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INTERSTATE BANKING AND PRODUCT LINE EXPANSION: IMPLICATIONS FROM AVAILABLE EVIDENCE

*Stephen A. Rhoades**

I. INTRODUCTION

The financial sector of the economy has been the subject of important changes in recent years as a result of market forces, applications of electronic technology and financial deregulation. Market forces, such as high and variable interest rates, and applications of technology generally are not directly susceptible to social control. Consequently, financial deregulation has received the most attention because it is the product of conscious decisions by policymakers at both the federal and state levels.

Numerous proposals for deregulation have already been implemented. For example, the Depository Institutions Deregulation and Monetary Control Act of 1980¹ and the Garn-St Germain Depository Institutions Act of 1982² have broadened the asset and liability powers of nonbank thrift institutions (savings and loan associations, mutual savings banks and credit unions) and have mandated by 1986 the removal of Regulation Q ceilings on the interest rates that commercial banks and nonbank thrift institutions may pay on deposits.³ These are unquestionably important elements of deregulation with interesting implications. Nevertheless, this Article will focus on areas of deregulation that are still being considered in policy circles; notably interstate banking and expansion of product lines that commercial banks may offer.

Many of the arguments both for and against interstate banking and product line expansion reflect vested interests and ideological views. For example, large banking organizations, motivated by the prospect of financial benefits, are advocates of interstate banking and product line deregu-

* Financial Structure Section, Federal Reserve Board, Washington, D.C. The views expressed herein are the author's and do not necessarily reflect the views of the Board, its staff or any of the people who provided comments. I extend thanks to Dean Amel, Matthew Gelfand, Margaret Guerin-Calvert and Donald Savage for helpful comments and to Patricia Warren for excellent typing.

1. Pub. L. No. 96-221, 94 Stat. 132 (codified as amended in scattered sections of 12 U.S.C.).

2. Pub. L. No. 97-320, 96 Stat. 1469 (codified as amended in scattered sections of 12 U.S.C.).

3. 12 U.S.C. § 3501(b) (1982).

lation. However, smaller banking organizations and firms participating in markets that banks would like to enter, such as insurance and securities underwriting, feel threatened by the prospect of facing increased competition from large banking organizations. Finally, there are others, with no vested interest, who believe that government intervention in the marketplace generally yields results that are inferior to those determined by unencumbered markets. They advocate deregulation in general, including that associated with existing constraints on interstate banking and product line expansion.

The arguments of vested interest groups and those with a strong ideological position may provide useful information and insight for policymakers to consider in weighing the desirability of deregulation. However, decisions made with respect to interstate banking and product line expansion of banks will have fundamental implications for the financial sector generally, as well as the safety and soundness of the banking system. Consequently, it is important that the interests of the public prevail over the positions of vested interest groups and ideological factions. This outcome is best ensured if the policymakers have relevant information on which to rely in formulating decisions.

The purpose of this Article is to discuss some of the likely effects of interstate banking and product line expansion by banking organizations based on direct and indirect empirical evidence. This evidence demonstrates that interstate banking would not appear to offer demonstrable benefits in terms of increased operating efficiency, increased competition or gains in allocative efficiency. However, interstate banking apparently would not lead to significant adverse effects that could not be controlled by the application of existing antitrust laws along with some additional legislative constraints on mergers among the nation's largest banking organizations. Additionally, evidence indicates that small banks would remain viable in an era of deregulation, suggesting that there would not be serious externalities resulting from widespread bank failures that might jeopardize the safety and soundness of the banking system. Furthermore, economic theory suggests that freely functioning markets will yield the most efficient allocation of resources, barring significant externalities and market failure which do not appear likely with interstate banking. Finally, in a system founded on the principle of private property, there should be a strong justification for prohibiting the freedom of use of such property. The evidence regarding the implications of interstate banking does not appear to provide such justification. Under the circumstances, interstate banking would appear to be in the public interest.

With respect to deregulation regarding product line, little systematic

research exists on which to base a policy decision. However, recent experience in banking and the industrial sector raises serious questions about the effect of product line expansion on commercial bank safety and soundness and suggests that such deregulation may increase bank risk. Because the externality of major bank failures is so far-reaching, uncertainty as to the effects of product line expansion on bank risk creates a very difficult policy issue.

II. INTERSTATE BANKING

Although interstate banking on a nationwide basis is prohibited in the United States,⁴ numerous avenues have been exploited by banking organizations to provide some bank-like services on an interstate basis. For example, banking organizations have established loan production offices, Edge Act offices and nonbank subsidiaries and have made interstate acquisitions of failing thrifts under the Garn-St Germain Act of 1982.⁵ More recently and potentially more importantly, the Federal Reserve Board, in 1984, approved the application of New York's Banker's Trust to establish a "nonbank bank" in Florida. Subsequently, many firms (banks as well as nonfinancial institutions such as Sears, Roebuck & Co.) have joined Bankers' Trust in exploiting a loophole in the Bank Holding Company Act and have filed applications to establish bank-like institutions which do not meet the Act's definition of a bank and so are not subject to its prohibition on interstate banking.⁶ By the end of 1984, there were nearly 350 such applications, most of which were filed with the Comptroller of the Currency. These events have made interstate banking a pressing policy issue. Because interstate banking might dramatically alter the United States banking structure, many questions have been raised regarding the implications of interstate banking.⁷

4. Federal laws, the McFadden Act of 1927, 12 U.S.C. § 36 (1982), and the Douglas Amendment to the Bank Holding Company Act of 1956, 12 U.S.C. § 1842(d) (1982), combined with state laws restrict such activity.

5. For a discussion of these activities, see *Special Issue: Interstate Banking*, ECON. REV., May 1983 (Federal Reserve Bank of Atlanta) [hereinafter cited as *Special Issue: Interstate Banking*].

6. According to the Bank Holding Company Act, an institution is defined as a bank if it offers demand deposits and makes commercial loans. 12 U.S.C. § 1841(c) (1982). By agreeing not to offer one of these services, an institution is not a bank for purposes of the Act although it has a bank charter and its deposits are federally insured. In view of this loophole, it is notable that the Tenth Circuit Court of Appeals in the "Beehive" case recently ruled against the Federal Reserve Board's argument that NOW accounts are a demand deposit. *First Bancorp. v. Board of Governors of the Fed. Reserve Sys.*, 728 F.2d 434 (10th Cir. 1984). Presumably, a nonbank bank could offer NOW accounts and make commercial loans and not be subject to the Bank Holding Company Act.

7. For studies dealing with some of these questions, see Rhoades, *The Competitive Effects*

Four of the most important questions that emerge in connection with the prospect of interstate banking are the implications for local market banking concentration, nationwide banking concentration, the viability of small banks and the allocation of credit. Concern about local market concentration arises because changes in local market concentration affect competition in local markets and thus the cost and quality of services available to consumers. Interest in nationwide banking concentration stems partly from economic considerations and perhaps more importantly from the possible sociopolitical effects of a substantial increase in banking concentration. Questions about the viability of small banks arise in large part out of a concern over the availability of credit to local communities. Finally, it has been suggested that interstate banking will have implications for the efficiency of credit allocation in the nation. These four questions are addressed in the following sections of the Article.

A. *Local Banking Market Concentration*

If interstate banking were to be permitted, there would undoubtedly be an intensive drive, at least by larger banking organizations, to expand geographically. As a result, large banking organizations could be expected to move into local banking markets throughout the country.⁸ Based on past experience, such expansion would generally take place by acquisition. The prospect of such a development has raised questions concerning the effect on concentration in local banking markets.

1. Issues raised by local market concentration

Concern over the likely consequence of interstate banking arises, to a large extent, because competition, and thus the prices and quality of services, is influenced by local market concentration. It should be noted that the justification for this concern has been questioned on two grounds. First, it has been argued that nonlocal providers of financial services, such as money market mutual funds, provide an alternative to banks as a source of financial services for locally limited customers (i.e., consumers and small businesses). However, in spite of the availability of

of Interstate Banking, 66 Fed. Res. Bull. 1 (1980); DEPARTMENT OF THE TREASURY, GEOGRAPHIC RESTRICTIONS ON COMMERCIAL BANKING IN THE UNITED STATES (Jan. 1981); Ginsburg, *Interstate Banking*, 9 HOFSTRA L. REV. 1133 (1981); *Special Issue: Interstate Banking*, *supra* note 5.

8. Past experience with expansion at the state level suggests that, in the early years of interstate banking, expansion would generally be confined to large markets. In later years, however, it is likely that smaller markets would be entered as opportunities in large markets become exhausted.

nonlocal financial services, evidence indicates that a large majority of average families, those with an income of \$20,000 to \$30,000 per year,⁹ and small businesses still rely on *local* institutions for their financial services.¹⁰ Consequently, the degree of competition in local markets remains important.

The second basis for questioning the concern over local market concentration is exemplified in the work of Yale Brozen and Harold Demsetz.¹¹ According to this view, the high profits usually observed in highly concentrated markets (i.e. markets where the leading firms account for a particularly high proportion of total market output) are not the result of monopoly power but instead are the consequence of the relative efficiency and skill of the firms that dominate these markets. Market concentration increases because a few firms are more efficient and successful than others. The relative profitability of these few efficient firms is responsible for the overall market profitability.

While this view may be appropriate in some instances, there is insufficient evidence to accept it as the general explanation for the high profit-

9. Data from a 1983 survey indicate that about twenty-two percent of the families in this income group use nonlocal banks or thrifts, but they do *not* use money market mutual funds. Avery, Elliehausen, Canner & Gustafson, *Survey of Consumer Finances, 1983*, 70 Fed. Res. Bull. 679 (1984). About fifteen percent of the families with incomes below \$20,000 use nonlocal banks or thrifts, but not money market funds. *Id.*

10. A survey of small businesses in April, 1982, by the National Federation of Independent Business revealed that a commercial bank was the most recent source of a small business loan for ninety-one percent of the respondents. Another survey of small businesses, covering the Sixth Federal Reserve District, found that in large or small cities, small businesses rely on local commercial banks for checking accounts and loans. See Whitehead, *The Sixth District Survey of Small Business Credit*, ECON. REV., Apr. 1982, at 42 (Federal Reserve Bank of Atlanta). The importance of local banks to small businesses can also be inferred from surveys in 1980 and 1982 by the National Federation of Independent Business which are reported in Dunkelberg & Scott, *Small Business Evaluates Its Banking Relationships*, 166 BANKERS MAG. 40 (1983), and a 1981 survey of small banks by the three bank regulatory agencies reported in TASK FORCE ON SMALL BUSINESS FINANCE, STUDIES OF SMALL BUSINESS FINANCE (Feb. 1982), summarized in Struck & Glassman, *Commercial Banking and the Small Business Sector: Observations from a Survey*, J. COM. BANK LENDING, Feb. 1983, at 21. Experience in Houston shows that out-of-state banks have very few business customers with less than \$100 million in sales and have virtually no business customers with less than \$50 million in sales. See Fowler, *Money Center Giants Staking Out Houston Market*, HOUSTON BUS. J., Nov. 26, 1984, at 1. See also PETER MERRILL ASSOCIATES, THE ENVIRONMENT OF NONLOCAL COMPETITION IN U.S. BANKING MARKETS (1981) (prepared for the American Bar Association); P. WATRO, IS COMMERCIAL BANKING STILL A SEPARATE LINE OF COMMERCE? THE EVIDENCE FROM OHIO'S SMALL BUSINESS FIRMS (1981) (Federal Reserve Bank of Cleveland); J. WOLKEN, GEOGRAPHIC MARKET DELINEATION: A REVIEW OF THE LITERATURE, Staff Studies No. 140 (1984) (Federal Reserve Board).

11. See, e.g., Brozen, *Concentration and Structural and Market Disequilibria*, 16 ANTI-TRUST BULL. 241 (1971); Demsetz, *Industry Structure, Market Rivalry, and Public Policy*, 16 J.L. & ECON. 1 (1973).

ability that is usually associated with high market concentration. The fact remains that a very large number of empirical studies in both banking and the industrial sector have found evidence of a statistically significant relationship between *market* concentration and profitability.¹² The explanation provided in most of these studies for the high profits observed in concentrated markets is monopoly power. Moreover, it is especially important to note that the monopoly power explanation for high profits is neither arbitrary nor ideologically motivated. There is a lengthy and detailed theoretical foundation for this explanation dating back at least to Adam Smith. Most of the empirical studies of the relationship between market concentration and profitability tested hypotheses that came directly from this body of theoretical work, particularly the work of Chamberlin, Mason, and Robinson.¹³ These studies are not after the fact attempts to explain the statistical results which emerged from the studies, and should not casually be dismissed simply because some post hoc story or explanation for the results can be constructed.¹⁴ In any event, the efficiency explanation for high profits in concentrated banking markets is particularly unpersuasive because numerous statistical studies concerning economies of scale in banking, which will be discussed later, have found that scale economies are generally not important.¹⁵ This im-

12. For a review of these studies in connection with the industrial sector, see Weiss, *The Concentration-Profits Relationship and Antitrust*, in *INDUSTRIAL CONCENTRATION: THE NEW LEARNING* 184, 201 (1974). For studies regarding the banking industry, see S. RHOADES, *STRUCTURE PERFORMANCE STUDIES IN BANKING: AN UPDATED SUMMARY AND EVALUATION*, Staff Studies No. 119 (1982) (Federal Reserve Board), summarized in 68 Fed. Res. Bull. 477 (1982); Heggstad, *Market Structure, Competition, and Performance in Financial Industries: A Survey of Banking Studies*, in *ISSUES IN FINANCIAL REGULATION* 449 (F. Edwards ed. 1979).

13. See E. CHAMBERLIN, *THE THEORY OF MONOPOLISTIC COMPETITION* (1933); Mason, *Price and Production Policies of Large-Scale Enterprise*, 29 *AM. ECON. REV.* 61 (1939); J. ROBINSON, *THE ECONOMICS OF IMPERFECT COMPETITION* (1934).

14. Indeed, other explanations for the tendency of high market share firms to have high profits can be offered which are consistent with the basic theoretical models. For example, one recent study in banking found that banks with high market shares tend to be relatively profitable, after controlling the effects of concentration. Because there are no significant efficiencies associated with large size in banking, the study offered a plausible explanation for these findings on the basis of work in psychology and the professed objectives of business executives. Essentially, the study demonstrates that market leaders enjoy an inherent degree of monopoly power because consumers are likely to have heard of such firms and will perceive them as better because of their leading position. See Rhoades, *Market Share As A Source of Market Power*, 35 *J. ECON. & BUS.* — (1985).

15. See *infra* notes 34-42 and accompanying text. In contrast to studies in the industrial sector and in food retailing, which find that high concentration markets have substantially higher profits or prices than low concentration markets, studies in banking generally find a small, though statistically significant, difference in profits between high and low concentration markets.

plies that firms with the largest market shares do not generally exhibit superior operating efficiency.

2. Evidence on local market concentration

In view of the considerations outlined above, there is ample reason for weighing the likely effect of interstate banking on local market concentration. Data reveal that concentration in local banking markets throughout the country has generally declined since 1966. For example, the average change in local market concentration ratios between 1966 and 1981 was -10.7% and -7.7% in SMSAs and large nonSMSA counties respectively.¹⁶ Similarly, the Herfindahl index, an alternative to the concentration ratio as a measure of market structure, declined, on average, by 18.5% and 16.3% in SMSAs and nonSMSA counties respectively during this same time period. The inclusion of data for thrift institutions (savings and loans and mutual savings banks) along with that for commercial banks in the construction of local market concentration ratios, also produces for the period 1973 through 1981 a drop in the average concentration ratio and Herfindahl index, although the decline would not be as great.

The persistent decline in concentration of banking markets over the past fifteen years provides little indication as to the effects of interstate banking on local market concentration. However, a comparison of local market concentration among the individual states is more meaningful. This comparison is useful because states have different laws regarding the permitted degree of geographic expansion. Some states permit full statewide branching while others allow unit banking or limited branching, which is usually very restrictive. Moreover, some of the states that have restrictive branching laws (unit banking or limited branching) have permitted multibank holding companies (MBHCs), which in some states have expanded statewide. Consequently, a comparison of local market concentration among states allowing different degrees of geographic expansion should provide at least a rough indication of the likely effect of interstate banking on local market concentration. This comparison is presented in Appendix A.

Average three-firm deposit concentration ratios in 1982 for markets (SMSAs and nonSMSA counties) in each state are presented in Appendix A. The states are divided into the following five groups: (1) statewide branching states, (2) limited branching states in which at least fifty

16. Figures are calculated from *Summary of Deposits* files and are consolidated for bank holding companies. The SMSA and nonSMSA counties have been widely used as approximations of local banking markets for research and policy purposes.

percent of the state deposits are held by MBHCs, (3) limited branching states in which less than fifty percent of state deposits are held by MBHCs, (4) unit banking states in which at least fifty percent of deposits are held by MBHCs, and (5) unit banking states in which less than fifty percent of state deposits are accounted for by MBHCs.¹⁷ Appendix A also lists, for each category, the average of the individual state average market concentration ratios.

In general, the average market concentration data for the five groups of states shown in Appendix A differ only negligibly.¹⁸ For example, the average of SMSA concentration ratios in statewide branching states (73.4%) is about the same as that in the other four groups of states (72.8%, 70.1%, 71.9% and 56.0%). Also, the extent of MBHC activity has no effect. The only exception arises in the most restrictive situation—the three states with unit banking laws in which MBHCs account for less than fifty percent of state deposits, where the average SMSA concentration ratio is 56.0%. Data for the non-SMSA county markets follow the same pattern without exception. Specifically, the average non-SMSA county concentration ratios for the five groups of states are 87.7%, 86.4%, 88.7%, 93.3% and 84.5%. These data seem to indicate that more or less restrictive laws on geographic expansion do not have a substantial effect on concentration in local banking markets.

It seems fair to conclude that interstate banking by itself is not likely to have much of an effect on concentration in local banking markets, and thus competition is not likely to increase as a result of market structure change. The reduction in barriers to entry, however, should at a minimum increase the threat of entry into many markets. According to the theory of potential competition, the increased threat should lead to more competitive pricing behavior. If, of course, the antitrust laws were to be enforced less restrictively with respect to horizontal mergers (those between firms in the same market), local market concentration could be expected to increase.¹⁹ This probably would, however, occur with or

17. It would be logically reasonable to classify the states according to whether the state law permits multibank holding companies rather than on the basis of the percentage of deposits held by such companies. However, the classification method used here was selected because multibank holding companies have been permitted in some states where other means of expansion are available and for this and other reasons have not expanded significantly in some states which permit them. Yet, experience with interstate expansion opportunities to date suggests that the geographic expansion opportunity would be rapidly exploited if interstate banking were permitted.

18. The District of Columbia is treated as a state.

19. One recent study has illustrated that the Justice Department's 1982 horizontal merger guidelines, if strictly applied, would not significantly restrict horizontal mergers in banking today. See J. BURKE, *ANTITRUST LAWS, JUSTICE DEPARTMENT GUIDELINES, AND THE*

without interstate banking.

B. Nationwide Banking Concentration

Legislation permitting interstate banking reasonably could be expected to result in interstate expansion primarily by very large banking organizations. These organizations have the necessary resources and perhaps the incentive to expand because expansion opportunities within their home states may largely be exhausted. Experience at the state level indicates that bank holding companies typically expand by merger or acquisition rather than de novo. Furthermore, experience with interstate banking in New England under the recently established regional interstate banking laws shows that the largest banks tend to expand interstate and do so by the acquisition of other large organizations. For example, Bank of Boston, the largest bank in the region, has attempted to acquire one of the largest banks in each of the other New England states that is a party to the agreement.

1. Issues raised by nationwide concentration

Casual observation and common sense at least suggest that interstate banking may lead to an increase in the nationwide concentration of banking resources. Questions have been raised and concern has been expressed over the possibility of such a development. The source of this concern is largely of a sociopolitical nature. Such a concern is no surprise in a country which has exhibited a strong aversion to concentrations of power of any kind. It simply reflects longstanding philosophical and cultural views that have been manifested in many of our laws and institutional relationships. For example, in the political arena, our three branches of government were established with built-in checks and balances; the commander-in-chief of the armed forces is a civilian, and the rights of the individual states vis-a-vis the federal government are still vigorously maintained. In economic life, we have opted for a free market system as opposed to a centrally controlled system. Both the first and second banks of the United States were not rechartered primarily because of concern with the concentration of financial power, and the first anti-trust law (Sherman Act, 1890) was passed by Congress in part as a response to the increasing concentration at that time of industrial resources.

An increase in the concentration of economic power raises the con-

cern that private businesses would have undue influence over political decisions, cultural institutions and the educational establishment. Thus, it is conceivable that if the concentration of private economic power proceeded far enough, the American people would demand that the government bring this power under control.²⁰ This would have fundamental ramifications for the continued existence of our pluralistic society.²¹

While interest in the implications of interstate banking for nationwide banking concentration stems from sociopolitical considerations, there are economic issues as well. One such concern is the possibility that a number of large banks would account for a substantially greater proportion of the banking system, creating the risk that the federal government would feel compelled to rescue them in the event they were in financial difficulty. So long as it remains a fixture of public policy to assure the stability of the banking system, an increasing concentration of the nation's banking resources would inevitably raise this issue. This would, of course, have significant implications for the structure of the deposit insurance system. Although it would arise only in an extreme case of banking concentration, there is the further possibility that credit resources may largely be allocated by the managerial decisions of a few firms rather than in response to the market conditions to which a larger number of independent units must react.

Unlike the issues raised by local market concentration, those raised by nationwide concentration are neither mathematically tractable nor quantifiable. This, however, makes them no less real or important. Consequently, in considering interstate banking as a public policy option, it is important to determine what effect, if any, interstate banking might have on nationwide banking concentration.

2. Evidence on nationwide concentration

Data on nationwide banking concentration indicates that there has not been a significant trend in the concentration of domestic deposits since 1960.²² This observation has been confirmed by two fairly recent studies.²³ Although a recent study found some indication that a small

20. While ownership through stock may remain fairly widespread, management control and decision-making power would be more concentrated.

21. For a lengthy discussion of the issues regarding merger activity and the motivation of business executives, see S. RHOADES, *POWER, EMPIRE BUILDING, AND MERGERS* (1983).

22. Inclusion of foreign deposits as well as domestic deposits reveals an increase in the proportion of deposits held by the 100 largest banking organizations. This is due to the dramatic increase in international banking during the past twenty years involving only very large banks.

23. See S. TALLY, *THE IMPACT OF HOLDING COMPANY ACQUISITIONS ON AGGREGATE*

downward trend may have reversed, there is no evidence of a persistent trend.²⁴ Domestic deposit data reveal that the 100 largest banking organizations held 49.6%, 46.7% and 48.9% of total domestic commercial bank deposits in 1968, 1978 and 1983 respectively.²⁵

The data on trends in nationwide banking concentration may be interesting and indicative of important changes occurring in the industry. They are not, however, especially useful for speculating on the possible effect of interstate banking on nationwide banking concentration. Data on concentration of banking resources at the state level are more relevant for that purpose. The reason, as noted earlier, is that some states have permissive expansion laws and have experienced significant expansion whereas others have not. This permits a comparison of the statewide concentration in states that have experienced expansion or have liberal expansion laws with the statewide concentration in other states. Differences observed among the states should be indicative of the directional change in national banking concentration that might be expected if the United States were to reduce or eliminate prohibitions on interstate banking. However, these data are not useful for judging bank efficiency in different states or for making broad judgments regarding the desirability of one or another type of banking law.

Appendix B shows the percent of deposits held by the five largest banking organizations in each state as of 1983. As in Appendix A, the states are divided into five groups on the basis of the liberality of branching laws or the existing degree of geographic expansion. The groups are those states with (1) statewide branching, (2) limited branching but at least fifty percent of state deposits held by MBHCs, (3) limited branching with less than fifty percent of state deposits held by MBHCs, (4) unit banking with at least fifty percent of state deposits held by MBHCs, and (5) unit banking with less than fifty percent of state deposits held by MBHCs.

There are substantial differences in the statewide concentration ratios between the various groups of states. The data show consistently that in states where geographic expansion or the opportunity for geographic expansion is greatest, the statewide concentration ratio is relatively high. For example, Appendix B shows that the twenty-five

CONCENTRATION IN BANKING, Staff Economic Studies No. 80 (1974) (Federal Reserve Board), summarized in 60 Fed. Res. Bull. 79 (1974); Rhoades, *Size and Rank Stability of the 100 Largest Commercial Banks, 1925-1978*, 34 J. ECON. & BUS. 123 (1982). However, using different data sources, these two studies produced findings showing small but opposite trends.

24. See Daskin, *Aggregate Concentration and Geographic Diversification in U.S. Banking, 1978-1982*, 37 J. ECON. & BUS. — (1985).

25. Source: Federal Reserve Board.

statewide branching states have an average five-firm deposit concentration ratio of 72.4%, ranging from 44.6% to 95.3%. States with limited (and usually quite restrictive) branching laws, but in which MBHCs hold at least half of state deposits, have an average concentration ratio of 51.0%. This compares with an average concentration ratio of only 25.8% for those limited branching states where MBHCs account for less than half of state deposits. Data for the unit banking states reveal that the states in which MBHCs control over half of the deposits have a concentration ratio of 49.0%, on average, while those unit banking states where less than half of the deposits are controlled by MBHCs have an average concentration ratio of 31.6%.

Based on relevant experience of the individual states and the experience with interstate banking in New England, noted earlier, it is likely that interstate banking will lead to a significant increase in the concentration of banking resources at the national level. Three points regarding this conclusion are warranted. First, since relevant evidence so strongly supports the conclusion, it seems argumentative and unrealistic to suggest otherwise. Good public policy requires that a move toward interstate banking should be made with as full an awareness of the consequences as possible. Second, there appears to be little or no basis for concluding that some increase in national banking concentration will have demonstrable adverse economic effects. Third, it is not possible to infer, from the experience of the states, the precise magnitude of the increase in nationwide concentration that would result from interstate banking, although it seems likely that the increase would not be trivial.

3. Additional considerations with nationwide concentration

Earlier it was concluded that interstate banking is not likely to have a significant effect on *local* market concentration. Thus, there was little reason to consider the possibility of developing interstate banking legislation to constrain local market concentration or, in the extreme, of scrapping interstate banking as a policy initiative to avoid a potential increase in local market concentration. In contrast, however, it seems quite clear that interstate banking would be accompanied by an increase in the nationwide concentration of banking resources.

a. limitations of the antitrust laws

It is a mistake to think that the antitrust laws would constrain the tendency toward increased nationwide concentration, which would result primarily from very large acquisitions and mergers. The reason is that the "antimerger" antitrust law, section 7 of the Clayton Act as amended,

is intended to prohibit mergers "where in any line of commerce or in any activity affecting commerce in any section of the country, the effect of such acquisition . . . may be substantially to lessen competition, or to tend to create a monopoly."²⁶ This law is primarily effective in prohibiting horizontal mergers (mergers between competitors) when a merger is likely to have anticompetitive effects. Moreover, the courts in the past have adopted a strong stand against horizontal mergers under section 7 of the Clayton Act, as evidenced by a lower court decision in *United States v. Bethlehem Steel Corp.*²⁷ and United States Supreme Court decisions in *Brown Shoe Co. v. United States*²⁸ and *United States v. Philadelphia National Bank*.²⁹

Section 7 of the Clayton Act has proven effective in constraining horizontal merger activity when adequately enforced. It has not, however, proven to be effective in constraining conglomerate and market extension mergers³⁰ (those between firms operating in different product and/or geographic markets).³¹ Since market extension mergers would be typical in an era of interstate banking, the antitrust laws could not be relied upon to prevent a very substantial increase in the nationwide concentration of banking resources. For example, it is likely that a merger between BankAmerica and Citicorp would be acceptable under today's antitrust laws.

It seems clear from the experience at the individual state level, along with that of regional interstate banking in New England, that interstate banking would lead to an increase in the nationwide concentration of banking resources. It is also apparent that the antitrust laws would not effectively limit such an increase. Furthermore, although financial limitations, such as a limitation of capital, will slow the increase in concen-

26. 15 U.S.C. § 18 (1982).

27. 168 F. Supp. 576 (S.D.N.Y. 1958).

28. 370 U.S. 294 (1962).

29. 374 U.S. 321 (1963).

30. For a more thorough discussion of the limitations of the antitrust laws in this area, see Rhoades, *Antitrust Law Limitations and Market Extension Mergers*, BANKERS MAG., May-June 1982, at 98.

31. The ineffectiveness of the antitrust laws in constraining conglomerate and market extension mergers stems, in large part, from the limitation of basic economic theory for analyzing such mergers. There have been some interesting ad hoc developments in economic theory and analysis (potential competition and probable future competition) that are relevant to market extension mergers. However, hypothesis testing in this area has proven extremely difficult primarily due to data limitations. Also, the tendency by economists to rely strictly on the assumption that profit maximization is the sole or primary motivation of businessmen has limited our ability to analyze the competitive effects of conglomerate and market extension mergers, which may largely reflect other motivations such as growth or size maximization.

tration, they will not effectively limit the increase.³² In view of the deeply ingrained aversion to concentration of power in the United States, it seems likely that any proposal for interstate banking will have to include constraints on nationwide banking concentration if it is to be feasible.

b. constraining nationwide concentration

There are obviously many different proposals that could be developed for controlling nationwide banking concentration. This Article briefly discusses three general proposals to provide some indication as to the types of proposals that might be reasonably flexible and workable within the context of a legislative initiative on interstate banking.³³ Neither economic theory nor empirical evidence provides guidance in determining the level at which nationwide banking concentration is too high.

A simple method for controlling the growth of nationwide concentration would be to prohibit mergers between organizations ranked among the largest 25, 50 or 100. While this method would prohibit mergers among the largest banks, those banks would still be able to expand by acquiring large organizations of a lower size rank, i.e., lower than 25, 50 or 100. One problem with this method is that a merger between banks ranked number 99 and 100 would not have the same implications for aggregate concentration as a merger between banks ranked number 1 and number 2. However, both mergers would be treated the same under a rule prohibiting mergers among the largest 100 organizations. This problem could be overcome partially by prohibiting mergers between the very largest banks, such as the 25 largest, and prohibiting those 25 from acquiring any of the other 100 largest organizations. For example, this modification would allow mergers between those ranked number 26 and number 100, but prevent their acquisition by number 1 through number 25. Under this method, it is likely that mergers between organizations ranked number 26 to number 100 would rapidly occur in the early years of interstate banking. Thus, the nationwide share of those organizations would increase rapidly while the share of the largest 25 organizations would increase at a lesser rate.

As an alternative, rather than restricting the size of acquisitions

32. The constraining effect of finances on increasing nationwide banking concentration has recently been discussed in L. KOROBOW & S. WEISBERG, *THE COST OF INTERSTATE EXPANSION BY LARGE BANKS* (1984) (Federal Reserve Bank of New York).

33. For a detailed discussion of these proposals, see Rhoades & Savage, *Controlling Nationwide Concentration Under Interstate Banking*, *ISSUES BANK REG.*, 1985.

among some arbitrary group of banks, as previously illustrated, any organization with, for example, more than one percent of total United States banking assets would be prohibited from acquiring any banking organization with more than \$1 billion of assets. Since this method places greater restraints on the expansion opportunities of a particular group of large banks without any clear reason for the specific cutoff value selected, it might be useful to consider a variant of this method which would place a limit on the quantitative impact that any one merger would have on nationwide concentration. Specifically, a prohibition could be imposed on any merger which would increase a nationwide Herfindahl index by more than some specified amount. A merger between a firm with a large nationwide share and a small firm with a small share would have the same effect on concentration as a merger between two medium size firms and, thus, the two mergers would be treated identically under such a scheme.

A third method recognizes that one objection to interstate banking is based on the fear that a state's major banking organizations could be taken over by outside banks. This method would prohibit the interstate acquisition of any organization that is the largest in its home state or holds ten percent or more of its state's banking assets. While this approach would prevent the acquisition of many of the dominant firms in states, it would not prevent the acquisition of many of the nation's largest banks. To account for this, a modification of this method could incorporate a prohibition on mergers between banks among the top 50 nationwide.

The methods for limiting the nationwide concentration of banking resources outlined above are merely suggestive. Since, however, available evidence clearly suggests that under interstate banking nationwide concentration would increase, it is necessary to consider such proposals prior to the implementation of interstate banking legislation. Unfortunately, economic theory and evidence do not indicate the level at which limits should be established.

C. Other Issues Raised by Interstate Banking

The implications of interstate banking for local market and nationwide banking concentration are among the most important issues raised. There are, however, other issues that are frequently raised, and these are discussed below.

1. The viability of small banks under interstate banking

Many questions have been raised about the ability of small banks,

especially those tied to local communities, to remain viable in an era of interstate banking. These questions have arisen in response to the likelihood that interstate banking will result in the interstate expansion of the nation's largest banking organizations. It is apparently a common perception that small community banks will not be able to operate successfully if faced with direct competition from large organizations. Whether small banks can be expected to withstand such competition can reasonably be inferred from their relative efficiency, their demonstrated ability of inability to compete with the large banks in their own states, their financial performance vis-a-vis large banks and their ability to adopt technological advances. There is a substantial body of evidence on these questions and practically all of it suggests that small banks would remain viable in a regime of interstate banking. The evidence on each of these questions is briefly outlined below.³⁴

If small banks were found to be inherently less cost efficient than large banks, this would be one basis for questioning the ability of small banks to survive with interstate banking. The question of relative operating efficiency of large and small banks in connection with interstate banking emerges from two very different perspectives. On the one hand, concern is expressed that small banks will be unable to compete with large banks because of cost disadvantages. On the other hand, it has been argued that interstate banking will result in larger banks and will simultaneously cause a reduction in the number of smaller banks through mergers. Since, according to this argument, large banks are more efficient, the nation's banking system will produce banking services at a lower cost. Evidence from studies of economies of scale (efficiencies directly associated with size) in banking provide no support for these views. Specifically, numerous studies of economies of scale in banking generally show that economies of scale for basic banking services are not very large. In fact, there is some evidence that diseconomies (cost inefficiencies) arise as banks become very large.³⁵

34. For a more detailed review and discussion of this evidence, see Rhoades & Savage, *Can Small Banks Compete?*, BANKERS MAG., Jan.-Feb. 1981, at 59; and Rhoades & Savage, *Survival of the Small S&Ls*, BANKERS MAG., Sept.-Oct. 1981, at 79. See also *Special Issues: Interstate Banking*, *supra* note 5.

35. For reviews of the evidence on economies of scale in banking, see McCall, *Economies of Scale, Operating Efficiencies and the Organizational Structure of Commercial Banks*, 11 J. BANK RESEARCH 95 (1980); Benston, *The Optimal Banking Structure: Theory and Evidence*, 3 J. BANK RESEARCH 220 (1973); Gilbert & Longbrake, *The Effects of Branching by Financial Institutions on Competition, Productive Efficiency and Stability: An Examination of the Evidence*, 4 J. BANK RESEARCH 298 (1974). For more recent studies, see Benston, Hanweck & Humphrey, *Scale Economies in Banking: A Restructuring and Reassessment*, 14 J. MONEY, CREDIT & BANKING 435 (1982) (Part I); Clark, *Estimates of Economies of Scales in Banking*

One source of evidence on the viability of small banks under interstate banking is provided by studies which have examined the growth experience of small banks when they have faced competition from, or entry by, large banking organizations. Several studies, going back to the 1960's, have compared the growth of small and large banks in the same community or the growth of small, independent banks before and after a large banking organization entered their local market.³⁶ These studies generally indicate that small banks grow at least as fast as banks owned by large organizations and that entry of a large banking organization into a local market does not have a significant effect on the growth rate of small independents. Studies that have compared the relative growth of small and large banks have generally found that small banks grow faster.³⁷ Similarly, a recent series of studies has found that new (de novo) banks established by large banking organizations often do not grow and acquire market share as rapidly as new (de novo) independent banks, and that the independent banks perform just as well even when they are operating in the same local market.³⁸ In short, past experience indicates that small banks have historically remained effective, viable competitors, in terms of growth and market share, in the face of competition from much larger organizations.

Comparisons of various financial ratios that are important indicators of the performance and viability of a bank also show that small banks perform quite well in relation to larger ones. Studies have found that the profitability of small banks is not adversely affected by entry into their market by large banking organizations.³⁹ More recent studies have found that small banks tend to be more profitable than their larger coun-

Using A Generalized Functional Form, 16 J. MONEY, CREDIT & BANKING 53 (1984); Gilligan, Smirlock & Marshall, *Scale and Scope Economies in the Multi-Product Banking Firm*, 13 J. MONETARY ECON. 393 (1984). It is notable that some of the most important studies use the Federal Reserve's Functional Cost Analysis data. These data do not include the very largest banks.

36. See, e.g., E. KOHN, *THE FUTURE OF SMALL BANKS* (Dec. 1966) (New York State Banking Department); Darnell & Keen, *Small Bank Survival: Is the Wolf At the Door?*, BUS. REV., Nov. 1974, at 16 (Federal Reserve Bank of Philadelphia); Rhoades & Savage, *supra* note 34.

37. See Alhadeff & Alhadeff, *Growth of Large Banks, 1930-1960*, 46 REV. ECON. & STATISTICS 356 (1964); Rhoades & Yeats, *Growth, Consolidation and Mergers in Banking*, 29 J. FIN. 1937 (1974).

38. See, e.g., Rose & Savage, *Bank Holding Company De Novo Entry and Market Share Accumulation*, 26 ANTITRUST BULL. 753 (1981); Rose & Savage, *De Novo Entry and Bank Performance: Bank Holding Companies Versus Independent Banks*, 15 J. BANK RESEARCH 95 (1984). See also King, *The Impact of Local Market Entry By Large Bank Holding Companies*, ECON. REV., Nov. 1982, at 41 (Federal Reserve Bank of Atlanta).

39. E. KOHN, *supra* note 36; Darnell & Keen, *supra* note 36.

terparts.⁴⁰ These recent studies, along with year-end 1983 data on bank profitability, indicate that small banks have remained more profitable even after the implementation of bank deregulation. A particularly relevant study compared various financial ratios of the very smallest and very largest banks located in the same metropolitan areas.⁴¹ This study found that the smallest banks in these metropolitan areas were more profitable, better capitalized and grew faster than their large counterparts. The financial ratios also indicated that small banks had higher nonoperating expenses and loan losses than the larger banks.

At least until recently, many have suspected that technological developments in the area of electronic funds transfer and various electronics equipment would place small banks at a disadvantage in relation to large banks. Such devices as automated teller machines, point of sale terminals and computers hold out the prospect of substantially reducing labor requirements and the need for processing and sorting of paper items, as well as providing greater convenience to customers. If the implementation of this equipment significantly reduces costs and provides added convenience to consumers, small banks would be at a significant disadvantage if they could not, for whatever reason, employ the new technology. However, the evidence through 1983 on the use and availability of increasingly inexpensive electronic equipment along with the opportunity for joining shared networks suggests that small banks can and do successfully employ the new electronic technology.⁴²

In sum, available evidence on scale economies, growth, profitability and the use of developments in electronic technology for large and small banks suggests that small banks would be viable competitors in an era of interstate banking. There does not appear to be any reason to believe that small banks would be at an inherent disadvantage vis-a-vis larger organizations.

40. See, e.g., Opper, *Profitability of Insured Commercial Banks*, 68 Fed. Res. Bull. 453 (1982); Kolari & Fraser, *The Effects of Deregulation on Bank Profitability: Can Small Banks Survive?*, J. RETAIL BANKING, Fall 1984, at 1; Danker & McLaughlin, *Profitability of Insured Commercial Banks in 1983*, 70 Fed. Res. Bull. 802 (1984).

41. See Rhoades & Savage, *supra* note 34.

42. Old and new survey evidence supports this conclusion. See D. WALKER, CONTRASTS AMONG BANKS WITH RETAIL ELECTRONIC BANKING MACHINES AND ALL INSURED BANKS: 1974 vs. 1976 (1977) (FDIC Working Paper 77-1); L. MANDELL, EFTs AND COMPETITION IN NATIONAL BANKS (1976) (Southern Methodist Univ. Working Paper 93); *Special Issue: Interstate Banking*, *supra* note 5; F. SCHROEDER, ELECTRONIC FUND TRANSFER ACT COMPLIANCE COSTS AND CONSUMER BENEFITS: RECENT SURVEY EVIDENCE, Staff Studies No. 143 (1985) (Federal Reserve Board); TRANS DATA CORP., ATMs: CURRENT STATUS, TRENDS AND SYSTEMS DEVELOPMENT (1983); AM. BANKERS A., NATIONAL OPERATIONS/AUTOMATION SURVEY, 1981 (1981).

2. Credit allocation

One suggested benefit of interstate banking is the enhancement of efficiency in credit allocation in the United States. That is, it is possible that credit would be allocated throughout the country more rapidly in response to changing demand and supply conditions—away from relatively low demand areas and services and to high demand areas and services. From a purely economic standpoint, the efficiency of resource allocation in response to consumer demand is a critical gauge of the overall performance of an economic system. Indeed, this is the primary economic basis for the judgment that a free market, capitalist system is superior to a socialist one. Unfortunately, there is very little direct empirical evidence on which to base a conclusion regarding the effect of interstate banking on credit allocation efficiency.

A priori, the view that credit would be allocated more efficiently under a regime of interstate banking, presumably due to the superiority of allocation decisions by individual banking firms rather than by the present market-based system, seems rather unlikely.⁴³ Through the years, the market has developed a number of very efficient mechanisms for moving credit around the country (e.g., the federal funds market, interbank loans, correspondent banking and certificates of deposit).⁴⁴ Developments in communications and electronic technology have further enhanced the market's efficiency in this respect. Furthermore, one very limited empirical study compared the credit allocation efficiency of multimarket banking organizations with the credit allocation efficiency of independent banks across the same markets. Test results revealed no difference between the two organizational structures.⁴⁵ Thus, the existence of efficient mechanisms for credit allocation, along with very limited empirical evidence, does not suggest that credit allocation in the United

43. The argument that internal resource allocation decisions are more efficient than resource allocation decisions made through market mechanisms presumably refers to the *cost* efficiency of allocating resources rather than to allocative efficiency in the economic sense, although this fundamental distinction is generally not made. The supposedly lower cost of allocating resources internal to the firm is often attributed to relatively low information and transaction costs. Even the cost efficiency claims for internal resource allocation are highly debatable because of difficulties in allocating overhead costs and the inherent inefficiency and varied objectives of managers in a large bureaucracy. A theoretical discussion for the operating and allocative efficiency advantages and disadvantages of markets vis-a-vis large firms concludes that the organizational form of the firm is a key determinant. See O. WILLIAMSON, *MARKETS AND HIERARCHIES: ANALYSIS AND ANTITRUST IMPLICATIONS* (1975).

44. It is not possible to demonstrate that these mechanisms for credit allocation are more or less efficient than some other method.

45. Rhoades, *A Note on the Resource-Allocation Efficiency of MBHCs Versus Independent Banks*, Q. REV. ECON. & BUS., Summer 1983, at 112.

States would be significantly improved by a move to interstate banking. However, one very important caveat is an order. We simply do not know what allocative efficiency gains might result from a complete removal of barriers to geographic expansion, wherein firms would be able to allocate plant and equipment freely in response to market forces. Thus, the potential exists from some unforeseen gains in this area with no apparent risk of losses.

It is notable that while there may be no demonstrable gains in allocative efficiency as a result of interstate banking, gains are likely for the system as a whole in terms of some aspects of operating efficiency. In particular, with the development of interstate banking, there is likely to be a corresponding increase in electronic funds transfer.⁴⁶ This will occur because firms are more prepared and willing to transfer internal funds electronically than are the marketplace and consumers at this time. Thus, an increased amount of electronic funds transfer would probably take place within larger interstate institutions. This operating cost advantage is, however, only short term in nature because the marketplace, including consumers, can be expected to fully accept the electronic technology in the future.

III. PRODUCT LINE EXPANSION FOR BANKING ORGANIZATIONS

The implications of product line expansion are decidedly more problematic than those raised by interstate banking. There are at least four reasons for this. First, even the most basic question as to whether there is any foundation for Congress and the bank regulators to be concerned with the issue of product line expansion is subject to debate. Specifically, there is debate over whether banks are inherently different from other businesses and, therefore, should be regulated as to the product lines they enter. Second, even if banks are judged to be inherently different, and thus to warrant regulation, there is debate over whether the bank holding company device insulates banks from the financial problems of their parent bank holding company and nonbank affiliates. Third, there is very little systematic empirical evidence that is directly relevant to the questions raised by product line expansion by banking organizations. Fourth, in contrast with interstate banking, product line expansion may carry highly significant externalities that could threaten the safety and soundness on the banking system. For these reasons, any conclusions regarding the desirability of product line expansion are considerably more

46. D. HUMPHREY, *THE U.S. PAYMENTS SYSTEM: COST, PRICING, COMPETITION, AND RISK* 109 (1984) (Solomon Brothers Center for the Study of Financial Institutions).

suspect and judgmental than conclusions drawn with respect to interstate banking.

Product line expansion by banking organizations raises numerous questions. These include questions regarding the implications of product line expansion for tie-in arrangements, conflicts of interest, undue concentration of financial resources, efficiency and risk. This Article, however, focuses only on the risk implications. The emphasis on risk is not intended to suggest that these other questions are not relevant or important. Indeed, since the banking industry, unlike any other industry, provides an important, arguably essential, input or service to most businesses and consumers in the country, the possibility for tie-in arrangements and conflicts of interest as a result of product line expansion is quite real. Expansion of banks into additional product lines would establish business relationships that are conducive to both tie-in arrangements and conflicts of interest. However, because existing laws dealing with these problems could be tightened in the event of product line expansion and because credit markets are relatively competitive, such issues are not as critical as the risk question. However, two very important caveats are in order. First, it is, of course, recognized that laws are not always effective. Although laws prohibiting murder, robbery and price-fixing exist, our prisons are full and the Justice Department continues to prosecute price-fixing cases. Consequently, laws will not eliminate undesired behavior without vigorous enforcement. Secondly, competition in credit markets is relatively strong, which tends to inhibit tie-in arrangements and conflicts of interest because of the availability of alternative sources of credit. If, however, antitrust policy toward mergers were to become lax, an environment conducive to conflicts of interest and tie-in arrangements could easily develop.⁴⁷

The potential for an increase in the concentration of financial resources as a consequence of product line expansion is also a real and

47. A recent study presents results of a simulation of the horizontal merger activity that could take place under the 1982 Justice Department merger guidelines. The findings indicate, for example, that the Chicago banking market, which now has 407 banks, could conceivably have four banks as a result of horizontal mergers that would be permissible under the guidelines. Furthermore, under the guidelines, it is possible for practically all local banking markets in the country to wind up with a Herfindahl index greater than 1800, even though the guidelines state that markets with a Herfindahl index above 1800 are highly concentrated. See J. BURKE, *ANTITRUST LAWS, JUSTICE DEPARTMENT GUIDELINES, AND THE LIMITS OF CONCENTRATION IN LOCAL BANKING MARKETS*, Staff Studies No. 138 (1984) (Federal Reserve Board). Also, another recent study indicates that the number of bank mergers and acquisitions in 1981, 1982 and 1983 was substantially higher than the number in previous years. See S. RHOADES, *MERGERS AND ACQUISITIONS BY COMMERCIAL BANKS, 1960-83*, Staff Studies No. 142 (1985) (Federal Reserve Board).

important issue.⁴⁸ The largest banking organizations dwarf the largest insurance and securities firms. It is conceivable, therefore, that if banks were permitted to enter these activities, they could, by acquisition, dominate these other industries. Due to the straightforward manner in which this problem would develop and because legislation permitting product line expansion could incorporate relatively simple restraints on inter-industry acquisitions, this problem appears to be manageable.

In addition, it is often argued that product line expansion will result in greater efficiency due to large firms offering a wider range of services and will yield economies of scale and economies of "scope." However, as previously discussed, economies of scale in the banking and the savings and loan industries are not very important.⁴⁹ Regarding economies of "scope" (efficiencies associated with a wider range of products), there are only two relevant studies, and the results are mixed.⁵⁰ There may, however, be efficiencies arising from the availability of one-step shopping for consumers. Nevertheless, historical experience provides some indication, discussed later, that significant product line expansion may result in operating inefficiencies and increased risk.⁵¹ Therefore, the efficiency issue will be discussed as an element of the risk issue.

In contrast to the other issues raised by product line expansion, the risk issue is critical to the safety and soundness of the banking system and is not clearly manageable, although various deposit insurance schemes (public and private) and increased market discipline have been proposed as methods of managing bank risk.⁵² For this reason, this dis-

48. For a very thoughtful analysis of the antitrust implications of product line expansion, see Solomon, *Bank Product Deregulation: Some Antitrust Tradeoffs*, *ECON. REV.*, May 1984, at 20 (Federal Reserve Bank of Atlanta).

49. See *supra* notes 34-42 and accompanying text.

50. For a study which did not find economies of scope, see G. BENSTON, A. BERGER, G. HANWECK & D. HUMPHREY, *ECONOMIES OF SCALE AND SCOPE IN BANKING* in *PROCEEDINGS OF A CONFERENCE ON BANK STRUCTURE AND COMPETITION* 432 (May 1983). However, for a study which found economies of scope, see Gilligan, Smirlock & Marshall, *Scale and Scope Economies in the Multi-Product Banking Firm*, 13 *J. MONETARY ECON.* 393 (1984). Some industry participants question whether efficiency gains are likely. For example, Leo Walsh, Jr., chief investment officer of Equitable Life Assurance Society observed that "[p]eople have been touting the synergy that comes from combining financial institutions, but we frankly don't believe in it." *A Financial Service Merger That Breaks the Mold*, *BUS. WEEK*, Nov. 19, 1984, at 147, 150.

51. See *infra* notes 105-115 and accompanying text.

52. There is, for example, a great deal of controversy today over various deposit insurance schemes that might be implemented to make banks pay a premium for taking on additional risk. These include the payment of variable rate deposit insurance premiums to the FDIC and, more radically, the implementation of a private deposit insurance system. See, e.g., Gibson, *Deposit Insurance in the United States: Evaluation and Reform*, 7 *J. FIN. & QUANTITATIVE ANALYSIS* 1575 (1972); Buser, Chen & Kane, *Federal Deposit Insurance, Regulatory Policy*

cussion of the implications of product line expansion for banking organizations focuses on the risk issue. It is emphasized, however, that the other issue raised by product line expansion are not trivial and should not be ignored in policy deliberations.

A. Basic Questions

Before embarking on any discussion of the issues raised by product line expansion for banking organizations, two basic questions should be answered. First, is the role of commercial banks in the financial system sufficiently unique and critical that it is important to consider whether expansion of their product lines would create the potential for financial problems that would compromise the integrity of the system? Second, could a commercial bank be financially vulnerable in the event that its parent holding company or a nonbank affiliate encounters financial difficulties? If the answer to either or both of these questions is no, there is little point in lengthy discussion of the safety and soundness implications of product line expansion, which is generally regarded as the most crucial issue raised by product line deregulation. Thus, if commercial banks are not sufficiently unique and critical to the functioning of the system, there is no great cause for concern about the possible risk implications of product line expansion. Similarly, if a commercial bank is not vulnerable to the financial problems of its parent or nonbank affiliate, i.e., the bank is

and Optimal Bank Capital, 36 J. FIN. 51 (1981); FED. DEPOSIT INSURANCE CORP., DEPOSIT INSURANCE IN A CHANGING ENVIRONMENT (Apr. 15, 1983); FEDERAL HOME LOAN BANK BOARD, AGENDA FOR REFORM: A REPORT ON DEPOSIT INSURANCE (Mar. 23, 1983); Kareken, *Deposit Insurance Reform or Deregulation Is the Cart, Not the Horse*, Q. REV., Spring 1983, at 1 (Federal Reserve Bank of Minneapolis). For a number of recent papers on the deposit insurance issue, see FEDERAL RESERVE BANK OF CHICAGO, PROCEEDINGS OF A CONFERENCE ON BANK STRUCTURE AND COMPETITION 196 (May 1983). Although there are no clear answers, it does seem certain that the federal government would still have to remain in the business as a backup insurer if a private deposit system were implemented. Consequently, a net gain would not necessarily result. With respect to increasing market discipline as a constraint on bank risk taking, controversy and uncertainty also exists. It has been suggested, for example, that more detailed information regarding the loans, such as their current status, could be made public by banks. Alternatively, the FDIC could firmly implement a policy of not paying off deposits in excess of the legally insured \$100,000 in the event of a bank failure, a policy not followed in the past. Such schemes are likely to increase market discipline in the sense of making large, sophisticated investors and depositors sensitive to the risk position of the banks in which they place funds. However, such schemes may also lead to a very large and rapid run on banks at the slightest sign or rumor of financial difficulty. Therefore, such measures appear to be somewhat self-defeating. The recent experience with Continental Illinois suggests the potential for this problem. Some of the deposit losses experienced by Continental appear to have been in response to a modified payout on deposits of over \$100,000 undertaken by the FDIC in the earlier Penn Square failure. Consequently, the FDIC announced that it would stand behind all of the deposits in Continental *and* its parent holding company.

“insulated” from its holding company, product line expansion would presumably have no risk implications for the bank. In short, if the answer to either or both of the two questions posed above is no, the product line expansion question becomes largely moot.

1. Are banks unique and critical?

A lengthy statement of the position that banks are unique and critical to the economic system has been presented by Corrigan.⁵³ According to this statement, three basic characteristics make banks unique and critical to the system. First, only banks (and thrifts to an increasing extent) offer transaction accounts, which are liabilities incurred that are payable on demand at par and are readily transferable by the owner to third parties. These transaction accounts are the heart of the payments mechanism and are the basis of the daily financial transactions by consumers and businesses.⁵⁴ Second, banks are the underlying source of liquidity to other institutions. Specifically, banks can and do provide credit and credit lines to all other institutions in the system, even at times when other credit sources are unavailable. This is possible as a result of their varied sources of liquidity and their ability literally to create money by issuing demand deposits—a function which is assured because of the direct connection to the central bank. Third, commercial banks are the “transmission belt” for monetary policy. That is, through commercial banks, the central bank carries out policies to influence financial markets on a daily basis and to preserve financial stability in times of financial crisis. This function is facilitated by the link between the central bank and commercial banks resulting from reserve requirements and the discount window through which the central bank serves as lender of last resort.⁵⁵ For these reasons, banks serve an essential public interest role, and consequently, it is necessary to ensure their safety and soundness.

53. Corrigan, *Are Banks Special?*, in ANN. REP. 1 (1982) (Federal Reserve Bank of Minneapolis). See also *Financial Services Industry—Oversight: Hearings Before the Comm. on Banking, Housing, and Urban Affairs*, 98th Cong., 1st Sess. 53 (1983) (statement of Paul A. Volcker, Chairman of the Federal Reserve Board). For a related but more general argument, see Longstreth, *In Search of A Safety Net for the Financial Services Industry*, BANKERS MAG. July-Aug. 1983, at 27.

54. It is notable that alternatives to the transaction accounts offered by banks, such as the money market mutual funds, ultimately rely on commercial banks for payment.

55. Alternative schemes for implementing monetary policy that do not rely on commercial banks have been proposed, but it is not clear that these would not ultimately depend on commercial banks along with the central bank. More importantly, in view of the uncertainty regarding the workability of these alternative systems and the apparent efficiency of the present system, it would seem very difficult to justify adopting an alternative system.

This requires regulation including limitations on the product lines or asset powers of banks.

The opposing view has been presented by Pierce, who uses Corrigan's paper as the basis for his discussion.⁵⁶ Pierce rejects Corrigan's conclusion that banks should largely be separated from nonbank financial activities to ensure the safety and soundness of the banking system and the impartiality of bank credit decisions. He argues that banks are not unique in the three areas outlined by Corrigan because there are alternatives in the market to each of the "special" functions. Furthermore, Pierce contends that even if banks were special, their ability to perform these functions would not be affected if they engaged in new financial services.

A more cautious and less sweeping rebuttal to the argument that banks are unique and critical to the system has recently been presented by Saunders.⁵⁷ In contrast to Pierce, Saunders agrees that the transaction account function is indeed special and is of sufficient importance to the economy and society that it is imperative to preserve the integrity of the banking system. Furthermore, while agreeing that safety and soundness considerations are very important, Saunders concludes that securities underwriting could be undertaken by bank holding company affiliates without jeopardizing bank safety and soundness, although certain safeguards may be required.

On balance, the position of Corrigan is more persuasive than that of Pierce, although Pierce's argument that there are substitutes for essential bank services has a recognized theoretical position.⁵⁸ However, the key weakness of the Pierce position is that it seems to discount very heavily the externalities of widespread bank failure, particularly in connection with the payments mechanism. In spite of the fact that there are substitutes for various bank services, such as commercial paper and money market mutual funds, these substitutes are not perfect, and the providers of these substitutes operate within an institutional framework that rests upon the banking system. Furthermore, the externalities resulting from bank failures are more far-reaching, effecting the functioning of the payments system, than are widespread failures in other industries. Thus,

56. Pierce, *An Essay on the Expansion of Banking Powers*, in *DEREGULATING WALL STREET: COMMERCIAL BANK PENETRATION OF THE CORPORATE SECURITIES MARKET* ch. 2 (I. Walter ed. 1985).

57. A. SAUNDERS, *AN ECONOMIC PERSPECTIVE ON BANK UNIQUENESS AND CORPORATE SECURITIES ACTIVITIES* (May 1984).

58. This theoretical position probably originated with J. GURLEY & E. SHAW, *MONEY IN A THEORY OF FINANCE* (1960).

banks are in a unique position that is critical to the financial system.⁵⁹ In any event, having reached the conclusion that banks are unique and critical to the system, preserving the safety and soundness of the system is essential. Consequently, the answer to the first basic question of whether it is important to consider whether product line expansion might increase risk in the banking system is yes.

2. Are banks insulated from parents and affiliates?

The second basic question is whether a commercial bank is insulated from the financial problems that may be encountered by its parent holding company or nonbank affiliates. In a recent paper, Chase and Waage argue that the legal doctrine of "corporate separateness," which insulates the bank from its parent and nonbank affiliates, offers a promising basis for product line expansion.⁶⁰ Because there is considerable direct and indirect economic evidence suggesting that commercial banks cannot be effectively insulated from their parents and affiliates, this Article will briefly outline some of this evidence rather than discuss the merits of the paper by Chase and Waage.⁶¹

It appears that the legal doctrine of corporate separateness is an uncertain tool for insulating banks from the financial misfortunes of a bank holding company parent or its nonbank affiliates. More importantly, regardless of the effectiveness of the legal doctrine of corporate separateness, the perception of regulators and market participants (i.e., bank holding company managers and the investing and depositing public) regarding the separability of the financial fortunes of the various components of the bank holding company is a critical determinant of the extent to which the bank subsidiaries are insulated from the financial problems in other parts of a bank holding company. If the bank holding company is operated as a single entity or is perceived as such, financial problems of parent holding companies and nonbank affiliates are likely to plague the bank.

59. This hinges on the position that the government must stand behind the payments mechanism.

60. S. CHASE & D. WAAGE, *CORPORATE SEPARATENESS AS A TOOL OF BANK REGULATION* (1983) (prepared for the American Bankers Association). The view that the legal concept of corporate separateness insulates banks from their parents and affiliates appears to be implicit in the Treasury Department's formal legislative proposal for product line deregulation. See *Financial Institutions Deregulation Act of 1983*, S. 1609, 98th Cong., 1st Sess. (1983).

61. This discussion is based on input from Anthony Cornyn, Gerald Hanweck and John Rose.

economic considerations

Studies pertaining to holding company operating policies suggest that bank holding companies have tended to integrate their various units. Early studies of bank holding company operating policies were reviewed in a 1978 compendium on the bank holding company movement, prepared by the staff of the Federal Reserve Board.⁶² Even though the evidence is limited, the reviewer concluded that it suggests that bank holding companies tend to operate their organizations more like single, integrated entities than like collections of commonly owned but autonomous companies. Evidence from two more recent studies is generally consistent with that reported in the earlier works and suggests that, while the degree of centralization varies considerably across organizations, holding companies exert at least some effort to centralize and integrate the operations of their subsidiaries.⁶³

Another body of literature pertaining to bank holding company operating policies is a set of studies which examines the movement of funds between different units within the holding company system. One study concludes that "the evidence is consistent with the premise that bank holding companies operate as intergrated entities and that this interdependence among component firms may affect the safety and soundness of affiliated banks."⁶⁴ A second study takes a broader look at interaffiliate cash flows by examining both upstream and downstream funds transfers between the parent company and its bank and nonbank subsidiaries.⁶⁵ The author reports several findings consistent with a single-entity view of bank holding companies.

In addition to the evidence regarding bank holding companies' own operating policies, there is evidence suggesting that market participants—large depositors, equity and credit analysts and the public in general—tend to view bank holding companies as single entities. For example, while there is widespread agreement among financial analysts that a thorough analysis of a bank holding company should include an

62. Rose, *Bank Holding Companies As Operational Single Entities*, in *THE BANK HOLDING COMPANY MOVEMENT TO 1978: A COMPENDIUM* 69 (1978) (Board of Governors of the Federal Reserve System).

63. W. MURRAY, *BANK HOLDING COMPANY CENTRALIZATION POLICIES* (Feb. 1979) (prepared for the Association of Bank Holding Companies by Golembe Associates, Inc.); Whalen, *Operational Policies of Multibank Holding Companies*, *ECON. REV.*, Winter 1981-1982, at 20 (Federal Reserve Bank of Cleveland).

64. Mayne, *Bank Holding Company Characteristics and the Upstreaming of Bank Funds*, 12 *J. MONEY, CREDIT & BANKING* 209 (1980).

65. Mayne, *Funds Transfer Between Bank Holding Companies and Their Affiliates*, 11 *J. BANK RESEARCH* 20 (1980).

analysis of the major segments or units of the enterprise, this is not always possible given the available data. As a result, analysts typically limit their attention to the financial statements of the consolidated organization.⁶⁶ The focus on consolidated statements also reflects the financial disclosure requirements of the Securities and Exchange Commission (SEC). The SEC requires bank holding companies to file consolidated financial statements. Separate financial statements for bank and nonbank subsidiaries are not required, nor are separate financial statements mandated for the parent company.⁶⁷

Along with the evidence suggesting that the investing public may regard the units of a bank holding company as interdependent, there is both direct and indirect evidence that depositors may assume such interdependence. For example, in 1973, Beverly Hills Bancorp, the parent of Beverly Hills National Bank, held loans to a real estate developer that had been funded with sales of commercial paper. When the developer could not repay the loans, the holding company was unable to pay off its maturing commercial paper obligations. The adverse publicity that accompanied this default resulted in large-scale runs on the Beverly Hills National Bank. Furthermore, it appears that bank holding company management will support nonbank affiliates that get into financial difficulty in order to maintain market confidence in the organization. For example, United California Bank, in 1970, voluntarily assumed responsibility for the debts of its Swiss bank subsidiary, which failed after incurring losses of nearly \$40 million from unauthorized speculation in cocoa futures. Other examples of banking organizations taking significant steps to preserve the public's perception of their reputation and financial strength are situations involving bank holding company-sponsored real estate investments trusts (REITs) in the mid-1970's. Often the real estate investment problems were transferred to the sponsoring bank. This support was provided even though the banks were under no legal obligation to do so.⁶⁸ More generally, Walter Wriston has observed:

For example, it is inconceivable that any major bank would

66. See Wooden & Paluszek, *Disclosure Needs of Financial Analysts: Large Bank Holding Companies*, *ECON. REV.*, Nov. 1983, at 77 (Federal Reserve Bank of Atlanta).

67. In 1981, the SEC eliminated the requirement for separate, complete financial statements for the parent company. Now, the SEC requires the presentation of only condensed financial information about the parent company in the footnotes to a bank holding company's consolidated financial statements.

68. Even though the REIT problems have passed, Standard & Poor's considers the strength of the link between the REIT and its sponsor an important rating consideration. They argue that "if the REIT bears the sponsor's name there is a definite economic incentive for the sponsor to keep the REIT solvent and avoid any negative publicity." *STANDARD & POOR'S, CREDIT OVERVIEW* 59 (Aug. 1983).

walk away from any subsidiary of its holding company. If your name's on the door, all of your capital funds are going to be behind it in the real world. Lawyers can say you have separation, but the marketplace is persuasive, and it would not see it that way.⁶⁹

Evidence indicates that, consistent with the perceptions of holding company management and the investing and depositing public, federal authorities generally view bank holding companies as single, intergrated entities. For example, the Federal Reserve Board has long considered all of a holding company's bank affiliates operating within the same local market as a single banking entity for purposes of competitive analysis.⁷⁰ The United States Department of Justice consistently has considered the holding company organization as a single entity, given a product and geographic market. The courts have regularly followed this approach as well.

While federal law and regulation generally treat affiliated bank subsidiaries within a multibank holding company system as separate units for purposes of monetary policy,⁷¹ the Federal Reserve Board has traditionally viewed the bank and nonbank sectors of a holding company organization as a single entity for such purposes. In particular, the Board has been sensitive to banking innovations involving the use of the holding company corporate structure to circumvent regulations designed for purposes of monetary policy, specifically Regulation D⁷² (reserve requirements) and Regulation Q⁷³ (interest on deposits). In 1974, Congress, in response to initiatives by several large holding companies to issue small-denomination, floating-rate thrift notes in order to circumvent Regulation Q restrictions, authorized the regulators to limit interest rates on holding company debt obligations (other than commercial paper) that could serve as substitutes for consumer deposits issued by depository in-

69. *Financial Institutions Restructuring and Services Act of 1981: Hearings Before the Comm. on Banking, Housing, and Urban Affairs, 97th Cong., 1st Sess. 589-90 (1981)* (statement of Walter Wriston, Chairman, Citicorp).

70. A survey of the earliest Board decisions pursuant to § 3 of the Bank Holding Company Act of 1956 reveals that the Board has always used this approach in its competitive analysis. See, for example, Board orders denying the applications by Northwest Bancorporation, Minneapolis, 44 Fed. Res. Bull. 11 (1958), and Wisconsin Bankshares Corporation, Milwaukee, *id.* at 15, to organize de novo bank subsidiaries.

71. For example, the reserve requirements of the Federal Reserve are applied to each bank subsidiary individually. Because of graduated reserve requirements, the total amount of reserves required of a multibank holding company is less than that required if all the sister bank subsidiaries were consolidated into a single banking entity.

72. 12 C.F.R. § 204 (1984).

73. 12 C.F.R. § 217 (1984).

stitutions, regardless of the intended use of the proceeds of the debt.⁷⁴

Further evidence of congressional concern that the integrated nature of the bank holding company organization might pose problems for bank soundness is provided in section 3(c) of the Bank Holding Company Act of 1956.⁷⁵ This section directed the Federal Reserve Board, in judging bank acquisitions by holding companies, to consider, among other things, "(1) the financial history and condition of the company or companies and the banks concerned; (2) their prospects; [and] (3) the character of their management"⁷⁶ The 1970 Amendments to the Bank Holding Company Act clearly provided that the Board should give attention to bank soundness in judging the permissibility of nonbanking activities for bank holding companies.⁷⁷ Section 4(c)(8) of the Amended Act specifies a number of possible adverse effects for the Board to consider in judging bank holding company applications to acquire nonbank firms. Among these is "unsound banking practices."⁷⁸

Supervisory concern over the implications of the bank holding company corporate structure for bank soundness surfaced shortly after the 1970 Amendments. Beginning in 1972, the Federal Reserve Board required each bank holding company to submit financial statements for the consolidated organization, the parent holding company and all nonbank subsidiaries of the parent.⁷⁹ In June 1974, the Federal Reserve Board announced its "go-slow" policy of restricting bank holding company expansion, both geographically and in terms of additional nonbanking activities, in order to limit *bank* risk exposure during a period of lessened financial stability.⁸⁰

Federal regulators took steps in 1978 and 1979, analogous to the restrictions imposed by section 23A, to protect subsidiary banks from abuse by holding company affiliates. In 1978, the Comptroller of the

74. Pub. L. No. 93-501, 88 Stat. 1557 (1976) (codified as amended in scattered sections of 12 U.S.C.). For legislative history of this Act, see S. REP. NO. 1120, 93d Cong., 2d Sess., reprinted in 1976 U.S. CODE CONG. & AD. NEWS 6249.

75. Pub. L. No. 511, 70 Stat. 133, 135 (codified as amended at 12 U.S.C. § 1842(c) (1982)).

76. *Id.*

77. Bank Holding Company Act Amendments of 1970, Pub. L. No. 91-607 § 103, 84 Stat. 1760, 1765 (codified as amended at 12 U.S.C. § 1843(c)(8) (1982)).

78. 12 U.S.C. § 1843(c)(8) (1982).

79. Section 5(c) of the Bank Holding Company Act authorizes the Federal Reserve Board to acquire reports from bank holding companies as well as to examine each holding company and each subsidiary thereof. 12 U.S.C. § 1844(c) (1982). Financial statements for each bank subsidiary are filed with the bank's primary federal supervisor.

80. For a discussion of the rationale underlying this policy, see Address by Arthur F. Burns, *Maintaining the Soundness of Our Banking System*, 1974 American Bankers Association Convention, in Honolulu (Oct. 21, 1974).

Currency criticized the practice of some national banks of paying various fees to holding company affiliates (and other insiders) in excess of the value of goods and services received.⁸¹ At about the same time, the Federal Reserve Board criticized intraholding company income and tax accounting transfers "that have the effect of transferring assets and income from the subsidiary banks to the parent company without offsetting benefits to the banks."⁸²

In view of the considerations outlined above, regardless of the effectiveness of the legal doctrine of corporate separateness, it appears as though bank holding company management, investors and depositors perceive the financial fortunes of various parts of a bank holding company as interdependent. Their actions will tend to make them so. The regulators must respond accordingly.

B. Implications for Risk

Having accepted the propositions that commercial banks occupy a unique position in the economic system and that they are not effectively insulated from their parent holding companies and nonbank affiliates, it is critical that the question regarding the likely effects of product line expansion be addressed. Indeed, this question involves the safety and soundness of the banking system. Some empirical studies have examined the risk implications of product line expansion by banking organizations. These studies generally conclude that the evidence, along with elements of finance theory, suggests that the diversification afforded by product line expansion may reduce the risk of bank failure or at least not increase that risk. This conclusion is typically based on a comparison of the levels, and variance and covariance, of rates of return in banking with those of various nonbanking activities and on the concept in finance theory that portfolio diversification (assuming that variance and covariance of the returns of different investments are not perfectly correlated) will reduce risk.⁸³ These studies are briefly discussed below.

81. See *CofC Tells Banks Not to Enrich Insiders With Exorbitant Fees*, Am. Banker, Sept. 11, 1978, at 1, col. 3.

82. Board of Governors of the Federal Reserve System, Policy Statement Regarding Inter-corporate Income Tax Accounting Transactions of Bank Holding Companies and State-Chartered Banks that are Members of the Federal Reserve System, Press Release (Sept. 25, 1978).

83. The correlation of variance and covariance of rates of return is intended to indicate whether fluctuation in rates of return for banks coincide with or are offset by fluctuations in rates of return in nonbanking activities. If variations in bank returns coincide with the variation of returns of nonbanking activities, the diversification permitted by product line expansion would not provide risk reducing benefits and might increase risk. If, however, variations in rates of return of banking are offset by those of nonbanking activities, diversification would

Before discussing these studies, it should be noted that most of them overlook what appear to be two very important considerations. First, finance theory indicates that an investor can reduce risk by properly diversifying a portfolio. As demonstrated below, however, it appears that it is not appropriate to apply this line of reasoning to diversification by a firm. Second, historical evidence concerning diversification in industry combined with very limited evidence regarding diversification in banking suggests that operating risks may increase as the range of operations conducted by a firm increases. Put differently, it appears that as the size and range of operations of a firm increase, top management does not have the range of expertise, or time, to effectively manage the enterprise.

The remainder of this section examines empirical studies of risk associated with nonbanking activities for banks and additional considerations, generally overlooked, that must be examined in assessing the risk implications of product line expansion.

1. Evidence on product line expansion and risk

Because a large sample of widely diversified bank holding companies does not exist, data from actual observation comparing the risks of diversified bank holding companies, the type which might result if proposals for product line expansion were adopted, with the risks of undiversified bank holding companies are not available. Nevertheless, because of the importance of the issue, a number of studies have approached the question indirectly. Most of these studies have compared the risk of certain nonbanking activities with the risk in banking, either separately or in combination. Two studies have directly compared diversified (to the extent possible under the current regulatory scheme) and undiversified bank holding companies. Finally, a couple of recent studies have examined investor reaction to banks' involvement in nonbanking activities.

Johnson and Meinster examined thirteen industries which were possible candidates for bank holding company expansion. Using Internal Revenue Service (IRS) data for 1954 through 1969, they constructed measures of the level and variance in rates of return and examined their correlation with banking. Johnson and Meinster concluded that bank holding companies could reduce risk or increase returns by product line expansion.⁸⁴ A similar study was conducted by Heggstad. He used IRS

theoretically reduce risk. This conclusion, however, rests on the inappropriate assumption that bank holding company diversification is analogous to pure financial diversification through investments in securities. See *infra* notes 95-103 and accompanying text.

84. Johnson & Meinster, *Bank Holding Companies: Diversification Opportunities in Non-bank Activities*, E. ECON. J., Oct. 1974, at 316.

data for 1953 through 1967 to construct measures of levels and variations in rates of return for thirteen nonbanking industries. Based on his research, Heggstad concluded very cautiously that product line expansion may reduce risk for banking organizations.⁸⁵ Eisemann examined levels and variations in rates of return during the 1960's for twenty nonbanking activities using data from various sources. He concluded that banking is one of the lowest risk activities and that limited diversification can reduce risk.⁸⁶

Using a theoretical approach, based on principles from portfolio theory, Blair and Heggstad concluded that product line expansion would reduce risk for banks.⁸⁷ Jessee and Seelig used a more direct approach than other studies by comparing the coefficient of variation of a sample of bank holding companies with that of a sample of independent banks. It is notable that their conclusions differed from those of most other studies, which relied on inferences from portfolio theory rather than on direct evidence on the risk effect of diversification. They concluded that bank holding company risk is no lower than the risk associated with independent banks and that diversified bank holding companies do not exhibit lower risk than those which are not diversified.⁸⁸ Since this evidence, based on actual results of diversification by bank holding companies, is contrary to the results of studies that rely on inferences from portfolio theory, which treat nonbanking activities as securities to be held in a portfolio, it appears that other factors affecting actual risk of bank holding companies may be at work. This possibility will be discussed in the following section.

Meinster and Johnson used portfolio theory to develop a procedure for quantifying the relationship between bank holding company diversification and risk. The theoretical procedure was simulated based on bank and nonbank data for two bank holding companies. They concluded that diversification may reduce risk for bank holding companies but cautioned that this result may hold for some companies but not for others.⁸⁹ A study by Boyd, Hanweck and Pithyachariyakul, criticized other stud-

85. Heggstad, *Riskiness of Investments in Nonbank Activities by Bank Holding Companies*, 27 J. ECON. & BUS. 219 (1974).

86. Eisemann, *Diversification and the Congeneric Bank Holding Company*, 7 J. BANK RESEARCH 68 (1976).

87. Blair & Heggstad, *Bank Portfolio Regulation and the Probability of Bank Failure*, 10 J. MONEY, CREDIT & BANKING 88 (1978).

88. M. JESSEE & S. SEELIG, *BANK HOLDING COMPANIES AND THE PUBLIC INTEREST* (1977).

89. Meinster & Johnson, *Bank Holding Company Diversification and the Risk of Capital Impairment*, 10 BELL J. ECON. 683 (1979).

ies for using industry level data to measure risk because by doing so significant risk faced by individual firms in an industry may be hidden. Furthermore, unlike most other studies, they examined the actual experience of 469 banks or groups of banks with 1,126 nonbank affiliates in various permissible activities. Their analysis led them to conclude that the potential for risk reduction by diversification is limited at best and that the probability of bankruptcy increases beyond only a very small investment in nonbanking activities.⁹⁰

Stover developed a wealth maximization model to estimate the effect of developing a portfolio of both bank and nonbank firms involving a subsample from Eisemann's data. His results, based on both industry and firm data for 1959 through 1968, indicated that diversification by banking organizations increased their value.⁹¹ Herzig-Marx and Drum used stock price indexes for 1971 through 1978 and some measure of returns for two groups of banks and eight nonbanking activities. Based on measures of risk and correlations of nonbanking returns with banking, it was concluded that diversification into some activities may reduce bank risk.⁹²

Two recent studies by Eisenbeis, Harris and Lakonishok used evidence from returns to investors as indicators of the benefits of bank diversification. The first of these studies attempted to determine whether shareholders of banks and bank holding companies perceived benefits from product and geographic diversification. The analysis is based upon an examination of weekly stock returns for seventy-eight banks during 1968 through 1975 and the effect on stock return of the announcement that these banks would form one-bank holding companies. Results showed increased returns in connection with the announcement. This and other analysis led to the conclusion that the market perceives benefits from diversification, but the benefit of product diversification was perceived as much smaller than geographic diversification.⁹³ The other study examined the monthly returns for the bonds of eleven companies (two of which were banking organizations) that acquired a financial services company to determine the effect of the announcement on bondholder

90. Boyd, Hanweck & Pithyachariyakul, *Bank Holding Company Diversification*, in PROCEEDINGS OF A CONFERENCE ON BANK STRUCTURE AND COMPETITION 105 (May 1980) (Federal Reserve Bank of Chicago).

91. Stover, *A Re-Examination of Bank Holding Company Acquisitions*, 13 J. BANK RESEARCH 101 (1982).

92. C. HERZIG-MARX & D. DRUM, *BANK HOLDING COMPANY RISK AND NONBANKING FINANCIAL ACTIVITIES* (1979).

93. R. EISENBEIS, R. HARRIS & J. LAKONISHOK, *BENEFITS OF BANK DIVERSIFICATION: THE EVIDENCE FROM SHAREHOLDER RETURNS* (May 1983).

returns. The analysis revealed no abnormal returns suggesting that bondholders did not perceive the acquisitions to have a significant effect on the acquirers' risk.⁹⁴

In general, studies of the risk implications of product line expansion by banking organizations have concluded that at least some limited risk reduction is likely, although sometimes the conclusion was stated very cautiously. It is notable, however, that the two studies which analyzed the actual experience of holding companies with product line expansion reached a different conclusion than studies using indirect evidence along with pure portfolio theory. In any event, most of these studies have overlooked two important considerations that cast doubt upon if not invalidate the results of the other studies. These additional considerations are pursued below. Although risk reduction may result in some unknown way in a deregulated environment, it cannot be inferred from these studies.

2. Problems with the evidence on risk

The studies reviewed above attempted to assess the likely risk effects of product line expansion by banking organizations. This assessment is difficult compared with assessing the effects of interstate banking on local market and national concentration because the geographic expansion expected from interstate banking is approximated in a number of states while in others it is not. This situation provides a basis for comparison from actual experience. In contrast, studies dealing with the risk implications of product line expansion in banking do not have access to data from directly relevant experience because there are no banking organizations heavily diversified into, for example, securities underwriting, insurance underwriting and real estate development. As a consequence, the evidence developed by studies of the risk implications of product line expansion is much less direct and the conclusions less certain than the evidence and conclusions from studies assessing the effects of interstate banking on structure and bank performance. Furthermore, the studies that are relevant to the risk implications of product line expansion generally overlook two important considerations—the questionable validity of applying portfolio theory to the investments by a firm and the operating risk that may result from significant diversification.

94. Wall & Eisenbeis, *Risk Consideration in Deregulating Bank Activities*, ECON. REV., May 1984, at 6 (Federal Reserve Bank of Atlanta).

a. *the adequacy of portfolio theory*

It is appropriate to use various measures of risk from financial theory, based on levels and variations of rates of return, to compare the risk of banking with various nonbanking activities.⁹⁵ This involves nothing more than comparing the risk of banking with that of nonbanking activities. It is not valid, however, to apply directly the risk reduction potential of diversification as described in basic portfolio theory to the situation of product line expansion by banks as several studies have done.⁹⁶ Specifically, in analyzing the risk effects of diversification, basic portfolio theory starts with an investor who is assumed to be risk averse and a wealth maximizer. The investor then purchases *securities* to hold in a *portfolio* of securities. It can be demonstrated that the investor can theoretically maximize his return by diversifying his portfolio so that it reduces the risk of the entire portfolio. Thus, the investor is able to hold individual securities with relatively high returns and corresponding higher risk.⁹⁷

The problem with applying basic portfolio theory to assess the effects of expansion by bank holding companies is that we are not analyzing an investor purchasing securities for a portfolio. This theoretical investor is making arms-length transactions and is able to acquire and dispose of securities almost instantaneously, at little cost and without concern for the reaction of other investors and market participants to his transactions. The lack of analogy between this situation, which is the standard in portfolio theory, and the product line expansion by bank holding companies (or any other firm for that matter) is striking and obvious. The essential difference is that when the holding company di-

95. There may even be some problems with this approach if industry level data are relied upon since the data will reflect overall industry variations rather than individual firm variations in profitability.

96. Meinster and Johnson were very explicit about the assumption they were making in applying portfolio theory to diversification by bank holding companies. They noted that the subsidiary activities were treated as individual "securities" in a holding company "portfolio." Meinster & Johnson, *Bank Holding Company Diversification and the Risk of Capital Impairment*, 10 *BELL J. ECON.* 683 (1979). Other studies also made this very basic assumption but were not explicit about it. See, e.g., Eisemann, *Diversification and the Congeneric Bank Holding Company*, 7 *J. BANK RESEARCH* 68 (1976); Boyd, Hanweck & Pithyachariyakul, *Bank Holding Company Diversification*, in *PROCEEDINGS OF A CONFERENCE ON BANK STRUCTURE AND COMPETITION* 105 (May 1980) (Federal Reserve Bank of Chicago); Blair & Heggstad, *Bank Portfolio Regulation and the Probability of Bank Failure*, 10 *J. MONEY, CREDIT & BANKING* 88 (1978).

97. These basic elements of portfolio selection are typically discussed in terms of an investor's portfolio of securities. See, e.g., W. SHARPE, *PORTFOLIO THEORY AND CAPITAL MARKETS* chs. 2, 3 (1970); E. BRIGHAM, *FINANCIAL MANAGEMENT: THEORY AND PRACTICE* ch. 5 (3d ed. 1982).

versifies, it typically does not do so simply by purchasing securities, which are represented by pieces of paper that are stored in a desk drawer or safety deposit box until they mature or are sold. Instead, diversification by the holding company entails lumpy investments or sales; the investments or sales are not arms-length in nature because they may have implications for other operations (and people) of the holding company; the likely reactions of competitors in the new and/or original product line must be taken into account; and movement into and out of product lines often requires considerable time and significant costs. Finally, such studies typically do not take into account the possibility that even if bank holding companies could theoretically reduce risk by diversification, they may adjust the asset holdings and capital of their banks and other subsidiaries in a manner that offsets any risk reduction that pure portfolio diversification provides.⁹⁸ Any such adjustments are judgmental and so the ultimate effect on overall risk of the firm is uncertain, which allows the possibility of over adjustment and, thus, an overall increase in risk.

Perhaps even more fundamental differences between the nature of diversification described in traditional portfolio theory and that which is undertaken by bank holding companies result from (1) the integration of the holding company's investment into its overall operation and (2) the objective function of holding company managers. When a holding company diversifies its product line, it invests in new operations usually involving additional people and production facilities. Whether the investment is made by way of acquiring an existing firm or de novo, evidence discussed earlier suggests that, generally, some effort will be made to integrate the operations of the new product line with existing operations. This is, of course, in marked contrast to the portfolio diversification with securities envisioned in portfolio theory and obviously raises many additional considerations.

With respect to the objective function, a basic assumption of portfolio theory, as previously mentioned, is that the investor is a wealth maximizer. This assumption may be a reasonable one for individual investors. But, is it appropriate to apply this same objective function to the manager of a holding company (or other firm)? That is, is it reasonable to

98. Available evidence consistently shows that individual bank and nonbank affiliates of bank holding companies have less capital and are more risky in terms of asset and/or liability holdings than independent firms. Studies which have explored the effect of acquisitions on assets and liabilities have found a change to a more risky position for the individual affiliate. For a review of these studies, see Curry, *The Performance of Bank Holding Companies*, and Rose, *The Effect of the Bank Holding Company Movement on Bank Safety and Soundness in THE BANK HOLDING COMPANY MOVEMENT TO 1978: A COMPENDIUM* (Sept. 1978) (Board of Governors of the Federal Reserve System).

assume that the manager will make investment and other decisions entirely in the stockholders' interest of maximizing the value of the firm? There is a substantial body of literature which suggests that this assumption is not valid and that the manager, in his or her own best interest, will have other objectives. Interest in the possibility that managers may have different objectives than those of owners was stimulated by the classic work of Berle and Means which showed that a substantial portion of large United States corporations were manager-controlled rather than owner-controlled.⁹⁹ This provided reasons for questioning whether managers would be profit maximizers. Obviously, the income of hired managers is heavily dependent on salaries so that income from profits is not likely to be as important as it is to owners who rely on profits for income.¹⁰⁰ For example, Baumol has argued that hired managers have an incentive to maximize growth of their firms, subject to a profit constraint.¹⁰¹ The rationale is that there is a direct relationship between firm size and executive salaries. There is some evidence to support this position.¹⁰² It has also been argued that managers may prefer to incur substantial expenses in order to make their job more attractive, instead of minimizing expenses in order to maximize profits.¹⁰³ The desire for power through control over resources, people and events has recently been proposed, along with some evidence, as the primary motivator of business executives.¹⁰⁴ In short, it should be clear that there is a reasonable foundation for questioning the assumption that maximization of profit or the value of the firm is the sole or even primary objective of managers. This, of course, raises further questions regarding the validity

99. A. BERLE & G. MEANS, *THE MODERN CORPORATION AND PRIVATE PROPERTY* (1932). An update of that study showed that this pattern of control became even more pronounced over time. See Larner, *Ownership and Control in the 200 Largest Nonfinancial Corporations, 1929 and 1963*, 56 AM. ECON. REV. 777 (1966).

100. Studies focusing on the form of executive compensation and its effect on firm profit performance have obtained mixed results. See, e.g., Gordon, *Ownership and Compensation as Incentive to Corporation Executives*, 54 Q.J. ECON. 455 (1940); Lewellen, *Management and Ownership in the Large Firm*, 24 J. FIN. 299 (1969); Masson, *Executive Motivations, Earnings, and Consequent Equity Performance*, 79 J. POL. ECON. 1278 (1971).

101. W. BAUMOL, *BUSINESS BEHAVIOR, VALUE, AND GROWTH* (1959).

102. See, e.g., D. ROBERTS, *EXECUTIVE COMPENSATION* (1959); McGuire, Chiu & Elbring, *Executive Income, Sales and Profits*, 52 AM. ECON. REV. 753 (1962); Patton, *Top Executive Pay: New Facts and Figures*, HARV. BUS. REV., Sept.-Oct. 1966, at 94; Cubbin & Hall, *Directors Remuneration in the Theory of the Firm*, 20 EUR. ECON. REV. 333 (1983).

103. This position has been developed by Williamson, *Managerial Discretion and Business Behavior*, 53 AM. ECON. REV. 1032 (1963); Leibenstein, *Allocative Efficiency v. "X-Efficiency"*, 56 AM. ECON. REV. 392 (1966).

104. S. RHOADES, *POWER, EMPIRE BUILDING, AND MERGERS* (1983).

of applying portfolio theory to the diversification of bank holding companies.

Overall, it appears that it is not valid to use standard portfolio theory to assess the risk implications of product line expansion by banking organizations. The theory simply does not fit.

b. operating risk: an overlooked factor

It is evident that studies dealing directly or indirectly with the risk implications of product line expansion by banks focus almost exclusively on "financial risk." Financial risk means the risk resulting strictly from the investment transaction and from the risk characteristics of the activity entered, as through it were a security. There is, however, another important element of risk that is generally overlooked by these studies; it may be referred to as "operating risk." Operating risk is the risk that managers of a given operation will do a relatively poor job. The potential for doing so increases as the size and range of operations of the firm increases. Perhaps the reason why operating risk has been ignored in favor of financial risk is primarily because portfolio theory provides a neat, clean systematic framework for analyzing financial risk. No such framework is available for analyzing operating risk. In any event, the analyses of financial risk tell only part of the risk story. It is necessary to examine the possible effects of product line expansion on operating risk to obtain a more complete assessment of the risk effects of expansion.

Unfortunately, in addition to the fact that there is no neat theoretical framework for analyzing operating risk, there is not systematic research that is directly relevant to the operating risk associated with product line expansion (diversification) by banking organizations. There is, however, some very limited evidence concerning past expansion by bank holding companies and some general evidence from product line expansion and mergers in the industrial sector.

The 1970 amendments to the Bank Holding Company Act gave the Federal Reserve Board the authority to determine which nonbanking activities bank holding companies could enter subject to the constraints that the activities be "closely related to banking" and "a proper incident thereto."¹⁰⁵ Since then, the Federal Reserve Board has approved a number of activities either by order or regulation. Three of the most popular ventures have been mortgage banking, consumer finance and

105. 12 U.S.C. § 1843(c)(8) (1982).

leasing.¹⁰⁶ Much of the entry by bank holding companies have been accomplished by acquisition rather than de novo. Studies have been conducted to compare the operating performance of the bank holding company subsidiaries with their independent counterparts in each of these activities. These studies have found, without exception, that bank holding company subsidiaries in mortgage banking, consumer finance and leasing exhibited poorer operating performance than did independent firms in the same activities.¹⁰⁷ Another study examined the experience of banks in real estate investment trusts (REITs) in the early 1970's.¹⁰⁸ Based on a study of eighty-five REITs, Schotland found that the performance record of bank-sponsored REITs was considerably worse than average, and that one reason was weak management as a result of the rapid growth of REITs. Various measures of performance were used in these studies including profitability, capitalization and growth. These studies were all subject to one or more shortcomings such as a limited sample and data limitations. Furthermore, it is conceivable that the relatively low profits of holding company subsidiaries reflected a transfer of funds to the parent holding company in the form of dividends or management fees. Nevertheless, the consistency of the findings is notable and raises the possibility that there are operating risks associated with product line expansion. That is, a very large banking organization may face some problems in effectively managing newly acquired activities, at least in the early years.

Experience in the industrial sector suggests that, for at least some firms, there are significant risks associated with diversification. Although such experience is not from the financial sector, much less banking, and is fifteen to twenty years old, it provides a basis for questioning the propriety of bank diversification. During the 1960's a number of large in-

106. The nonbank offices of bank holding companies can be established on an interstate basis.

107. Rhoades, *The Effect of Bank-Holding-Company Acquisitions of Mortgage Bankers on Mortgage Lending Activity*, 48 J. BUS. 344 (1975); Talley, *Bank Holding Company Performance in Consumer Finance and Mortgage Banking*, MAG. BANK ADMIN., July 1976, at 42; S. RHOADES & G. BOCZAR, THE PERFORMANCE OF BANK HOLDING COMPANY-AFFILIATED FINANCE COMPANIES, Staff Economic Studies No. 90 (1977) (Federal Reserve Board) summarized in 63 Fed. Res. Bull. 715 (1977); Rhoades, *The Performance of Bank Holding Companies in Equipment Leasing*, J. COM. BANK LENDING, Oct. 1980, at 53. One recent study found that mortgage banking affiliates of bank holding companies do not provide funds to the mortgage market on a countercyclical basis as compared to independents. See Burke & Rhoades, *Bank Holding Company Affiliation and Contracyclical Lending by Mortgage Bankers*, 36 J. ECON. & BUS. 275 (1984).

108. PETER MERRILL ASSOCIATES, INC., THE PUBLIC POLICY IMPLICATIONS OF BANK EQUITY INVESTMENT IN REAL ESTATE app. A (March 1984) (prepared for the American Bankers Association).

dustrial firms pursued a strategy of product line expansion to a point where the managers could no longer effectively manage the operations. These firms include such well-known names as Gulf and Western, Litton Industries, LTV, Tenneco, International Telephone and Telegraph (ITT) and Textron. These and many other companies enjoyed tremendous growth, usually by acquisition, with the full backing of the financial experts on Wall Street. By the late 1960's, however, it became apparent that the "synergy" that was supposed to result from product line expansion was more of a sales catchword than a description of the real world.¹⁰⁹ Skepticism about management's ability to effectively manage diversified firms began to appear in the business press. For example, Gilbert Burck writing in *Fortune* noted:

[T]he headquarters managements of such companies also have one immense problem in common; theirs is a vastly harder and more complex job than managing a homogeneous or single-market company. Top multi-market management is responsible for the whole firm; it justifies its existence only if the divisions perform better or more efficiently as divisions than they could as independent companies. But a multi-market company is also by definition a multi-adversity company. As the trials and tribulations of corporate history testify abundantly, a single-market company, even in good times, runs into troubles that can strain if not floor the most gifted managers. Because a corporation composed of a lot of different divisions can encounter more adversities than the more homogeneous company, it may need more top-level management talent to deal with them.¹¹⁰

As skepticism spread about the operating effectiveness of large diversified firms, the stock market drubbed the stocks of many of these firms. Thus, in 1969, LTV tumbled from \$97 to \$26, Gulf and Western slid from \$50 to \$18, Avco declined from \$49 to \$23 and Textron fell from \$45 to \$23. Another indication of the unfortunate operating results of much of the product line expansion is the substantial increase in spinoffs of operating units during the 1970's. Often these units had been previously acquired but failed to perform well after acquisition. In connection with this spin-off activity, Arthur Burck, a merger consultant for the past twenty-five years, observed:

109. For a much more detailed account of the experience of the industrial conglomerates and the implications of the conglomerate merger movement, see S. RHOADES, *POWER, EMPIRE BUILDING, AND MERGERS* chs. 11, 12 (1983).

110. Burck, *The Perils of the Multi-Market Corporation*, *FORTUNE*, Feb. 1967, at 131.

Takeovers by the corporate giants have damaged a great many companies. The acquisitions have weakened or destroyed countless thousands of small and medium-sized businesses that were star performers when they were independent.

. . . .

Look at the wave of diversitures. In the past 15 years, there have been thousands of divestitures of acquired companies. The buyer realizes that he simply got stuck. From my own experience, I would say that perhaps 95 percent of the merger proposals that are explored never materialize, and among the 5 percent that do go through a high percentage, perhaps seven out of ten, are so-so or bad deals.¹¹¹

The available evidence regarding product line expansions in the industrial sector suggests that there apparently are operating risks arising from product line expansion, at least for some firms. This experience, of course, is not from the banking industry or the financial sector. However, if the poor operating performance arising from product line expansion is attributable in part to the increased difficulty managers face in effectively managing a firm as it becomes larger and more diversified, the experience is relevant to product line expansion in banking.

Other indications of the existence of operating risk from product line expansion emerge from empirical studies of conglomerate mergers and the problem of allocating overhead costs. Surveys of much of the research on the effects of conglomerate mergers have been made by Steiner and Mueller. On the basis of his review of the evidence, Steiner concluded that (1) the acquired firms were roughly average in their respective industries in terms of size and profitability (profits were a little low); (2) the acquiring firms displayed no systematic characteristics; and (3) there was no systematic evidence to support the possible motivations for the acquisitions such as real efficiency, monopoly gains, growth or speculation.¹¹² The survey by Mueller reached a similar conclusion. Mueller noted:

True, the a priori theories of mergers' causes and effects are still in conflict, and will probably always remain so. But the empirical literature, upon which this survey focuses, draws a surprisingly consistent picture. Whatever the stated or unstated goals of managers are, the mergers they have consummated have on average not generated extra profits for the acquiring firms,

111. FORTUNE, Oct. 19, 1981, at 221 (interview of Arthur Burck by Edward Meadows).

112. P. STEINER, MERGERS (1975).

[and] have not resulted in increased economic efficiency.¹¹³

Such conclusions seem to be quite general as studies of merger activity in foreign countries yield similar conclusions. For example, a study of merger activity in the United Kingdom by Meeks (which was not limited to conglomerates) covering much of the postwar era concluded:

Firstly, there appear to be financial (and other) incentives to managers who have little or no ownership interest in the company to pursue growth even at the expense of profitability. . . . Second, the efficiency gains, which in public policy statements have been assumed to be the saving grace of growth by takeover, cannot in the event be relied upon: strong evidence was reported that the efficiency of the typical amalgamation did not improve after merger . . .—it actually appears to have declined.¹¹⁴

In addition to the apparent difficulty of successfully integrating an acquired firm, there is reason to consider the extent to which operating risk is increased as the problem in allocating overhead costs increases. The allocation of overhead costs by a firm can conceptually be a difficult problem, as outlined by Clark.¹¹⁵ It is also a very difficult problem in practice as suggested by discussions of the issue in most intermediate textbooks in business and finance. Because of the inherent inaccuracy associated with allocating costs of operation among different product lines, the business manager cannot accurately determine efficiency problems and profitability of the various activities. It seems reasonable that the allocation problem becomes more difficult as the range of a firm's activities increase. Thus, it follows that if the problem of allocating overhead costs raises operating risk, that risk will increase with product line expansion.

IV. CONCLUSIONS

The merits of interstate banking and product line expansion are being actively discussed in policy circles. Arguments both for and against interstate banking and product line expansion have been articulated by vested interest groups and those with strong ideological positions. Policy decisions made on these issues will have profound implications for the

113. Mueller, *The Effects of Conglomerate Mergers*, 1 J. BANKING & FIN. 315, 344 (1977).

114. G. MEEKS, *DISAPPOINTING MARRIAGE: A STUDY OF THE GAINS FROM MERGER* 66 (1977). Dennis Mueller obtained similar results in his recent study of merger activity in seven countries. See *THE DETERMINANTS AND EFFECTS OF MERGERS: AN INTERNATIONAL COMPARISON* (D. Mueller ed. 1980).

115. J. CLARK, *STUDIES IN THE ECONOMICS OF OVERHEAD COSTS* (1923).

structure of the banking system and the financial structure generally, as well as the safety and soundness of the banking system. Consequently, it is important that the public interest prevail over vested interest groups and ideological views. This result is best ensured if policy decisions are based on relevant evidence rather than on the views or beliefs of particular groups. The conclusions of this article are based largely on a review of the evidence on many of the issues raised by interstate banking and product line deregulation.

The prospect of interstate banking has raised questions about the implications for local market banking concentration, nationwide banking concentration, the viability of small banks and the allocation of credit in the economy. Fortunately, there is considerable evidence that is directly relevant to most of these questions. The evidence from individual states indicates that interstate banking would not have a significant effect on concentration or competition within local banking markets. Even though increased competition is not likely to result from changes in market structure, removal of barriers to geographic expansion should increase the threat of entry, which should result in more competitive pricing according to the theory of potential competition. This assumes that the antitrust laws would be adequately enforced.

With respect to nationwide banking concentration, evidence from state level experience suggests that concentration would increase substantially under interstate banking. Furthermore, existing antitrust laws would not significantly limit the increase. There are, however, various methods to constrain the extent of the increase in nationwide banking concentration. These methods are relatively simple and straightforward, and therefore, could be incorporated into legislation permitting interstate banking. Before any legislative proposal would be feasible, it is necessary for such constraints to be incorporated, although neither theory nor evidence indicate the level at which constraints should be set.

Regarding the viability of small banks in an era of interstate banking, available evidence consistently indicates that many small banks should be able to survive and prosper. In particular, large banks do not have significant efficiency advantages over smaller banks, small banks on average exhibit superior growth and financial performance in comparison to banks owned by larger organizations (even when located in the same market) and small banks have been able to adapt to and use new applications of electronic technology. This would seem to rule out the possibility of massive small-bank failures which otherwise might be a significant and serious externality from interstate banking.

In contrast to some of the other questions raised by the prospect of

interstate banking, there is virtually no direct evidence on the credit allocation effects of interstate banking. It appears, however, that because the marketplace has developed such efficient mechanisms of credit allocation, interstate banking would probably not yield significant improvements. Nevertheless, we do not know what allocative efficiency gains might emerge from nationwide banking, and it is possible that there could be unforeseen gains with little likelihood of losses in this area. While gains in allocative efficiency are uncertain, short-run cost efficiency gains may be realized. Specifically, electronic funds transfer will probably develop faster within the firm than in the open marketplace because of consumers' slow pace of acceptance of this technology. This would yield more efficient funds transfer but only until the marketplace and consumers accept and utilize the electronic technology.

In sum, while there is no clear evidence that interstate banking would yield significant public benefits, there is no indication that it would have significant adverse effects. In view of the evidence, two fundamental considerations suggest interstate banking would be in the public interest. First, microeconomic theory indicates that freely functioning markets will generally yield the most efficient allocation of resources, assuming that adverse externalities and market failures are not generated by the marketplace. This provides an economic presumption in favor of removing regulatory restrictions, unless adverse effects are likely or very serious. Second, in a country founded on the principle of private property, there should be a compelling justification for restricting the free use of private property. No such justification is apparent in connection with interstate banking.

The implications of product line expansion are decidedly more problematic than those raised by interstate banking because it is debatable whether banks are special enough to warrant regulation and are effectively insulated from the financial fortunes of their holding company parents and affiliates. Additionally, there is little direct evidence on the possible effects of product line expansion. This article concludes that banks are special and critical to the economic system. It also concludes that regardless of the effectiveness of the legal doctrine of corporate separateness, the perceptions of bank holding company managers, investors and depositors suggest that the financial fortunes of a bank will be directly affected by the financial fortunes of other units of the holding company. Having reached these conclusions, it makes sense to examine the implications of product line expansion, especially with respect to bank risk.

Product line expansion for banks raises questions about the implica-

tions for tie-in arrangements, conflicts of interest, undue concentration of financial resources, efficiency and risk. All of these questions are important. Since, however, risk, unlike the other questions, is not clearly manageable and is critical to the safety and soundness of the banking system, this Article focuses upon the risk question.

Most studies dealing with the risk effects of product line expansion use indirect evidence not based on actual experience of banking organizations. Such studies use portfolio theory to draw inferences as to the risk effect. Generally, these studies suggest that product line expansion would reduce or at least not increase bank risk. This Article, however, contends that the straightforward application of portfolio theory in those studies is inappropriate. Consequently, no conclusions can be drawn on the basis of this evidence. It is also noted that all of the studies dealing with the risk of product line expansion focus strictly on financial risk and overlook another potentially important dimension of risk—operating risk. While there is no neat theoretical framework for addressing operating risk as there is for financial risk, operating risk should not be ignored. Indeed, some very limited evidence in banking and recent historical experience in the industrial sector suggest that, at least for some firms, operating risk may be substantial. In short, there is little useful research evidence for assessing the risk effects of product line expansion. Yet, recent experience suggests that operating risk may be increased, at least for some firms. For these reasons and because of the serious and far-reaching externalities that may stem from product line expansion, policy-makers are faced with very important policy decisions which are both difficult and judgmental.

Appendix A

Average Market Concentration Ratios by States as
of June 30, 1982¹

<u>Statewide Branching States</u>	<u>Average CR₃ for SMSAs in State²</u>	<u>Average CR₃ for Non-SMSA Counties in State</u>
Rhode Island	91.8	93.3
Maine	91.5	88.1
Idaho	87.7	95.2
Nevada	86.2	98.6
Arizona	85.1	94.3
South Dakota	83.8	94.3
Massachusetts	83.1	87.4
Hawaii	78.9	89.7
Connecticut	77.5	81.9
North Carolina	75.2	92.3
Vermont	74.1	83.7
Oregon	72.4	90.8
Washington	72.2	90.0
New Hampshire	71.8	74.9
District of Columbia	71.2	N/A
Virginia	69.1	94.2
California	68.3	89.5
Maryland	67.9	83.4
Delaware	67.4	59.5
New York	65.6	80.4
South Carolina	64.6	91.8
Alaska	62.5	98.3
Utah	57.9	95.0
New Jersey	54.7	63.1
Florida	53.6	93.8
(Average)	(73.4)	(87.7)
<u>Limited Branching States: MBHCs > 50%</u>		
New Mexico	85.2	96.8
Georgia	78.3	96.8
Michigan	75.9	90.3
Ohio	71.4	84.5
Alabama	70.1	87.0

Minnesota	66.5	74.7
Wisconsin	62.3	74.8
(Average)	(72.8)	(86.4)

Limited Branching

States: MBHCs < 50%

Mississippi	80.6	95.7
Nebraska	78.9	86.1
Kentucky	75.9	96.8
Arkansas	73.7	93.6
Indiana	72.0	89.3
Louisiana	71.0	90.9
Tennessee	69.1	91.9
Iowa	69.0	75.5
Pennsylvania	65.0	79.7
West Virginia	59.3	91.0
Oklahoma	56.3	84.9
(Average)	(70.1)	(88.7)

Unit Banking

States: MBHCs > 50%

Wyoming	85.9	93.0
Montana	84.5	96.5
Texas	65.2	94.1
Colorado	64.2	95.7
Missouri	59.9	87.0
(Average)	(71.9)	(93.3)

Unit Banking

States: MBHCs < 50%

North Dakota	72.1	94.8
Kansas	48.6	83.8
Illinois	47.3	74.9
(Average)	(56.0)	(84.5)

1. Source: Summary of Deposits, June 30, 1982.

2. SMSAs in more than one state were split along state boundaries, and a separate concentration ratio was calculated for each.

N/A—not applicable.

Appendix B

Statewide Bank Concentration Ratios as of December 31,
1983¹

<u>Statewide Branching States</u>	<u>Percent of State Deposits Held by Top Five Organizations²</u>
Rhode Island	95.3
Nevada	94.1
Arizona	92.1
Hawaii	91.2
District of Columbia	87.6
Idaho	85.5
Maine	82.8
Oregon	82.7
Utah	76.1
Washington	74.7
Connecticut	73.2
California	71.6
South Carolina	71.0
Alaska	70.7
North Carolina	69.5
Massachusetts	66.9
Vermont	65.9
Maryland	65.8
Delaware	65.3
South Dakota	63.0
Virginia	62.9
New York	57.9
New Hampshire	52.6
Florida	47.3
New Jersey	44.6
(Average)	(72.4)
 <u>Limited Branching States: MBHCs > 50%</u>	
Alabama	58.1
Georgia	52.8
Michigan	54.8
Minnesota	56.2
New Mexico	55.7

Ohio	46.1
Tennessee	50.7
Wisconsin	33.6
(Average)	(51.0)

Limited Branching

States: MBHCs < 50%

Pennsylvania	39.5
Mississippi	35.3
Kentucky	29.2
Iowa	27.5
Nebraska	24.5
Oklahoma	23.9
Louisiana	21.3
Indiana	21.0
Arkansas	20.8
West Virginia	14.9
(Average)	(25.8)

Unit Banking

States: MBHCs > 50%

Colorado	57.1
Montana	52.8
Wyoming	49.0
Missouri	43.9
Texas	42.3
(Average)	(49.0)

Unit Banking

States: MBHCs < 50%

North Dakota	43.6
Illinois	37.6
Kansas	13.5
(Average)	(31.6)

1. Source: Consolidated Report of Condition and Income, December 31, 1983.
2. Ranked by domestic deposits only.