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THE REGULATION OF BANKS AND BANK HOLDING COMPANIES†

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THE regulation of banking in the United States has two main components. The first is the regulation of banks themselves. Included in this first category of regulations are the scheme of federal insurance of deposits,¹ entry restrictions,² geographic restrictions on the location of branches,³ restrictions on the business activities banks can undertake,⁴ minimum capital requirements,⁵ and lending limits.⁶ Until recently, the interest rate that banks could pay on deposits was also strictly regulated.⁷

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¹ See 12 U.S.C. §§ 1811-1832 (1982).

² See 12 U.S.C. § 27 (1982).

³ See 12 U.S.C. § 36 (1982).

⁴ See, e.g., 12 U.S.C. § 24(7) (Supp. III 1985).

⁵ See Board of Governors of the Fed. Reserve Sys. v. First Lincolnwood Corp., 439 U.S. 234 (1978); Bank Holding Companies and Change in Bank Control, 12 C.F.R. § 225 (1986) (Appendix A—Capital Adequacy Guidelines for Bank Holding Companies and State Member Banks), amended 51 Fed. Reg. 40,969 (Nov. 12, 1986); E. Symons & J. White, *Banking Law: Teaching Materials* 287-91 (1984).

⁶ See 12 U.S.C. § 84 (1982).

⁷ Congress has repealed the prohibition on the payment of interest on deposits. Depository

The second major component of banking regulation is the regulation of bank holding companies. Nonbank subsidiaries of bank holding companies face activity restrictions similar to those faced by banks.⁸ Opportunities for geographic expansion are also limited.⁹ Finally, bank holding companies can be formed only if they can demonstrate that they are adequately capitalized and meet other requirements.¹⁰

Much of the current structure of banking regulation in the United States has its intellectual origins in the bank failures of the Great Depression and the regulatory ethic of the New Deal.¹¹ During the Depression it was commonplace to assume that bank (and other business) failures had been caused by "excessive competition" during the boom years of the 1920's. Under this view, banks had contributed to the economic collapse by engaging in "cutthroat" interest-rate wars in an effort to lure depositors from each other; this in turn had forced the banks to engage in increasingly risky activities such as securities underwriting to pay the higher interest rates. This excessive competition theory was often coupled with a "conflict of interest" theory: involvement in securities activities led banks to make unsound credit decisions in order to manipulate stock prices and bail out affiliates. Finally, the spectacle of widespread bank failures led many observers to conclude that bank failures were contagious: the failure of one bank could undermine public confidence in other banks, causing them to fail as well.

The regulatory response to these perceived problems was both different from and similar to other New Deal programs. It was different in that the creation of federal deposit insurance was unique among New Deal programs. Yet what is most striking about the New Deal program of banking regulation is its similarity to the programs of public utility and common carrier regulation, many of

Institutions Deregulation Act of 1980, Pub L. No. 96-221, Title II, § 202, 94 Stat. 142, 142 (codified at 12 U.S.C. § 3501 (1982)).

⁸ See 12 U.S.C. § 1843 (1982).

⁹ See 12 U.S.C. § 1842(d) (1982).

¹⁰ See authorities cited *supra* note 5.

¹¹ An influential contemporary account of the "banking problem" and the need for increased federal regulation was L. Brandeis, *Other People's Money and How the Bankers Use It* (1914). See also E. Hawley, *The New Deal and the Problem of Monopoly* 3-16, 304-24 (1966) (discussing the introduction of banking and securities laws as a response to the concentration of financial power in the early 1930's). Some banking regulation, particularly entry controls, predated the New Deal. See generally H. Magee, *A Treatise on the Law of National and State Banks* 1-14 (3d ed. 1921) (discussing state and national authority to regulate entry and banking activity).

which (such as airline, motor carrier, and telecommunications regulation) were established during the same period. The essential features of the New Deal banking regulation were entry control, price control, market allocation through the forced separation of commercial banking from investment banking and securities activities, and close supervision of investments and related activities. These were the essential features of airline, surface transportation, and communications regulation as well.

The similarity of these regulatory policies was not coincidental. The New Deal's diagnosis of the ills of the banking industry was identical to its diagnosis of the ills of the Depression economy generally. Private markets were naturally unstable and prone to abuses of both "excess competition" and conflicts of interest. The "cure," therefore, consisted of explicit government protection against market competition through controlled entry and pricing that would make banks and other firms more "stable"; segmented markets to reduce the potential for conflicts of interest and to provide additional stability by reducing competition; and close supervision of the business dealings of regulated firms. In the transportation, communications, and power industries, in the agricultural sector, and in manufacturing industries generally during the National Recovery Act period, the economic prescription of the New Deal consisted of establishing market-by-market, government-administered cartels. This was the prescription in the financial services sector as well.

But this simple tale of excessive competition inevitably leading to economic collapse has long since been discarded by most economists and economic historians. Moreover, the government-enforced cartels erected during the 1930's have proven unstable over time due to the tendency of regulated firms to engage in service competition (e.g., the provision of "free" drinks on airlines) and, most importantly, the incentive of regulated and nonregulated firms alike to innovate around government-created restrictions in order to meet consumer demand (e.g., the development of the trucking and cable television industries). These developments have led to the breakdown and substantial repeal of government-created cartels in the airline, telecommunications, and motor carrier industries, among others.

The same pattern has been observed in banking. Although the government-enforced cartel in banking was relatively stable through the 1960's, it became increasingly unstable in the 1970's. High nominal interest rates and advances in data processing made it profitable for increasing numbers of firms to enter the financial services industry and compete with commercial banks. This trend has continued

into the 1980's. In the current environment, banks now face formidable competition in virtually every product or service they offer.¹² This increased competition has substantially eroded, if not obliterated altogether, the effectiveness of much banking regulation. Regulations limiting the payment of interest (price controls) were rendered obsolete by the development of money market funds and eventually repealed; technological innovations such as automated tellers have made restrictions on branching increasingly meaningless; the proliferation of "nonbank banks" owned by diversified financial firms facilitates the complete evasion of the geographic, activity, and capital adequacy restrictions of the Bank Holding Company Act.¹³ Market forces, therefore, have had much the same effect in banking as in other industries.

What is distinctive about banking, however, is the widespread perception that banks are somehow different from other types of firms and the related perception that unrestrained competition in the provision of financial services imposes large social costs.¹⁴ Thus, while many applaud the effect of increased competition in, say, the trucking industry as resulting in superior services for consumers at lower prices, increased competition in financial services is often viewed as undesirable. Put differently, the "excessive competition"

¹² For a discussion of the market shares of banks and other types of financial intermediaries in a variety of different product lines, see Pavel & Rosenblum, *Banks and Non-banks: The Horse Race Continues*, 9 *Econ. Persp.* 3 (1985); *Blueprint for Reform: The Report of the Task Group on Regulation of Financial Services* 17 (1984), reprinted in *Bush Task Group Report on Regulation of Financial Services: Blueprint for Reform* (pt. 1), Hearings Before a Subcomm. of the House Comm. on Government Operations, 99th Cong., 1st Sess. 297, 312 (1985) [hereinafter *Bush Task Group Report*].

¹³ The Bank Holding Company Act defines a bank as an institution "which (1) accepts deposits that the depositor has a legal right to withdraw on demand, and (2) engages in the business of making commercial loans." 12 U.S.C. § 1841(c) (1982). A nonbank bank is a financial institution that performs one but not both of these functions. The Supreme Court has held that nonbank banks do not fall within the scope of the Bank Holding Company Act. See *Board of Governors of the Fed. Reserve Sys. v. Dimension Fin. Corp.*, 106 S. Ct 681 (1986).

¹⁴ The chief spokesman for this view has been Paul A. Volcker, Chairman of the Board of Governors of the Federal Reserve System. See, e.g., *Non-bank Banks: Hearings Before the Subcomm. on Financial Institutions Supervision, Regulation, and Insurance of the House Comm. on Banking, Finance, and Urban Affairs*, 99th Cong., 1st Sess. 14 (1985) (statement of Paul A. Volcker). For a sampling of Chairman Volcker's views with respect to the separation of banking and commerce generally, see *Comprehensive Reform in the Financial Services Industry: Hearings Before the Senate Comm. on Banking, Housing, and Urban Affairs*, 99th Cong., 1st Sess. 110 (1985) (attachment to statement of Paul A. Volcker); *Competitive Equity in the Financial Services Industry: Hearings Before the Senate Comm. on Banking, Housing, and Urban Affairs*, 98th Cong., 2d Sess. 1583 (1984) (statement of Paul A. Volcker); *Bush Task Group Report*, supra note 12, at 178-276 (statement of Paul A. Volcker).

theory of the New Deal still survives in banking, although it has been discredited in other areas.

Much has been written on various aspects of banking regulation, but the critical question—are banks different from other types of firms, and, if so, how—has, surprisingly, been almost completely ignored.¹⁵ We attempt to answer this question. In Part I we discuss what a bank is and how the social costs of bank failures compare with the social costs of other types of business failures. We demonstrate that the differences between banks and other firms are far less obvious than commonly assumed. Part II considers how federal deposit insurance addresses the prisoner's dilemma facing bank depositors. We also discuss the moral hazard created by federal deposit insurance and ways to minimize this problem, including the use of private deposit insurance. Bankruptcy law as an alternative to federal deposit insurance is also considered in Part II.

The remainder of the article selectively analyzes some of the other major aspects of banking regulation. In Part III we scrutinize the various activity restrictions that, for example, attempt to force a separation between banking and securities activities and to prevent banks and their affiliates from selling insurance. We show that neither the unique characteristics of banks nor the moral hazard created by federal deposit insurance imply that banks and their subsidiaries should be limited to engaging in "traditional" banking activities. We also refute the widespread view that banks, perhaps because of the existence of deposit insurance, have incentives to engage in cross-subsidies and predatory practices of various types in unrelated lines of business. In Part IV, we critically analyze entry controls, restrictions on geographic expansion, and the dual banking system. Finally, in Part V we demonstrate that it is misguided to regulate the capital structure of holding companies to ensure that holding companies act as "sources of strength" for their subsidiary banks.

¹⁵ Robert Clark has written a stimulating set of articles on the distinctive characteristics of financial intermediaries as a group. See Clark, *The Regulation of Financial Holding Companies*, 92 *Harv. L. Rev.* 787 (1979) [hereinafter *Financial Holding Companies*]; Clark, *The Soundness of Financial Intermediaries*, 86 *Yale L.J.* 1 (1976); see also Clark, *The Four Stages of Capitalism: Reflections on Investment Management Treatises* (Book Review), 94 *Harv. L. Rev.* 561, 564-65 (1981) (the financial intermediary is the characteristic institution of the third stage of capitalism). Here we focus on the differences between banks and other types of firms, including other types of financial intermediaries.

I. ARE BANKS DIFFERENT?

The claim that competition is harmful in banking, but not, for example, in trucking, rests on the premise that banks are different from other types of firms. In particular, the widespread perception that government regulation is more important in banking than in other sectors of the economy appears to rest on the fear that an unregulated banking market would be subject to contagious bank failures. This part addresses the question of whether banks are in fact different from other types of firms.¹⁶

A. *What Is a Bank?*

Banks are firms that provide a particular bundle of financial services. The liquidity services provided to depositors, most notably checking services and immediate access to deposited funds, are examples. In addition, banks provide a variety of services through their lending activities. They assess credit risk and, when appropriate, fund and monitor investment projects.

In a world of perfect information and zero transaction costs, there would be no role for banks or other financial intermediaries. Investment projects with a positive net present value would be known to all and could be costlessly financed. There would be no need for loan monitoring once funds had been advanced. Nor would there be a demand for the liquidity services provided by banks. The demand for highly liquid, low-risk securities (deposits) could be easily met. Entrepreneurs would simply raise part of the funds required for an investment project by selling deposit-like securities that give the holder the right to redeem the security at face value on demand.¹⁷

Banks and other financial intermediaries therefore owe their existence to information and transaction costs. Moreover, banks are distinct from other types of financial intermediaries in that a high percentage of their liabilities, deposits payable on demand, are liquid, while a high percentage of their assets, long term commercial loans, are illiquid. By contrast, money market funds have liquid assets and liabilities; pension funds have illiquid assets and liabilities. No other

¹⁶ Although our discussion focuses on banks, the analysis applies to other types of depository institutions such as savings and loan associations.

¹⁷ For further discussion of financial intermediation in a world of perfect information and zero transaction costs, see Black, *Bank Funds Management in an Efficient Market*, 2 J. Fin. Econ. 323 (1975).

entity combines liquid liabilities with illiquid assets in the same manner as banks.

The survival of banks as an organizational form suggests that banks provide valuable, cost-reducing services not perfectly duplicated elsewhere in the economy. The organization of banks, however, raises interesting and not altogether resolved questions. Why do banks hold illiquid assets (loans) against their liquid liabilities (deposits)? Why do they not hold primarily liquid assets, in the manner of a money market mutual fund? Even if there is a reason for banks to hold illiquid assets, why do banks combine loan-making with deposit-issuing? There are many types of illiquid assets that a bank might hold. What is the nature of the complementarity or "synergy" between deposit-issuing and loan-making?

The tendency of banks to hold illiquid assets is to some extent a product of federal deposit insurance, which is discussed more fully below.¹⁸ As many observers have noted, deposit insurance allows banks to substitute government-backed insurance for liquid assets as a means of backing their liquid liabilities. Deposit insurance, however, is not the only explanation: banking has never been conducted on a one-hundred-percent reserve basis. Another possible explanation is that, by combining higher yielding illiquid assets with liquid deposit liabilities, banks provide consumers with liquidity at lower cost than if banks invested exclusively in lower yielding liquid assets. By holding the deposits of numerous consumers, a bank pools the risk of withdrawal demands. The benefit of this pooling is the ability to invest a portion of deposits in higher yielding illiquid assets. Competition among banks ensures that depositors share in the benefit of this pooling—in the form of higher direct or indirect interest payments on their deposits.¹⁹

B. Bank Runs and the Prisoner's Dilemma

Bank depositors face a form of the prisoner's dilemma. Rational bank depositors realize that, although individual depositors can withdraw funds at any time, depositors as a class cannot demand payment simultaneously because the bank has insufficient funds on hand to meet all of its obligations. Moreover, rational depositors realize that any mass withdrawals of funds may force the bank to take

¹⁸ See *infra* text accompanying notes 39-48.

¹⁹ Diamond and Dybvig emphasize this aspect of banking, calling it the "transformation of illiquid assets into liquid liabilities." See Diamond & Dybvig, *Bank Runs, Deposit Insurance, and Liquidity*, 91 *J. Pol. Econ.* 401, 402 (1983).

value-reducing actions such as liquidating commercial loans at distress prices or calling loans prematurely. Thus, it is in the interest of depositors as a group not to withdraw large amounts simultaneously. But if some class of depositors does decide, for whatever reason, to withdraw assets from the bank, other depositors will rationally conclude that they must do the same to avoid being left with nothing. The result of such a "run" on the bank's assets may be the failure of a previously solvent bank to the detriment of depositors as a group.

Financial panics leading to runs are generally perceived as a phenomenon unique to banking. This perception is false. An analogous prisoner's dilemma confronts the short-term creditors of any firm. Suppose a firm is viable in the sense that the going-concern value of its assets exceeds their liquidation value. If all of the firm's creditors continue to extend credit, its operations continue uninterrupted, and all claimants are better off. But suppose that some short-term unsecured creditors decide, for whatever reason, to withdraw their credit. There is then the possibility of a panic. Short-term unsecured creditors may worry that if they wait, other short-term unsecured creditors may "put" their claims to the firm and receive payment in full, depleting the firm's liquid assets. To meet further claims, the firm would be forced to liquidate other (illiquid) assets. At some point there is the possibility that the liquidation value of the firm's remaining assets may fall short of the face value of the unsecured creditors' claims. Fearing this outcome, short-term unsecured creditors may rationally adopt a "me-first" attitude and demand payment as soon as possible. The resulting "run" on the assets of the firm can cause an otherwise solvent firm to fail.²⁰

Thus, nothing in economic theory suggests that runs are peculiar to the banking industry. But the distinctive structure of banks' assets and liabilities suggests that the prisoner's dilemma faced by bank depositors—and hence the incentive of depositors to engage in me-first behavior—is more severe than that faced by creditors of other types of firms. As noted above, banks promise most depositors immediate access to their funds²¹ but lend large portions of these

²⁰ In Part II we discuss the economic function of the bankruptcy laws in minimizing the incentive to engage in me-first behavior.

²¹ Approximately 75% of the liabilities of commercial banks in the United States are in the form of deposits, and a significant portion of these are demand deposits. See Bureau of Census, U.S. Dep't of Commerce, Statistical Abstract of the United States 495 (1986) (table 827). Demand deposits are "instantly puttable" debt: unlike the usual creditor of a manufacturing firm, the holder of a demand-deposit claim on a bank can "put" the claim to the bank and

funds to create illiquid assets. As a result, the ratio of current assets to current liabilities is much lower at banks than in the nonfinancial corporate sector.²² For this reason, and because banks have a very large percentage of liabilities in the form of deposits that are instantly puttable,²³ bank depositors are more likely than short-term unsecured creditors of other firms to adopt a me-first attitude at the first signs of financial distress.²⁴

A separate question is why banks are organized in a way that increases the risk of me-first behavior. Other forms of organization are conceivable. For example, one alternative sometimes proposed is one-hundred-percent reserve banking, in which banks would hold only liquid assets.²⁵ This clearly would eliminate the risk of bank runs but would either transfer to other firms the task of transforming illiquid assets into liquid liabilities (in which case the risk of runs would be shifted, not avoided²⁶) or, as discussed above,²⁷ would raise the cost of providing customers with liquidity services. Another alternative might be some modification in the basic contract between banks and depositors that would allow banks to suspend the convertibility of depositors' claims into cash. If banks could suspend convertibility, economically viable banks could stop incipient runs, which in turn would reduce depositors' incentives to rush to the teller window in the first place.²⁸ Such a contract would give

demand repayment whenever the holder chooses.

²² The average "current ratio" in the nonfinancial sector has been approximately 1.5 in recent years. In contrast, the ratio of current assets to current liabilities (i.e., deposits) at commercial banks has been slightly under 0.5. Compare Economic Report of the President 334 (1985) (nonfinancial corporate sector) with Bureau of Census, *supra* note 21, at 495 (table 827) (banking sector). In calculating the current ratio for banks, current assets are defined as the sum of securities, federal funds sold and securities purchased under agreements to resell, and cash.

²³ See *supra* note 21.

²⁴ Put differently, the probability of bankruptcy is greater for banks than for other types of firms. For an interesting discussion of the factors that make bankruptcy more and less likely, see Bulow & Shoven, *The Bankruptcy Decision*, 9 *Bell J. Econ.* 437 (1978). They observe that, in the case of a viable firm whose going-concern value exceeds its liquidation value, "liquidation occurs only because there is a conflict of interest among the various claimants of the firm and an asymmetry in their negotiating and controlling abilities." *Id.* at 438. They conclude that "[i]n general, a longer-term debt structure, an asset portfolio with a higher percentage of cash or liquid assets, and a more variable future return all increase the circumstances under which the firm will continue operations." *Id.* at 454.

²⁵ See, e.g., Kareken, *Federal Bank Regulatory Policy: A Description and Some Observations*, 59 *J. Bus.* 3, 39-40 (1986).

²⁶ Diamond & Dybvig, *Banking Theory, Deposit Insurance, and Bank Regulation*, 59 *J. Bus.* 55, 65-66 (1986).

²⁷ See *supra* text accompanying note 19.

²⁸ See Diamond & Dybvig, *supra* note 19, at 410-13.

banks an option very similar to the option that nonbanking firms have—the option to suspend payments to creditors and seek reorganization through bankruptcy, as we discuss in more detail in Part II.²⁹

C. *Are Bank Failures Contagious?*

The conventional wisdom is that the banking system is inherently unstable because bank failures are contagious—the failure of one bank will inevitably lead to the failure of other banks. The mechanism by which this chain reaction supposedly occurs, however, is typically unexplained. The most obvious situation in which a chain reaction could occur is where banks are direct investors in a failed bank. Where such direct links exist, the effect of a bank failure on investor banks will depend on the amount invested, the amounts available for distribution to creditors, and relative priorities among claimants. Apart from this direct investment situation, however, it is not clear why a run on any one bank should necessarily unnerve depositors at others.

Consider the case of a bank that fails because a dishonest director embezzles all of its funds. The reason for the bank failure is firm-specific. Depositors of other banks have no reason to believe that their claims are less secure than before. Indeed, other banks may benefit from firm-specific bank failures because deposits may be shifted to surviving banks.

Now consider a bank that fails because a high percentage of its loans in one sector of the economy are not repaid. This reason for bank failure can inform depositors of other banks with similar types of loans that their banks might experience some financial distress in the future.³⁰ Depositors of these banks then have an increased incentive to engage in me-first behavior.³¹ But the incentive to withdraw assets from the bank is created by the information conveyed

²⁹ See *infra* text accompanying notes 52-57.

³⁰ We do not suggest that depositors can distinguish causes of bank failure costlessly. But information about the causes of bank failure does exist. Bank performance is monitored by large creditors, equity investors, analysts, and regulators. The information acquired from this monitoring process can be used by market participants to distinguish causes of bank failures. For an empirical demonstration that the cause of bank failure is considered important by market participants, see Aharony & Swary, *Contagion Effects of Bank Failures: Evidence from Capital Markets*, 56 *J. Bus.* 305 (1983).

³¹ Although our discussion here focuses on banks, it is again important to recognize that the incentive to engage in me-first behavior is not limited to creditors of banks. Nonbank failures can provide information that causes creditors of nonbanking firms to engage in me-first behavior with respect to those firms as well.

by the bank failure, not the bank failure itself. The same signal can come from other sources. Indeed, there is no reason why depositors at a bank should be more unsettled by a failure of another bank than by the failure of a manufacturing firm. The failure of a large local manufacturing firm may send a signal about the probable quality of a local bank's loan portfolio that is far more relevant to depositors than the signal sent by the failure of a bank in another state. Thus, the source of instability in the banking system is not that bank failures are inherently contagious but that financial distress in the economy disproportionately affects banks because of their asset structure and susceptibility to me-first behavior.³²

D. The Potential Macroeconomic Effects of Bank Failures

Having discussed why banks are more likely to fail in times of economic downturn than other types of firms, we now turn to the question of whether widespread bank failures impose greater social costs than other types of business failures. Most economists believe that widespread bank failures do impose disproportionate social costs because of the role banks play in the money supply process. Widespread bank failures may cause the money supply to drop unexpectedly.³³ This is a matter of concern because the empirical evidence suggests that unexpected drops in the money supply cause unemployment to rise and output to fall.³⁴ Thus, widespread bank failures that cause an unexpected decline in the money supply have the potential to worsen, or even cause, an economic downturn.³⁵ The

³² It is not surprising, then, that during the Great Depression banks were more likely to fail than other types of firms. From 1930 to 1933, 13.05% of all banks failed annually, as compared with an average annual failure rate for other businesses of 1.27%. G. Benston, R. Eisenbeis, P. Horvitz, E. Kane & G. Kaufman, *Perspectives on Safe and Sound Banking* 58 (1986). Between 1875 and 1929, however, banks failed at virtually the same rate as other businesses—1.02% annually versus 1.00%. *Id.*; see also Rolnick & Weber, *New Evidence on the Free Banking Era*, 23 *Am. Econ. Rev.* 1080, 1084 (1983) (surprisingly few banks failed between 1837 and 1863, when entry into banking was unrestricted).

³³ If bank failures were not widespread, there would be no reduction in the money supply. Deposits withdrawn from one bank would simply be reinvested in another bank. For a more complete discussion of the money supply process, see F. Mishkin, *The Economics of Money, Banking, and Financial Markets* 238-319 (1986).

³⁴ The mechanics of this phenomenon are not well understood. For a summary of the empirical evidence and proposed explanations, see R. Barro, *Macroeconomics* 439-86 (1984). For a more skeptical view, see Black, *Noise*, 41 *J. Fin.* 529, 536-41 (1986).

³⁵ The role of banks in the money supply process is somewhat less important today than it was prior to the introduction of money market mutual funds and other alternative sources of liquidity. On the other hand, most economists continue to believe that unexpected drops in the money supply will have adverse economic consequences. Money market funds and other

economic justification for the Federal Reserve System is that it serves as a lender of last resort and prevents the adverse economic consequences of such sharp declines in the money supply.³⁶

A number of economists in recent years have emphasized an additional social cost of bank failures—the interruption of the availability of credit in the economy to finance investment projects and the disruption of ongoing projects when loans are called.³⁷ But this cost of bank failures is no different from the cost imposed by other types of business failures. The widespread failure of steel firms, for example, will disrupt investment projects in the economy that are dependent on the domestic production of steel. Indeed, because depositors can obtain liquidity services from nonbank alternatives,³⁸ and because most borrowers have access to alternative sources of financing, the “real” effects of widespread bank failures that are unrelated to a contraction of the money supply may be smaller than the effects of the widespread failure of nonbanking firms that provide more specialized services for which fewer close substitutes exist.

II. FEDERAL DEPOSIT INSURANCE AND THE TREATMENT OF FAILED BANKS

Federal deposit insurance was unique among New Deal programs. We provide an economic explanation for federal deposit insurance that follows directly from our discussion of the economic function of banks. We also discuss the costs of federal deposit insurance and of de facto insurance created by governmental assistance to failed banks. Finally, we explore the possibility of greater reliance on private insurance markets and the bankruptcy laws.

innovations may moderate the disruptive effects but do not eliminate them altogether.

³⁶ The seminal critique of the performance of the Federal Reserve as lender of last resort during the Great Depression is M. Friedman & A. Schwartz, *A Monetary History of the United States, 1867-1960*, at 299-419 (1963).

³⁷ For articulations of this view, see Bernanke, *Nonmonetary Effects of the Financial Crisis in the Propagation of the Great Depression*, 73 *Am. Econ. Rev.* 257 (1983); Diamond & Dybvig, *supra* note 19, at 402.

³⁸ To be sure, alternative providers of liquidity services may not be perfect substitutes for the original lender, particularly if the original lender has unique information about the borrower. But the magnitude of this effect should not be exaggerated. For example, information can be transferred by moving files; alternatively, loan officers themselves can be hired by the successor lender. Moreover, transaction-specific investments are not unique to banks but exist in a wide variety of contexts. See Goetz & Scott, *Principles of Relational Contracts*, 67 *Va. L. Rev.* 1089, 1100-01 (1981).

A. *The FDIC as a Solution to the Prisoner's Dilemma Faced by Bank Depositors*

Federal deposit insurance eliminates the incentive of depositors whose claims are insured to withdraw assets from banks that are perceived to be in financial distress. Thus, federal deposit insurance is a solution to the problem of me-first behavior, which can lead to the failure of a previously solvent bank.³⁹ Deposit insurance, however, is not complete. Deposits over \$100,000 are not insured, and other debt claims are completely uninsured. The possibility remains, therefore, that some bank creditors will engage in me-first behavior notwithstanding the existence of deposit insurance.

The Federal Deposit Insurance Corporation (FDIC) has minimized this residual danger of me-first behavior by providing de facto insurance to creditors whose claims are nominally uninsured. The FDIC has several alternatives when dealing with a bank that has failed or is in imminent danger of failing. It can pay off insured depositors, provide direct financial assistance to the bank, or arrange a purchase-and-assumption transaction whereby the assets and liabilities of the distressed bank are transferred to an acquiring bank. Because the assets of the distressed bank, plus any premium that the acquiring bank is willing to pay, are typically worth substantially less than its liabilities, purchase-and-assumption transactions can only be effected with financial assistance from the FDIC.

The purchase-and-assumption transaction is by far the most common alternative chosen by the FDIC. In other cases, such as the well-publicized episode at Continental Illinois where no acquisition could be arranged,⁴⁰ the FDIC has provided direct financial assistance to keep the bank from failing. Both purchase-and-assumption transactions and direct financial assistance to troubled banks have the effect of creating a de facto system of insurance for all creditors. Only rarely will the FDIC choose to pay off insured depositors and allow the bank to fail—the celebrated case of Penn Square Bank in Oklahoma⁴¹ being an exception—and virtually never has the FDIC opted for this alternative in the case of a large bank.

³⁹ Deposit insurance is a more effective solution to the prisoner's dilemma faced by bank depositors than the Federal Reserve acting as a lender of last resort. Action taken by the Federal Reserve is discretionary and thus uncertain. The provision of deposit insurance, at least up to the statutory limit, is not.

⁴⁰ See Foulkes, *The Federal Deposit Insurance Corporation: The Rescue of Continental Illinois National Bank and Trust Company*, 1985 Ann. Surv. Am. L. 137.

⁴¹ See Rescigno, *Why Penn Square Failed*, Barron's, Aug. 23, 1982, at 6.

B. *The FDIC and the Problem of Moral Hazard*

One of the well-known conflicts of interest between creditors with fixed claims and stockholders concerns the riskiness of investment policy. Stockholders, as residual claimants, prefer firms to pursue high variance (risky) projects, whereas creditors generally do not. Stockholders can therefore transfer wealth from creditors to themselves by pursuing risky investments.

An identical moral hazard exists when the claims of depositors are insured, either directly by the FDIC or de facto as a result of the treatment of failed banks. As an illustration, consider two worlds—one where all deposits are uninsured and another where all deposits are insured at a fixed insurance premium. In deciding whether to make an exceptionally risky loan, the bank in the world of uninsured deposits must consider the probability that adding the loan to its portfolio of assets will force it to pay more to attract and preserve deposits. In contrast, the funding costs of the bank in the world of insured deposits and fixed insurance premiums are unaffected by the risky loan. Therefore, at the margin, the bank in the second world has an incentive to make risky loans that it would not make but for insurance.

Another way of understanding this point is to view fixed-price deposit insurance as a put option that is “in the money” when the value of a bank’s assets fall below the face value of insured deposits. One of the central principles of option pricing theory is that the value of an option varies directly with the riskiness of the underlying asset.⁴² Therefore, when the price of insurance is fixed, increasing the riskiness of the loan portfolio increases the value of the deposit insurance/put option, which redounds primarily to the benefit of the residual claimants—bank stockholders.⁴³

Of course, this moral hazard is not unique to federal deposit insurance; it is present in all insurance contracts. But the tools available to minimize conflicts of interest are more limited in the banking context. In other settings, insurers generally use such contractual devices as deductibles, co-insurance, and risk-related premiums to force the insured to internalize the costs of engaging in risky activities. None of these devices is currently available to the FDIC. The

⁴² See Black & Scholes, *The Pricing of Options and Corporate Liabilities*, 81 J. Pol. Econ. 637 (1973).

⁴³ This point is analogous to the one made by Sharpe concerning the incentive effects of pension insurance provided by the federal Pension Benefit Guaranty Corporation. See Sharpe, *Corporate Pension Funding Policy*, 3 J. Fin. Econ. 183, 187 (1976).

inability to employ these contractual provisions suggests that the FDIC will be less successful than other types of insurers in causing their insureds to internalize the costs of risky activities.

We do not mean to suggest that banks are completely free to externalize the costs of risky activities. Minimum capital requirements⁴⁴ and lending limits, for example, are best understood as regulatory requirements that protect the FDIC. The same is true for reporting requirements and the ability of banking regulators to conduct inspections and impose sanctions, including termination of insurance.⁴⁵ These regulatory provisions all help internalize the costs of risky activities. But it is probable that banking regulators are less successful than private insurers in internalizing the costs of risky activities because of the unavailability of contractual devices designed for this purpose and the related problem of regulators' lack of access to information.

A trade-off exists between the goal of minimizing me-first behavior and the goal of internalizing the costs of risky activities. The more complete the insurance scheme, the lower is the probability of me-first behavior but the greater is the incentive to engage in risky activities. Consider the bailout of Continental. Direct government assistance in effect extended the system of insurance to creditors whose claims were nominally uninsured, and it sent a message to uninsured creditors of other large banks that their claims were now insured.⁴⁶ This action reduced the probability that uninsured creditors at Continental or elsewhere would engage in me-first behavior, but it also reduced the incentive of these creditors to engage in any monitoring. If all creditor claims are insured, creditors will invest where they are promised the highest return regardless of risk. The task of monitoring then falls to the FDIC. To the extent that the FDIC is less effective in monitoring the debtor than these creditors (or private insurers standing in their shoes), some of the cost of risky activities is externalized. This weakening of market constraints on risk-taking by banks is a social cost that should be weighed against whatever social benefits were perceived by the architects of the Continental bailout.

⁴⁴ Capital requirements are equivalent to a deductible. A "cushion" of the stockholders' equity and subordinated debt means that the first dollars lost from bad loans are lost by the bank rather than by the insurer.

⁴⁵ See 12 U.S.C. § 1818 (1982).

⁴⁶ The bailout of Continental extended beyond the bank itself to the holding company. Thus, the FDIC provided de facto insurance to creditors of the holding company as well as of the bank. For a discussion of the bailout, see Foulkes, *supra* note 40.

It is possible to strengthen market discipline on risk-taking by banks in a variety of ways. One method is to increase the minimum capital requirements for banks.⁴⁷ Alternatively, the insurance scheme could be changed. Possible reforms of the insurance system include having risk-related insurance premiums,⁴⁸ reducing the amount of insurance coverage (for example, through co-insurance), eliminating de facto insurance by letting banks fail, and, as discussed in the next section, allowing private insurers to play more of a role. These reforms appear promising, but they are not costless. For example, the calculation of risk-related premiums would likely require additional expenditures on information and personnel. Although the benefits of these expenditures would seem to outweigh the costs in private insurance markets, it is not clear that the same would be true in the case of a single government agency. The other possible reforms all increase market discipline by forcing investors to bear more of the loss of bank failure, but they also lead to an increase in me-first behavior, again highlighting the trade-off between minimizing this behavior and internalizing the costs of risky activities.

C. Private Insurance as an Alternative to Federal Deposit Insurance

The severity of the moral hazard created by the current regime of federal deposit insurance naturally raises the issue of whether a system of private insurance would be preferable. A system of private insurance supplied competitively would, like federal deposit insurance, minimize the prisoner's dilemma problem faced by bank depositors and perhaps be more successful than the current system in forcing banks to internalize the costs of risky activities.

The question is whether a market in private insurance of bank deposits would exist in the absence of government insurance. Recent research has demonstrated that, prior to the Federal Reserve System and the FDIC, private markets developed ingenious institutional arrangements to make banks less susceptible to systemic failure.⁴⁹ In Canada, government insurance for deposits did not exist

⁴⁷ See Black, Miller & Posner, *An Approach to the Regulation of Bank Holding Companies*, 51 J. Bus. 379, 402-05 (1978).

⁴⁸ See Scott & Mayer, *Risk and Regulation in Banking: Some Proposals for Federal Deposit Insurance Reform*, 23 Stan. L. Rev. 857, 886-95 (1971).

⁴⁹ See, e.g., Gorton, *Private Clearinghouses and the Origin of Central Banking in the United States*, 45 J. Econ. Hist. 277 (1985).

until 1968 and was then initiated in response to the failure of a small bank rather than systemic failures.

Whether private insurance of deposits or other institutional arrangements would be a perfect substitute for government insurance is another question. Because the causes of bank failures may be highly correlated (i.e., a general economic or industry-wide downturn), a private insurance market of bank deposits might not survive. Yet the development of a private mortgage insurance market, which is susceptible to this same problem, suggests that private insurance of bank deposits could exist. Nevertheless, private insurers would face a solvency risk in the event of economic downturn or industry collapse that does not exist for the FDIC, which is in effect backed by the full faith and credit of the United States.⁵⁰ This solvency risk could be minimized, however, by a reinsurance market, or eliminated altogether if the government acted as reinsurer of approved private insurers.

It is also important to recognize that banks themselves might be different in a world of private deposit insurance. Contracts with depositors, debt-equity ratios, and asset-liability mixes might all look different in an unregulated banking market. In addition, as we discuss below,⁵¹ it is unlikely that many of the activity and geographic restrictions banks currently face would exist in a banking market without federal insurance.

D. The Bankruptcy Laws and the Prisoner's Dilemma

Deposit insurance, whether public or private, is not the only possible solution to the problem of me-first behavior—a problem that is not unique to banking, as discussed above.⁵² In other contexts, the problem is addressed by the bankruptcy laws.⁵³ Bankruptcy has a number of mechanisms for dealing with the prisoner's dilemma faced by creditors of an insolvent firm. The automatic stay after the filing of the bankruptcy petition,⁵⁴ for example, prevents individual creditors from withdrawing assets from the firm to the possible det-

⁵⁰ A similar problem of who will insure the insurer also suggests that private insurance may not be a perfect substitute for the corporate law doctrine of limited liability. For a discussion, see Easterbrook & Fischel, *Limited Liability and the Corporation*, 52 U. Chi. L. Rev. 89, 101-03 (1985).

⁵¹ See *infra* text accompanying notes 58-97.

⁵² See *supra* text accompanying note 20.

⁵³ See D. Baird & T. Jackson, *Cases, Problems, and Materials on Bankruptcy* 31-34 (1985).

⁵⁴ See 11 U.S.C. § 362 (1982 & Supp. III 1985).

riement of the creditors as a group. Similarly, preference law⁵⁵ controls me-first behavior prior to the filing for bankruptcy by eliminating any advantage that individual creditors might gain by taking action just in advance of the bankruptcy proceeding. Taken together, preference law and the automatic stay are designed to minimize the incentive of individual creditors to pursue behavior that maximizes their own wealth while reducing that of creditors as a group.

Thus the economic functions of bankruptcy laws and federal deposit insurance are very similar. Both address the same economic problem of the prisoner's dilemma. The primary difference is that the thrust of bankruptcy laws is to ensure that creditors of the same class are treated equally, whereas federal deposit insurance ensures that certain classes of creditors are paid in full.

The similarity between the bankruptcy laws and federal deposit insurance calls into question the need for two systems. Why, in other words, are banks specifically exempted from the bankruptcy laws?⁵⁶ One reason is that the traditional function of banks is providing liquidity. The bankruptcy process necessitates a suspension of certain contractual rights. Short-term creditors, for example, may have their assets tied up for long periods of time during the bankruptcy process. This delay in the ability to obtain access to funds has historically been thought to be intolerable in the case of depositors.⁵⁷ Whatever the merits of this view in the past, its validity is questionable today because depositors have available liquidity substitutes such as money market funds and credit cards. Even if there is still some basis for the traditional view—perhaps because the alternatives are not perfect substitutes for bank deposits—it certainly does not justify providing *de facto* insurance to all depositors, no matter how large. A preferable system might be to insure small depositors while allowing the bankruptcy laws to operate for larger creditors.

⁵⁵ See *id.* § 547.

⁵⁶ See 11 U.S.C. § 109(b)(2) (1982). Although banks are exempted from the bankruptcy laws, several provisions of the National Bank Act address the problem of bankruptcy. See 12 U.S.C. § 91 (1982) (invalidating all transfers of a bank's assets made in contemplation of insolvency or made after an act of insolvency with the intent of preferring one creditor over another); *id.* § 194 (providing for ratable distribution of liquidated bank's assets to creditors, with the remainder being paid to stockholders).

⁵⁷ There is a related point concerning administrative costs. A trustee in bankruptcy has broad powers to recover assets paid out by the debtor immediately prior to the bankruptcy proceeding. It may simply be too costly to have such a system for banks with many small depositors.

III. ACTIVITY RESTRICTIONS, RISK, AND CROSS-SUBSIDIES

The Glass-Steagall Act and the Bank Holding Company Act prohibit banks and their affiliates from engaging in certain securities activities such as underwriting,⁵⁸ from selling insurance,⁵⁹ and generally from participating in “nonbanking” activities. We analyze whether these activity restrictions reduce the risk of bank failure and thus the exposure of the FDIC. We demonstrate that allowing banks to engage in nonbanking activities probably would not increase the risk of bank failure, and almost certainly would not do so if banks conducted these activities through separately capitalized nonbanking subsidiaries. We further demonstrate that the so-called “subtle hazards” widely believed to exist in connection with commercial banking activity are illusory.

A. *Do Activity Restrictions Decrease the Risk of Bank Failure?*

The claim that activity restrictions reduce the risk of bank failure rests in large part on two related assumptions: (1) that traditional banking activities are safe, and (2) that diversifying into activities not “properly incident to banking” makes banks less safe. Neither of these assumptions is supported by economic theory and evidence.

1. *Are Traditional Banking Activities Necessarily “Safe”?*

A loan by a bank is a form of investment decision. It would be possible for a bank to make its investments virtually riskless, by purchasing only short-term obligations of the United States. But the distinctive economic function of banks, as compared with certain other types of financial intermediaries, is to extend credit to borrowers engaged in risky projects. Once this economic function of banks is understood, it is clear that traditional banking activities cannot be inherently safe. Indeed, recent events contradict the assumption that traditional banking activities are somehow “safe.” There has been a dramatic rise in the number of bank failures and near-failures in recent years.⁶⁰ The direct causes of these banking problems include nonperforming energy loans, real estate loans, and loans to less developed countries. Even performing loans, such as long-term fixed-rate mortgage loans, can be extremely risky during

⁵⁸ See 12 U.S.C. § 377 (1982).

⁵⁹ See 12 U.S.C. § 1843(c)(8) (1982).

⁶⁰ See Short, FDIC Settlement Practices and the Size of Failed Banks, Econ. Rev. (Fed. Reserve Bank of Dallas), Mar. 1985, at 12.

a period of rapidly rising nominal interest rates, as financial institutions learned in the late 1970's. This interest rate risk, like the default risk created by nonperforming loans, belies any notion that traditional banking activities are inherently safe.

It is also important to emphasize that virtually no bank failure has ever been attributed to the activities of holding company subsidiaries or to the "nonbanking" activities of banks, such as brokerage activities or the underwriting of general obligation municipal bonds.⁶¹ For example, BankAmerica's much-discussed problems derive from loan losses and have nothing to do with the activities of Charles Schwab & Co., its formerly affiliated (recently divested) retail discount brokerage firm.⁶² The frequent argument that recent bank failures and near-failures demonstrate the danger of combining banking and nonbanking activities thus appears to be contradicted by the evidence.

2. *Does the Risk of Bank Failure Increase when Banks Engage in Nonbanking Activities?*

Modern portfolio theory demonstrates that the riskiness of a particular asset cannot be evaluated in isolation—the relationship between the riskiness of the particular asset and that of other assets must also be considered. By holding a portfolio of securities, an investor can achieve a given expected rate of return at less total risk than if he held a single security with the same expected return. Some of the risk of the individual security is eliminated by diversification. Analogously, in assessing whether nonbanking activities would make banks riskier, it is necessary to consider the covariance of a proposed activity in combination with existing banking activity. The lower the covariance between different types of activities—meaning that when one type of activity does well, the odds are that the other does poorly—the more likely it is that total bank risk can be reduced by diversification.

The empirical evidence to date suggests that combining banking and nonbanking activities may *reduce* the overall riskiness of bank assets.⁶³ Several studies have demonstrated that bank assets have

⁶¹ See Saunders, *Bank Safety and Soundness and the Risks of Corporate Securities Activities, in Deregulating Wall Street: Commercial Bank Penetration of the Corporate Securities Market* 171, 180-81 (I. Walter ed. 1985).

⁶² See *Huge Loss Posted by BankAmerica*, N.Y. Times, July 17, 1986, at A1, col. 5 (\$640 million loss in the second quarter of 1986 due primarily to energy and real estate loans).

⁶³ See Eisemann, *Diversification and the Congeneric Bank Holding Company*, 7 J. Bank

been of about average riskiness when compared with other industries over relatively long periods of time, and that profits in several industries were negatively correlated with banking profits. These studies indicate that there are unexploited opportunities for reducing the risk of banks' assets by combining banking with nonbanking activities.

Whether the risk of bank failure will be increased by nonbanking activities is also affected by how the new activities are financed. If the additional activities are financed by claims that are junior to those of existing creditors, expansion into nonbanking activities will necessarily make existing creditors, including depositors, *safer* because their claims will be protected by a greater cushion of subordinated debt and equity.⁶⁴ Such financing will also decrease the exposure of the FDIC, regardless of the riskiness of new activities.

B. *The FDIC as Monitor*

Federal deposit insurance creates an incentive for banks to engage in risky activities because some of the costs of failure are shifted to the FDIC.⁶⁵ The riskier the activity, the more valuable the insurance. To minimize this incentive, the FDIC monitors the activities of banks. One argument for restricting the activities of banks to traditional lending activities is that the FDIC can monitor this activity at lower cost than it could other activities. It seems plausible to assume, for example, that the personnel of the FDIC are better able to monitor the prudence of commercial loans than, say, of oil drilling.

Although this argument is not without merit, its force should not be exaggerated. There is no obvious relationship between the list of permissible activities and the monitoring costs incurred by the FDIC. For example, banks currently are permitted to underwrite general revenue bonds, lend to less developed countries, trade foreign currencies, and underwrite corporate securities in foreign countries. At the same time, they are prohibited from offering open-end

Res. 68 (1976); Eisenbeis & Wall, Bank Holding Company Nonbanking Activities and Risk, *in* Fed. Reserve Bank of Chicago, Bank Structure and Competition 340 (1984); Heggstad, Riskiness of Investments in Nonbank Activities by Bank Holding Companies, 27 J. Econ. & Bus. 219 (1975); Johnson & Meinster, Bank Holding Companies: Diversification Opportunities in Nonbank Activities, 1 E. Econ. J. 316 (1974).

⁶⁴ For a general demonstration of this point, see Fama, The Effects of a Firm's Investment and Financing Decisions on the Welfare of Its Security Holders, 68 Am. Econ. Rev. 272 (1978).

⁶⁵ See *supra* text accompanying notes 42-48.

mutual funds⁶⁶ and underwriting high-grade third-party commercial paper.⁶⁷ It is implausible that the permitted activities are less risky or easier to monitor than the prohibited activities. If anything, the opposite appears to be true.

Moreover, the ability to monitor loans effectively for a particular activity cannot be completely divorced from knowledge of the underlying activity itself. Monitoring loans to oil drillers requires knowledge of oil drilling. Because banks lend in a large number of industries, the ability of the FDIC to monitor effectively is questionable in any event.⁶⁸ Put differently, the incremental effect on the FDIC's monitoring ability of allowing banks to diversify is likely to be slight.

C. *The Alternative of Structural Separation*

Our analysis, though not unambiguous, suggests that eliminating activity restrictions would not increase the risk of bank failure and would not significantly increase the monitoring costs of the FDIC. This conclusion can be reached with even greater confidence if it is assumed that nonbanking activities would be carried out in structurally distinct, separately capitalized subsidiaries.⁶⁹ If such a nonbanking subsidiary failed, its creditors would have no claim on the assets of the related bank or parent. This result is a direct implication of the basic (and efficient) corporation law principle that creditors of a subsidiary corporation—especially contractual creditors, as distinguished from involuntary tort creditors—cannot pierce the corporate veil.⁷⁰

But structural separation has costs of its own. One type of cost is opportunity cost. Structural separation would prevent banks from realizing the benefits of diversification:⁷¹ banks would be unable to decrease their risk of failure by combining traditional banking activities with nontraditional activities. Moreover, any efficiencies that

⁶⁶ See *Investment Co. Inst. v. Camp*, 401 U.S. 617 (1971).

⁶⁷ See *Securities Indus. Ass'n v. Board of Governors of the Fed. Reserve Sys.*, 468 U.S. 137 (1984).

⁶⁸ Analogously, bond covenants typically do not restrict a firm's investment decisions but rather constrain its dividend and new financing policy. See Smith & Warner, *On Financial Contracting: An Analysis of Bond Covenants*, 7 J. Fin. Econ. 117 (1979).

⁶⁹ Robert Clark has argued in favor of allowing separate affiliates to engage in multiple lines of business. See Clark, *Financial Holding Companies*, *supra* note 15, at 787, 814-49.

⁷⁰ See Easterbrook & Fischel, *supra* note 50, at 111; Posner, *The Rights of Creditors of Affiliated Corporations*, 43 U. Chi. L. Rev. 499 (1976).

⁷¹ See *supra* text accompanying note 63.

might flow from allowing banks to perform activities now forbidden to them are likely to be greatest if (and would perhaps be achievable only if) the activity is conducted within the bank. A commercial bank may be a particularly efficient provider of many investment and financial services *only* because of production complementarities permitting the bank to utilize more efficiently its physical assets, employees, and reputation capital. The most efficient method for operating a closed-end mutual fund, for example, may be for the fund to be managed by the bank's trust department and marketed by bank employees who routinely provide investment advice to the bank's existing customers. Mandating that nontraditional banking activities be performed through a structurally separate subsidiary may result in an uneconomical duplication of costs or an uneconomical decision not to offer the product or service at all.⁷²

D. Promotion, "Disinterested" Banks, and the "Subtle Hazards" of Commercial Banking Activity

The Supreme Court has repeatedly emphasized the "subtle hazards that arise when a commercial bank goes beyond the business of acting as fiduciary or managing agent and enters the investment banking business."⁷³ Others have made the same claim in defending activity restrictions generally.⁷⁴ Four possible "subtle

⁷² Interestingly, most of the investment banking activity undertaken by commercial banks before the Depression appears to have been conducted in separate subsidiaries. This suggests that not all the benefits from permitting commercial banks to engage in investment banking activities would be lost by requiring such activities to be performed in a separate subsidiary, although we are unsure how complete the separation between commercial banking and investment banking was prior to the Glass-Steagall Act. We suspect (and hope to confirm in a later article) that bank losses and failures during the late 1920's and early 1930's were unrelated to the presence or absence of investment banking affiliates.

⁷³ *Investment Co. Inst. v. Camp*, 401 U.S. 617, 630 (1971). In this case the Court held that banks cannot offer open-end mutual funds, in part because this activity presents the "subtle hazards" Congress sought to prevent through the Glass-Steagall Act. See also *Securities Indus. Ass'n v. Board of Governors of the Fed. Reserve Sys.*, 468 U.S. 137 (1984) (Glass-Steagall Act prohibits banks from underwriting third-party commercial paper, in part because of "subtle hazards"). But see *Securities Indus. Ass'n v. Board of Governors of the Fed. Reserve Sys.*, 468 U.S. 207, 220-21 (1984) ("subtle hazards" are absent when a bank affiliate engages in retail securities brokerage); *Board of Governors of the Fed. Reserve Sys. v. Investment Co. Inst.*, 450 U.S. 46, 64-68 (1981) ("subtle hazards" are absent when a bank or bank affiliate acts as an investment advisor to a closed-end mutual fund). We argue that the distinctions drawn by the Supreme Court, as well as the concept of "subtle hazards" itself, are contrary to economic theory.

⁷⁴ See authorities cited *supra* note 14. The "subtle hazards" justification for activity restrictions is obviously related to the claim that allowing banks and their affiliates to engage in new lines of business will increase the probability of bank failure. Avoidance of "subtle hazards,"

hazards" have been identified: (1) biased advice to clients—providing misleading information to clients of the bank to induce them to purchase nonbanking services from the bank or its affiliate; (2) uneconomical transfers—the making of loans by a bank to a commonly controlled, financially troubled nonbanking affiliate at less than the market rate of interest; a bank trust department paying more than the market price for securities of an underwriting sponsored by a commonly controlled separate underwriting subsidiary; the making of loans to purchasers of these securities to ensure that the underwriting will be successful;⁷⁵ (3) predation—extending credit to an affiliate at less than the market rate of interest in order to injure rivals of the affiliate; and (4) tie-in sales—requiring customers of the bank to purchase goods and services from commonly controlled nonbanking business affiliates as a condition of obtaining credit from the bank. We demonstrate below the economic fallacies underlying the concerns that banks will engage in these practices if activity restrictions are relaxed.

1. *Biased Investment Advice*

One of the claimed hazards of allowing banks and their affiliates to enter new lines of business is that "promotional pressures" would create a "salesman's interest" and "impair [a bank's] ability to function as an impartial source of credit."⁷⁶ The concern is that the relaxation of activity restrictions would cause commercial bankers to become "promoters" rather than "bankers" and that, as a result, they would be unable to provide disinterested investment counsel to their customers. This concern is completely at odds with economic theory.

Virtually all firms—and certainly all financial service firms, including investment banks—provide information as well as products and services. Businesses and individuals routinely turn to investment bankers, fund managers, accountants, lawyers, and the like for investment and financial advice. There is nothing special in the financial counsel offered by banks. That banks could conceivably offer their customers misleading investment advice that could, at least in the short run, be profitable to the bank does not distinguish

however, also appears to be an independent justification for activity restrictions.

⁷⁵ Although these uneconomic transfers are referred to as "conflicts of interest" in the banking literature, they are termed "cross-subsidies" in the literature on the pervasively regulated utility industries.

⁷⁶ *Investment Co. Inst. v. Camp*, 401 U.S. 617, 630-31 (1971).

banks from any other provider of information.

The corporate department of a law firm, for example, could deliberately provide poor advice to a corporate client to increase the likelihood that the client will, as a consequence, require the services of the firm's litigation department. A group medical practice could refuse to inform patients of a simple preventive measure in the hope of eventually increasing the group's surgical business. A bank, even without entering any new lines of business, can engage in the same types of practices. It can, for example, encourage customers to acquire assets at inflated prices in the hope that the customers will borrow more money from the bank as a result. The incentive to be a "promoter" rather than an impartial provider of information is not unique to banks or their affiliates engaging in securities or insurance activities or otherwise entering new lines of business.

The incentive to provide misleading information is minimized because a firm's reputation is a critical asset that controls the firm's long-term viability and business prospects. A firm that manipulates and injures its customers or clients in an attempt to increase the firm's income will quickly find itself with sharply reduced sales. The same is true of banks—a bank that manipulates customers by offering poor investment services or financial advice in an effort to enrich itself and its affiliates may well be driven out of the market by banks offering superior performance and service. A bank's incentive to maintain its reputation is in no way dependent on whether the bank or its affiliates engage in nonbanking activities.

Finally, a strong argument can be made that the advice provided by banks would be more, not less, disinterested if banks and their affiliates could offer other financial products. For example, because banks cannot offer many types of investments, they have an incentive to promote debt financing instead of a mix of debt and equity financing. Consider as an analogy a rule prohibiting law firms from offering services to both partnerships and corporations. One class of law firm would market and promote the partnership form, while others would market and promote the corporate form. Although clients would not necessarily make the wrong choice, the cost of making the correct choice would increase—visits to both types of law firms might be required. These costs could be avoided if businesses could turn to a single law firm for "disinterested" counsel regarding the choice between corporate and partnership organization. The same would be true if customers could turn to a single financial firm for "disinterested" advice concerning different financial products. Indeed, the growth in high-yield debt financing by investment

banks illustrates just this type of mixed financing counsel from a single funds source.

2. *Uneconomical Transfers*

If a nonbanking subsidiary of a bank holding company is losing money, a decision must be made whether to support that business, in the hope that its fortunes will improve, or to abandon it. This calculus, which is recurrently required of many businesses, is unaffected by the presence of an affiliated bank. No incentive exists for the bank to "subsidize" its financially troubled affiliate by extending credit at below the market rate of interest. It is important to recognize that the profits of banks are not constrained by regulation to any particular level—banks are not subject to rate-of-return regulation. Consequently, there is no incentive for a bank to shift profits to an unregulated affiliate.⁷⁷ An example illustrates the lack of incentive for a bank to cross-subsidize an affiliate.

If the "troubled" affiliate can obtain debt financing at arm's length from an independent bank at an annual interest rate of, say, fifteen percent, that cost of credit reflects an independent and realistic assessment of the risks attendant to the loan. A related bank has no incentive to lend at less than fifteen percent. The bank could have made a loan to a third party of identical risk at fifteen percent. The difference between fifteen percent and the lower rate charged the affiliate (say, ten percent) is the opportunity cost of transferring credit at less than the market rate. The forgone interest (five percent in this case) represents an income stream the bank could have realized and, consequently, is a cost of the below-market loan to the affiliate. The total cost of credit to the holding company is the cost the affiliate pays (ten percent) plus the lost earnings of the bank (five percent), which is equal to the cost of borrowing in the market (fifteen percent). Put simply, although a troubled business might appear to pay less than market rate for its loan, the related bank suffers a corresponding loss in income. The firm as a whole cannot reduce the cost of borrowing by charging an uneconomical transfer price.⁷⁸ Thus, the fear of cross-subsidization is groundless because

⁷⁷ Obviously, if loans between affiliates are made at the market rate of interest (i.e., at the same rate an independent third-party bank would charge the troubled affiliate), no cross-subsidy or conflict of interest occurs. Indeed, such loans may illustrate efficiencies wherein transaction costs are less for an intrafirm transfer than an arm's-length transaction.

⁷⁸ See Hirshleifer, *On the Economics of Transfer Pricing*, 29 *J. Bus.* 172 (1956).

nothing can be gained by causing a below-market transfer of credit from the bank to a troubled affiliate.

The concept of opportunity cost likewise demonstrates the fallacy of the argument that banks would make loans at below-market rates to purchasers of securities from a related underwriter or would purchase the securities themselves at prices in excess of the market price. Such decisions would simply transfer a loss from the underwriter to the bank but would do nothing to reduce the size of the loss itself. The bank would therefore have no incentive to engage in these practices.

3. *Predation*

It is sometimes alleged that allowing bank holding companies to own businesses unrelated to banking would cause the holding company, through predatory or exclusionary practices, to drive rivals from markets in which its nonbanking subsidiaries compete, in an effort to obtain a monopoly position. This argument proceeds on the unstated assumption that predatory pricing and related practices—all of which, if successful, violate the antitrust laws—are made less costly because the subsidiary has access to funds supplied by an affiliated bank.

It must be emphasized that the scholarly legal and economic literature demonstrates that attempted predation is extremely rare, and successful predation even rarer still.⁷⁹ A fear of predation is warranted only when the likelihood of “recoupment” is great, that is, only when it is probable that a firm that has driven competitors from the market will be able to charge a price sufficiently above the competitive level to generate profits that more than offset losses suffered during the period of predation. If the firm cannot recoup its losses, predation is senseless; and recoupment is unlikely when competitors can enter or reenter the market at low cost. Thus, predation is unlikely to be profitable, regardless of the source of funds or the market in which it is attempted.

But even if predation were a matter of general concern and were not adequately deterred by the antitrust laws, allowing bank holding companies to own businesses unrelated to banking would not increase the likelihood of successful predation because access to a bank does not lower the cost of predation. Funds used to support

⁷⁹ See, e.g., McGee, *Predatory Price Cutting: The Standard Oil (N.J.) Case*, 1 *J.L. & Econ.* 137 (1958).

predatory pricing need not derive from bank loans—a firm desiring to sell below cost can use any source of funds and, most importantly, the cost to a predator of selling below cost is the same regardless of the source of funds. This is merely another implication of the fact that the opportunity costs to an integrated bank holding company include any interest income forgone as a result of making below-market loans.

Nor does the existence of federal deposit insurance increase the likelihood that a bank would finance an affiliate's attempted predation. It is sometimes claimed that it is "unfair" to allow banks or their affiliates to compete in nonbanking activities. The stated reason is typically that banks receive a subsidy from the FDIC that gives them an unfair advantage over firms in unrelated lines of businesses. This claim is false.

First, it is inaccurate to assert that federal deposit insurance necessarily "subsidizes" or otherwise benefits all insured institutions. The federal deposit insurance system is backed by government guarantees and, to this extent, insured banks as a group do receive a government subsidy. The deposit insurance system, however, is designed to be self-financing—payments from the fund are meant to be financed from the premiums paid in. Yet because FDIC premiums are not risk-related, riskier banks pay less than they would in a regime that tied premiums to risk, while safer banks pay more. Under the existing deposit insurance system, therefore, it is unclear whether safe banks receive a net subsidy. They benefit from the government guarantee of the deposit insurance system, but they pay insurance premiums that subsidize risky banks.

Second, even if the existence of a subsidy is presumed, claims of "unfairness" are still misguided. Admittedly, because of the moral hazard problem discussed above,⁸⁰ federal deposit insurance may make banks more likely to finance risky projects. Predation is surely a highly risky venture, and therefore at the margin deposit insurance theoretically could increase the frequency of attempted predation by bank holding companies. But whatever the effects of deposit insurance, the cost of financing an affiliate in predation or any other venture is the opportunity cost of those funds—the rate that could be earned on an investment (loan) of comparable risk. Regardless of whether a bank enjoys federal deposit insurance, it has no more in-

⁸⁰ See *supra* text accompanying notes 42-48.

centive to finance an affiliate's attempted predation than would a third-party lender.

4. *Tie-In Sales*

A final concern that sometimes is expressed is a fear of anticompetitive tie-ins. The concern is that if bank holding companies were permitted to expand the scope of their activities, and if the antitrust laws provide insufficient deterrence, banks might engage in efforts to tie the purchase of affiliates' products or services to the purchase of credit, checking, or other banking services. Standard economic analysis suggests that this concern is unwarranted.

The economic literature on tie-ons is extensive,⁸¹ and we make no attempt to summarize it here. It is sufficient for our purposes to note that anticompetitive tie-in sales can only occur under extremely limited circumstances. For example, it is possible for a firm with substantial market power to use tie-in sales to take advantage of complementarities in demand and thereby enhance its market power.⁸² The best example is a monopolist's use of a tie-in to discriminate in price—to charge a higher price to those with intensive (inelastic) demands than to those who have better substitutes (more elastic demands) for the tying product.

It is highly unlikely that banks have market power over the availability of credit or in the provision of other banking services. It is also unlikely that significant complementarities in demand exist between banking and nonbanking activities. The proliferation of substitutes for virtually all products offered by banks and the increasingly national and even international nature of credit markets suggest that the probability that banks have market power is remote. Similarly, it is doubtful whether the demand for banking services of any type would be closely related to the demand for the products or services of nonbanking affiliates. There is simply no reason, for example, to believe that the demand for underwriting services or kitchen appliances is a good proxy for the intensity of demand for bank credit. It is much more likely that the demands for different types of banking services would be closely related, but this problem (or more likely, nonproblem) already exists under current law.

In sum, neither the prevention-of-bank-failures rationale nor the "subtle hazards" rationale provide a plausible justification for activ-

⁸¹ See, e.g., R. Posner, *Antitrust Law: An Economic Perspective* 171-84 (1976).

⁸² See *id.* at 173.

ity restrictions. These restrictions are best understood as anticompetitive restraints that protect existing firms in particular lines of business. Thus, it is not surprising that securities firms consistently lobby and file suits to prevent commercial banks from entering new lines of business, while commercial banks and other financial firms do the same to prevent diversified firms from operating banks. The important point, however, is that activity restrictions in their current form are completely unrelated to the characteristics of banks that make them different from other types of firms.

IV. ENTRY CONTROLS, GEOGRAPHIC RESTRICTIONS, AND THE DUAL BANKING SYSTEM

In this section, we demonstrate that chartering requirements and restrictions on geographic expansion, like activity restrictions, are best understood as restraints on competition that have nothing to do with the reasons why banks are different from other types of firms. We also show that the dual banking system, which could potentially mitigate the anticompetitive effects of entry controls and geographic restrictions, has not had this effect.

A. *Entry Restrictions*

Banks must obtain a charter from either state or federal regulatory authorities in order to operate. If there were no system of federal deposit insurance, the only theoretical justification for entry controls would be to protect depositors from investing in unsafe banks. A related argument would be that certification in the form of chartering enables depositors to reduce the search costs associated with deciding in which bank to place their funds.⁸³

With the advent of federal deposit insurance, emphasis shifts from protecting depositors to protecting the insurer. Here, again, a case can be made for entry controls, particularly because the premiums charged for deposit insurance as currently structured are not risk-related. Thus, regulators could rationally refuse to grant a charter to a bank that had a greater than average chance of failing.

The problem with this argument is that it ignores the way entry controls have in fact been implemented. The reality of entry controls is that they have been applied capriciously depending on the philosophy of the particular regulator.⁸⁴ To the extent that a pat-

⁸³ This argument is similar to the economic argument in favor of licensing physicians.

⁸⁴ See Scott, *In Quest of Reason: The Licensing Decisions of the Federal Banking Agencies*,

tern exists, entry controls appear to have been used for the purpose of limiting competition rather than promoting safety. "Insufficient need in the community to be served" is a far more common justification for denying charter applications than "inadequate capital," although it is only in the latter case that entry controls might arguably protect potential depositors and insurers from unsafe banks.⁸⁵ In the same vein, the typical objectors to new charter applications are existing competitors, who obviously have strong incentives to claim that there is "insufficient need" for another bank.⁸⁶

B. Restrictions on Geographic Expansion

Many state laws limit the ability of state-chartered banks to establish branches in that state. The McFadden Act makes these state-law restrictions on branching applicable to national banks located within the particular state.⁸⁷ Moreover, the Douglas Amendment to the Bank Holding Company Act prohibits holding companies from expanding across state lines unless expressly permitted to do so by state law.⁸⁸ Although these restrictions appear to be garden-variety special interest legislation designed to protect existing banks from competition, they are sometimes justified as necessary to prevent undue concentration in the banking system. This justification rests on three premises: (1) that relaxing geographic restrictions would increase concentration; (2) that an increase in concentration would be harmful, even if it would not constitute a violation of the antitrust laws; and (3) that geographic restrictions are the most efficient method for deterring harmful concentration. We examine these premises below.

42 U. Chi. L. Rev. 235, 288 (1975).

⁸⁵ See Shull & Horvitz, *Banking and the Structure of Competition*, 1 Nat'l Banking Rev. 301 (1964) (in a study of reasons given for rejecting applications for new national banks and branches, insufficient need was given as a justification approximately seven times more frequently than inadequate capital).

⁸⁶ Several studies have concluded that for long periods of time federal entry controls were effective in restricting new entry. From 1936 to 1962, the number of new banks was approximately 25% to 50% lower than it would have been if entry had been unrestricted. See Edwards & Edwards, *Measuring the Effectiveness of Regulation: The Case of Bank Entry Regulation*, 17 J.L. & Econ. 445 (1974); Peltzman, *Entry in Commercial Banking*, 8 J.L. & Econ. 11, 48 (1965). Entry barriers were loosened between 1962 and 1966 but were again toughened after 1966. See Ginsburg, *Interstate Banking*, 9 Hofstra L. Rev. 1133, 1144 n.31 (1981).

⁸⁷ See 12 U.S.C. § 36(c) (1982).

⁸⁸ See *id.* § 1842(d).

1. *Geographic Restrictions and Concentration*

Relaxing geographic restrictions would have the greatest impact on concentration if there were significant economies of scale in banking. The studies that have focused on this issue have concluded that such scale economies, if any, appear to be small.⁸⁹ For example, two recent econometric studies conclude that, although there may be economies of scale at very low levels of output, these economies are exhausted as bank size expands beyond the quite modest figure of \$25 million (in dollars of the late 1970's).⁹⁰

The difficulty with these studies is that they appear to fly in the face of experience. In particular, they cannot explain why, in states where branch banking is unrestricted, it apparently becomes the dominant form of bank organization.⁹¹ The inability of the econometric studies to account for this empirical fact may be attributable to the methodology of the research: the studies focus exclusively on operating costs and ignore other possible sources of economies. For example, the studies do not consider the economies of branching that result from consumers being able to deal conveniently with a single bank regardless of where they are in a given state.

Experience suggests, then, that scale economies probably do exist in banking, and they are most likely greater than the existing econometric studies indicate. We doubt, however, that the scale economies are vast. In recent years a number of states have relaxed unit banking laws, and the subsequent developments in market structure are instructive. For example, in 1971 New York liberalized the conditions under which New York City banks could establish branches upstate, and at that time a number of the money center banks attempted to expand into upstate metropolitan areas. Approximately ten years later, the combined market share of the New York City banks in the upstate areas was only about ten percent.⁹²

⁸⁹ For a summary of the literature, see Gilbert, *Bank Market Structure and Competition: A Survey*, 16 *J. Money, Credit & Banking* 617, 636-43 (1984).

⁹⁰ See Benston, Hanweck & Humphrey, *Scale Economies in Banking: A Restructuring and Reassessment*, 14 *J. Money, Credit and Banking* 435, 451 (1982); Gilligan, Smirlock & Marshall, *Scale and Scope Economies in the Multi-Product Banking Firm*, 13 *J. Monetary Econ.* 393, 401-03 (1984). Gilligan, et al. do find statistical evidence of economies of scope. Although their results indicate diseconomies if the scale of banking is increased beyond relatively low levels, the results also suggest that it is more efficient to combine the acceptance of deposits and the making of loans into one operation. See *id.*

⁹¹ See Peltzman, *Comment*, 16 *J. Money, Credit & Banking* 650, 651 (1984).

⁹² King, *Upstate New York: Tough Markets for City Banks*, 70 *Econ. Rev. (Fed. Reserve*

Similar results have been found in studies of banks acquired by large bank holding companies. After the acquisitions, there appear to be no signs of the acquired banks dramatically increasing their market shares, contrary to what might be expected if the acquisitions realized significant economies of scale.⁹³

Finally, we note that even if there are significant economies of scale in banking, it is still not obvious that relaxing existing geographic restrictions would have much incremental effect on market structure. The fact that bank holding companies and local banks are expending substantial resources lobbying for and against interstate banking proposals convinces us that there would be some incremental effect. Why else spend the money? Nevertheless, we would not expect this incremental effect to be large. First, in states that allow branch banking, most of the available economies may already have been exhausted by intrastate expansion. Second, in many ways interstate banking already is a reality. We currently observe interstate banking by mail, interstate solicitation of commercial borrowers, interstate bank chains linked by common ownership but not held in holding company form, and other forms of de facto interstate banking. Therefore, even if economies of scale in banking are significant, we question whether officially sanctioning interstate banking would have much incremental effect on bank market structure.

2. *Concentration and Consumer Welfare*

Economists are concerned about concentration only to the extent that the ability of firms to charge supracompetitive prices is increased. Size per se is not a concern. Thus, even if we assume that the relaxation of geographic restrictions will lead to a marked increase in concentration, the relevant question is whether such an increase would adversely affect consumers.

A number of economists have studied the relationship between market concentration and bank performance.⁹⁴ Performance has been measured in a variety of ways—return on assets, return on eq-

Bank of Atlanta), June-July 1985, at 30, 33.

⁹³ King, *The Impact of Local Market Entry by Large Bank Holding Companies*, 67 *Econ. Rev.* (Fed. Reserve Bank of Atlanta), Nov. 1982, at 41. For an overview of the studies of competition between large and small banks, see Rhoades, *The Implications for Bank Merger Policy of Financial Deregulation, Interstate Banking, and Financial Supermarkets*, at 8 (Fed. Reserve Bd. Staff Study No. 137) (1984) (small banks, whether specialized or diversified, are likely to remain viable institutions).

⁹⁴ See Gilbert, *supra* note 89, at 618-36 (reviewing 45 such studies conducted between 1964 and 1983).

uity, average interest rates, average deposit service charges—and researchers have attempted to control for the influence of other variables, besides concentration, on bank performance. The great majority of these studies conclude that, all else being equal, profits, interest rates, and service charges are somewhat higher where local banking markets are most highly concentrated.

It is extremely difficult, however, to draw meaningful conclusions from these studies. First, many of them have serious methodological problems. For example, using profits as a measure of performance creates a difficulty because it is unclear whether high profits reflect supracompetitive pricing or superior efficiency.⁹⁵ Measuring interest rates is also problematic. If interest rates have been changing over time, average interest rates will depend on the age composition of the outstanding loans and may therefore be a poor measure of current market rates.

Second, and more important for our purposes, concentration in banking has historically been a function of regulatory barriers to entry that have benefited banks while harming borrowers and depositors. Therefore, if anything, the research on concentration in banking provides empirical support for the general economic presumption in favor of unrestricted entry.⁹⁶ If entry barriers are removed, economic theory suggests that the surviving firms will do a better job of serving consumers, regardless of whether a particular market becomes more or less concentrated.⁹⁷

⁹⁵ The relationship between concentration and performance has been perhaps the most studied question in industrial organization. One interpretation is that higher concentration facilitates collusion, tacit or explicit, and thereby leads to higher profits. The alternative view is that both high concentration and high industry profits result from the presence in an industry of a core of more efficient firms. For a critical overview of the literature, see F. Scherer, *Industrial Market Structure and Economic Performance* 267-95 (2d ed. 1980). The efficiency hypothesis is associated with and was first tested by Demsetz. See Demsetz, *Industry Structure, Market Rivalry, and Public Policy*, 16 *J.L. & Econ.* 1 (1973); see also Peltzman, *The Gains and Losses from Industrial Concentration*, 20 *J.L. & Econ.* 229 (1977) (efficiency effects of concentration predominate).

⁹⁶ Banking economists interpret the literature similarly. See, e.g., Heggstad, Comment on "Bank Market Structure and Competition: A Survey," 16 *J. Money, Credit & Banking* 645, 648-49 (1984). In criticizing a survey of the empirical literature on bank scale economies and the effects of bank concentration, Heggstad concludes that, although prior studies may be slightly dated, "the major conclusions still stand. The conclusion that massive size is not needed for efficiency has not been altered. Neither has the conclusion that reductions in entry barriers or increases in the number and viability of competitors is in the public interest." *Id.* at 649.

⁹⁷ Flannery provides some measure of the costs of unit banking restrictions to consumers. See Flannery, *The Social Costs of Unit Banking Restrictions*, Working Paper No. 82-5 (Fed. Reserve Bank of Philadelphia) (1982). Using 1978 data, Flannery compares profits and costs

C. A Note on the Dual Banking System

The current regulatory system allows banks to be chartered on either the federal or state level and thus to decide which of two different sets of rules will govern their activity. Moreover, banks have the ability to switch their status at any time. The existence of parallel state and federal regulatory authorities is referred to as the "dual banking system."⁸⁸

The dual banking system has been criticized on two grounds. The first is that it is wasteful to have two sets of regulators performing essentially the same function. The second criticism is the familiar argument that allowing banks to choose which set of regulations to be bound by creates a race to the bottom in which regulators have incentives to adopt lax rules to attract charters.

Although the existence of twin sets of regulators will inevitably impose some duplication costs, the race-to-the-bottom argument lacks merit.⁸⁹ Because chartering requirements have operated in practice as an anticompetitive barrier to entry, any competition among regulatory bodies that makes entry easier is beneficial. In other words, so long as entry is regulated on grounds having nothing to do with the safety and soundness of the banking system, the more competition among regulators, the better.

The benefits of the dual banking system have been undermined, however, by the doctrine of competitive equality. Under this doctrine, which has been codified in several provisions of federal law¹⁰⁰

of unit banks in states where branching is permitted and those where it is not. He finds higher profits in states where branching is restricted yet costs are also higher. Thus, the higher profits reflect supracompetitive prices paid by customers. He estimates the injury to consumers from unit banking restrictions to be \$512 million annually.

⁸⁸ See Scott, *The Dual Banking System: A Model of Competition in Regulation*, 30 *Stan. L. Rev.* 1 (1977). State banks, however, are eligible for federal deposit insurance. Those that elect this option must comply with regulations promulgated by the FDIC, reducing the difference in the regulatory environment faced by state and federal banks.

⁸⁹ The race-to-the-bottom argument has been made most frequently in connection with state chartering of corporations. See Cary, *Federalism and Corporate Law: Reflections upon Delaware*, 83 *Yale L.J.* 663 (1974). The theory has now been discredited both theoretically and empirically. See Baysinger & Butler, *The Role of Corporate Law in the Theory of the Firm*, 28 *J.L. & Econ.* 179 (1985); Dodd & Leftwich, *The Market for Corporate Charters: "Unhealthy Competition" Versus Federal Regulation*, 53 *J. Bus.* 259 (1980); Fischel, *The "Race to the Bottom" Revisited: Reflections on Recent Developments in Delaware's Corporation Law*, 76 *Nw. U.L. Rev.* 913 (1982); Romano, *Law as a Product: Some Pieces of the Incorporation Puzzle*, 1 *J.L. Econ. & Organization* 225 (1985); Winter, *State Law, Shareholder Protection, and the Theory of the Corporation*, 6 *J. Legal Stud.* 251 (1977).

¹⁰⁰ See, e.g., 12 U.S.C. § 36(c) (1982) (national bank may establish branch "if such establishment and operation are . . . authorized to State banks by the statute law of the State in question"); *id.* § 1842(d) (out-of-state holding companies can acquire bank only if acquisition

and extended by judicial decision,¹⁰¹ any competitive advantage that national banks might have over state banks is deemed inappropriate. This policy has frustrated attempts by banks to opt out of restrictive state laws by becoming national banks.¹⁰²

If competitive equality is deemed to be a goal of banking regulation, there is no point in having a dual banking system. Why have two systems when competitive equality requires that they both be the same? The preferable course, however, is to retain the dual banking system—at least so long as entry barriers exist—and abandon the doctrine of competitive equality. If there were no such doctrine, banks would have strong incentives to be chartered under the rules that best allow them to meet consumer demand. Under the present system, by contrast, banks lack incentive to innovate around restrictive regulations because such an attempt might violate the regulatory policy of protecting existing competitors.

V. BANK HOLDING COMPANIES AS A SOURCE OF STRENGTH

The Bank Holding Company Act requires that approval be obtained from the Board of Governors of the Federal Reserve System whenever a company acquires control of a bank.¹⁰³ One of the criteria that the Board must consider is the financial resources, or capital adequacy, of the proposed holding company.¹⁰⁴ This requirement

"is specifically authorized by the statute laws of the State in which such bank is located").

¹⁰¹ See, e.g., *First Nat'l Bank v. Dickinson*, 396 U.S. 122 (1969) (holding that the definition of branch under federal law must be interpreted broadly because of the principle of competitive equality); *First Nat'l Bank v. Walker Bank & Trust Co.*, 385 U.S. 252 (1966) (same); see also *Northeast Bancorp, Inc. v. Board of Governors of the Fed. Reserve Sys.*, 472 U.S. 159 (1985) (states may allow entry of out-of-state holding companies located in some states but not others). For an analysis of *Northeast Bancorp*, see Miller, *Interstate Banking in the Court*, 1985 Sup. Ct. Rev. 179.

¹⁰² *First Nat'l Bank v. Dickinson*, 396 U.S. 122 (1969), illustrates this point. The state law at issue prohibited branch banking by state banks. A national bank attempted to circumvent this restriction by establishing an armored car service and a shopping center depository set up in such a way as to avoid the literal definition of "branch" under federal law. See *id.* at 126-29. A branch is defined as any place of business "at which deposits are received, or checks paid, or money lent." 12 U.S.C. § 36(f) (1982). The national bank attempted to avoid this definition by, for example, providing contractually that deposits were not received until they reach the main office. See *First Nat'l Bank*, 396 U.S. at 126-29. Nevertheless, the Supreme Court emphasized that the principle of competitive equality was relevant in construing "branch" and held that the bank could not gain a competitive edge over state banks by providing a service to consumers that state banks were prohibited from offering. See *id.* at 136-37.

¹⁰³ See 12 U.S.C. § 1842 (1982).

¹⁰⁴ See *id.*; see also *Board of Governors of the Fed. Reserve Sys. v. First Lincolnwood Corp.*, 439 U.S. 234, 243 (1978) (construing this provision of the Bank Holding Company Act).

is designed to ensure that the holding company will be a source of strength for its subsidiary bank.¹⁰⁵ The goal is to make sure that the holding company will have sufficient capital to invest in the bank. A related goal is to ensure that the holding company will not use its control to cause the bank to pay excessive dividends and thereby weaken the bank's financial condition.

The rationale for this form of entry regulation is that bank holding companies with relatively low debt-equity ratios will be more likely to invest in, and less likely to withdraw funds from, their subsidiary banks.¹⁰⁶ The validity of this assumption, however, is questionable at best. That a holding company is well-capitalized should have no effect on its willingness to invest in a bank. This decision should be solely a function of whether the investment has a positive net present value to the holding company. If it does, the investment can be financed with either debt or equity or by use of retained earnings. If it does not, it will not be pursued regardless of the availability of funds. Whatever funds are available will either be invested in other projects, distributed to shareholders, or held as retained earnings.

The capital structure of the holding company is also irrelevant to its incentive to use control to withdraw funds from the bank. Holding companies are shareholders of banks; depositors are creditors of banks. One form of conflict that always exists between shareholders and creditors of any firm is the incentive that shareholders have to withdraw funds from the firm and thereby divert to themselves assets that are at least partially owned by creditors. This conflict exists in the bank context as well. But the severity of this conflict is unaffected by the capital structure of the particular shareholder or by whether the stock was purchased on margin. The reason is that the payment of debt is only one of an infinite number of possible uses of those funds. Put differently, if it is profitable to withdraw assets to meet interest payments, it is equally profitable to withdraw assets for other purposes.

If the "source of strength" rationale, with its emphasis on capital structure, does not justify regulating the formation of holding companies, it is useful to ask whether any other criteria are more rele-

¹⁰⁵ See *Board of Governors of the Fed. Reserve Sys. v. First Lincolnwood Corp.*, 439 U.S. 234 (1978), where the Court deferred to the Board's denial of an application for holding company status based solely on the Board's "frequently reiterated" policy that "holding companies should be a source of strength to subsidiary financial institutions." *Id.* at 251.

¹⁰⁶ *Id.*

vant to a company's fitness to own a bank. Other possibilities include managerial talent (a factor that is considered under current law) and the reputational interest of the holding company in having its subsidiaries be successful.¹⁰⁷ Unfortunately, the prospects of regulators being able to determine in advance which large shareholders (holding companies) will loot or mismanage the bank are remote.¹⁰⁸ The more likely result is that these criteria, or others like them, will be used in anticompetitive ways to frustrate transfers of control.¹⁰⁹

VI. CONCLUSION

Banks are different from other types of firms in that they are more susceptible to me-first behavior by creditors. Federal deposit insurance is best understood as a regulatory response to this prisoner's dilemma faced by bank depositors. Yet many other current regulations, particularly activity and geographic restrictions, as well as regulations governing the formation of bank holding companies, have nothing to do with the reasons why banks are different from other types of firms and thus serve no useful social purpose.

¹⁰⁷ The capital structure of the holding company is not completely irrelevant. The greater the total amount of debt—meaning debt at the bank, holding company, and personal level—the greater the incentive of the shareholder who has control over the bank to cause it to invest in risky projects.

¹⁰⁸ For a general discussion of this point outside the context of banking, see Easterbrook & Fischel, *Corporate Control Transactions*, 91 *Yale L.J.* 698 (1982).

¹⁰⁹ For a summary of the evidence on the efficiency gains resulting from transfers of control, see Jensen & Ruback, *The Market for Corporate Control: The Scientific Evidence*, 11 *J. Fin. Econ.* 1 (1983).