welch (1989) develop models in which IPO underpricing is a credible way for a firm to signal its quality to investors.

10 By about 17%.

convey its private information about IPO quality to investors.¹¹

The smaller extent of IPO underpricing for bank-managed IPOs appears to reflect the realization of a scope economy between securities underwriting and traditional banking due to more efficient exploitation of the bank's private information. As a result of this scope economy, many private firms have gained improved access to capital markets through the option of going public, allowing these firms to proceed with profitable projects that otherwise would have gone unfunded. Such improvement in the operation of the capital market spurs economic growth by facilitating innovation.

4. Conclusions

This paper has evaluated several concerns with permitting banking and commerce to mix, as well as several potential efficiencies. The concerns involve the potential for such mixing to allow (1) competition to be foreclosed, (2) a deposit insurance subsidy to be expanded, and (3) financial system stability to be weakened. Upon examination, concerns (1) and (2) are quite weak. While it is possible that, in limited circumstances, a bank may find it profitable to foreclose rivals of its commercial affiliate by denying them credit, the risk of foreclosure is not especially great in banking as compared with other industries, and provides no justification for a blanket prohibition on vertical integration in banking. With regard to a deposit insurance subsidy, the available evidence for its existence is mixed at best. Moreover, ownership ties are not necessary for such a subsidy to be passed through to downstream firms—competition accomplishes this too.

11 Repeat dealing provides powerful market incentives for firms to deal honestly with customers. The stream of profit a bank earns from managing IPOs is likely to be higher as a result of the bank's superior information about IPO quality, so long as IPO investors find the bank's claims credible. If the bank were to cheat investors with a false claim that an IPO it is managing is high quality, the bank would stand to lose a stream of future profits from the lucrative IPO business.

Even assuming that deposit insurance involves a subsidy and that vertical integration would result in excessive credit expansion, constricting the efficiency of banking relationships to limit output is not a good way to counter the subsidy's expansionary effects. A better solution would be to raise deposit insurance premiums to the actuarially fair level.

The third concern merits deeper consideration. Allowing banking and commerce to mix could subject banks to greater risks from the activities of their commercial affiliates, posing potential risks to the stability of the financial system. The informational burden facing consolidated supervisors would become heavier in a number of respects. However, vertical integration might also lighten this burden, both by affording banks greater opportunities to diversify risk and by lessening moral hazard problems. Vertical integration would tend to mitigate bank moral hazard both by increasing the value of bank charters and by encouraging private monitoring of bank risks by commercial affiliates. As a matter of theory, the net effect of vertical integration on financial system stability is not clear. The available international evidence suggests, however, that financial systems are more stable in countries where restrictions on the mixing of banking and commerce are lower.

If, on balance, vertical integration between banks and commercial firms were found to worsen the supervisory burdens facing bank regulators, these costs should be weighed against the potential efficiency gains of such vertical integration, which might be substantial.

Appendix 1: Industrial Loan Corporations

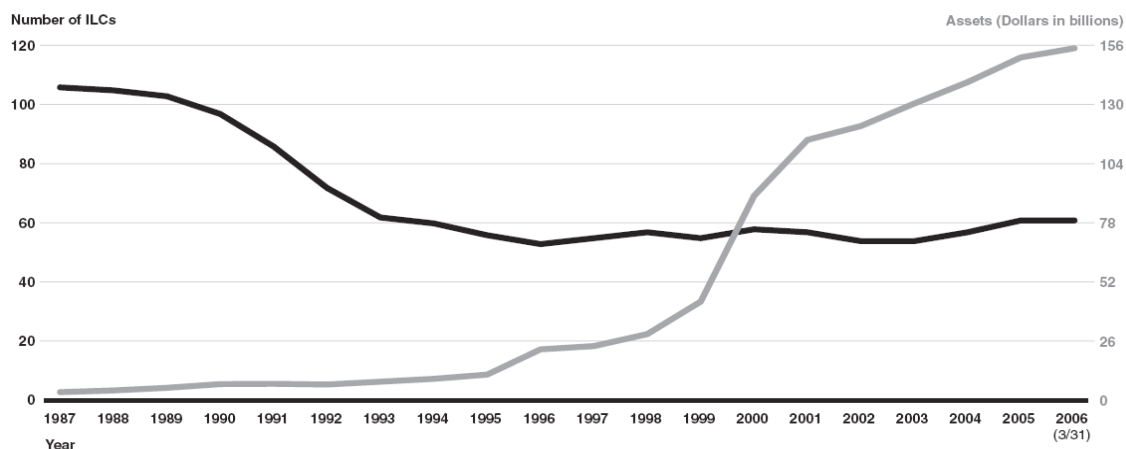
Beginning in the early 20th century, ILCs were chartered under state laws as institutions that provided unsecured loans to industrial workers. ILCs, along with other “nonbank banks” (such as unitary thrifts and credit card banks) that either did not take deposits or did not extend commercial loans, were exempt from the Bank Holding Company Act of 1956 (BHCA). Thus ILCs were (and many remain) subject to neither the BHCA’s requirement for consolidated supervision by a federal agency nor the BHCA’s prohibitions on banks engaging in securities underwriting, insurance and commercial activities. Originally, state laws prohibited ILCs from taking deposits, but this began to change in the 1950s. In 1982, ILCs gained FDIC deposit insurance with the passage of the Garn–St. Germain Act. This led to concerns that ILCs (and other nonbank banks) could access the federal safety net while avoiding the consolidated supervision of balance–sheet risks and prohibitions on business activity that the BHCA mandated for traditional banks.¹²

Critics have raised a number of concerns with ILCs’ exploitation of this regulatory “loophole.” As noted in the Introduction, it is important to distinguish two senses in which ILCs operate outside BHCA mandates. The first is that FDIC–insured ILCs, although operating under FDIC oversight, are not subject to *consolidated* supervision. A consolidated supervisor, such as the Fed, Office of Thrift Supervision, or Comptroller of the Currency, has the authority to examine a bank holding company’s books as well as those of any nonbank subsidiaries, regardless of whether any subsidiary has a business relationship with an insured bank within the holding company. In contrast, the FDIC’s authority to examine affiliates of an FDIC–insured bank is limited to what is necessary to disclose the affiliate’s relationship to the bank and the effect of this relationship on the bank. In particular, when there is no active business relationship between a bank and commercial affiliate, “any reputation or other risk presented by an affiliate that could

¹² This exception was largely closed in 1987 by the Competitive Equality Banking Act (CEBA), which placed most FDIC–insured nonbank banks under the regulatory requirements of the BHCA. However CEBA exempted FDIC–insured ILCs that met one of several criteria.

impact the [FDIC-insured] institution may not be detected” (GAO, 2005). Thus while ILCs have the same access to the federal safety net as do traditional banks, they are arguably subject to weaker oversight, and so may pose a greater risk to financial system stability. The second concern critics have raised is that ILCs, unlike traditional banks, are allowed to engage in commercial activities.

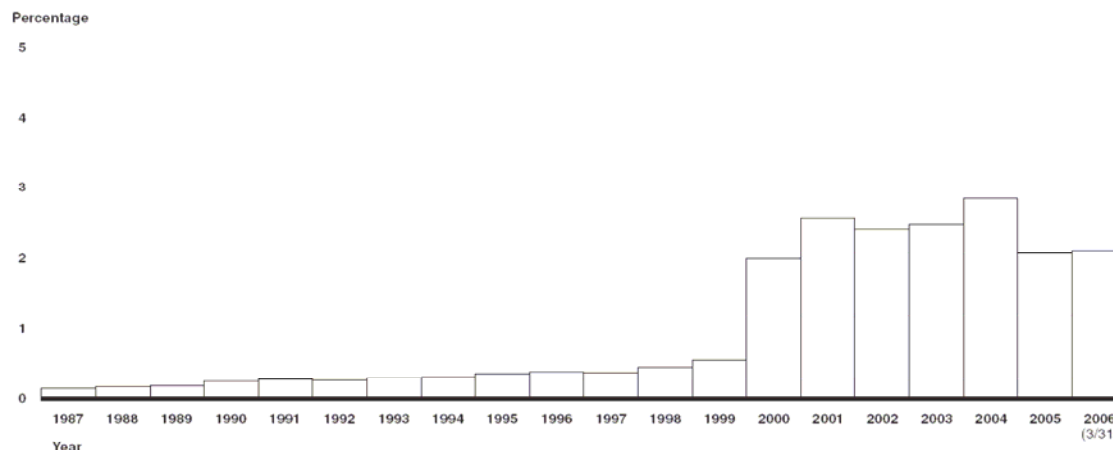
Figure 1: Number and Total Assets of ILCs



Source: GAO analysis of FDIC call report data, as presented in Hillman (2006).

ILCs remained small players in the banking industry for many decades, but as Figures 1 and 2 show, these institutions began to grow rapidly in the 1990s, in terms of both assets and insured deposits. Between 1987 and 2006, ILC assets grew from less than \$4 billion to more than \$155 billion (Figure 1). Deposits held by ILCs have grown sixfold since 1999. ILC deposits represented far less than one percent of all FDIC-insured deposits in 1987 but approached three percent by 2006 (Figure 2).

Figure 2: Percentage of Estimated FDIC Insured Deposits Held by ILCs



Source: GAO analysis of FDIC call report data, as presented in Hillman (2006).

About two-thirds of ILCs, comprising around 90% of ILC assets and deposits, are either independently owned or owned by large financial institutions such as Merrill Lynch, American Express and UBS.¹³ The remaining ILCs are owned by large commercial and retail firms such as GMAC, Target, GE Capital, BMW and Volkswagen. These commercially owned ILCs are used as financial arms by their parents in support of the parents' main retail or commercial operations.¹⁴

To put matters into perspective, commercially owned ILCs held on the order of 0.3% of FDIC-insured deposits in 2006.

13 Lloyd (2008), citing an analysis by the Utah Commissioner of Financial Institutions. The financial parents of ILCs use their ILCs to service brokerage accounts and extend loans backed by securities.

14 *Ibid.*

Appendix 2: Bank Competition and Manufacturer Entry

One set of empirical findings merits particular note because it is suggestive of competitive concerns that might arise with vertical integration in banking. Cetorelli and Strahan (2006) study a panel dataset of manufacturing establishments over the period 1977 to 1994. They find that, in manufacturing sectors that tend to be highly dependent on external finance,¹⁵ intensified bank competition in the wake of banking deregulation spurred entry of manufacturing establishments into local markets, increasing the number of such establishments by 11.6%. They also find that a reduction in bank concentration, from an HHI of 2400 down to 1400, is associated with a 4.6% increase in the number of external-finance-dependent manufacturing establishments operating in a local market.¹⁶ Cetorelli and Strahan (2006) cite a possible explanation for these empirical patterns:

“ The value of a bank’ s current lending relationships will depend on the future profitability of its borrowers, which in turn depends on prospective entry and growth of new competitors. A bank’ s incentive to support the profitability of its older clients could thus restrain its willingness to extend credit to potential industry entrants ... The less competitive the conditions in the credit market, the lower the incentive for lenders to finance newcomers.”

The potential for the mixing of banking and commerce to result in foreclosure is not directly addressed by Cetorelli and Strahan’ s (2006) empirics. If, however, the theoretical interpretation of their results presented in the quote above is correct, then it is plausible that vertical integration may harden a bank’ s unwillingness to finance entry by newcomers who would compete with the bank’ s commercial affiliate.

One shortcoming of Cetorelli and Strahan’ s (2006) analysis is that it takes no account of the geographic scope of manufacturing industries. Their unit of analysis is a

15 The extent of financial dependence on banks depends in part on industry-specific technological factors such as capital intensity, scale economies and the gestation and cash-harvest periods of projects (Rajan and Zingales, 1998).

state in a given year; they find that states with lower mean concentration in local banking markets¹⁷ have a somewhat larger number of external-finance-dependent manufacturing establishments per capita. To interpret this result as reflecting a foreclosure effect from bank concentration, Cetorelli and Strahan (2006) implicitly assume that manufacturing markets are no larger than states. But many manufacturing markets are in fact regional, national or even international in scope.¹⁸

To see the nature of the problem, suppose that the interest rates banks charge on commercial loans tend to increase with local bank concentration. In the long run, small manufacturing businesses are mobile and some can be expected to migrate to states where funding costs are lower. Such migration may represent exit from some manufacturing markets and entry into others. Alternatively, the migration may occur within a given manufacturing market. In the latter case, the competitive positions of established bank clients are unaffected, so identifying the business migration with a foreclosure effect would be inappropriate. It is possible that Cetorelli and Strahan's (2006) empirical result on concentration reflects a shift in the distribution of manufacturing establishments across state lines rather than a reduction in the number of rivals operating within any given manufacturing market.

More fundamentally, if manufacturing markets do have fewer competitors where local bank concentration is higher upstream, one need not appeal to foreclosure to explain such a pattern. The exercise of market power involves a restriction in quantity that raises price. An exercise of market power by banks—restricting the availability of credit to increase its price—may result in a higher marginal cost or lower quality of manufactured goods downstream. If so, the quantity of downstream goods demanded by consumers will tend to fall. Given an optimal scale of production, a decrease in quantity

16 This finding is consistent the view that deposit-based HHIs have explanatory power for the intensity of competition in small business lending.

17 Cetorelli and Strahan (2006) calculate a banking HHI for every metropolitan statistical area (MSA), then take a weighted average across MSAs within a state to obtain the state's HHI figure.

demanded tends to reduce the number of manufacturing establishments in operation.

Any exercise of market power upstream market can in principle have such downstream effects, regardless of whether upstream firms have any ability to foreclose downstream competition. Typically, a loss in competition downstream tends to harm upstream firms that have market power, cutting into their profits by worsening the problem of double marginalization.

18 A manufacturing firm's dependence on local bank finance does not necessarily imply that in selling its product the firm faces competition primarily from local manufacturers.

References

- Adams, R.M., Avery, R.B., and Borzekowski, R. “ The Value of Location in Bank Competition: Examining the Effect of Wal-Mart Branches,” (forthcoming) Federal Reserve Bank of Chicago *Proceedings of the 43rd Annual Conference on Bank Structure and Competition: The Mixing of Banking and Commerce*, 2007.
- Allen, F., and Faulhaber, G.R., “ Signaling by Underpricing in the IPO Market,” *Journal of Financial Economics* 23, 1989, 303-323.
- Barth, J.R., Caprio, G., and Levine, R., “ Banking Systems Around the Globe: Do Regulations and Ownership Affect Performance and Stability?,” Chapter 2 in F.S. Mishkin (editor), *Prudential Supervision: What Works and What Doesn't*, University of Chicago Press, 2001.
- Berger, A.N., and Udell, G.F., “ Relationship Lending and Lines of Credit in Small Firm Finance,” *Journal of Business* 68(3), 1995, 351-381.
- Cetorelli, N., and Strahan, P.E., “ Finance as a Barrier to Entry: Bank Competition and Industry Structure in Local U.S. Markets,” *Journal of Finance* 61(1), February 2006, 437-461.
- Chan, Y.S., Greenbaum, S.I., and Thakor, A.J., “ Information Reusability, Competition and Bank Asset Quality,” *Journal of Banking and Finance* 10(2), June 1986, 242-253.
- Chan, Y.S., Greenbaum, S.I., and Thakor, A.J., “ Is Fairly Priced Deposit Insurance Possible?” *Journal of Finance* 47(1), March 1992, 227-245.
- Epps, T.W., Pulley, L.B., and Humphrey, D.B., “ Assessing the FDIC's Premium and Examination Policies Using ‘ Soviet’ Put Options,” *Journal of Banking and Finance* 20, May 1996, 699-721.
- Gorton, G., and Rosen, R., “ Corporate Control, Portfolio Choice, and the Decline of Banking,” *Journal of Finance* 50, December 1995, 1377-1420.
- Government Accountability Office, “ Industrial Loan Corporations: Recent Asset Growth and Commercial Interest Highlight Differences in Regulatory Authority,” GAO-05-

621, September 2005.

Greenspan, A., *Letter to Congressman James A. Leach*, January 20, 2006.

Grinblatt, M., and Hwang, C.W., “ Signaling and the Pricing of New Issues,” *Journal of Finance* 44, 1989, 393–420.

Hannan, T.M. “ Bank Commercial Loan Markets and the Role of Market Structure: Evidence from Surveys of Commercial Lending,” *Journal of Banking & Finance* 15(1), February 1991, 133–149.

Hao, L., Nandy, D.K, and Roberts, G.S., “ How Bank Regulation, Supervision and Lender Identity Impact Loan Pricing: A Cross–Country Comparison.” (forthcoming) Federal Reserve Bank of Chicago *Proceedings of the 43rd Annual Conference on Bank Structure and Competition: The Mixing of Banking and Commerce*, 2007.

Haubrich, J.G., and Santos, J.A.C., “ Banking and Commerce: A Liquidity Approach,” *Journal of Banking & Finance* 29(2), February 2005, 271–294.

Hellmann, T., Lindsey, L., and Puri, M., “ Building Relationships Early: Banks in Venture Capital,” *Review of Financial Studies* 21(2), 2008, 513–541.

Hillman, R.J., *Testimony Before the Subcommittee on Financial Institutions and Consumer Credit, Committee on Financial Services, U.S. House of Representatives* (GAO–06–961T), July 12, 2006.

Keeley, M.C., “ Deposit Insurance, Risk, and Market Power in Banking,” *American Economic Review* 80(5), December 1990, 1183–1200.

Kohn, D.L., *Testimony Before the Committee on Financial Services, U.S. House of Representatives*, April 25, 2007.

Krainer, J., “ The Separation of Banking and Commerce,” Federal Reserve Bank of San Francisco *Economic Review*, 2000, 15–25.

Kroszner, R.S., “ The Legacy of the Separation of Banking and Commerce Continues in Gramm–Leach–Bliley,” Federal Reserve Bank of Minneapolis *The Region*, June 2000.

- Kroszner, R.S., and Rajan, R.G., “ Is the Glass–Steagall Act Justified? A Study of the U.S. Experience with Universal Banking Before 1933,” *American Economic Review* 84(4), September 1994, pp. 810–832.
- Laderman, E.S., and Pilloff, S.J., “ Using County-Based Markets to Support and Federal Reserve Markets to Implement Bank Merger Policy,” *Journal of Competition Law and Economics* 3(1), March 2007, 127–148.
- Lloyd, Z.J., “ Waging War with Wal-Mart: A Cry for Change Threatens the Future of Industrial Loan Corporations,” BE Press, 2008.
- Mach, T.L., and Wolken, J.D., “ Financial Services Used by Small Businesses: Evidence from the 2003 Survey of Small Business Finances,” *Federal Reserve Bulletin*, October 2006, A167–A195.
- Marcus, A.J., and Shaked, I., “ The Valuation of FDIC Deposit Insurance: Empirical Estimates Using the Options Pricing Framework,” *Journal of Money, Credit and Banking* 16, November 1984, 446–460.
- Merton, R.C., “ An Analytic Derivation of the Cost of Deposit Insurance and Loan Guarantees,” *Journal of Banking and Finance* 1, June 1977, 512–520.
- Petersen, M.A., and Rajan, R.G., “ The Benefits of Lending Relationships: Evidence from Small Business Data,” *Journal of Finance* 49(1), March 1994, 3–37.
- Petersen, M.A., and Rajan, R.G., “ Does Distance Still Matter? The Information Revolution in Small Business Lending,” *Journal of Finance* 57(6), December 2002, 2533–2570.
- Rajan, R.G., “ Insiders and Outsiders: The Choice between Informed and Arm’s–Length Debt,” *Journal of Finance* 47(4), September 1992, 1367–1400.
- Rajan, R.G., and Zingales, L., “ Financial Dependence and Growth,” *American Economic Review* 88(3), June 1998, 559–587.
- Sapienza, P. “ The Effects of Banking Mergers on Loan Contracts,” *Journal of Finance* 57(1), February 2002, 329–367.
- Saunders, A., and Yourougou, P., “ Are Banks Special? The Separation of Banking from

- Commerce and Interest Rate Risk,” *Journal of Economics and Business* 42, 1990, 171-182.
- Schenone, C., “ The Effect of Banking Relationships on the Firm’ s IPO Underpricing,” *Journal of Finance* 59(6), December 2004, pp. 2903-2958.
- Shen, C.H., and Chang, Y.H., “ Do Regulations Affect Banking Performance? Government Governance May Matter,” *Contemporary Economic Policy* 24(1), January 2006, 92-105.
- Vander Venet, R., “ Cost and Profit Efficiency of Financial Conglomerates and Universal Banks in Europe,” *Journal of Money, Credit, and Banking* 34(1), February 2002, 254-282.
- Wall, L.D., Reichert, A.K., and Liang, H.Y., “ The Last Frontier: Integration of Banking and Commerce in the U.S.,” Manuscript submitted to *FMA European Meeting*, Barcelona, Spain, May 2007.
- Walter, J.R., “ Can a Safety Net Subsidy Be Contained?” Federal Reserve Bank of Richmond *Economic Quarterly* 84(1), Winter 1998, 1-20.
- Welch, I., “ Seasoned Offerings, Imitation Costs and the Underpricing of Initial Public Offerings,” *Journal of Finance* 44, 1989, 421-449.
- Whalen, G., “ The Competitive Implications of Safety Net Related Subsidies,” Office of the Comptroller of the Currency Working Paper 97-9, May 1997.