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COMPENDIUM OF ISSUES RELATING TO BRANCHING BY FINANCIAL INSTITUTIONS

PREPARED BY THE

SUBCOMMITTEE ON FINANCIAL INSTITUTIONS

OF THE

COMMITTEE ON BANKING, HOUSING AND URBAN AFFAIRS

UNITED STATES SENATE

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FOREWORD BY SENATOR THOMAS J. McINTYRE

In September 1975, I announced that the Subcommittee on Financial Institutions would undertake a comprehensive study of national policy governing all forms of geographic expansion by banking institutions—with particular emphasis on branching.

Following this announcement, the "Outline for Study" which follows was prepared. The outline provides the framework for this compendium and for future deliberations within the subcommittee.

This compendium represents what I consider to be an important first step—the gathering and summarizing of objective analysis of the issues presented in the outline. For titles I to V, original survey articles were prepared, with supplementary materials appended where appropriate. Titles VI and VII dealing with off-premises electronic banking facilities and the dual banking system were addressed with existing works. In addition, the Federal Home Loan Bank Board staff submitted a summary of an original research project addressing all seven titles in the context of multioffice expansion within the savings and loan industry.

Thus, the compendium is designed to be a basic working document in which the many and varied issues relating to geographic expansion by banking institutions are organized and analyzed comprehensively, objectively, and, it is hoped, manageably.

The compendium will provide the basis for subcommittee hearings, to follow shortly, with a view toward formulating a fresh congressional expression of Federal branching policy.

For all too long a period of time now, Congress has skirted the issue of national branching policy, a policy which has existed virtually without change for more than 40 years. Yet—as everyone is aware—the Nation's economy is vastly more sophisticated and complicated today than it was when Federal branching policy was first formulated.

National policy on geographic expansion by branching is embodied in the McFadden Act of 1927, as amended by the Banking Act of 1933. These statutes are intended to establish branching equality between State-chartered and federally chartered banks. This is done by providing that national banks may branch only over the same geographic areas, as those specified by the States for State banks.

What has resulted is a mishmash pattern of branching laws nationwide. Roughly 45 percent of the States have statewide branching laws; 30 percent have laws limiting branching to some geographic area smaller than the entire State; and the remaining 25 percent of the States have laws under which branching is, for all intents and purposes, prohibited altogether.

But this is merely the tip of the iceberg. A further probe will unveil a bewildering, even ludicrous, system of branching laws which defies any rational explanation. This is particularly true if one is attempting to relate branching policy to the public interest.

Over the years the various States have developed protective laws and regulations on branching which are most noteworthy for their ingenuity and complexity. A classic example is the "home office" protection device which prohibits branching by another bank into the area of the home office of an existing bank.

In short, a bank may not branch into a given area without buying out the bank already in existence. The device has no reasonable justification other than to protect the existing "home office" bank against competition. And in any instance where branching is permitted only by merger, there are serious questions raised in terms of the Federal antitrust laws.

All in all, it is ludicrous that in 1976, the authority of banks to branch in many jurisdictions is still based upon laws and practices, not designed to promote competition, but based upon the fact that existing institutions, however noncompetitive they may be, will not be adversely affected.

The branching issue is further complicated by the various State laws which either limit branching or prohibit it altogether. In one or two States the branching laws cannot be changed except by constitutional amendment. In several States, while branch banking is prohibited, satellite banking, chain banking, or bank holding company development circumvent the prohibition in many respects.

In some States, banks are permitted to establish offices separate from the main office providing that they are connected by tunnels or pneumatic tubes, that they do no more than accept deposits, that they be located within so many feet of another bank.

Moreover, in attempting to interpret branching laws, the courts have had to decide whether or not an automobile sales agency that processes loan applications is a branch, whether an armored car that picks up deposits and delivers them to a bank is a branch, and whether a deposit machine or a cash dispensing machine is a branch.

The plain fact is that in 1927 and 1933, the Congress inadvertently made it possible for banks to carve up their markets in such a way as to insulate themselves from competition and thus from serving the public to a maximum degree. It is as if a blanket exemption to the most elementary antitrust principle—market division—was awarded the banks of this Nation. Moreover, these laws have become so complicated that, at present, no prudent banker in any State with a restrictive law would dream of branching without a battery of lawyers at his side.

For banking organizations, the only exception Congress has made to the basic national policy laid down on geographic expansion more than 40 years ago has been in connection with bank holding companies. Under the Bank Holding Company Act Amendments of 1970, bank holding companies were authorized to engage in nonbank activities determined by the Board of Governors of the Federal Reserve System to be closely related to banking and beneficial to the public interest. In implementing that statute, the Board has from the outset permitted bank holding companies to conduct permissible nonbank activities free of geographic limits—even those limits that generally prohibit bank holding companies from establishing purely banking offices on an interstate basis.

Taking all of this together, if I ever had any doubts about how urgently a congressional study of the relevancy of Federal laws gov-

erning geographic expansion by banking organizations is needed, they have been further dispelled by recent events.

For example, in addition to my earlier comments on EFTS, the U.S. Supreme Court has now joined the growing list of critics of geographic restrictions on banking organizations. It did so in its June 1975 decision in *United States* v. *Citizens and Southern National Bank* upholding an Atlanta national bank's mergers with five so-called "correspondent associate" banks.

The Supreme Court's decision in favor of the mergers, which the Department of Justice challenged on antitrust grounds, hinged largely on a finding that the acquisition of the five banks constituted a "procompetitive" action designed "to defeat a restraint of trade" imposed by Georgia's restrictive branching law.

The Court's decision contained a number of references highly unfavorable to existing branching policy. For example, the Court said: "The banking business is, of course, riddled with State and Federal regulatory barriers to entry. . . . But most of these barriers—that is, chartering requirements—at least arguably serve the overriding public interest in maintaining customer confidence in the industry as a whole by assuring adequate financial stability and responsible management for all banks. Antibranching laws, on the other hand, are now widely recognized as a simple device to protect outlying unit banks from the rigors of regional competition."

In my estimation, the Supreme Court decision clearly underscores yet again the need for congressional review of the geographic restraints on expansion by banking organizations.

Concern over bank branching policy is not new, of course. But it has been the focal point of increasing attention in recent years in terms of the continuing evolution of bank structure and regulation.

In 1971, for example, the Department of Justice specifically urged the Council of State Governments to encourage State legislatures to liberalize State branching laws as a means of encouraging competition in banking. Simply stated, the Department's position, which remains the same today, is that permission to branch creates procompetitive alternatives to banks seeking to protect their markets.

Also in 1971, the Hunt Commission urged, in a series of recommendations designed to revitalize the Nation's financial institutions, that "the power of commercial banks to branch, both de novo and by merger, be extended to a statewide basis, and that all statutory restrictions on branch or home office locations based on geographic or population factors or on proximity to other banks or other branches thereof be eliminated."

Even though the concern over branching restrictions is generally raised in the context of State laws, I believe that the Congress has an overriding responsibility to address and formulate a national policy on the underlying issue; namely, the geographic expansion of banking services in the future.

For example, the Congress is presently engaged in the shaping of a new national policy on the structure of the Nation's financial institutions which will have ramifications for decades to come. Financial restructuring proposals of the type passed by the Senate last December in S. 1267, the Financial Institutions Act, will have top priority in the next Congress.

Moreover, the fact that the ground rules for multioffice expansion by some thrift institutions, particularly savings and loan associations, are different than those for banks adds to the confusion. There is no McFadden Act for Federal savings and loan associations. There is only the long-standing, traditional policy of the Federal Home Loan Bank Board which generally permits Federal savings and loans to branch up to 100 miles from their main offices to any State which permits geographic expansion by branching, no matter how limited, or by any other means such as by banking holding company.

The ramifications of the Bank Board's branching policy, of course, will become increasingly important as Federal thrift institutions obtain, as proposed in pending financial restructuring legislation, many of the operating powers now enjoyed only by commercial banks.

Within this context, and coupled with our continuing watch over developments within the EFTS marketplace, isn't branching policy such an integral element of the Nation's financial framework so as to also warrant the same kind of attention? I believe so.

The Congress, which enacted the McFadden Act of 1927 and the Banking Act of 1933, has the clear responsibility to reassess those laws in terms of our present economy and the public's continuing right to the most efficient and responsive financial system possible. Fundamental to such a reassessment are the questions of whether and to what extent State law pertaining to State-chartered institutions should govern the permissible activities of federally chartered institutions within a particular State and whether and to what extent State boundaries should provide the ultimate limit for geographic expansion by banks. These, in turn, raise the question of what the dual banking system requires in terms of maintaining a competitive balance between federally chartered institutions within a particular State and whether and to what extent State boundaries should provide the ultimate limit for geographic expansion of banks. These, in turn, raise the question of what the dual banking system requires in terms of maintaining a competitive balance between federally chartered and State-chartered institutions.

If ever there was an effective stimulus to reassess Federal branching policy, such stimulus comes from current development of electronic funds transfer systems (EFTS).

Electronic banking, a subject not even dreamed about 40-odd years ago, is inextricably linked to traditional branching policy established then and in effect yet today.

National branching policy is therefore even more deserving of prompt attention now.

Because EFTS is still in an early state of implementation, Congress is currently in a unique position to forage a rational policy regarding EFTS.

Indeed, the EFTS/branching issue is appropriate for Congress and Congress alone to decide. To this end, I have asked the National Commission on Electronic Funds Transfer to expedite its considerations of the EFTS/branching issue and report its recommendations to the Congress as soon as possible.

I wish to thank the contributors who generously donated their time and resources in preparing the materials contained in this compendium. I wish also to thank the many others who volunteered materials

and assistance too extensive to be mentioned or included here. In the course of the subcommittee's deliberations, many additional viewpoints will be solicited and considered.

I wish to thank the Federal Reserve Board, the Federal Deposit Insurance Corporation, the Comptroller of the Currency, and the Federal Home Loan Bank Board for providing staff assistance to the staff of the subcommittee in preparing this compendium. Particularly, I wish to acknowledge the efforts of Joseph M. Cleaver, Federal Reserve; Gary G. Gilbert and Alan S. McCall, Federal Deposit Insurance Corporation; William A. Longbrake, Comptroller of the Currency; and Donald M. Kaplan, Federal Home Loan Bank Board.

In addition, I wish to express special thanks to Robert A. Eisenbeis, Federal Reserve, for his leadership and support in coordinating the efforts within the various agencies.

THOMAS J. MCINTYRE, *Chairman*,
Subcommittee on Financial Institutions.

Statement of Senator John Tower

As the ranking minority member of the Financial Institutions Subcommittee of the Senate Committee on Banking, Housing and Urban Affairs, I too wish to express my appreciation for the efforts of those who contributed to this compendium. I also wish to stress that I approach the upcoming review of Federal policy on branching by financial institutions with an open mind. Considerable research is needed on the issue of branching policy, and this compendium should be viewed only as a first, albeit important, step. Finally I wish to make a few observations which I trust will be kept in mind by the subcommittee members and other interested parties as we proceed with our review of branching policy.

First, I want to point out that branching policy has not been static throughout our history. The First Bank of the United States which was chartered in 1791 by the Federal Government was given authority to branch across State lines and eventually established eight branches in eight different States. Whereas the First Bank was given authority to branch interstate, the Second Bank of the United States was required by its 1816 charter to establish a branch in any State in which 2,000 of the bank's shares were subscribed or held if the legislature of the State applied for it. The Second Bank established 27 branches, giving it representation in every State on the Atlantic seaboard except New Jersey and Delaware, and every district in the interior except Illinois and Indiana. Today, of course, neither a national bank nor a State bank can branch across State lines; each State imposes its own branching restrictions on the banks it charters; and a national bank in a given State is subject to all branching restrictions imposed by that State on the commercial banks it charters.

A second point I wish to underline is that, while the inability to branch across State lines largely prevents U.S. banks from soliciting retail (small) deposit accounts from a geographic area larger than a State, still U.S. banks do possess a substantial capability to provide financial services on a multistate basis. Through the formation of bank holding companies, U.S. banks can operate a wide range of multistate affiliates: loan production offices, consumer and business finance companies, mortgage banks, financial consulting services, et cetera. U.S. banks also have formed Edge Act and agreement corporations through which they have established multistate office networks to conduct international activities incidental to whatever international banking business they do anywhere in the country.

A third point I wish to make is that the economic efficiency aspects—and, therefore, public welfare aspects—of branching can change with changes in technology. I have already noted that two of this country's earliest banks branched extensively. However, travel and communications problems made the operation of widespread branch systems extremely difficult. As a result, once the barriers to obtaining bank charters were lowered by the "free banking laws," branch bank-

ing was superseded by unit banking, and widespread branch systems did not reappear until technological advances eased many of the travel and communications problems associated with such widespread systems. Today advancing technology in the form of electronic funds transfer systems is once again having a profound effect on the economic efficiency and public welfare aspects of branching.

A fourth point which also relates to economic efficiency is that the genius of our economic system is its reliance on healthy competition in the free marketplace. Branching policy should encourage healthy competition to the maximum extent feasible.

A fifth and also-related point is that branching policy for any class of financial institution must not put that class of institution at an unfair competitive disadvantage vis-a-vis other classes of financial institutions or vis-a-vis nonfinancial institutions. This is particularly important as different classes of financial institutions become more homogeneous in their asset and liability powers and as nonfinancial institutions increasingly compete directly with financial institutions.

A sixth and final point I wish to make is that careful attention must be paid to the relationship between branching policy and financial institutions' awareness of and responsiveness to local and regional needs.

In summary, the review of Federal policy on branching by financial institutions must be multifaceted. I trust that this compendium will serve as the catalyst for a reasoned, thorough dialog on branching policy.

JOHN TOWER,
Ranking Minority Member,
Subcommittee on Financial Institutions.

FEDERAL BRANCHING POLICY

OUTLINE FOR STUDY

I. The history and background of the McFadden Act of 1927, as amended by the Banking Act of 1933, in terms of branch banking.
   A. What was the rationale relied upon by Congress in enacting the branching provisions of the McFadden Act of 1927, as amended by the Banking Act of 1933?
   B. Why did Congress designate State boundaries as the ultimate limit for geographic expansion by banks and why did it designate the States, not the Federal government, as the exclusive authority to determine whether and to what extent, if any, multi-office banking is to exist within their borders?
   C. What kind of branching policy has emerged, State-by-State, over the past 40-odd years?
   D. What other forms of multi-office banking (such as satellite banking, chain banking, and multi-bank holding company systems) have emerged State-by-State over this same period?
   E. To what extent are the ground rules for multi-office expansion by thrift institutions, particularly savings and loan associations, different than those that apply to banks?

II. The relationship of branching policy to the continued safety and soundness of the nation's financial system.
   A. Have unit banks been more susceptible to failure than banks within branching systems?
   B. To what extent does the existence of deposit insurance neutralize the impact banking structure might have on bank failures?
   C. If there are differences in the safety and soundness of unit banks compared to banks with branching systems, are the differences attributable to banking structure, to the size of the institutions involved, or to some other factor?

III. The relationship between bank structure and banking's ability to serve the public needs and convenience in terms of the availability and cost of financial services.
   A. To what extent does branch banking facilitate economies of scale beneficial to the public interest that are difficult, if not impossible, for unit banks, even of the same size, to achieve?
   B. What are the differences between branch banking and unit banking in terms of the availability of credit, the cost of credit, the interest paid on time and savings accounts, and the scope of financial services that are offered to the public?
   D. Does unit banking or branch banking tend to promote higher loan-to-deposit ratios?
   E. Are there any differences in banking structure that tend to result in discrimination against certain classes of borrowers such as farmers, small businessmen, the poor, and State and local governments?

IV. The relationship of banking structure to maximum competition in the public interest.
   A. How do State-wide banking asset concentration ratios differ from State to State depending on whether the banking structure involves unit banking, branch banking or some other form of multi-office banking?
   B. To what extent have changes in State-wide concentration ratios in recent years been attributable to changes in State laws on multi-office banking, mergers and acquisitions, or de novo expansion?

C. Are concentration ratios based on State-wide data meaningful? If not, do concentration ratios differ according to banking structure in markets less than State-wide in scope where actual competition exists? In other words, if there have been changes in the degree of concentration in relevant markets over recent years, to what extent is that attributable to changes in banking structure through such means as liberalization of State branching laws or the spread of holding company banking?

D. How is entry into competitive markets different under branch banking than it is under unit banking and to what extent is this significant in terms of assessing the competitive advantages of the two kinds of systems?

E. Have geographic restraints on bank expansion been successful in preventing one or two institutions from dominating competitive markets?

F. Are geography restraints necessary, given the applicability of the Federal antitrust laws to bank expansion?

G. What are the merits of alternative means of guarding against undue concentration of banking resources such as a limit on the percentage of assets that may be controlled by a single banking organization?

H. To what extent do so-called home-office protection laws in some branching States restrict competition and what are the public interest benefits, if any, that offset the disadvantages of the anticompetitive nature of such statutes?

V. The impact of multi-office banking, particularly branching, on the availability of credit in smaller communities.

A. What are the facts about the availability of funds in small communities based on whether unit banking or branch banking exists?

B. How does local lending compare to total resources under unit banking and under branch banking?

C. Are there significant differences between branching systems and holding company systems in terms of their ability to serve local needs, particularly with respect to the transfer of funds from one locality to another?

D. Do unit banks tend to be more responsible to the financial needs of small communities than banks with branching systems or multibank holding companies?

E. What would the impact on small local banks be if laws on multioffice banking were liberalized to allow entry into their markets by larger institutions?

F. Are liberal branching laws conducive to newly organized banks being able to grow and thrive?

VI. The relationship of branching laws to off-premises electronic banking facilities.

A. Should the definitions of branches in the McFadden Act of 1927 and the Banking Act of 1933 have any bearing on the establishment of off-premises electronic banking facilities?

B. What are the fundamental differences between off-premises EFT facilities and traditional branches?

C. To what extent can thrift institutions and nonfinancial businesses such as retail chains be expected to offer financial services by electronic means in direct competition with banks?

D. What are the practical limits, in terms of distance, that off-premises EFTS facilities can be operated profitably away from main offices or traditional branches?

E. Should there be any geographic restrictions on EFT facilities and, if so, should they be different than those that might prove warranted for traditional branches?

VII. The relation of Federal branching policy and the dual banking system.

A. Is continuation of the branching policy articulated in the McFadden Act of 1927 and the Banking Act of 1933 essential to the maintenance of the dual banking system?

B. What kinds of changes in Federal branching policy would be consistent with maintenance of the dual banking system?

SUMMARY

Branching of financial institutions is, as Larry Mote has characterized it, a "perennial issue." Actually, it is not one issue but many, and this compendium of articles attempts to touch on many of the most important aspects of those issues. The articles are arranged to follow the preceding outline for study, and this summary is directed to those articles which were especially prepared for this compendium.

The first two articles cover the history of branching legislation. "The Branch Banking Provisions of the McFadden Act as amended: Their Rationale and Rationality," by Gerald C. Fischer and Carter H. Golembe, covers the Federal level while Roger S. White's "The Evolution of State Policies on Multi-Office Banking from the 1930's to the Present" covers State legislation and also touches on branching by thrift institutions.

As pointed out by Fischer and Golembe, branching was not even considered in the National Currency Act of 1863, which provided for the chartering of national banks. However, subsequent interpretations of that act and of its successor, the National Bank Act of 1864, forbade national banks from operating any branches other than ones they had operated prior to receiving a Federal charter. This produced inequities because many States allowed State-chartered banks some form of multioffice operation either through branches, chain or group banks, or holding companies. Trying to remedy that inequity produced a 5-year legislative struggle culminating in the passage of the McFadden Act of 1927 which gave national banks the right to open branches within their home office cities, subject to certain limitations, if State banks were permitted to do so. That act also defined a branch to include ". . . any branch office, branch agency, additional office, or any branch place of business . . . at which deposits are received, or checks paid, or money lent."

The McFadden Act stimulated several States to pass antibranching statutes continuing a pattern begun a decade earlier. However, the need to protect communities and depositors from the effects of bank failures led to a reversal in the antibranching sentiment after 1930. To resolve the branching controversy, the Banking Act of 1933 provided not only for Federal deposit insurance, but also addressed itself to competitive equality between State and national banks.

Despite some argument, notably by Senator Glass, that proximity to a State border might make it part of the "ordinary and usual business of the bank" to extend into an adjacent State, the authority of National banks to open branches, according to the act, was to be governed by State law. There was no single line of reasoning leading to that decision, but rather it arose from a desire not to infringe upon the sovereignty of the States and out of the fear of possibly establishing a new form of competitive inequality between State and national banks.

Roger S. White views extension of multioffice privileges after 1933 "primarily as efforts to accommodate existing firms to changes in the environment * * * rather than as independent efforts to induce changes * * *." The Great Depression, during which there was great impetus and, in fact, need for change, witnessed a movement to liberalize or widen branching options for banks. Holding companies, a form of multioffice banking with which many States had experience, were rarely considered and branching was seen as a way to promote strength and viability in the system while providing for the continuity of banking services to areas hit by the rash of failures. During the 1930's, 18 States altered their laws toward liberalization. In contrast, since that time, as Roger White points out, "the net effect of changes in branching status * * * has been to liberalize branching status in only seven States."

Branching is not the only method available to banks that wish to expand their market areas. Various forms of chain and group banking, holding company membership, and electronic funds transfer systems are also allowed by the various States. Holding companies, which grew rapidly during the 1920's, declined during the 1930's, with branch banking and public disenchantment with equity securities needed to finance holding companies as two major reasons for the decline. However, holding companies were not subject to the McFadden Act and could operate banks in several States. President Roosevelt, in 1938, recommended a prohibition against bank holding companies and from that time until the passage of the Bank Holding Company Act of 1956, almost every session of Congress saw the introduction of bills to limit that form of banking organizations. The 1956 act placed restrictions on multibank holding companies' acquisition of banks across State lines, but not on the number or extent of ownership of affiliated banks. That lack of limitation provided impetus for State legislation and, between 1956 and 1970 when the 1956 act was amended to include one-bank holding companies, 10 States enacted legislation in some way restricting holding companies. The 1970 amendments subjected one-bank holding companies to the same regulation as the multibank form. Since that time, both forms have grown rapidly. However, five additional States have passed legislative prohibitions on holding companies. As had happened in the past, Federal legislation and the way banks responded to it encouraged State action.

Savings and loan associations and other nonbank financial institutions are also regulated by State and Federal legislation. Unlike in banking legislation however, savings and loan regulators have established Federal policy on multioffice operation which is not necessarily reliant on State law.

Many people are concerned that permissive branching laws could encourage overbanking and could increase the number of bank failures. That problem is addressed in "Branch Banking and the Safety and Soundness of Commercial Banks" by Gary G. Gilbert. Dr. Gilbert's results suggest something entirely different. He finds that branching can reduce deposit variability, thereby reducing variations in cash flows and, hence, the risk of insufficient liquidity. Profitability is also not seriously affected. Dr. Gilbert indicates that self-dealing, bad management, and the general economic situation have been primary reasons for failures. Branching, in fact, may produce greater deposit stability and may protect banks against the vagaries of localized banking markets.

In "Branch Banking: A Summary of the Issues and the Evidence," Jack M. Guttentag explains that branch banks usually offer a wider variety of services than their unit counterparts and, thus, branch banking can provide a particular advantage in rural areas and in small towns. Branch banks also provide an economical way of transferring loanable funds from areas of lower demand to those of higher demand. The credit allocation function of branching is hotly debated, but a recent study shows that locally limited businesses benefit from statewide branching. Branching banks do not seem to have as their primary interest the home office city, as is so often asserted, but rather outlying branch offices usually have a higher loan ratio than unit banks in the same area. Dr. Guttentag also reports that entry of a bank into a new market is easier in States which allow branching than in unit States, with easier entry encouraging competition. One final point he makes is that "In general unit banks seem to be able to compete successfully with branch offices of large systems, although they may need a modicum of protection provided by the regulatory screening of branch office applications."

Bernard Shull, in his article "Multiple Office Banking and Competition: A Review of the Literature" finds that extreme concern over anticompetitive effects of branching seem unwarranted. The largest 100 commercial banking organizations in the United States hold less than 50 percent of total deposits and that ratio has declined over the last 15 years despite increases in multioffice branching. Finally, he reiterates the idea that elimination of multiple office banking restrictions would have the immediate effect of lowering barriers to entry in many local markets. The mere threat of such entry as well as actual entry might have important procompetitive effects on the behavior of local banks.

In "The Impact of Multi-Office Banking on the Availability of Credit in Smaller Communities," Gerald Fischer and Raymond Davis discuss research in that area. They note that, despite many shortcomings in both the research itself and in its interpretation, the general conclusion can be drawn that any effect traceable to multioffice banking is positive. Funds become more mobile without any detriment to the small local market. It is noted, however, that correspondent banking has also done well in increasing funds mobility. Overall, Fischer and Davis conclude, the public seems to have benefitted from the widening of banking markets.

This compendium also includes a staff study by the Federal Home Loan Bank Board on "Branching in the Savings and Loan Industry: Economic Analysis and Federal Policy Review." The study, which is included in the supplementary materials, attempts to address many of the issues discussed earlier for banks as they relate to savings and loan associations. No indication is found that branching affects the allocation of credit between metropolitan and rural areas. It is shown, moreover, that branching leads to more offices per capita and increases mortgage loans held relative to savings accounts. There is an attendant increase in the use of Federal Home Loan Bank advances and borrowed money, but that has no adverse effect on the safety and soundness of S. & L.'s. In fact, branching is seen as probably having a positive impact on safety and soundness and "might well have a procompetitive impact."

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COMPENDIUM OF ISSUES RELATING TO BRANCHING BY FINANCIAL INSTITUTIONS

THE BRANCH BANKING PROVISIONS OF THE McFADDEN ACT AS AMENDED:

THEIR RATIONALE AND RATIONALITY

By

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THE BRANCH BANKING PROVISIONS OF THE McFADDEN ACT AS AMENDED: THEIR RATIONALE AND RATIONALITY

The branch banking provisions of the McFadden Act [44 Stat. 1224 (1927)] as amended by the Banking Act of 1933 [48 Stat. 162 (1933)] control the domestic branching activities of national banks in 1976 much as they did nearly a half century ago. But, while the Federal branching law remains essentially the same, the economic, demographic, and social environment in the United States has changed significantly during this period. In addition, the structure of the commercial banking system in terms of both balance sheet composition and bank organization bears little resemblance to the structure of the late 1920s and early 1930s. Also,the competitive conditions faced by the commercial bank today are vastly different from those of forty or fifty years ago.

Initially, one may find it hard to believe that there has been so little revision in Federal branch banking law when the financial system and the economy has undergone such massive change. Nevertheless, since branching by national banks is tied to state law, one might logically conclude that probably no major amendments were required since any needed flexibility would be provided by state legislation. In this regard, certainly one cannot dispute the fact that state branching law produces variety. For example, in five adjoining states one finds: unit banking in Illinois, county branching in Indiana and Ohio, contiguous county branching in Pennsylvania, and statewide branching in New York. Variety, however, should not be confused with flexibility as anyone who has ever studied branch

banking law will be quick to point out. And it can be stated unequivocally that the dearth of Federal branching legislation certainly cannot be traced to the malleability of state branching law.

In reality, the factors which determine the status of branch banking at the national level as well as at the state level are highly complex, and they are especially difficult to interpret because of the strong emotions on both sides in branch banking debates. Unfortunately for the economic historian, much of what is actually said and done by the protagonists is not recorded, and much of what is recorded is purely for "the record". The subject of this paper, the Federal branch banking statutes enacted in the late twenties and early thirties, is no exception to this rule. Therefore, it was necessary to review carefully a broad range of banking and legal publications to obtain some insight into the rationale behind this legislation. This, in turn, is reflected in the format of the study.

The paper considers not only factors directly relating to the passage and content of the McFadden Act and the Banking Act of 1933 (Sections 2 and 3 of the paper, respectively) but the historical background of these laws (Section 1) and more recent developments which are likely to have an impact on American banking structure (Section 4). It should be pointed out that despite the massive banking literature in this general area, in writing Sections 2 and 3 in particular, it was found that the material directed to the specific questions at hand was minuscule. As a result, some of the observations in this study represent what the author believes is the consensus of the views of contemporary observers and/or scholars on a given issue. For the reader who would prefer to mold his or her own opinions, a bibliography containing some of the better source material has been included.

Section 1

Historical Background

There was no shortage of critics of banking in nineteenth century America. From the time the first bank was formed in this country, people warned of the dangers of "money power" and the potential political influence of these institutions, and one investigator found that by the mid-1800s opposition to banks was so strong in some areas that banking was illegal in nine states.[1] But, while the foes of banking were numerous in this period and their efforts produced many restrictive provisions in state banking law, their attacks were directed toward banking in general and activities associated with the currency issue functions of some banks in particular, not toward branch banking *per se*.[2]

National Bank Branching Powers

Branch banking as we know it today was really not an issue at that time. This fact is quite apparent from the lack of concern with branching one finds in the wording of the 1863 National Currency Act [12 Stat. 665 (1863)] and the 1864 National Bank Act [13 Stat. 99 (1864)] which superseded it. Neither of these laws, which laid the foundation for the national banking system, specifically mentioned branch banking. Moreover, numerous scholars have searched the existing banking literature in vain for some substantive discussion of this topic in the debates which preceded the passage of these

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[1]Miller, *Banking Theories in U.S.*, p. 21.

[2]Federal Reserve Board, Committee Reports, "Branch Banking," p. 38.

laws. Their efforts do not ". . . reveal that the question of branch banking was raised, and there seems to have been no positive purpose of ending branch banking in the United States."[1]

Nevertheless, two provisions were included in the National Bank Act which led to early interpretations preventing national banks from establishing branches. The first stated that persons forming a national bank had to specify: "The place where its operations of discount and deposit are to be carried on. . .," while the second provision -- and the one which received the greatest emphasis -- read in part: "and its usual business shall be transacted at an office or banking house located in the place specified in its organization certificate." Economic historians who have studied the origins of these provisions have concluded that they had nothing to do with branching -- either pro or con -- but were largely copied from the state free banking acts (from which the National Bank Act was drawn), and they were intended to serve as a protection against "wildcat" banking and so called "shaving shops."[2]

On this issue, the opinions of the Federal Reserve Board's economists in the early 1930s mirror the findings of the historians. The Fed reported:

> Further research may discover something that will throw a different light on this point, but the present state of the evidence indicates that the provisions which effectively prevented branch banking from developing under the national bank legislation, till amended in 1927, had no connection with branch banking. They originated as measures to control note issue, and were intended, according to the explanation made at the time, to prevent the practice under free banking "of establishing banks in obscure places, in remote parts

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[1]Chapman and Westerfield, Branch Banking, p. 59

[2]Shaving shops were city offices where a bank's own notes were redeemed at a discount- the bank itself being located in some remote area of a state.

> of the state where little or no business was done, with a view of obtaining a circulation merely, and doing no other business." 1

Nothing in the research conducted in the forty years since the Federal Reserve studies would lead one to question this conclusion.

Introduction of the Branch Banking Question

The Congress did not seem to oppose the principle of branching, for as early as 1865 the National Bank Act was amended to permit state banks with more than one office to convert to national banks and retain their branches. [13 Stat. 469 (1865) Section 7] But there was a general lack of interest in branching at the time as noted in a major study which stated: "It seems as if the existence of the [conversion] section had been practically forgotten," since it was inoperative from its passage in 1865 to 1907 when a national charter was issued to a converted state bank with a branch.[2] This lack of interest in branching is no doubt the primary reason the so-called "branch banking question" was moot for several decades following the passage of the National Bank Act.

As late as 1895 and 1896, high public officials such as Comptroller of the Currency Eckels could still take a positive stand for branch banking without facing severe criticism. Then, proposals of this type caused no special furor, and indeed such recommendations were often made at American Bankders Association conventions with no debate or

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[1]Federal Reserve Board, Committee Reports, "Branch Banking," pp. 65-66.

[2]Ibid., p. 118.

negative reaction. The reason for this, if one may judge from comments in the press and other publication in the 1890s, was the real and growing concern with providing safe and adequate banking facilities for small towns. But, ultimately, legislation was enacted in 1900 [31 Stat. 45 (1900)] which significantly reduced the capital requirements for new national banks located in communities of 3,000 inhabitants or less making it easier to establish new banks. Thus, the argument that branching was required to meet the need for banking service in rural areas was significantly weakened, and some of the impetus behind the effort on behalf of national bank branching was lost.

By the time the above legislation had passed (1900), however, the philosophic lines had begun to harden between the advocates of branching and the proponents of unit banking. In fact, the first major attack on branch banks (apart from criticisms relating to currency issue) one academic researcher has been able to uncover related directly to the question of how small community banking needs were to be met. Nonetheless, the controversy was short lived, and the issue was not deemed of sufficient importance even to be considered in the National Monetary Commission's recommendations of 1911. One reason was the liberal bank chartering policies of both the Comptroller and the states, which eventually were to bring the number of banks in the United States to its all-time high of nearly 30,500 in 1921.

The question of national bank branching powers was not viewed so casually by the Comptroller's office, however. For example, in 1911 the Comptroller of the Currency requested the views of the Attorney

General regarding the branching powers of national banks, and was told that the power was not implied in the National Bank Act. In 1918 national banks were enabled to acquire branches under the consolidation act of that year, which provided that a national bank which had acquired branches at a time when it was under state charter could, if it consolidated with another national bank, retain those branches.

And, finally, the question of national bank branching came strongly to the fore under the Comptrollership of Daniel R. Crissinger, appointed by President Harding. Mr. Crissinger not only urged Congress to amend the National Bank Act to permit some branching, but also followed a policy of permitting national banks to open additional intracity limited facilities for the purpose of receiving deposits or checks in areas where state banks were permitted to branch. In his Annual Report for 1922, Comptroller Crissinger strongly backed a bill then before the Congress which would have given to national banks the same branch privileges in each state as were enjoyed by state banks -- the concept which was to be adopted over a decade later.

This bill reportedly was introduced by Representative McFadden.[1] It signaled the beginning of a legislative struggle which would grow in scope and intensity during the next five years (1922-1927), and it would eventually lead to the Act which bears his name and which remains one of the cornerstones of present-day national bank branching law.[2]

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[1] Chapman and Westerfield, Branch Banking, p. 102

[2] Ibid., pp. 102-103.

Section 2

The McFadden Act Branching Provisions

The Environment

In 1890, approximately one-third of the nation's 63 million population lived in communities classified in Census reports as urban. By the time the 1930 Census was taken, just three years after the McFadden Act[1] was passed, well over one-half of the then nearly 123 million people in this country lived in urban areas. But there was not only a shift from rural to urban life in this period, there was an enormous growth in larger urban communities. Places of 50,000 and over accounted for more than 50 percent of the total population growth between 1890 and 1930.

With the expansion of the urban population, combined with changing income and consumption patterns, and numerous other developments which are too well known to be repeated here, there was a substantial change in the commercial banking business between the 1890s and mid-1920s. Nevertheless, there is one other factor whose impact on banking (as well as the economy as a whole) merits special mention -- the automobile. By 1927, automobile registrations in the United States had climbed to over 20 million and there were frequent references to the auto in discussions of the reasons for expanded branching.

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[1]44 Stat. 1224 (1927) This is also called the McFadden-Pepper Act since Senator Pepper's name was added by the Senate.

An example of this may be noted in a description of Chicago in the twenties--a city which saw chain systems develop since branching was prohibited:

> The growth of population with increasing congestion in traffic has made for the rapid development of banking in residential districts since the [First] World War. The needs of the outlying communities for more convenient banking facilities has led to the rapid growth of banks in outlying districts. The downtown banks could hardly look without envy at the lucrative savings bank business that thus developed. In the absence of branch banking the only means of participating in this business was to buy into established banks in the new territory or establish new ones. 1

The Comptroller of the Currency in his 62nd Annual Report (1924) noted:

> In certain larger cities of the United States topographical conditions and changes in city structure, lack of parking facilities, etc., have made it difficult for outlying customers of a bank to reach the banking house. 2

And, finally, Professor Robertson in his history of the Comptroller's office observes:

> During the first quarter of the 20th century, the economic forces compelling the growth of branch banking tended to promote intracity branching rather than intercity branching. As cities pushed outward and increasing traffic congested the streets, banks found it progressively more difficult to reach households. Yet it was almost precisely at this time that the American middle class was becoming

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[1]Thomas, "Concentration in Banking Controls through Interlocking Directorates as Typified by Chicago Banks," Journal of Business, University of Chicago, January, 1933, p.9.

[2]Comptroller of the Currency, 62nd Annual Report, 1924, p.4.

> affluent enough to make household and small personal accounts profitable. In a society of spatially separated communities, where villages and hamlets flourished only a few miles apart, uncertain communication and bad roads slowed the establishment of branch offices outside the home city. 1

The last point, intra-city versus inter-city branch expansion, warrants some additional comment.

Intra-city and Inter-city Branching

It is virtually impossible to rank the variables in terms of their importance in promoting the establishment of branch offices between 1900 and 1927, but there can be no question about their effect both in terms of the number and location of branch offices. There were only 119 branches (excluding head offices) of commercial banks in 1900, and nearly four-fifths were located outside the head-office city. By 1920, there had been a ten-fold increase in the number of branches and the situation had completely changed with less than two-fifths of the 1,281 branches then in operation located outside the head-office city. The relative decline of the "outside" branches continued until only one-third of the branches were located outside the head office city in the late 1920s. (See Tables 1 and 2, pp. 38-39)

In large part, this growth in intra-city branches may be explained by economic and demographic conditions. But, also contributing to this expansion was a relaxation in restrictions on national bank branching. The first change came with Comptroller Crissinger's ruling

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[1] Robertson, The Comptroller and Bank Supervision, pp. 100-101.

mentioned earlier which permitted limited-service offices in 1922, and the second change resulted from the passage of the McFadden Act in 1927.

The McFadden Act

In June 1922, the First National Bank in St. Louis opened a branch without formal approval by the Comptroller of the Currency, and similar action was taken or threatened by a number of the larger national banks in other sections of the country.[1] To counter this trend, after careful analysis of the law, Comptroller Crissinger ruled that national banks could establish and operate limited-service offices and agencies, so-called "tellers' windows," in the same place they were authorized to do business. As one might expect, this set off a series of debates regarding branching including a significant exchange of views at the 1922 American Bankers Association convention. This and other debates at the state and national level were reported widely in the press and in periodicals, and within a short period of time legislation both supporting and rejecting branch expansion by national banks was introduced in the Congress.

The St. Louis case. The interest in branching was stimulated further by the court action initiated by the Missouri State Attorney General against the First National Bank of St. Louis which, as noted, had established a branch office in Missouri -- a unit banking state. The

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[1]Kane, Romance and Tragedy of Banking, p. 524.

Lower Court found in favor of the State, and the U. S. Supreme Court upheld the decision in 1924.[1] The Supreme Court found that a state had the power to enforce state legislation prohibiting national banks from establishing branches unless the branching authority was clearly conferred by Congress.

Although the specific question of the power of national banks to establish branches was more or less a secondary issue in the St. Louis case, the findings of the Court left little doubt that, except for certain converted state banks, national banks were required to maintain no more than one full-service office. Nevertheless, the decision had negligible impact on the Comptroller's 1922 ruling allowing additional intra-city "tellers' windows"[2] for national banks in areas where state branching was permitted. Classification of these outlets as limited not full-service offices[3] by Comptroller Dawes achieved this result.

The Comptroller's decision was based on a 1923 opinion of the U. S. Attorney General which held that a national bank had the power to open such limited-service offices within the boundary of the place (city) specified in its organization certificate.[4] The Comptroller's office maintained that this Opinion was not invalidated by the findings in the 1924 St. Louis case, and, in the five years from 1922-1926, permits were issued for over 200 limited-service offices.[5]

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[1] First National Bank in St. Louis v. Missouri, 263 U.S. 640 (1924).

[2] For the purpose of receiving deposits or checks - not to make loans.

[3] Fischer, American Banking Structure, pp. 44-45.

[4] 34 Ops. Atty. Gen. 1 (1923).

[5] Chapman and Westerfield, Branch Banking, p. 98.

Legislative history of the Act. Even before the St. Louis case was decided the Comptroller of the Currency and his staff had begun an extensive review of national bank legislation to determine what changes were needed in these statutes. Recommendations were received from bankers, Federal Reserve officials, and bank examiners throughout the nation. From these suggestions, with the aid of a banker committee, a bill was prepared which was introduced by Congressman McFadden.[1]

There were many provisions in the bill which were important to national banks, but the discussion here will be limited to the highly controversial branch banking section. During the debates of the 1890s branching was virtually non-existent, but by 1924 branch banking was practiced extensively. There were strong forces on both sides of the question, quite unlike the situation at the turn of the century.[2] This contributed significantly to the delay in the passage of the legislation, for the McFadden bill was introduced on February 11, 1924 but did not become law until February 25, 1927.

Delay was inevitable considering the environment in which the branching provisions were to be debated. As researchers at the Federal Reserve Board observed:

> While the bankers themselves were divided, supervisory officials also took different attitudes. The Comptroller, Mr. H. M. Dawes, was vigorously opposed to branch banking in principle, yet at the same time desirous of protecting the national banking system from inequitable competitive conditions. The Federal Reserve Board was interested not only in the

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[1] H.R. 6855, 68th Cong., 1st Sess. Reference is made here to "the" bill. Actually, the bill carried several different numbers as it was considered in the 68th and 69th Congresses.

[2] Chapman, Concentration of Banking, p. 144

> national banks, but also in the State member banks, which, if they were allowed to exercise the branch banking privileges the States gave them, were at an advantage over national banks; and if they were forbidden to exercise them were at a disadvantage as compared with nonmember banks. The State supervisors of banks were at the same time jealous of attempts to restrain State banks from the exercise of privileges which were legally theirs, and of attempts to give national banks greater powers than State banks had. 1

Meanwhile, Congress faced the legislation with mixed emotions. Many legislators were hostile to branching; yet, they were forced to choose between overriding the right of state banks to branch or giving national banks at least some original branching powers. The latter course was the only practical one to take, but this was done grudgingly. As a matter of fact, the McFadden bill had both positive and negative branch banking elements, and some lawmakers attempted to expand on its negative attributes through the so-called Hull amendments.

Amendments to the bill introduced or drafted by Representative Hull of Illinois were the most disputed of any provisions that became part of the bill. Among other things, the Hull amendments provided that members of the Federal Reserve System, state and national, should never be permitted to establish and operate branches in those states which did not at the time of the passage of the McFadden Act allow state banks to operate branches.[2] The bill including the Hull amendments passed the House in 1925 but the amendments were dropped

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[1]Federal Reserve Board, Committee Reports, "Branch Banking,"p.140.

[2]For a discussion of developments in this period see: Ibid.,pp.139-54; Chapman and Westerfield, Branch Banking, pp. 102-107; and Comptroller of the Currency, 62nd Annual Report, 1924, pp. 2 & 3, and 65th Annual Report, 1927, pp. 1-2. Especially good is Collins, The Branch Banking Question pp. 82-109.

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before the Senate approved the bill. The Senate would not compromise on this point, and the Session of Congress ended without further action on the bill. This scenario was replayed in 1926 until the A.B.A. acted.

A major blow to the supporters of the Hull amendments was struck by the American Bankers Association in its Los Angeles convention in the fall of 1926 when it reversed its position on these provisions.[1] After a stormy session lasting many hours, the A.B.A. approved the McFadden bill but without the Hull amendments. This weakened the position of those who promoted them in the House by removing their chief public support outside Congress. Just a few months later, in January 1927, the House accepted the bill without the Hull amendments. After a conference to settle minor differences with the Senate the Act passed and was approved by the President, February 25, 1927.

Branch Provisions of the McFadden Act

SEC. 7. That section 5155 of the Revised Statutes of the United States be amended to read as follows:

"Sec. 5155. The conditions upon which a national banking association may retain and operate a branch or branches are the following:

"(a) A national banking association may retain and operate such branch or branches as it may have in lawful operation at the date of the approval of this Act, and any national banking association which has continuously maintained and operated not more than one branch for a period of more than twenty-five years immediately preceding the approval of this Act may continue to maintain and operate such branch.

"(b) If a State bank is hereafter converted into or consolidated with a national banking association, or if two or more national banking associations

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[1]Federal Reserve Board, Committee Reports, "Branch Banking," p. 148. During its October 1924 Convention, the A.B.A. had approved the Hull amendments.

are consolidated, such converted or consolidated association may, with respect to any of such banks, retain and operate any of their branches which may have been in lawful operation by any bank at the date of the approval of the Act.

"(c) A national banking association may, after the date of the approval of this Act, establish and operate new branches within the limits of the city, town, or village in which said association is situated if such establishment and operation are at the time permitted to State banks by the law of the State in question.

"(d) No branch shall be established after the date of the approval of this Act within the limits of any city, town, or village of which the population by the last decennial census was less than twenty-five thousand. No more than one such branch may be thus established where the population so determined, or such municipal unit does not exceed fifty thousand; and not more than two such branches where the population does not exceed one hundred thousand the determination of the number of branches shall be within the discretion of the Comptroller of the Currency.

"(e) No branch of any national banking association shall be established or moved from one location to another without first obtaining the consent and approval of the Comptroller of the Currency.

"(f) The term 'branch' as used in this section shall be held to include any branch office, branch agency, additional office, or any branch place of business located in any State or Territory of the United States or in the District of Columbia at which depostis are received, or checks paid, or money lent.

"(g) This section shall not be construed to amend or repeal section 25 of the Federal Reserve Act, as amended, authorizing the establishment by national banking associations of branches in foreign countries, or dependencies, or insular possessions of the United States.

"(h) The words 'State bank,' 'State banks,' 'bank,' or 'banks' as used in this section, shall be held to include trust companies, savings banks, or other such corporations or institutions carrying on the banking business under the authority of State laws."

> SEC. 9. That the first paragraph of section 9 of the Federal Reserve Act as amended, be amended so as to read as follows [in part]:
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> "Any such State bank which, at the date of the approval of this Act, has established and is operating a branch or branches in conformity with the State law, may retain and operate the same while remaining or upon becoming a stockholder of such Federal reserve bank; but no such State bank may retain or acquire stock in a Federal reserve bank except upon relinquishment of any branch or branches established after the date of the approval of this Act beyond the limits of the city, town, or village in which the parent bank is situated."

Rationale for the Branching Provisions

With the Hull amendments deleted, the McFadden Act branch provisions were much the same as they were when the bill was introduced three years before. The Act has been described as a "mildly pro-branching" measure, but it really is a compromise bill. It reflects both pro- and anti- branch banking sentiments, which makes it extremely difficult to determine the reasoning behind every branch provision.

Nevertheless, utilizing the background material provided in Section 1 and the first part of this Section, three basic elements emerge which provide a good indication of the over all rationale underlying the branching requirements. First, the equality of state and national bank branching powers; second, and related to the first, the actual and potential decline of the national banking system; and third, the removal of uncertainty about the legal status of "tellers' windows."

"Equality." Congressman McFadden in commenting on his bill on June 7, 1924 stated: ". . . The main purpose of this bill is to restore

as nearly as possible the equilibium between state and national banks within the Federal Reserve System."[1] And, on March 3, 1927, after the Act became law, Representative McFadden remarked:

> As a result of the passage of this act, the national bank act has been so amended that national banks are able to meet the needs of modern industry and commerce and competitive equality has been established among all member banks of the Federal Reserve System. This action was necessary; otherwise national banks were sure to seek the greater advantage offered by state banking laws, and in that event the Federal Reserve System without the compulsory support of national banks would be only a theory, not a reality as is now assured. [2]

Federal Reserve economists found: "It [The McFadden bill] was intended to equalize competitive conditions between national and state banks."[3] In deciding First National Bank of Logan v. Walker Bank and Trust Co., the U. S. Supreme Court reviewed the legislative history of Federal branch banking law and concluded: ". . . that Congress intended to place national and state banks on a basis of competitive equality insofar as branch banking was concerned."[4] Thus, "competitive equality" would appear to be the key element in the branch provisions of the McFadden Act. But, was it?

There is, of course, considerable indication that the rationale behind the Federal deference to state law rests on the concept of "competitive equality." But, to paraphrase the classic observation in Orwell's

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[1] Congressional Record, June 7, 1924, pp. 1296ff.

[2] Ibid., March 3, 1927, p. 5815.

[3] Federal Reserve Board, Committee Reports, "The Dual Banking System in the U.S.," p. 30.

[4] 385 U.S. 252 at 261 (1966).

Animal Farm -- all banks are equal [under the McFadden Act] but some are more equal than others! To cite a few examples: State member banks had grandfather rights on branches outside their home office city or, for that matter, in a few cases outside their state. (National banks had few branches outside their head-office cities.) Minimum population figures in the law and limits on the number of new branches which a bank could establish in a city were applicable to branches of national banks but not to branches of state member banks. And the actions of state banks which were not members of the Federal Reserve System and did not plan to join the System were not restricted by the branching provisions in the 1927 Act.[1]

The McFadden Act was never intended to establish complete branching equality between state and national banks. It was also not aimed at giving the states control over Federal branching policy. The latter point is crucial for actions taken because of the basic desire of the lawmakers at the time to restrict branching are often interpreted as indicating they sought state control over Federal branching policy. Rather, it was Federal branching policy which would prevent state member banks (that wanted to remain Federal Reserve System members) from acquiring additional branches outside their head-office

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[1] U.S. Congress, House, Hearings before the Committee on Banking and Currency, "Branch, Chain, and Group Banking," 71st Cong., 2nd Sess., 1930, p. 436. Governor Young of the Federal Reserve Board in his statement before this Committee pointed out: "There are many inequalities in the branch banking provisions of the McFadden Act as they affect National banks and State member banks, respectively, and to a certain extent that act fails to place these two classes of banks on an equality with respect to the establishment of branches." Ibid., p. 437.

city even where this was allowed by state law. And no state bank with branches established outside its home city after February 25, 1927 could be admitted to Federal Reserve membership except upon relinquishment of such branches. The object was not to limit just national bank branching but to limit branching.

In presenting his views on the bill, Congressman McFadden emphasized: "In reporting out this bill the committee reflected what I believe to be the overwhelming sentiment of the country against branch banking. This is an antibranch banking bill."[1] Some concessions to national bank branching had to be made to maintain the viability of the national system; nevertheless, such concessions were to be held to a minimum. Those who opposed branching would concede on this issue only to the point of letting national banks branch where they were at a clear disadvantage vis a vis state banks -- in other words, in states where competing state banks had branch offices.

This led to the wording of the law which made state actions so vital in determining where national banks might be able to branch. To say that it was meant to give the states control over Federal branching policy is to misread more than a century of national bank legislative and judicial history.[2] The law was simply designed to provide some semblance of competitive equality in the branching area for national banks. Ironically, to quote former Assistant Attorney General Kauper, "this concept has done a full turn since it was developed in 1927.

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[1]Krooss, ed. Documentary History of Banking and Currency in the U.S., p. 2623.

[2]See, for example, Gerald Dunne, "The Douglas Amendment: Fatal Flaw," The Banking Law Journal (May 1976), pp. 507-508; and, Comptroller of the Currency, "Interpretive Rulings," Federal Register, Vo. 39, No. 248 (December 24, 1974), pp. 44417-18.

Originally designed to prevent the national banking system from being overwhelmed by freely branching state banks, its effect has been to hold national banks to state limitations."[1]

Decline of the National Banking System. The clamor for "equality" in branching between state and national banks may be traced to the decline which was taking place in the national banking system. In his Annual Report for 1924, Comptroller Dawes:

> laid before Congress convincing evidence of the urgent need for the broadening of the charter powers of the national banks, as provided by the bill, in order to save the national banking system from ultimate extinction. That report showed that the national banks were gradually declining in relative strength, having during the preceeding six years lost more than $2,230,000,000 to the State systems. [2]

In almost identical language, Congressman McFadden in discussing the reasons his bill was introduced remarked:

> The unfavorable position in which the national banks have found themselves within the last few years has resulted in a large number of withdrawals from the national system, either through the absorption by State banks or direct conversion of national banks into State banks. Since January 1, 1918, 173 national banks, each with a capital of more than $100,000, gave up their national bank and took out State charters and carried with them total assets of nearly $2,000,000,000. This is about 10 per cent of the total assets of the entire national banking system. At this rate of defection from the national system it would not be many years before the system itself would be destroyed and the Federal reserve system thereby left with only State member banks, which could withdraw at will. [3]

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[1]Testimony of Thomas E. Kauper, Assistant Attorney General, Antitrust Division, before the Subcommittee on Financial Institutions, House Committee on Banking, Currency and Housing, December 4, 1975, p. 21. (mimeographed)

[2]Quoted in Comptroller of the Currency's Annual Report in 1928, p. 2.

[3]Krooss, ed., Documentary History of Banking and Currency in the U.S.,2620.

The Congressman went on to note: "These national banks entered the state banking systems in order to place themselves upon an equal competitive basis with state banks in their respective localities."[1] And "the outstanding feature of banking operations on the part of state banks, which is making the greatest inroads into the national system, is that of branch banking."[2]

Congressman McFadden also made reference to Congress' intention to permit competition and promote public service through his bill. This idea was echoed by a colleague in the House who explained his vote in favor of the bill as follows:

> I am persuaded to vote for this measure for the reason that crowded conditions, traffic regulations, lack of parking facilities in our cities necessitate some change in banking facilities to suit the convenience of the complex and crowded business world. Banks, bankers, and customers in large cities are in a situation similar to telephone, electric light and gas companies, or the post office, all of which have branches for the customers' convenience. Economy in time, energy, and many other factors demand that the old order give away to a modern and sensible plan. Party traditions and prejudices should not fetter or bind us to the detriment of our country or the service of our constituents. 3

The reasons national banks found themselves at such a competitive disadvantage in the 1920s and not much earlier was discussed at some length earlier in this paper: There was little concern with branching at the time the National Banking Act was passed and branching authority

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[1] Ibid.

[2] Ibid., p. 2621.

[3] Comptroller of the Currency, "Interpretive Rulings," Federal Register, Vol. 39, N. 248 (December 24, 1974), p. 44419.

was not even discussed; the inability of national banks to branch did not severely impede their operations until after 1900; the environment changed significantly during the first two decades of this century; and branching, particularly intra-city branching, expanded rapidly. (See Tables 1 and 2.) As a result, many national banks felt severely handicapped in serving the needs of their customers and potential customers. Some national banks converted to state charters slowly depleting the national banking systen, while others were aided in securing at least token broader geographic representation through the authorization of the establishment of "tellers' windows" by Comptroller Crissinger.

Tellers' Windows

A peripheral issue but one which provided some incentive for the introduction of the McFadden Act was the questionable legal status of the more than 200 "tellers' windows" which had been opened by national banks. These so-called "tellers' windows" some branching critics described as "palaces" and "full-scale branches headed by a vice president."

In commenting on his bill in 1924, Congressman McFadden stated:

> Under a ruling issued by ex-Comptroller of the Currency Crissinger, and supported by an opinion from the then Attorney General, national banks in cities where State banks were engaged in branch banking were permitted to establish what has been called "additional offices" or "tellers' windows" for the receipt of deposits and cashing checks. The theory of this ruling was based upon the doctrine that a national bank possessed the incidental power to perform this character of service because competition from State banks had created a condition which made

> it necessary. A limited number of these additional offices have been established, but their status is not legally certain in view of the implications in the decision of the Supreme Court in the St. Louis case, and they are otherwise not adequate to meet the situation. They were designed to meet what was regarded as a dangerous emergency in the national banking system. This bill will clear up the uncertainties which may be involved in this situation. [1]

And, following passage of the McFadden Act, he specifically noted that Section 7(a) of the Act made these tellers' windows lawful branches.[2]

McFadden: A Postscript

The stated objectives of the McFadden Act were achieving competitive equality, maintaining a viable national banking system, and, as a secondary factor, clarifying the legal status of "tellers' windows." Dominating virtually all of the actions taken, however, was the branch banking question. This factor delayed the passage of the Act for several years, and many authorities viewed the resulting statute as a compromise under which a limited amount of branching was to be permitted but this was to be done at the possible expense of any widespread expansion of branching in the future. There could be no doubt even then that the branch banking question would arise again, but few would have realized how soon this would occur.

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[1] Krooss, ed., Documentary History of Banking and Currency in the U.S., p. 2625.

[2] Congressional Record, March 3, 1927, p. 5816.

Section 3

The Banking Act of 1933

One result of the victory of the anti-branch forces in passing the McFadden Act was renewed stimulus for states to adopt anti-branching laws. Within a few months after the new federal act was adopted, four states enacted legislation prohibiting branching, and two other states approved similar statutes in 1929. This followed the pattern begun a decade earlier, and between 1919 and 1929, thirteen states had enacted laws prohibiting branch banking.[1] Hence, by 1930, branching was prohibited in 22 states, permitted in 19 states and 7 others had no specific provision covering branch banks.[2] "In some of the states there were a few branches in existence at the time the prohibitions were enacted, but in most states there was either no branch banking at all, or it was on a very small scale."[3] This led a Federal Reserve Board study group to conclude the opposition to branch banking was most successful in those states where there had been the least experience with it.[4]

Changing Attitude Toward Branching

Following the enactment of the McFadden Act, the proponents of branching continued to press their case. This was particularly true of efforts made on behalf of the national banks, which had obtained

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[1]Federal Reserve Board, Committee Reports,"Branch Banking," p. 113

[2]U.S. Congress, House, Hearings before the Committee on Banking and Currency, "Branch, Chain, and Group Banking," 71st Cong., 2nd Sess., 1930, p. 424.

[3]Federal Reserve Board, Committee Reports, "Branch Banking," p.113.

[4]Ibid.

only partial parity with state banks in states which permitted branching. Thus,in 1928 Comptroller of the Currency Pole indicted unit banking because of the vast number of failures of small banks and recommended branch banking on a trade-area basis as a remedy.[1] The increasing number of bank failures together with the growth of group and chain banking also prompted President Hoover to ask Congress to consider authorizing national banks to branch within limited areas.[2] Even the American Bankers Association, which had adopted vehement anti-branching resolutions at its 1916 and 1922 annual conventions and had supported the McFadden Act in 1926, adopted a resolution in 1930 which stated in part:

> . . . this association, while reaffirming its belief in the unit bank, recognizes that a modification of its former resolutions condemning branch banking in any form is advisable. The association believes in the economic desirability of community-wide branch banking in metropolitan areas and county-wide branch banking in rural districts where economically justifiable. [3]

However, the A.B.A. also went on to add to its resolution another statement which has since served as the foundation of its branching policy, namely that: "No class of banks in the several States should enjoy greater rights in respect to the establishment of branches than banks chartered under the State laws."

The banking collapse of the early 1930s marked an end of state attempts to limit branching. Indeed, there was a dramatic reversal in

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[1]Chapman and Westerfield, Branch Banking, p. 112.

[2]Fischer, American Banking Structure, pp. 48-49.

[3]Quoted in Chapman and Westerfield, Branch Banking, p. 115.

state attitudes. During the five years ending with 1935, 15 states revised their branch laws or enacted such legislation for the first time. Twelve of these states shifted from prohibiting branches to permitting either statewide or limited branching, one went from limited to statewide branching, and two states which had had no previous branch legislation also permitted statewide branching.[1] In addition to the hope that such laws would bring banking facilities back to smaller communities, it was also hoped that distressed banks could be converted to branches of stronger banks before actual failure took place.

The attitude in the U. S. Congress also underwent a change. The House Banking and Currency Committee held hearings on "Branch, Group and Chain Banking" in 1930, and in 1931 the Senate Banking and Currency Committee looked into branching in connection with broader hearings on the Nation's banking system. It was at the House hearings, for example, that Comptroller of the Currency Pole gave an unqualified endorsement to trade area branching, regardless of state lines. In April 1932, the Senate Banking and Currency Committee reported a bill which would have permitted national banks to branch interstate so long as a branch was not more than fifty miles from the head office, and to do so whether or not the states involved had any laws concerning branching.[2]

This particular measure was fathered by Senator Glass and was eventually defeated. But the anti-branch forces clearly faced a much

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[1]Fischer, American Banking Structure, pp. 59-64.

[2]Chapman and Westerfield, Branch Banking, pp. 118-19.

greater challenge than they had encountered in the past. However, the opponents of branching received support -- and indeed salvation -- from an unanticipated quarter, the supporters of federal deposit insurance legislation.

Deposit Insurance or Branching?

Protection of communities from the devastating consequences of bank failures, as well as protection for the individual depositor against loss due to bank failures, had long been a matter of concern to governmental authorities. Between 1829 and 1917 fourteen states had enacted deposit insurance programs, several of which operated until 1930. Moreover, from 1886 until 1933, at least 150 bills had been introduced in the Congress calling for federal insurance of deposits. The banking collapse of the 1930s brought together, for the first time, two powerful forces determined to enact insurance legislation -- those concerned over the economic consequences of bank failures and those concerned with preserving the unit banking system by preventing the spread of branching laws. It was a political force sufficient to overcome the strong opposition of President Roosevelt and the Administration to deposit insurance -- an opposition that was quickly forgotten when deposit insurance proved to be quite successful.[1]

Deposit insurance had long been opposed by Senator Glass who, as indicated earlier, had been attempting to strengthen the banking system

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[1]Deposit insurance developments are discussed in Golembe, "The Deposit Insurance Legislation of 1933," Political Science Quarterly (June 1960), pp. 181-200.

through liberalization of branching laws. On the other hand, the Chairman of the House Banking and Currency Committee, Congressman Steagall, took quite a different approach. The Alabama Congressman had campaigned for deposit insurance from the time he first entered Congress in 1915 and, as it turned out, he proved to be the superior tactician in his bout with the Virginia Senator. Mr. Steagall was both blunt and succinct: "This bill will preserve independent, dual banking in the United States . . . this is what this bill is intended to do." Among other things, the Congressman was able to persuade a large percentage of the membership of the House to notify the leadership and the Roosevelt Administration that it would refuse to adjourn until deposit insurance was accepted.

Branching Provisions in the 1933 Act

The Banking Act of 1933, or Glass-Steagall Act,[1] would ultimately contain both deposit insurance and branching provisions. Senator Glass became convinced that it was impossible to obtain a significant expansion of branch banking powers, and he prepared an amendment which he felt would prove acceptable to Congress. Thereby, Carter Glass was able to obtain some additional branching authority for national banks. The provision which he succeeded in placing in the law remains in essentially the same form today:

> A national banking association may, with the approval of the Comptroller of the Currency, establish and

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[1] 48 Stat. 162, 1933, Sec. 23. Where applicable, the law also made corresponding changes for state member banks. There were two Acts which carried the popular name "Glass-Steagall" -- the first was the statute of February 27, 1932 [47 Stat. 56 (1932)] and the second the Banking Act of 1933. Only the latter is referred to in this paper.

> operate new branches: (1) Within the limits of the city, town, or village in which said association is situated, if such establishment and operation are at the time expressly authorized to State banks by the law of the State in question; and (2) at any point within the state in which said association is situated, if such establishment and operation are at the time authorized to State banks by the statute law of the State in question by language specifically granting such authority affirmatively and not merely by implication or recognition, and subject to the restrictions as to location imposed by the law of the State on State banks. . .

Finally, national banks had achieved (or came very close to) competitive equality in the branching area.

State or Interstate Branch Lines

In his report presented to the Senate on an early version of the Glass banking bill (S.4412) April 22, 1932, Senator Glass observed:

> Provision for branch banking powers under carefully qualified conditions with a view to making a larger experiment with branch banking is deemed essential and due provision for it is made. Specifically, what is proposed is the grant of power to establish branches of National banks not merely in the towns and cities in which they are located but also outside of such limits at any point within the borders of the State in which they exist irrespective of State laws. Also, it is proposed that if by reason of the proximity of a National bank to a State boundary line the ordinary and usual business of the bank is found to extend into an adjacent State, the Federal Reserve Board may permit the establishment of a branch or branches in an adjacent State but not beyond 50 miles from the place where the parent bank is located.1

Senator Glass' analysis of the question of state sovereignty and branching was published in the Congressional Record a few weeks later on May 10, 1932.

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[1]The Report on the bill (S.4412) is printed in full in the Commercial and Financial Chronicle, April 30, 1932, pp. 3199-3202.

He is quoted as saying:

> One objection is that to authorize branch banking would be an invasion of the sovereign rights of the States. I do not think the Interstate Commerce Commission and the Supreme Court of the United States have left the States with any sovereign rights; but it seems to me, Mr. President, rather an untenable argument to insist that the Congress may authorize the establishment of a national banking system in all the States, but that it would be an invasion of the sovereign rights of the States to authorize such banks to establish branches and to conduct their business in various parts of the States rather than in one place.

A study of "the constitutional power of Congress to authorize the establishment of branches by national banks irrespective of state laws," prepared by a prominent banking official and researcher, C. W. Collins, concluded "there appears to be no doubt of this authority."[1] The Economic Policy Commission of the American Bankers Association, however, voiced its opposition to the branching provisions (and other elements) of S.4412. The A.B.A. representative concluded:

> On the subject of branch banking our Association has gone officially on record at its Cleveland Convention in 1930 as favoring a limited extension. There exists some difference of opinion in our Commission as to the advisability of extending the privilege to cover the entire State; however, we hold unanimously to the view that the granting of permission to National banks to establish branches in adjoining States (not over 50 miles distant) would constitute a species of trade area branch banking which would give National banks an unfair advantage over their State bank competitors whose State governments could not authorize them to establish branches beyond their own jurisdictions. [2]

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[1]Opinion submitted by Charles W. Collins to the Senate Committee on Banking and Currency, January 22, 1932.

[2]Commercial and Financial Chronicle, April 2, 1932, p. 2447.

The A.B.A. seemed to question the possible negative impact on the "competitive equality" of state and national banks that interstate branching by national banks might have, it did not seem to even consider state sovereignty.[1] Moreover, the A.B.A.'s lack of support for statewide branching as well would suggest the basic issue was not one of maintaining the state as the maximum branching area.

Senator Glass admitted that he came to branch banking reluctantly because of his concern about the failure of smaller banks.[2] Thus, when the "contest" between deposit insurance and branching as remedies for this problem was lost, provisions providing for expanded branching in any form, let alone interstate, had little prospect of passage. If this were not enough, the "trade area" branching provision provoked a ten-day filibuster by Senator Huey Long who shared the view with others who felt that national banks should not "enjoy privileges denied to state banks in the same areas."[3]

The contemporary literature would lead one to conclude that it was the supposed association of bigness and "Wall Street money power" with widespread branching and a sincere concern with the retention of "locally organized" banks that inspired most of the opposition to a provision permitting widespread branching -- not concern about the legal issue of state jurisdiction over branching per se.[4] Opposition to statewide branching by some Senate Banking Committee members,

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[1] Commercial and Financial Chronicle, April 2, 1932, p. 2447.

[2] Kennedy, The Banking Crisis of 1933, p. 207.

[3] Ibid., pp. 207-208.

[4] The events of this period are summarized Ibid., pp. 207-209. This work also contains numberous other feferences.

combined with the other attacks mentioned above, led Senator Glass to modify the branch banking provisions of his bill, for he felt the important thing was to get the bill passed.[1] Hence, the branching requirements in the Banking Act of 1933 should be viewed only in this context. It is doubtful that they can enlighten us very much concerning the fundamental question of desired Federal and state authority in regard to branch banking.

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[1]Commercial and Financial Chronicle, January 12, 1933, pp. 262-63.

Section 4

More Recent Developments

The settlement of the branching issue in Congress in 1933 put at least a temporary end to agitation over branching. The pace of legislation slowed noticeably in the states, while at the federal level there were matters of more pressing concern. However, two problems remained and were eventually to resurface.

The Interstate Question Again

The first was an economic fact of life, namely, that some banking markets straddle state lines. This problem became more pressing after the conclusion of World War II as the burgeoning economy increased the size of such metropolitan areas and created new ones.[1] Moreover, as the economy continued to expand during the post-war decades, and as new and more sophisticated financial services made their appearance, regional and even national banking markets took on new importance.

By the 1960s, the state-boundary portion of the compromise of 1933 was again brought into question. For example, in 1961 the Commission on Money and Credit concluded that branching in metropolitan areas, even across state lines, was desirable and recommended legislation to the U. S. Congress to that effect. The Advisory Committee on Banking to the Comptroller of the Currency made a similar recommendation in 1962.

Leading spokesmen, both in and outside of government, began to voice

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[1]It was not overlooked in the late 1930s, however, for Senator McAdoo introduced several "trade area" type branching bills. See Chapman and Westerfield, Branch Banking, pp. 124-26.

concern over the economic logic of having a state boundary serve as a measure of the extent to which a bank should be permitted to serve its particular market. In 1968, for example, former Federal Reserve Board Governor Mitchell referred to state lines as "Berlin walls so far as branching is concerned," stating that "there is no economic or institutional reason for not negotiating interstate compacts to enrich the banking alternatives for citizens who live in metropolitan areas. . ."[1]

Most recently, the House Banking Committee has considered procedures which would enable banks to branch across state lines. For example, the FINE Discussion Principles, released in November of 1975, suggested that the major metropolitan areas of the country be opened to branching from out-of-state banks.[2] The proposal was not incorporated in the draft legislation formulated by the Committee, however.

Rather surprisingly to many observers, the Hunt Commission went out of its way to state in its report that it had "rejected proposals to permit interstate branching or metropolitan area banking by federal legislation . . ." Instead, it urged that "states. . . be progressive in changing their laws."[3] By itself, this might suggest that the Commission wished to encourage interstate compacts or agreements with respect to metropolitan area branching, or interstate banking generally. However, this was clearly not the case from the wording of the actual recommendation by the Commission, which was:

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[1] American Banker, October 28, 1968.

[2] Financial Institutions & the Nation's Economy (FINE) Discussion Principles, Committee on Banking,Currency & Housing, 94th Congress, 1st Session, Nov. 1975, U.S. Government Printing Office: 1975.

[3] The Report of the President's Commission on Financial Structure and Regulation, 1971, p. 62.

> By state laws, the power of commercial banks to branch, both de novo and by merger, be extended to a statewide basis, and that all statutory restrictions on branch or home office locations based on geographic or population factors or on proximity to other banks or branches thereof be eliminated [underscoring added].[1]

Inflexibility of State Laws

A second problem inherent in the 1933 legislation also began to resurface by the 1960's. This was the failure of most states to make substantial changes in their branching laws. There have been notable exceptions, particularly in states such as in New York and New Jersey. But given the fact that more than a third of a century has passed since the Glass-Steagall Act was adopted, as well as the fact that the economy has changed drastically, it is surprising that the basic distribution of states in the traditional categories of statewide branching, limited area branching, and severely restricted or no branching, has not changed radically from the early 1930's.

It was this portion of the 1933 compromise that the Hunt Commission chose to do something about, by urging the states to liberalize their branching laws. It should be noted that the Commission carefully conformed to the terms of the 1933 compact, not only with respect to reaffirming the importance of state lines but also with respect to the position of the states in determining branch policy. The Commission went out of the way to avoid making any recommendation to the Congress, making it clear that if there were to be changes in the Nation's branching laws, they should be at the option and discretion of the individual state legislatures. Perhaps the Commission simply thought that its advice to

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[1] Ibid., p. 61.

the states to be more liberal on branching matters would be sufficient to bring this recommendation within the ambit of its general philosophy supportive of a more competitive banking structure. But the fact seems to be that the Commission simply failed to face up to the entire branching issue, probably more for pragmatic political reasons than because of any departure from its general philosophy.

A Final Note

This paper was to be directed to the rationale behind the branching provisions of the McFadden Act as amended in 1933. Every effort has been made to comply with this request, but, in closing, some question must at least be raised about the relevance of much of this material in 1976.

In the mid-1920's, nearly 90 percent of all commercial banking offices were unit banks; today, the corresponding figure is about 20 percent. In 1925, one bank in forty had a branch office; at present, the ratio is one in three. Branching has grown not only in numbers but in geographic dispersion with nearly seven-tenths of all branch offices (excluding head offices) located in the head office city then as compared with one-third now. (See Tables 1 and 2)

Since the twenties, there has been a vast growth in urban population, and the mobility of that population has increased significantly. There have been major improvements in communications, and the computer has done much to change virtually all facets of our lives. The list of innovations in banking alone (e.g., antitrust enforcement, retail banking, computerization, world-wide service) could go on for many pages, if not volumes, but this would be laboring the obvious.

It is all the more surprising, therefore, that relevance --almost to the point of reverence -- is assigned to the events which we have described, and to the statutory language which resulted. Reports, speeches, and legal briefs abound with careful dissections of precisely what is meant by the payment of a check or the acceptance of a deposit. And efforts are made to read the minds of a Congress which accepted a now questionable proposition, namely that competition among banks should be restrained through the imposition of limitations on branching, albeit with the proviso that limitations should apply more or less in the same fashion to all banks. From this has arisen the so-called doctrine of "competitive equality" to which we have referred earlier but which, in its very essence, is a contradiction in terms. For in the McFadden Act and its subsequent amendments, the Congress was concerned with minimizing and constricting competition and, in the process, sought to assure that all banks should share equally the burden of this competitive restraint.

Historical precedent is always important, of course, but one hopes that in any consideration of the McFadden Act and its application to today's world, that primary attention will be focused on relevance rather than on language. Final judgments should, in the authors' opinion, be made on the basis of present day conditions and a realistic appraisal of the outlook for the future.

TABLE I

COMMERCIAL BANKS MAINTAINING BRANCHES

Year	All Commercial Banks	Percentage with Branches	Banks with Branches				Percent of Branches in Head Office City*
			Total	National	State	% National	
1900	12,427	0.7	87	5	82	5.7	21.0
1905	18,152	1.1	196	5	191	2.6	38.6
1910	24,514	1.2	292	9	283	3.1	49.4
1915	27,390	1.4	397	12	385	3.0	55.4
1920	30,291	1.7	530	21	509	4.0	60.4
1925	28,442	2.5	720	130	590	18.1	68.4
1930	23,679	3.2	751	166	585	22.1	67.9
1935	15,488	5.3	822	181	641	22.0	52.2
1940	14,534	6.6	959	200	759	20.9	45.4
1945	14,126	7.2	1,016	222	794	21.9	43.3
1950	14,146	8.8	1,241	324	917	26.1	43.1
1955	13,780	12.0	1,659	543	1,116	32.7	41.6
1960	13,472	17.3	2,329	905	1,424	38.9	38.7
1965	13,804	22.7	3,140	1,331	1,809	42.4	36.3
1970	13,688	29.2	3,994	1,684	2,310	42.2	35.5**
1975	14,632	37.7	5,521	2,095	3,426	37.9	34.8**

* Excluding head offices and facilities.

** Estimated

Source: Fischer, American Banking Structure, p. 35; Federal Reserve Bulletin (April 1971, pp. A. 94-95); and Federal Reserve Board.

TABLE II

COMMERCIAL BANKING OFFICES BY TYPE OF BANK

Year	Unit Banks	Branch Banks [a]	Total Number of Banks	Total Number of Branches [b]	Total Banking Offices Number [b]	Total Banking Offices Percent Unit Banks
1900	12,340	87	12,427	119	12,546	98.4
1905	17,956	196	18,152	350	18,502	97.0
1910	24,222	292	24,514	548	25,062	96.6
1915	26,993	397	27,390	785	28,175	95.8
1920	29,761	530	30,291	1,281	31,572	94.3
1925	27,722	720	28,442	2,525	30,967	89.5
1930	22,928	751	23,679	3,522	27,201	84.3
1935	14,666	822	15,488	3,156	18,644	78.7
1940	13,575	959	14,534	3,531	18,065	75.1
1945	13,110	1,016	14,126	3,723	17,849	73.4
1950	12,905	1,241	14,146	4,721	18,867	68.4
1955	12,121	1,659	13,780	6,710	20,490	59.2
1960	11,143	2,329	13,472	10,216	23,688	47.0
1965	10,664	3,140	13,804	15,486	29,290	36.4
1970	9,694	3,994	13,688	21,424	35,112	27.6
1975	9,111	5,521	14,632	29,795	44,427	20.5

[a] Excludes banks with banking facilities only. There are approximately 200 banking facilities that are provided at military and other Government establishments through arrangements made by the Treasury.

[b] Excludes banking facilities

Sources: See TABLE I.

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Note: These are only selected items which are either referred to in the text or which provide good background reading. In the case of Candilis and Teplitz, they offer a look at recent developments and the future outlook in banking. Many of these volumes contain extensive additional bibliography for the interested reader.

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THE EVOLUTION OF STATE POLICIES ON MULTI-OFFICE BANKING FROM THE 1930's TO THE PRESENT

Prepared for the Subcommittee on Financial Institutions,
Committee on Banking, Housing and Urban Affairs, United States Senate

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July, 1976

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THE EVOLUTION OF STATE POLICIES ON MULTI-OFFICE BANKING FROM THE 1930's TO THE PRESENT

Through a variety of arrangements, many American banking organizations have provided facilities in more than one geographic location for the transaction of banking business. In this paper, the term "multi-office banking" applies to all such arrangements including those based on branches, remote electric facilities and individual banks within group banking organizations.

Current state-level policies on multi-office banking vary considerably from state to state. It is generally acknowledged that this situation results from provisions of Federal banking laws affording state governments opportunities to build upon established local banking traditions. The Banking Act of 1933 provides for the determination of branching policies applicable to both federally and state chartered banks on a state by state basis. The Bank Holding Company Act of 1956, as amended, defines bank holding companies and provides criteria for Federal Reserve approval of applications for the formation of new bank holding companies and for acquisitions by bank holding companies. State governments, however, may establish limitations on the numbers or aggregate size of banks in holding company groups and the extent of holding company ownership in banks.

The variety of constraints and privileges which state governments have in force to influence the extent to which recognized

multi-office banking arrangements are used suggests that a comprehensive characterization of state policies is a difficult task and that tracking the evolution of these policies is even more complicated. A survey of the literature, however, reveals that some generalizations have been accepted. There is a consensus of opinion that there has been a gradual trend toward liberalizing state multi-office policies. 1/ Also, the widely held view that banking organizations have circumvented restrictions on one form of multi-office operation where possible by using alternative forms implies that an ever-present impetus for liberalization has existed within the banking industry. 2/

In reviewing the evolution of state multi-office banking policies, this paper offers several additional details to prevailing characterizations of historical developments in this area. The trend toward liberalization in state policies is observed, but with

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1/ American Bankers Association, State Banking Law Service, Washington, American Bankers Association, 1974, p. 89-93. Brown, William J., Banking structure, in The Future of Commercial Banking, New York, Praeger, 1975, p. 27-29. Fischer, Gerald, C., American Banking Structure, New York, Columbia University Press, 1968, p. 64.

2/ Boczar, Gregory E., The Growth of Multibank Holding Companies: 1956-73, [Washington], Board of Governors of the Federal Reserve System, 1975, p. 12. Fischer, Gerald C., Bank Holding Companies, New York, Columbia University Press, 1961, p. 143. Fischer, Gerald C., American Banking Structure, p. 96 and 102. Lamb, W. Ralph, Groups Banking: A Form of Banking Concentration and Control in the United States, New Brunswick, N.J., Rutgers University Press, 1961, p. 44.

important qualifications. Extensions of multi-office privileges are seen primarily as constituting efforts to accomodate existing firms to changes in the environment in which they operate rather than as independent efforts to induce changes in banking structure and behavior. Furthermore, variations among states in the nature of policy changes enacted in response to the same set of developments are found to be consistent with efforts to provide banking industry stability in settings which vary from state to state because of different historical experiences with multi-office banking.

These conclusions are drawn from an examination of the three major movements in the shaping of state policies which have occurred from the 1930's to the present. In the 1930's branch banking was considered by most states and adopted by many. Since the Bank Holding Company Act of 1956, a number of states have enacted legislation on multi-bank operations of bank holding companies. Within the last two years, most states have enacted legislation governing the banking industry's use of remote facilities in the electronic transfer of funds. Sources for each of these three movements are identified and reasons for differences in policy responses among the states are examined.

Only major distinctions in multi-office banking policies among states and within states over time are emphasized in this paper. For example, the branching status of individual states is described

in terms of the conventional classifications, unit banking, limited branching and state-wide branching. More detailed aspects of multi-office policies such as branching limitations based on capital requirements, numerical restrictions, home office protection and specific geographic boundaries applicable to limited branching are not examined. The approach adopted in this paper focuses attention on the most significant developments in state policies and narrows the policy actions under examination toward a manageable range.

I. The Extension of Branching Privileges.

Changes in state banking policies occurring in the 1930's assume considerable importance in terms of the evolution of policies on multi-office banking. During this period, as bank holding company expansion stopped abruptly, groundwork was established for future multi-office growth through branching. Eighteen states provided for a more liberal branching status, moving to state-wide branching from a limited branching or unit branching status or changing to limited branching from a unit banking status. Most of these states had previously prohibited branching. 1/ In contrast, the net effect of changes in branching status in the three and one half decades since the 1930's has been to liberalize branching status in only 7 states. The branching status of each state at selected dates, including the current status appears in Table I.

With the banking crisis of February-March 1933, the level of public concern about the organizational structure and operations of the banking industry reached a peak. Bank failures had already reduced the number of commercial banks by twenty percent from 1930 through 1932. By March 6, 1933, when President Roosevelt declared a national banking holiday, virtually every state had closed or

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1/ Sources used for the classification of states by branching status during the 1930's are compilations of Federal and state laws on branching in the following Federal Reserve Bulletins: v. 16, April 1930: 258-266; v. 18, July 1932: 455-458; v. 22, November 1936: 858-876; and v. 25, October 1939: 851-870.

limited banking operations.[1] The Banking Act of June 16, 1933, the first major effort in banking reform to follow the crisis, granted to nationally chartered banks within each state the same branching privileges which were extended to state chartered banks. This provision superceded more rigid limitations imposed by the McFadden Act of 1927 and resulted in uniformity of branching opportunities for all banks within individual state jurisdictions.

In the 1930's, interest at the state level in banking organizational arrangements was directed toward strengthening the financial viability of banks and at the same time assuring the availability of banking services to most population centers. To achieve these goals, the promotion of multiple office operations was actively considered in most states. With multi-office privileges, existing banks could expand into communities left bankless as a result of previous failures. Mergers of weak banks into strong could take place within large geographic areas without the loss of banking offices. The size of individual bank operations and the diversity in deposit sources and in loan portfolios could be increased with the hope of enhancing the ability of banks to withstand isolated financial setbacks of borrowers or depositors. Support for unit banking generated arguments centering on implications of increasing the concentration of banking assets under non-unit arrangements and questions about efficiency and costs under ground rules which would extend geographic areas of operations and would entail the maintenance of several physical facilities.

TABLE I

STATUS OF STATE BRANCHING STATUTES FOR
COMMERCIAL BANKS, 1929, 1951, 1961 and 1976

U	Branching prohibited
U*	Branching prohibited but limited facilities permitted
L	Branching permitted within limited georgraphic areas
S	No geographic branching restirctions
N( )	No branching statute but notation of *de facto* branching status

	1929	1951	1961	1976
1. Alabama	U	L	L	L
2. Alaska	-	-	S	S
3. Arizona	S	S	S	S
4. Arkansas	U	U*	U*	L
5. California	S	S	S	S
6. Colorado	U	U	U	U*
7. Connecticut	U	S	S	S
8. Delaware	S	S	S	S
9. Florida	U	U	U*	U*[1]
10. Georgia	L	L	L	L
11. Hawaii	-	-	S	S
12. Idaho	U	S	S	S
13. Illinois	U	U	U	U*
14. Indiana	U	L	L	L
15. Iowa	U	U*	U*	L
16. Kansas	U	U	U*	U*
17. Kentucky	N(U*)	N(U*)	L	L
18. Louisiana	L	S	S	S
19. Maine	L	S	S	S
20. Maryland	S	S	S	S
21. Massachusetts	L	L	L	L
22. Michigan	N(L)	L	L	L
23. Minnesota	U	U	U	U*
24. Mississippi	L	L	L	L
25. Missouri	U	U	U*	U*
26. Montana	U	L	L	U*
27. Nebraska	U	U*	U*	U*
28. Nevada	U	S	S	S
29. New Hampshire	N(U)	N(U)	N(U)	L
30. New Jersey	L	L	L	S
31. New Mexico	U	L	L	L
32. New York	L	L	L	S
33. North Carolina	S	S	S	S
34. North Dakota	N(U)	U*	U*	U*
35. Ohio	L	L	L	L
36. Oklahoma	N(U)	N(U)	U*	U*
37. Oregon	U	S	S	S
38. Pennsylvania	L	L	L	L
39. Rhode Island	S	S	S	S
40. South Carolina	S	S	S	S
41. South Dakota	N(U)	S	S	S
42. Tennessee	L	L	L	L
43. Texas	U	U	U*	U*
44. Utah	U	S	S	S
45. Vermont	S	S	S	S
46. Virginia	S	L	L	S
47. Washington	U	S	S	S
48. West Virginia	U	U	U	U*
49. Wisconsin	U	U	U*	L
50. Wyoming	N(U)	N(U)	N(U)	N(U)

[1] Effective January 1, 1977, limited area branching permitted

SOURCES: Federal Reserve Bulletins, April 1930 and July 1951; *A Study of Group and Chain Banking*, American Bankers Association, 1929; *Paton's Digest* (1961 Supplement), American Bankers Association

The proponents of branching achieved considerable success. A depression-born movement toward extending branching privileges was already discernible in the period from 1930 to 1932. Indiana and Iowa, both previously prohibiting branch banking, adopted limited branching laws. Ohio and New Jersey extended geographic areas applicable to existing limited branching statutes. Montana permitted maintenance of original geographically separated facilities of merged banks and Wisconsin provided for receiving and disbursing stations in small bankless communities. As of May 1932, 9 states permitted state-wide branching and 14 provided for limited branching. Of the remaining states, 18 prohibited branching and 7 had no legislation regarding branch banking.

From 1933 to 1939, branching privileges were granted by 9 states which had previously prohibited branching and by three states which had previously failed to provide legislation regarding branching. Of the 9 unit banking states which changed branching status, six went to the extreme of providing for state-wide branching. Maine and Louisiana moved from limited to state-wide branching and Delaware, the only state moving against the trend toward liberalization, changed from state-wide to limited branching. The move from unit to branch banking represented a more dramatic change in the nature of banking operations than extensions of geographic areas accessible to banks already operating with branches.

In all, 18 states moved to a more liberal branching status during the 1930's. Of these, 16 adopted legislation which for the

first time provided for branch banking on either a limited or state-wide basis. Although it is difficult to determine with accuracy the lines of causation leading to policy changes in these states, tentative conclusions may be drawn from similarities in banking experiences among these states. The intensity of interest in structural reform within individual states appears to have been related to the extent to which states experienced bank failures. The national average of bank failures during the downward slide of the economy from 1930 through 1932 relative to total operating banks at the start of this period was 21.5 percent. 1/ Ten of the 16 states which enacted branching privileges had bank failure rates exceeding the national average. Viewed from a different perspective, failure rates exceeding the national average in 21 states, 6 of which already allowed some form of branching. Of the remaining 15 states, 10 initiated provisions to permit branch banking. The average failure rate for states which introduced branching privileges during the 1930's was 26.6 percent and for states which did not adopt such legislation the average failure rate was 18.5 percent.

Lower resistance to extensions of branching privileges appears to have existed in those states which already had multi-office banking networks in place in the form of group or chain

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1/ Bank failure rates for each state during this period appear in Chandler, Lester V., America's Greatest Depression, 1929-1941. New York, Harper & Row, 1970, p. 83-84.

systems. As of December 31, 1931, 9.8 percent of all commercial banks belonged to groups or chains. 1/ This ratio was exceeded in 24 states, 8 of which had branching privileges. Provisions to permit branch banking were introduced in 11 of the remaining 16 states during the 1930's. Reference to the relative importance of group and chain banking within individual states may also help explain the nature of branching privileges enacted. Within those states adopting state-wide branching, group and chain banks included, on average, 24.6 percent of all commercial banks. A similar calculation for states adopting limited branching yields 12.6 percent. Thus, the more extensive the existing multi-office networks, the greater was the geographic range granted for branching operations.

It is readily apparent that the thrust of policies in those states enacting changes was to accommodate structural reorganization through branching rather than through holding companies. State governments gave less specific attention to bank holding companies during the 1930's. By the end of 1931, only three states had enacted laws directly applicable to this form of multi-office banking. In 1929, West Virginia enacted a prohibition and Oregon and Wisconsin delineated conditions under which bank holding

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1/ Numbers and the percent of commercial banks in chains and groups, by state, for December 31, 1931 are presented in U.S. Federal Reserve Board, Committee on Branch, Chain, and Group Banking, Banking Groups and Chains, [Washington, U.S. Federal Reserve Board, 1933], p. 41-42.

companies could acquire and maintain bank stock. The Federal Reserve Committee on Branch, Group and Chain Banking reporting in 1933 conceded difficulty in determining the policy position of most states regarding bank holding companies. 1/ For the remainder of the 1930's, there is little evidence of direct state-level actions designed to affect the use of the holding company device for multi-office banking.

Over the decade of the 1930's bank holding companies as a whole decreased in numbers and in relative size. Of the 611 banks in holding company groups on December 31, 1931, 105 had converted to branch banks by December 31, 1936 and 17 of these were no longer within holding companies. 2/ Shifts in state branching policies constituted only one of several sources of the decline of bank holding companies. For example, public disenchantment with equity securities and with holding companies generally contributed to problems in forming and expanding bank holding companies during this period.

1/ Ibid., p. 204-208. See also Ibid., Appendix C, Digest of State Laws Relating to the Purchase or Ownership of Bank Stock by Holding Corporations, p. cii-cxxvi.

2/ Group Banking in the United States, Federal Reserve Bulletin, v. 24, February 1938: 99-100.

II. State Limitations on Multi-bank Operations of Bank Holding Companies.

Most states which have taken legislative measures to establish policies on multi-office banking through the use of holding companies have done so in the years following the passage of the Bank Holding Company Act of 1956. That act clarified Federal policies by establishing a definition for multi-bank holding companies and by providing for their registration and for regulation of certain aspects of registered bank holding companies. Previously, the legislative outcome of Federal interests in bank holding companies had been uncertain. As early as 1938, President Roosevelt recommended a prohibition against bank holding companies. From 1938 through 1956, bills were introduced in most sessions of Congress to specify limitations on this form of banking organization.

The Federal legislation of 1956 restricted the kind of activities in which multi-bank holding companies could engage. Basic criteria regarding financial prospects, the needs and conveniences of communities served, and the preservation of competition were to be met by applicants for new multi-bank holding companies and for acquisitions of non-affiliated banks. The act did not provide limits, however, on the numbers of affiliated banks or the extent of holding company ownership in affiliated banks. The absence of such constraints appears to have served as an impetus for state governments to consider legislation to modify the accomodative

nature of Federal provisions. Ten states enacted such legislation in the period from 1956 to 1970. In 1970, an amendment to the Bank Holding Company Act provided for an extension of its coverage to include one-bank holding companies. Through this amendment, regulatory advantages inherent to one bank holding companies disappeared and, as a result, multi-bank holding companies entered a phase of rapid growth. Since 1970, five additional states have provided for restrictions on the use of the bank holding company device for multi-office banking.

Existing state policies toward multi-bank networks of bank holding companies fall in a range from being very permissive to providing outright prohibitions. A strong case can be made for explaining policies adopted by individual states by reference to the proposition that state governments attempt to accomodate changes in the banking environment in a manner that minimizes instability for existing banking organizations. A variant of this proposition is implicit in the frequently stated view that multi-bank holding companies have served as an alternative to branch banking in settings in which branch banking is restricted. This interpretation of the use of the bank holding company device suggests a particular strategy for states engaged in liberalizing multi-bank policies. If legislation were enacted to provide for multi-bank holding companies, it could serve as a transitional step toward a policy of permitting branch banking or of extending geographic boundaries for

branching. 1/ Such a transitional stage would presumably provide for an orderly extension of branching privileges by allowing for the grouping of banks as individual entities prior to their more complete financial integration under subsequently liberalized branching laws. In the formation of multi-bank holding companies, the overwhelming tendency of building around large well-established banks would tend to assure that the process of change would occur directly or indirectly through the actions of existing banking organizations.

The Bank Holding Company Act of 1956 and its amendments introduced changes in the regulatory environment for the banking industry principally through diminishing uncertainty about the direction of Federal policies. A first impression of the nature of state-level responses is gained by examining characteristics of the 18 states in which statutory restrictions on the use of multi-bank holding companies are currently in force. 2/ (See table II.) These states

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1/ The use of multi-bank holding companies as a transition toward increased branching privileges has been widely recognized. See for example, Fischer, Gerald C., Bank Holding Companies, p. 143; Hogenson, Palmer T., The Economics of Group Banking, Washington, Public Affairs Press, 1955, p. 21; and Rose, Peter S. and Donald R. Fraser, State Regulation of Bank Holding Companies, The Bankers Magazine, v. 157, Winter 1974: 48.

2/ A classification of states by nature of legislation regarding acquisitions of bank stock by holding companies has appeared in the following annual publication since 1963: Bank Holding Company Facts, [Washington], Association of Registered Bank Holding Companies. A similar tabulation for 1961, indicating states with laws enacted since the Bank Holding Company Act of 1956 appears in Fischer, Gerald C., Bank Holding Companies, p. 76.

Table II

CLASSIFICATION OF STATE LAWS AFFECTING THE CORPORATE ACQUISITION OF BANK STOCK

No Limitations	State Approval Required	Restricted
Alabama	California 4/	Alaska 8/
Arizona	Connecticut	Arkansas 9/
Colorado	Florida 1/, 4/	Illinois 10/
Delaware	Georgia	Indiana 11/
Dist. Columbia	Iowa 1/, 4/, 12/	Iowa 1/, 4/, 12/
Hawaii	Maine 1/, 5/	Kansas 1/, 11/
Idaho 2/	Massachusetts 6/	Kentucky 13/
Maryland 1/	Missouri 1/, 7/	Louisiana 8/
Michigan 1/	New York	Mississippi 1/, 14/
Minnesota	Oregon 1/	Missouri 1/, 7/
Montana	South Carolina 1/, 4/	Nebraska 11/
Nevada		New Hampshire 1/, 15/
New Mexico		New Jersey 1/, 16/
North Carolina		Oklahoma 1/
North Dakota		Pennsylvania 11/
Ohio		Tennessee 17/
Rhode Island		Washington 9/
South Dakota		West Virginia 18/
Texas		
Utah 2/		
Vermont		
Virginia		
Wisconsin 3/		
Wyoming		
(23 States and D.C.)	(11 States)	(18 States)

These classifications and footnotes are intended only as aids to the reader in identifying the subject matter in the statutes. They may not be relied upon as authoritative interpretations. The sole criterion for classification is the statutory provision, if any, governing the amount of prospective direct corporate acquisitions. Statutes governing indirect control situations and control by individuals, partnerships, trusts and other entities are not considered, nor are "grandfather" provisions. The totals do not equal 51 because Iowa and Missouri appear in two columns.

1/ Acquisition of the stock of a domestic bank by an out-of-state corporation is restricted.

2/ Approval required for certain mergers of State banks.

3/ A corporation may not acquire more than 10% of the capital stock of any State bank or trust company unless 75% of the shares entitled to vote of such bank or trust company shall vote in favor thereof at a meeting for that purpose.

4/ Approval required for acquisition of the stock of a State bank.

5/ Approval required for acquisition of control of a bank by a company; or of more than 5% of the voting shares of a bank by a "Maine financial institution holding company" (as defined).

6/ Approval required for acquisition of the stock of more than one bank.

7/ A corporation may acquire the stock of any number of banks until their combined deposits total 13% of the State's banking deposits. Thereafter, the corporation apparently may acquire less than 25% of the stock of additional banks, in certain instances.

8/ Reference must be made to the statute.

9/ A corporation may not acquire more than 25% of the stock of more than one bank; apparently a corporation may acquire 100% of the stock of one bank and up to 25% of the stock of other banks.

10/ A corporation cannot acquire 15% or more of the stock of two or more banks; apparently a corporation may acquire 100% of the stock of one bank and less than 15% of the stock of other banks.

11/ A corporation cannot acquire 25% or more of the stock of two or more banks; apparently a corporation may acquire 100% of the stock of one bank and less than 25% of the stock of other banks.

12/ A corporation can acquire 100% of the stock of one bank and less than 25% of any number of other banks. A corporation that owns 25% or more of two banks cannot acquire more than 25% of the stock of an additional bank if all its banks would hold more than 8% of the State's bank deposits.

13/ A corporation acquiring more than 50% of the stock of a bank cannot hold stock in any other bank; apparently a corporation may own 50% of the stock of any unlimited number of banks.

14/ "Chain" and "group" banking are prohibited without definition; apparently a corporation may acquire 100% of the stock of one bank.

15/ A corporation can acquire 100% of the stock of one bank and less than 25% of the stock of any number of other banks. A corporation that owns 25% or more of the stock of two banks is limited to 12 bank "affiliates" (as defined) and 20% of the States' bank deposits.

16/ A corporation may acquire stock in any number of banks whose aggregate deposits do not exceed 20% of the State's bank deposits. A company that acquires at least 25% of the stock of one bank and whose aggregate deposits, held by banks whose stock it has acquired, exceed 20% of the State's bank deposits, may acquire less than 10% of the stock of other banks.

17/ A corporation may not acquire additional bank stock if banks which it controls retain 16.5% or more of in-State bank deposits (as defined). A corporation may not acquire the stock of a bank that has been in operation for less than five years, except in the four metropolitan counties, and subject to other exceptions.

18/ A corporation may not acquire 25% or more of the voting stock of each of two or more banks. A "financial institution" (as defined) or certain other "financial organizations" may not acquire 25% or more of the voting shares of "any one or more banks".

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include 14 which enacted legislation after 1956 and 4 which have not modified basic restrictions enacted before 1956.

The extent to which multi-bank holding companies had developed by 1956 within individual states appears to be highly significant in explaining the adoption of restrictive policies by state governments. Multi-bank holding company data on a state by state basis for a date close to the passage of the Bank Holding Company Act appears in a Federal Reserve tabulation for December 31, 1956. 1/ At that date, there were 14 states in which banking offices in holding company groups exceeded 10 percent of total banking offices. Of these states, only one, Washington, currently restricts multi-office holding companies and the restriction in this case pertains only to the extent of ownership in individual banks, 25 percent of outstanding stock per bank, and not to the number or size of bank affiliates within holding company groups. Likewise, restrictions are currently in force in one of the five states in which the banking offices in holding company groups fell in a range from 5 to 10 percent at the end of 1957.

Most of the states with restrictive legislation are among the remaining 31 in which holding company groups were less extensively

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1/ Federal Reserve Bulletin, v. 44, October 1958: 1224. Data reported in this source is for all registered bank holding companies. At that time, registration was required only for multi-bank holding companies, defined to include companies owning at least 25 percent of the outstanding stock of more than one commercial bank.

developed or non-existent in 1957. Within these 31 states, policies on branching and multi-bank holding companies are closely correlated. Restrictions or privileges for one form of banking organization are generally accompanied by similar policies regarding the other multi-office form. 1/ The failure to pass restrictive legislation in states in which bank holding companies had not developed extensively prior to the act of 1956 may be regarded as a step toward liberalizing multi-office opportunities. Of the 15 states in this category, 5 were among the 12 states which experienced the greatest percentage point increases in banking offices controlled by bank holding companies in a subsequent period, from 1965 to 1973. 2/

States which have liberalized branching statutes since 1956 have usually allowed for multi-office banking through the formation of holding company groups for a number of years prior to making branching status changes effective. This observation holds for Wisconsin, Virginia, New Hampshire, New York, Iowa and for Florida which will allow limited branching in 1977. A similar pattern during the 1930's is noted in the previous section of

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1/ Those states without restrictions on multi-bank holding companies include 9 with state-wide branching, 4 with limited branching and only 2 with unit banking. States which restrict multi-bank holding companies include only 3 with state-wide branching, 7 with limited branching and 6 in which branching is prohibited.

2/ Boczar, Gregory E., The Growth of Multibank Holding Companies: 1956-73, p. 11.

this paper. The sizeable representation of branch banking states, 18 state-wide and 7 limited, among the 32 states without statutory restrictions on multi-bank holding companies may be explained in large measure by the role of holding company groups in facilitating policy changes toward extensions of branching privileges. It is misleading, however, to move beyond the observation that holding company groups have served a transitional role to interpret state policies on holding companies and on branching in a simple cause and effect relationship. For example, in the absence of restrictions, holding company groups have controlled a large share of banking offices for over 40 years in several states which have retained unit banking. 1/ In addition, state governments have generally not imposed limitations on holding company expansion after adjustments to changes in branching policy would appear to have been complete.

1/ These states are Minnesota, Montana, North Dakota and Wyoming.

III. Facilities for the Electronic Transfer of Funds.

The most recent round of state-level actions pertaining to multi-office banking has arisen in response to current and anticipated uses of technological advancements for the electronic transfer of funds. The specific application of electronic technology to the transfer of funds which is addressed here relates to electronically communicated customer-bank transactions initiated or authorized by bank customers using terminals at a location other than a main office or a branch office of a bank. 1/ The "additional office" classification of terminals used in such transactions has had a varied history to date. In December 1974, the Comptroller of the Currency issued an interpretive ruling declaring that terminals were not branches and could be used by nationally chartered banks without the imposition of numerical or geographic limitations. 2/ Since October 1975, however, this interpretive ruling has been suspended pending the final outcome of litigation which may reach the Supreme Court. 3/

1/ Additional facilities, known as automated clearing houses, exist for electronic transfers among banks. In many cases, state laws on the electronic transfer of funds apply to both customer oriented and interbank facilities. For futher information on this aspect of state laws see Prives, Daniel, Electronic Fund Transfer Systems and State Laws, The Banking Law Journal, v. 93, May 1976: 545-547.

2/ 12 C.F.R. §7.7491.

3/ Federal Register, v. 40, no. 204, October 21, 1975: 49077.

In state laws on the electronic transfer of funds, terminology and definitions are dissimilar, suggesting that very few of the laws have been written on the basis of a model produced by a state with an acknowledged legislative lead in this area. Nevertheless, sufficient uniformity exists from state to state to permit some generalizations. Unlike other forms of multi-office banking, electronic funds transfer systems have not been explicitly prohibited by selected states. State legislation frequently establishes the applicability of existing branching provisions to electronic terminals by specifying whether or not terminals are to be considered as branches for state-level purposes. Thus a state can maintain a unit banking status in terms of traditional branch banking, and at the same time accomodate adoption of the new electronic technology. Examples of this approach appear in the laws of Florida, Kansas, Nebraska, North Dakota and Oklahoma.

Stability within the banking industry of individual states is promoted to some extent in most states by prohibiting out-of-state banks from establishing terminals. Measures providing for the sharing of electronic facilities also tend to protect prevailing bank organizational structures by avoiding situations in which a few, presumably large, banks would dominate in offering such terminal based customer services. Of the 19 states which have specifically addressed the sharing question in legislation, 10 require commercial banks to share manned and unmanned terminal

Table III

ANALYSIS OF ENACTED EFTS STATE LEGISLATION

The following is an explanation of column headings:

1. **Applies To:** A bill's provisions cover the named financial institutions.
2. **Branching Law:** This describes the state's bank branching law: S = statewide; L = limited branching; U = unit banking.
3. **Out Of State Entry:** The Comptroller's ruling permits interstate placement of facilities. Each statute is analyzed to determine whether or not, and if so, under what conditions units owned by out-of-state banks will be permitted in a state.
4. **Is Facility A Branch:** This indicates whether or not the law treats remote facilities as branches.
5. **Unmanned Remote Facility:** Each statute is reviewed to determine if, and to what, extent distinctions are being made between manned (e.g., POS type terminals) and unmanned (e.g., automated teller) units. Remote facilities are those not on the premises of a bank or branch.
   (a) **Geographical:** If a bill permits unmanned remote facilities, the legislation is screened to determine where the bill permits a facility to be located, i.e., anywhere in the state (statewide) or some more restricted area (limited). This may be compared with the authority given national banks and the limits of state branching law.
   (b) **Functions:** This is an examination of the functions that may be performed by a remote unmanned facility.
      (1) **Deposits:** Whether or not the facility may accept deposits.
      (2) **W/D:** Whether or not the facility may dispense cash to customers.
      (3) **Pre-authorized Loans:** Whether or not lines of credit or overdraft privileges are available through unmanned remote tellers.
      (4) **A/C Transfers:** Whether or not account transfers, e.g., from savings to checking, are permitted at facilities.
   (c) **Sharing:** Whether or not an establishing financial institution must share its unmanned remote facility with other institutions. It may be a mandatory sharing requirement (M); a permissive requirement (P); or silent (S).
      (1) **Like Institutions:** This indicates whether like institutions must or may share facilities (banks and banks, S&Ls and S&Ls).
      (2) **Unlike Institutions:** This indicates the sharing requirement between banks and thrifts or vice versa.
   (d) **Advance Supervisory Approval:** This examines whether or not the governmental official with jurisdiction over financial institutions must act to authorize a facility or if only notice is required.
6. **Manned Remote Facilities:** This category examines the treatment by a bill of manned remote terminals. The category contemplated POS terminals although other manned terminals are included under the heading. The review of the bills examines the same questions raised by authorization of unmanned facilities, as well as one additional question—Who mans the unit.
   (a) **Who mans:** Basic to a manned unit is the requirement that it be operated by a party who is not an employee or agent of the bank. Generally, the language of the bills states that it shall be a *3rd party* or a *3rd party under contract*.

This chart is intended to provide an overview of legislation and not a definitive analysis of each bill.

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STATE	Applies To	Branching Law	Out Of State Entry	Is Facilty A Branch	UNMANNED REMOTE FACILITY								MANNED REMOTE FACILITY								
					Geographical	Functions				Sharing		Advance Supervisory Approval	Geographical	Functions				Sharing		Advance Supervisory Approval	Who mans
						Deposits	W D	Pre-auth. Loans	A C Transfers	Like Institutions	Unlike Institutions			Deposits	W D	Pre-auth. Loans	A C Transfers	Like Institutions	Unlike Institutions		
COMPTROLLER OF THE CURRENCY (Revised Ruling May 1, 1975)	National Banks	N A	N A	No	Within 50 miles of main or branch office[1]	Yes	Yes	Yes	Yes	P[1]	P[1]	Notice only	Within 50 miles of main or branch office[1]	Yes	Yes	Yes	Yes	P[1]	P[1]	Notice only	Bank customer or 3rd party
ALABAMA Act 1127, Laws of 1975	Banks S&Ls CUs	L	Yes, Recip-rocal only	Silent	Silent	The Superintendent of Banking may authorize activities properly incident to the business of banking through on-premise as well as off-premise operations. Savings and loan associations and credit unions may not offer services now prohibited to them. No distinction is made between manned and unmanned remote facilities.															
CONNECTICUT Public Act 75-373	Banks SBs S&Ls	S	No	No	Statewide[2]	Yes	Yes	Yes	Yes	M	M	Yes	Statewide	Sales transactions can be charged directly to the buyer's deposit or loan account.				M	M	No	3rd party
FLORIDA Chapter 75-134	Banks S&Ls CUs	U[3]	No	No	Statewide	Silent	Yes	Silent	Silent	P	P	Notice only	Statewide[4]	← Silent →				Bank owners M / P; S & L & CUs[5] P / P		Notice only	3rd party
GEORGIA Act 169, Laws of 1975	Banks	L	No	No	Limited	← "routine banking transactions" →				P	P	Yes	Limited	"Record, directly with a bank, transactions occuring as a result of the sale of goods or services."				P	P	Yes	3rd party
IDAHO Chapter 248, Laws of 1976	Banks	S	Silent	No	Statewide	Yes	Yes	Yes	Yes	M[6]	M[6]	Notice only	Statewide	Yes	Yes	Yes	Yes	P	P	Notice only	Anyone
ILLINOIS Public Act 79-609, Laws of 1975	N.A	U	N A	N A	Creates an Electronic Funds Transfer Systems Study Commission "to conduct a thorough study of electronic funds transfer systems and their possible use within the state and to consider the public policy and other considerations including the consistency of EFTS with presently existing statutes." Commission shall report its findings and suggestions to the 79th General Assembly by December 31, 1976.																
IOWA H.B. 1478 Laws of 1976	Banks S&Ls CUs	L	No	No	Statewide	"Transactions which are incidental to the conduct of the business of the financial institution."				M	P	Yes	Statewide	"Transactions which are incidental to the conduct of the financial institution"				M	P	Yes	3rd party
KANSAS S.B. 515 Laws of 1975	Banks	U	No	No	Statewide	← Banking transactions →				M	S	No	Statewide	← Banking Transactions →				M	S	No	Silent
S.B. 519 Laws of 1975	S&Ls	S	No	No	Statewide	Yes	Yes	Yes	Silent	M	S	No	Statewide	Yes	Yes	Yes	Silent	M	S	No	Silent
LOUISIANA Act 241, Laws of 1975	Banks	S	Silent	Silent	Adds incidental power clause allowing commissioner to authorize services "consistent with services offered by banks chartered under the laws of the United States."																
MAINE Chapter 500, Laws of 1975	Trust Cos. SBs S&Ls	S	No	Yes	Statewide	Yes	Yes	Yes	Yes	M	M	Yes	Statewide	Yes	Yes	Yes	Yes	M	M	Yes	Employees of business where facility located
MARYLAND Chapter 515, Laws of 1975	Banks SBs	S	No	No	Statewide (locations remote from main office or branch)	Yes	Yes	Yes	Yes	P[7]	P[7]	Yes	Statewide (locations remote from main office or branch)	Yes	Yes	Yes	Yes	P[7]	P[7]	Yes	3rd party under contract
MASSACHUSETTS Chapter 1147, Laws of 1973	Banks SBs S&Ls	L	No	Silent	Limited	Silent	Yes	Silent	Silent	P	P	Yes	N.A →								
NEBRASKA L.B. 269 Laws of 1975	Banks	U	No	No	Silent	Yes	Yes	Yes	Yes	M	S	Yes	Silent	Yes	Yes	Yes	Yes	M	S	Yes	3rd party
NEW HAMPSHIRE Chapter 233, Laws of 1975 (Was Can	Banks SBs S&Ls	L	Silent	Silent	The Board of Bank Incorporation may promulgate rules permitting any bank or cooperative bank to establish and maintain electronic devices or machines similar to those permitted by the Comptroller of the Currency for national banks, or by the Federal Home Loan Bank Board for federal savings and loan associations.																

1. Within 50 miles sharing is permissive. A CBCT may be established beyond that distance only if it is available to be shared by local financial institutions.
2. Home office protection provided.
3. Effective January 1, 1977, banks will have limited branching power.
4. Cannot be located on any premise having a pari-mutuel license.
5. Other owners must share with banks; may share with S&Ls and CUs.
6. To the extent consistent with anti-trust laws, sharing is required.
7. The Bank Commissioner may establish rules and regulations for the operation and sharing of facilities to the same extent and effect as rules and regulations promulgated by the C of C with respect to sharing and operation of facilities by national banks.

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STATE	Applies To	Branching Law	Out Of State Entry	Is Facility A Branch	UNMANNED REMOTE FACILITY								MANNED REMOTE FACILITY								
					Geographical	Functions: Deposits	W D	Pre-auth Loans	A C Transfers	Sharing: Like Institutions	Sharing: Unlike Institutions	Advance Supervisory Approval	Geographical	Functions: Deposits	W D	Pre-auth Loans	A C Transfers	Sharing: Like Institutions	Sharing: Unlike Institutions	Advance Supervisory Approval	Who mans
NEW JERSEY Chapter 148, Laws of 1975	Banks SBs	S	No	Yes	Statewide	Any business conducted at principal office				P[8]	P[8]	Yes	Statewide	Any business transacted at principal office				P[8]	P[8]	Yes	3rd party under contract
Chapter 159, Laws of 1975	S&Ls	S	Silent	Yes	Permits establishment with the Commissioner's approval of "limited facility branch offices" which may be fully automated. Commissioner must adopt regulatory requirements "in substantial conformity" with those of the FHLBB.																
NEW YORK Chapter 764, Laws of 1975	Banks SBs S&Ls	S[9]	Silent	Yes	Permits establishment of ATMs and POS terminals pursuant to regulations of the banking board. Such devices engaged in "deposit-withdrawal activities" are branches. Numerical restrictions on new branches for savings banks and S&Ls do not apply.																
NORTH CAROLINA Chapter 553 Laws of 1975	Banks	S	No	No	Subject to the rules and regulations of the State Banking Commission, banks may establish manned or unmanned off-premise facilities.																
NORTH DAKOTA H.B. 1542, Laws of 1975	Bank of N.D.	U	N.A	No	The N.D. State Bank may establish EFT system for its customers and customers of other financial institutions authorized to utilize such services (includes State banks).					M	M	Yes	Silent →								
S.B. 2443 Laws of 1975 (Wild Card)[10]	Banks		Silent	No	Interstate	Yes	Yes	Yes	Yes	M	S	Yes	Interstate	Yes	Yes	Yes	Yes	M	S	Yes	3rd party
OKLAHOMA S.B. 590, Laws of 1976	Banks	U	No	No	Silent	Any transaction contracted for at main office				M	P	Notice only	Silent	Any transaction contracted for at main office				M	P	Notice only	3rd party
OREGON Chapter 797, Laws of 1973 (Repealed by H.B. 2644, Laws of 1975	Banks	S	Silent	Silent	Silent except if more than 4 units	← General banking business →				S	S	Notice only for first 4 units, approval for 5th or more	N/A →								
H.B. 2644 Laws of 1975	Banks SBs		Yes[11]	Yes	Silent	Yes	Yes	Yes	Yes	M	M	Notice only 30 days after installation or removal	Silent	Yes	Yes	Yes	Yes	M	M	Notice only 30 days after installation or removal	3rd party
RHODE ISLAND Chapter 290, Laws of 1975 (Wild Card)	Banks SBs S&Ls CUs	S	Silent	No	Provides that every financial institution may establish CBCTs to the same extent and only during such periods of time that competing financial institutions federally regulated and domiciled in the state are permitted to provide. Supervisory approval is required. Sharing is permissive with all financial institutions.																
SOUTH CAROLINA Ratification No. 375,[12] Laws of 1975	Banks S&Ls CUs	S	No	Silent	Statewide	← Silent →						Yes	Statewide	← Silent →						Yes	Silent
SOUTH DAKOTA H.B. 644, Laws of 1976	Banks	S	Yes	No	Statewide	Business of banking				M	S	Notice only	Statewide	Business of banking				M	S	Notice only	3rd party
UTAH H.B. 10, Laws of 1976	Banks S&Ls, CUs	S	Silent	Silent	MORATORIUM UNTIL JULY 1, 1977. Permits Bank Commissioner to authorize experimental EFT systems. (Should a Court or the Congress authorize establishment of EFT systems in Utah prior to July 1, 1977, then Commissioner shall grant financial institutions same authority.)																
VIRGINIA Chapter 535 Laws of 1976 (wild card)	S&Ls	S	The State Corporation Commission may adopt regulations defining what activities may be performed at an authorized facility which is not a branch to establish parity with federal S&Ls.																		
Chapter 554, Laws of 1976	Banks	S	Silent	Silent	Limited	Yes	Yes	Yes	Silent	P	P	Notice only	Limited	Yes	Yes	Yes	Silent	P	P	Notice only	3rd party
WASHINGTON Chapter 166-XXX Laws of 1974	Banks MSBs S&Ls	S	Silent	No	Statewide	Yes	Yes	Silent	Yes	Bank owners M P; MSBs & S&Ls P P		Yes	N/A →								
WISCONSIN S.B. 415 and S.B. 828, Laws of 1976	Banks S&Ls	L	Yes[13]	No	Statewide	"transactions which are incidental to the conduct of the business" of a bank or S&L.				Banks & S&Ls[14] M M; Retail owners P P		Yes	Statewide	"transactions which are incidental to the conduct of the business of a bank or S&L.				Banks & S&Ls[14] M M; Retail owners P P		Yes	Silent

8. Commissioner may require sharing with institutions insured by FDIC or FSLIC.
9. Statewide branching in New York effective 1/1/76.
10. Establishes parity with federally regulated financial institutions, including federal S&Ls.
11. Out-of-state bank may use facility if Oregon bank may use facility in home state of non-Oregon bank.
12. Provisions of act effective until July 1, 1977 only.
13. Out-of-state banks may use a facility in Wisconsin if consent is given by a Wisconsin bank using the terminal.
14. Savings banks may share facilities established by either a bank or savings and loan association.

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facilities with other commercial banks. The other 9 states either require sharing of certain types of facilities or permit sharing.

Unresolved matters surrounding the development of systems for the electronic transfer of funds include the future roles of Federal legislation and Federal regulatory agencies and the full range of uses to which such systems will be applied. Undoubtedly, existing state laws will be amended to accomodate significant changes in these areas. To date, state governments are still in the process of providing for the development of electronic fund transfer systems while minimizing disruptive repercussions on the basic structure of the banking industry.

IV. Conclusion.

Multi-office banking opportunities have increased in most states from the 1930's to the present. Most changes in state policies have been introduced in the context of new developments affecting the banking industry as a whole. The depression of the 1930's, the Bank Holding Company Act of 1956, and the advent of electronic funds transfer systems each significantly modified possibilities open to banks for competitive behavior. For reasons which differ for each of these three occurrences, a number of states responded to changed conditions by enacting legislation expanding opportunities for multi-office banking. In each case, differences in state-level responses can be explained, in large measure, by the extent to which multi-office banking, in some form, had already developed within individual states. Most state policy changes have protected the stability of the existing structure of the banking industry by granting those extensions of multi-office privileges which minimized changes from previous arrangements.

Although no attempt is made in this paper to discuss the merits of current or prospective multi-office banking policies, the analysis presented does support conclusions about the feasibility of alternative paths in the future evolution of policy arrangements. The process of shaping multi-office banking policies by building on banking traditions which vary from state to state has not generated

uniform policies, nor does this process seem likely to produce uniformity in the future. The examination of major movements in state multi-office policies presented in this paper indicates reasons for a lack of uniformity which differ from rationale offered in some other sources. The formation of unique state-level approaches for promoting or constraining multi-office banking which has appeared elsewhere is that such diverse state approaches represent, in part, efforts to assure that the banking industry within individual states provides optimal service to populations and industries characterized by unique geographic distributions and financial needs. 1/ The full nature of relationships between costs and quality of banking services and banking organizational structures, however, are not clear. 2/ Furthermore, the ability of a state to tailor policies to perceived needs within its jurisdiction without creating major disruptions among financial institutions is frequently constrained by the policies it has previously used in influencing the organizational structure around which commercial banks have been developing. In fact, the strongest argument for maintaining the current arrangement in which multi-office policies for commercial banks are determined at the state-level may be the possibility of creating a chaotic environment for financial institutions while instituting changes. For example, converting to a

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1/ Fischer, Gerald C., American Banking Structure, p. 66-67; Rose, Peter S. and Donald R. Fraser, State Regulation of Bank Holding Companies, p. 48.

2/ Mote, Larry R., The Perennial Issue: Branch Banking, Business Conditions: An Economic Review by the Federal Reserve Bank of Chicago, February 1974: 3-23.

nationally uniform multi-office policy could be disruptive in those states in which adjustments required for achieving conformity with a national policy would result in radical shifts in opportunities for banks to compete through the use of additional offices.

The analysis presented in this paper suggests that the greatest opportunity for effecting a change in policy arrangements is in the area of electronic funds transfer systems. Although state legislative actions to date have not been uniform, the absence of comprehensive legislation suggests that philosophical positions on a number of details have not yet developed. The quick legislative acceptance of remote electronic facilities by states with various restrictions on branching and multi-bank holding companies indicates that electronic facilities are not regarded simply as additional offices for conducting banking activities in conventional ways. States with different experiences and policies in multi-office banking have circumvented existing strictures on multi-office banking, where necessary, to permit financial institutions to use and develop new technology. Given the importance of multi-office banking precedents in determining state level policies on the extent and nature of other forms of multi-office banking, the willingness to circumvent precedents in promoting electronic transfer systems indicates an unusual degree of flexibility and hence the feasibility for modifying basic arrangements for policy determinations in this area.

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THE EVOLUTION OF POLICIES ON MULTI-OFFICE BANKING FROM THE 1930's TO THE PRESENT

APPENDIX

Differences in Branching Opportunities for Savings and Loan Associations and Commercial Banks

In a number of states, branching privileges granted to savings and loan associations (S & L's) are more generous than those granted to commercial banks. (See Table A-I). Many state provisions for branching by S & L's are of fairly recent origin. In 1958, 24 states were without statutes regulating the establishment of S & L branches. 1/ Through legislation enacted since 1958, apparent prohibitions against branching by S & L's have been lifted in 14 states and now remain in two states, West Virginia and Montana. 2/

The later development of branching laws for S & L's as compared with the provisions of branching statutes for commercial banks may be explained by the relatively late date at which S & L's achieved prominence in size of operations. In 1945, total assets of S & L's amounted to only 5 percent of the total assets of commercial banks. Total assets of S & L's relative to commercial banks stood at 18 percent in 1955 and have been above 30 percent since 1965.

1/ Harth, Jean Gillis, Branch Statutes of State Financial Institutions, Legal Bulletin: The Law Affecting Savings Associations, v. 26, March 1958: 34.

2/ Harth, Jean Gillis, Additional Offices and Facilities of Savings Associations, Legal Bulletin: The Law Affecting Savings Associations, v. 30, May 1974: 101.

Table A-I

STATUS OF STATE BRANCHING STATUTES - 1976

U Branching prohibited
U* Branching prohibited but limited facilities permitted.
L Branching permitted within limited geographic areas
S No geographic branching restrictions
N( ) No branching statute but notation of de facto branching status.

	State	Commercial Banks	State-Chartered Savings and Loan Associations
1.	Alabama	L	L
2.	Alaska	S	S
3.	Arizona	S	S
4.	Arkansas	L	S
5.	California	S	S
6.	Colorado	U*	S
7.	Connecticut	S	S
8.	Delaware	S	S
9.	Florida	U*	S
10.	Georgia	L	S
11.	Hawaii	S	S
12.	Idaho	S	S
13.	Illinois	U*	U*
14.	Indiana	L	L
15.	Iowa	L	N(L)
16.	Kansas	U*	S
17.	Kentucky	L	L
18.	Louisiana	S	L
19.	Maine	S	S
20.	Maryland	S	S
21.	Massachusetts	L	L
22.	Michigan	L	S
23.	Minnesota	U*	S
24.	Mississippi	L	S
25.	Missouri	U*	S
26.	Montana	U*	S 1/
27.	Nebraska	U*	N(S)
28.	Nevada	S	S
29.	New Hampshire	L	L
30.	New Jersey	S	S
31.	New Mexico	L	L
32.	New York	S	S
33.	North Carolina	S	N(L)
34.	North Dakota	U*	N(S)
35.	Ohio	L	S
36.	Oklahoma	U*	S
37.	Oregon	S	S
38.	Pennsylvania	L	L
39.	Rhode Island	S	S
40.	South Carolina	S	S
41.	South Dakota	S	L
42.	Tennessee	L	N(L)
43.	Texas	U*	S
44.	Utah	S	S
45.	Vermont	S	S
46.	Virginia	S	S
47.	Washington	S	S
48.	West Virginia	U*	U
49.	Wisconsin	L	L
50.	Wyoming	N(U)	N(L)

Note: 1/ Branching permitted via merger, but not de novo.

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State government actions on branching privileges for S & L's have taken place under Federal regulatory provisions which are distinctly different from those governing the determination of branching policies for commercial banks. For both sets of financial institutions there are Federal and state chartering alternatives. The Federal chartering and regulatory authority for S & L's, the Federal Home Loan Bank Board, however, has the freedom to establish branching policies for federally chartered S & L's, a power not extended to the Comptroller of the Currency in regulating commercial banks to which it has granted national charters.

For commercial banks, the definition of a branch is established in the Banking Act of 1933. The same act delegates exclusive authority to state governments for permitting, restricting or prohibiting branch banking. This is accomplished by subjecting nationally chartered commercial banks within each state to the same branching policies which are in force for state chartered banks. The Federal chartering and regulatory authority for commercial banks, the Comptroller of the Currency, therefore, cannot engage in setting policies on branch banking.

The Home Owner's Loan Act of 1933 which created the Federal Home Loan Bank Board is silent on the powers and duties of the Board with regard to branching. The authority of the Board to establish branching regulations for federally chartered S & L's, even in cases involving conflicts with state laws, has been upheld

in the courts. 1/ The Board, however, has operated under a basic policy of adhering to provisions of state laws in approving applications for establishing branches. 2/ Nevertheless, it has introduced significant exceptions which have resulted in extending a liberalizing influence throughout all states. For example, the Board permits branching withinthosestates which in opinion of Broad allowde facto branching through chains, groups or affiliate operations. It allows for the creation of branches as a means of maintaining offices which an S & L acquires in a merger accomplished for supervisory reasons. An additional Board policy which stands regardless of the branching policies of the states in which Federal S & L's are located is to provide for branches in low income, inner city areas.

Exercising its freedom to establish Federal branching policies, the Federal Home Loan Bank Board has created several classes of additional offices to accomodate a variety of circumstances for conducting business at locations other than a main office. 3/ In December 1976, the Board promulgated a temporary regulation which defines remote service units for the electronic transfer of funds

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1/ 187 F 2d 574 (3rd Cir. 1951) and 197 NE 2d 315 (Mass. 1952).

2/ All references to Federal Home Loan Bank Board branching policies in this paragraph are based on the Board's regulations contained in 12 C.F.R. 556.5.

3/ Additional offices which include branches, drive-in facilities, data processing offices, mobile facilities, satellite offices and agencies are described in 12 C.F.R. 545.14.

and provides for experimentation in the use of such units upon successful application with the Board. 1/

The flexibility that the Board enjoys in providing for a variety of multi-office operations has been a strong factor in expanding opportunities for S & L's. The contrast with Federal level influence on commercial bank multi-office operations is brought into sharp focus when comparing the actions of the Comptroller of the Currency and the Federal Home Loan Bank Board on remote electronic facilities. The Comptroller of the Currency currently is at a stalemate with regard to the use of its powers in regulating such facilities. The matter depends upon the outcome of judicial appeals concerning the classification of remote electronic facilities as branches. If they are determined to be branches, temporarily suspended Comptroller of Currency rulings regarding the use of such facilities by nationally chartered banks must be withdrawn altogether. In contrast, the Federal Home Loan Bank Board, with the ability to set branching policy, has been free of state-Federal jurisdictional disputes and has maintained an uninterrupted program of accommodating pilot projects for the electronic transfer of funds by the Federal S & L's since late 1974.

1/ 12 C.F.R. 545.4-2. The most recent extension of this regulation is through July 31, 1977. Federal Register, v. 41, no. 103, May 26, 1976: 21441.

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BIBLIOGRAPHY ON THE DEVELOPMENT OF PUBLIC POLICY ON COMMERCIAL BANK BRANCHING FROM THE 1920's TO THE PRESENT

The scope of this bibliography is limited to materials examining the development of public policy on branch banking. Many of the cited works also cover various aspects of branch banking which are incidental to the principal focus of this bibliography. These aspects include the conduct and performance of banks under various branch banking policies and the development and economic impact of policies relating to other forms of multi-office banking. The bibliography includes entries which examine the development of branch bank policies in both Federal and jurisdictions. The time span of coverage by cited items begins with the environment in which the McFadden Act of 1927 was developed and extends to current branch policy considerations associated with the use of electronic funds transfer systems.

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BRANCH BANKING AND THE SAFETY AND SOUNDNESS OF COMMERCIAL BANKS

by

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For Submission to the compendium on Federal branching policy prepared by the Subcommittee on Financial Institutions, Committee on Banking, Housing and Urban Affairs, United States Senate.

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A major premise underlying the adoption of branching restrictions over the years is that more permissive branching laws would result in ruinous "over-banking" and more bank failures. To date, no evidence has been presented which directly tests the relationship between branching laws and incidence of bank failure. While several studies have investigated the impact of branching activity and market entry (via new charters or de novo branches) on various measures of bank performance, none have attempted to relate these findings to bank insolvency.

Bank Failures: The Historical Experience

Since the establishment of the Federal Deposit Insurance Corporation in 1933, 666 banks have failed. 487, or 73 percent, of these failures occurred before 1943. 134 banks, or 20 percent of the failures, were not insured by the FDIC.

As can be seen in Table I, the number of bank failures in recent years does not appear to be precipitously higher than in the past. However, the average size of failed banks, as well as the largest yearly single-bank failure, has grown considerably in the present decade. The question remains - to what extent can these historical patterns be explained by differences in branch banking policies?

Safety and Soundness of Banks: Branching Activities vs. Other Factors

The maintenance of sufficient liquidity and profitability are important aspects of the safety and soundness of banking institutions. In a recent survey article by Gilbert and Longbrake [1973-74], these aspects are analyzed with respect to available evidence on the impact of bank size and branching structure:

> In the short run, institutions must be able to maintain sufficient liquidity to prevent failure or severe curtailment of services when adversity strikes. Over the longer run, an institution must be able to operate profitably in order to function as a viable and effective competitor in the market. Very little evidence concerning liquidity in financial institutions exists. That which does exist suggests that branching can reduce deposit variability, thereby reducing variations in cash flows and, hence, the risk of illiquidity [Lauch and Murphy, 1970]. Although it is claimed that branching facilitates loan and deposit diversification and enables increases in the number of loans and deposits through the addition of new offices,

TABLE 1

BANK FAILURES
1934-1976

	Number of banks closed because of financial difficulties	Total deposits of closed banks (millions)	Average size (millions)	Largest bank failure (millions)
1934	61	$ 37	$ .61	$ 1.1
1935	32	14	.44	4.6
1936	72	28	.39	2.0
1937	83	34	.41	2.0
1938	80	60	.75	22.6
1939	72	160	2.22	48.8
1940	48	143	2.98	48.3
1941	16	19	1.19	11.0
1942	23	20	.87	2.7
1943	5	13	2.60	4.2
1944	2	2	1.00	1.5
1945	1	6	6.00	6.0
1946	2	1	.50	.3
1947	6	7	1.17	2.0
1948	3	11	3.67	7.9
1949	9	9	1.00	3.1
1950	5	6	1.20	2.2
1951	5	6	1.20	3.3
1952	4	3	.75	1.8
1953	5	45	9.00	17.0
1954	4	3	.75	.9
1955	5	12	2.45	5.5
1956	3	12	4.00	6.6
1957	3	13	4.33	1.2
1958	9	10	1.11	4.1
1959	3	3	1.00	1.1
1960	2	8	4.00	7.0
1961	9	11	1.22	3.9
1962	3	4	1.33	3.0
1963	2	23	11.50	16.8
1964	8	24	3.00	7.0
1965	9	45	5.00	40.2
1966	8	106	13.25	93.0
1967	4	11	2.75	3.9
1968	3	23	7.67	11.8
1969	9	40	4.44	10.5
1970	8	53	6.62	15.9
1971	6	132	22.00	66.8
1972*	4	1,092	273.00	992.0
1973	6	971	161.83	932.0
1974	4	1,571	392.75	1,440.5
1975	13	395	30.38	145.0
1976	7	993	141.86	870.0
Totals	666	$6,179		

Sources: [Horvitz, 1975, p. 590] and FDIC Division of Bank Supervision.

*Includes data for Bank of the Commonwealth which did not close but which received financial assistance from the FDIC.

all of which reduce the amount of required liquidity reserves [Wacht, 1968 and Baltensperger, 1972], no empirical evidence is available to assess this claim. There are some studies dealing with the effect of branching on profitability, but they are subject to several limitations which reduce their credibility. The greatest limitation is a failure of these studies to control for differences in market demand and, thus, differences in product mix. Because most of the existing profitability studies are based only on selected regions of the country, single points in time, and specific types of financial institutions, it is doubtful whether their findings are conclusive.

With these limitations in mind, some generalizations can be made on the basis of previous studies. To the extent that size of institution is related to the degree of branching, as revealed in Table II, studies which analyzed the effects of size on bank profitability [Schweiger and McGee, 1961; Haslem, 1968; Haslem, 1969] yielded conflicting results. However, those studies which investigated the effects of a branching structure, number of branches, and permissiveness of state branching laws on bank profitability [Anderson, 1964; Cohen and Reid, 1967; Emery and Wert, 1972; Horvitz and Shull, 1964; Kohn, 1966] uniformly failed to reveal any detrimental effects on bank profitability. Moreover, Kohn [1966] in a study of New York State, found that unit and small branch banks were as profitable as large branch institutions operating in the same market.

Studies have also been conducted on the impact of branch or new-bank entry on the profitability of existing institutions in the market. Kohn and Carlo [1969] and Motter and Carson [1964] analyzed the effects of the 1960 removal of restrictions on New York City banks from branching into adjoining Nassau County. The authors concluded that the profitability of existing banks was not adversely affected by de novo branch entry. The effects of new-bank entry have been studied by Chandross [1971], Fraser and Rose [1972], and McCall and Peterson [1976]. Chandross studied the impact of new-bank entry on existing institutions in 98 one-bank towns during 1950-61, while Fraser and Rose conducted a similar study in one-, two-, and three-bank towns, but only in the Eleventh Federal Reserve District during 1962-64. It was found that new-bank entry does not substantially

TABLE II

Size and Branching Activity of Failed Banks
(By State Branching Category)

	STATEWIDE		LIMITED	
	Average Size Based on Total Deposits ($000)	Number of Branches	Average Size Based on Total Deposits ($000)	Number of Branches
1960	--	--	--	--
1961	--	--	487	--
1962	--	--	1,542	--
1963	--	--	--	--
1964	4,667	--	1,233	--
1965	40,176	2	349	--
1966	--	--	47,804	11
1967	--	--	3,885	--
1968	--	--	--	--
1969	5,992	--	2,167	--
1970	--	--	6,958	1.5*
1971	--	--	57,547	5
1972	--	--	31,742	3
1973	470,016	62	7,540	2
1974	112,703	28	487,710	103
1975	9,550	--	45,683	1.33*
1976	31,133	--	870,000	--
Total	101,728	30.67	87,451	13.1*

*denotes average number of branch offices per branch bank.

Sources: FDIC Annual Reports 1959-74.
FDIC Economic Analysis Section.
FDIC Division of Bank Supervision.

impair earnings of existing institutions.

The most comprehensive and recent analysis of new-bank entry was undertaken by McCall and Peterson [1976]. The authors tested for differential impacts of entry among markets with different structures and attempted to separate and test for transitory versus longer-run effects of entry. The period of analysis was 1966-1974. It was concluded that:

> The performance changes attributable to entry have the effect of making the existing bank's performance by the fifth post-entry year indistinguishable from that of the control banks in terms of profit and deposit interest rate levels. In addition, entry does not appear to have had a negative impact on the viability of the existing banks. For, while the existing banks' larger pre-entry profits, deposit liabilities and assets declined relative to their control banks' from the pre- to post-entry period, the existing banks' profits, deposits and assets did not fall to levels that made the banks nonviable or even to levels distinguishably less than their control banks... Moreover, these effects of entry are generally pervasive, not depending upon whether the existing bank operated in a one-, two-, or three-bank market.

In summary, the evidence indicates that branching does not adversely affect the profitability of an institution or of its competitors. Unit and branch institutions can compete profitably in the same market. In addition, a sharp increase in branch activity in a market does not have an adverse effect on the profitability of the existing institutions. The weight of the evidence indicates that competition may be increased substantially without endangering profitability by permitting branch institutions to open de novo offices in local markets served by one or more unit institutions or offices of other branch institutions.

Since previous studies indicate that neither branching activity nor new-bank entry appear to account for the recent trend toward large bank failures, then where does the explanation lie? From an internal management standpoint, it has been reported that abusive self-dealing has been the primary contributing factor in over half of the bank failures since 1960 [FDIC, 1973]. With regard to these failures, Robert Barnett, now Chairman of the FDIC, noted in [1972]:

> There are common factors that usually are found in all of the closed banks: Weak, disinterested, uninformed or fraudulent management; insufficient internal routines, controls and operating systems; and 'poor housekeeping'.

These management problems have been exhibited by the largest banks that failed in recent years [Wille, 1974].

The state of the economy and various related risk factors are also believed to have contributed significantly to the recent bank-failure experience. According to FDIC Chairman Barnett [1976]:

> Essentially, we have found that the percentage of loans charged off does increase during periods of business recession. This has been true in all of our post-war recessions--1949, 1954, 1958, 1960, 1967, 1971, and 1975. Thus, it is not surprising to me that during the period of our most severe post-war recession, we should have a significant increase in bank loan losses and a significant increase in the number of banks on our problem list.
>
> ...The extent of bank problems in the last two years was certainly influenced by this recession, but it also reflects some more basic and long-lasting characteristics... The loan deposit ratio of large banks was about 56 percent in 1960 and 68 percent in 1975. The ratio of equity capital to assets of large banks was over 8 percent in 1960 and under 6 percent in 1975. The ratio of cash and U.S. Government securities to assets was over 40 percent in 1950 and about 25 percent in 1975. These are significant differences in meaningful ratios.
>
> Since the early 1960's, many banks, and particularly the large banks, abandoned their traditional conservatism and began to strive for more rapid growth in assets, deposits, and income. "Liability management" became the essential phrase in the modern banker's lexicon. The larger banks also began pressing at the boundaries of allowable activities for banks. They expanded into fields which some felt involved more than the traditional degree of risk for commercial banks. These activities included direct lease financing, credit cards, underwriting of revenue bonds, foreign operations, and others. This list of activities and the bank financial ratios I cited, reflect a general trend towards increased aggressiveness and increased willingness to bear risks on the part of the banking system in general and large banks in particular. The holding company movement of the 1970s certainly accelerated these developments, though most of the activities of bank holding companies could also be, and were in fact, engaged in by banks directly.

> ...Even apart from the recession of 1974-75, we should not minimize the impact on banks of operating in periods of very tight credit, very high money costs, and extremely erratic movements in commodities and other prices. These factors affected not only the banks directly, but also the stability and predictability of business operations, and that, in turn, had its impact on the repayment of bank loans... During the 1950s and 1960s, smaller banks generally had higher loss ratios than the larger institutions. That pattern clearly has been reversed in the 1970s. The loan loss ratios have been noticeably higher for larger banks over the last few years. This has been due in part to some failures of major corporations with substantial bank lines from large banks, in part to the large bank's greater exposure to construction lending and mortgage banking, and in part to their greater willingness over this period to finance new and sometimes untested operations or ideas. Moreover, since the large banks tend to have higher loan-to-asset ratios, their earnings tend to be more sensitive to loan losses.

Various regulatory developments are also cited as contributing to greater risk-taking by commercial banks in recent years [Gilbert, 1975]. These include:

1. larger lending limits to one customer
2. greater freedom given to national banks in making real estate loans
3. expansion of the types of general obligation bonds of state and local governments that national banks could underwrite
4. allowing national banks to count long-term debt which is subordinated to deposit liabilities as part of their capital
5. acquisitions of nonbanking firms by bank holding companies under the 1970 Bank Holding Company Act

State Branching Restrictions and Bank Failures

Table III contains a breakdown of the number of bank failures according to separate state branching categories. Of the 104 bank failures from 1960 to the present, 45 have been in either limited or statewide branching states. In ten of the 17 years, 8 of which were in the 1960's, the most bank failures were recorded in unit banking states. Limited-branching states had the most failures in five of the years and statewide-branching states in none. From 1960-1975, the

TABLE III

Number of Bank Failures
(By State Branching Category)

	STATEWIDE		LIMITED		UNIT	
	Number	Percent of Banks in States of This Category	Number	Percent of Banks in States of This Category	Number	Percent of Banks in States of This Category
1960	--	---	--	---	2*	.02*
1961	--	---	2	.04	7*	.10*
1962	--	---	2*	.04*	1	.01
1963	--	---	--	---	2*	.03*
1964	2	.11*	1	.02	5*	.07
1965	1	.05	4	.08*	4	.05
1966	--	---	2	.04	6*	.08*
1967	--	---	1	.02	3*	.04*
1968	--	---	--	---	3*	.04*
1969	1	.06	1	.02	7*	.10*
1970	--	---	6*	.13*	2	.03
1971	--	---	1	.02	5*	.07*
1972	--	---	2*	.04*	1	.01
1973	2	.11*	1	.02	3*	.04
1974	1	.05	3*	.06*	--	---
1975	2	.11*	6*	.11*	5	.07
1976	3	NA	1	NA	3	NA
Totals	12	.03	33	.04	59	.05

* Denotes largest value among all categories for that year.

NA - Not Available

Sources: FDIC Annual Reports 1959-1974
FDIC Division of Bank Supervision

percentage of total banks that failed in each category was highest in unit banking states, although not much higher than in the other categories. However, the percentage of failures in branching states has been particularly high since 1970. Unit-banking states displayed the highest percentage of failures in only one year since 1970, and that was in 1971.

A somewhat different pattern emerges with respect to the deposit volume of failed banks over the 1960-1975 period, as shown in Table IV. Unit-banking states had the lowest deposit volume of failed banks, both in terms of percentage of deposits of all failed banks (11%) and percentage of deposits of all banks in that category (.02%). Limited-branching states recorded a considerably higher percentage of deposits of all failed banks than statewide branching states. But, as a percentage of total deposits in states of their respective categories, there is little difference between statewide and limited-branching states.

Again, as in the case of number of failed banks (Table III), the deposit-percentages of failed banks in branching states increased dramatically since 1970. Deposit percentages were highest in branching states in four of the last six years. The deposit volume and percentages were especially high in limited-branching states over this recent period. Whereas, the volume and percentages of deposits of failed banks in unit banking states were generally higher than in branching states from 1960-1969.

Table V contains data on branching activity of failed banks in states where branch banking is permitted. Of the 45 banks that failed in the state-wide and limited-branching categories over the period 1960-1976, only 13 were branch banks. Interestingly enough, only three of these branch banks were in statewide-branching states. However, the average number of branches of these three banks was 30.67, compared to 13.10 for the 10 banks in limited branching states.

TABLE IV

Deposits of Failed Banks
(By State Branching Category)

	STATEWIDE		LIMITED		UNIT	
	Percent of Total Deposits of Failed Banks in all Categories	Percent of Total Deposits in States of This Category	Percent of Total Deposits of Failed Banks in all Categories	Percent of Total Deposits in States of This Category	Percent of Total Deposits of Failed Banks in all Categories	Percent of Total Deposits in States of This Category
1960	---	---	---	---	100*	.0091*
1961	---	---	10	.0007	90*	.0139*
1962	---	---	73*	.0021*	27	.0015
1963	---	---	---	---	100*	.0031*
1964	39	.0130	5	.0007	56*	.0167*
1965	89*	.0507	3	.0007	8	.0042
1966	---	---	90*	.0465*	10	.0111
1967	---	---	36	.0018	64*	.0070*
1968	---	---	---	---	100*	.0216*
1969	15	.0054	5	.0009	80*	.0237*
1970	---	---	79*	.0194*	21	.0091
1971	---	---	44	.0243	56*	.0548*
1972	---	---	64*	.0237	36	.0251*
1973	97*	.5607*	1	.0026	2	.0146
1974	7	.0610	93*	.4600*	---	---
1975	5	.0095	69*	.0781*	26	.0510
Total	32	.0679	57	.0568	11	.0204

* Denotes largest value among all categories for that year.

Sources: FDIC Annual Reports 1959-1974
FDIC Division of Bank Supervision

TABLE V

Number of Branches of Failed Banks
(By State Branching Category)

	STATEWIDE			LIMITED		
	Number of Banks	Number of Branch Banks	Number of Branches	Number of Banks	Number of Branch Banks	Number of Branches
1960	--	--	--	--	--	--
1961	--	--	--	2	--	--
1962	--	--	--	2	--	--
1963	--	--	--	--	--	--
1964	2	--	--	1	--	--
1965	1	1	2	4	--	--
1966	--	--	--	2	1	11
1967	--	--	--	1	--	--
1968	--	--	--	--	--	--
1969	1	--	--	1	--	--
1970	--	--	--	6	2	1.5*
1971	--	--	--	1	1	5
1972	--	--	--	2	1	3
1973	2	1	62	1	1	2
1974	1	1	28	3	1	103
1975	2	--	--	6	3	1.33*
1976	3	--	--	1	--	--
Total	12	3	30.67	33	10	13.1*

*denotes average number of branch offices per branch bank.

Sources: FDIC Annual Reports 1959-1974.
FDIC Economic Analysis Section.
FDIC Division of Bank Supervision.

Eleven of the 13 branch banks that failed did so between 1970-1976. Two of these banks were in statewide-branching states and both had large branching networks. For the most part, however, the recent upswing in bank failures has been characterized by unit banks or institutions with small branching networks.

To summarize, while the number of failed banks in the U.S. has not shown any general trand since 1943, the average size of failed banks appears to have grown since 1971. Most of the larger bank failures in recent years can be traced to states in which branching is permitted. Yet, there does not appear to be a conclusive relationship between "degree" of branching permissiveness and the recent experience. In terms of number of bank failures, statewide-branching and limited-branching states have performed about equally poorly. From the standpoint of deposit volume of failed banks, limited-branching states have performed somewhat worse. In neither branching category have large branching networks been a dominant feature of the failed banks. Thus, much of the explanation for the recent bank failure experience in branching states appears to go beyond branching opportunities and policies, per se.

Deposit Insurance and Bank Failures

It has been noted that "since Federal deposit insurance provides a large degree of safety from bank runs, it may tend to induce banks to hold portfolios of assets with higher risks than if the banking system was less safe from bank runs" [Gilbert, p. 11]. The implicit theory is that the discipline exerted by depositors and investors would induce banks with lower insurance coverage to compensate by pursuing less risky portfolio policies. This hypothesis has not been subjected to empirical testing. The difficulty lies in separating-out the deposit insurance effect, as it relates to risk, from other risk factors that have contributed to bank failures, particularly in recent years. As indicated earlier, these risk factors do not appear to necessarily be related to branching as much as to the size of the institution and the economic environment within which banks have operated.

In conclusion, the recent experience of bank failures appears to be essentially a large-bank phenomenon. Branching activity and opportunities, per se, do not appear to account for this phenomenon. Any relationship that branching has to the recent experience is merely by way of the fact that banking institutions tend to be larger in branching states, especially statewide-branching states, than in unit-banking states [Alhadeff and Alhadeff, 1976]. While eliminating interstate branching restrictions may lead to larger branch-banking networks, the result is not necessarily less safety and soundness in commercial banking.

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BRANCH BANKING: A SUMMARY OF THE ISSUES AND THE EVIDENCE

(By Jack M. Guttentag)

Summary

The following questions are considered in this paper:

1. Does branching increase or decrease the stability of the banking system?
2. Does branching increase or reduce the operating efficiency of commercial banks?
3. Does branching significantly increase the range of banking services offered by the public?
4. Does branching increase or reduce the availability of banking facilities to the public?
5. Does branching result in a better or worse allocation of credit between different areas and uses?
6. Does branching lead to more or less competition and concentration in banking markets, over the long run and the short run?
7. What is the effect of branching on independent banks?

The available evidence suggests that branching provides important public benefits in greater numbers of facilities, intensified competition during the branch expansion process, efficient allocation of loanable funds, and probably greater operating efficiency. The dangers associated with branching arise out of tendencies toward increasing concentration of resources, but at this point these dangers are remote and they could easily be controlled in the future with available public policy tools, including restrictions on mergers and regulatory controls over branch office expansion. If necessary, other restraints could be imposed, such as limitations on the number of facilities that any banking organization would be allowed to have in any specified area. Hence, a good case can be made that elimination of all geographical restrictions on branching would today be in the public interest.

A series of issues appear and reappear during the long controversy over branch banking. Not all of these have been resolved by any means, but a great deal of evidence has been accumulated, particularly during the last decade when many scholars have turned their attention to the branching problem. The issues (in no particular order) are as follows:

1. Does branching increase or decrease the stability of the banking system?
8. Does branching increase or reduce the operating efficiency of commercial banks?
3. Does branching significantly increase the range of banking services offered the public?
4. Does branching increase or reduce the availability of banking facilities to the public?
5. Does branching result in a better or worse allocation of credit between different areas and uses?
6. Does branching lead to more or less competition and concentration in banking markets, over the long run and the short run?
7. Does branching increase or decrease the price of banking services?
8. What is the effect of branching on independent banks?

These issues will be considered in turn.

I. Instability and Bank Failures

One of the early arguments for branch banking was that the geographical diversification associated with branching results in greater deposits stability and makes branch banks less vulnerable to adversities in a specific local market. The available evidence supports this view.[1]

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[1] See Louis H. Lauch and Neil B. Murphy, "A Test of the Impact of Branching on Deposit Variability," *Journal of Financial and Quantitative Analysis*, September 1970, and the sources cited there.

The wave of failures of unit banks in the 1920's and 1930's gave special force to the argument that branching increases deposit stability and bank soundness, particularly since Canada (which had a banking system composed of a relatively small number of large branch banks) did not suffer this problem. However, the U.S. during the 1930's opted for deposit insurance rather than extensive branching as a solution to the problem of bank failures.

In recent years the instability problem has emerged again but in a different form. The problems, for the most part involving large rather than small banks, have been associated with expansion into new and risky activities, as well as with growing dependence on volatile short-term funds—large-denomination certificates of deposit, Federal Funds, Euro-dollar loans, etc. While the Government has been groping for solutions, branch banking has not been considered because geographical diversification is not a remedy for these types of problems. (Geographical diversification is largely irrelevant to the stability of interest-sensitive funds). Hence, the instability problem does not figure importantly in the current controversy over branch banking.

II. Operating Efficiency

Operating efficiency refers to the cost per unit of output of providing a given financial service. Does a branch bank, for example, provide a given type of savings account at lower cost than a unit bank? Operating economies are not always passed on to the public, especially if markets are not competitive. But information on operating efficiency should be an important input in public policy determinations. The existence of scale economies in banking, for example, is clearly relevant to policy determinations regarding the social desirability of bank mergers. It is also relevant to the branching issue, since branching laws affect the size distribution of banks (more liberal branching laws result in smaller numbers of larger banks).

A number of studies of bank operating efficiency have appeared over the last decade.[2] The early studies were bedeviled by conceptual problems regarding the relevance of different approaches to efficiency, by difficulties in measuring bank output and costs, by disagreements over whether cost-output relationships for branch and unit banks should be estimated separately or combined, and by other problems.[3] Many of these difficulties, however, have made more or less resolved in the more recent studies.

To assess the impact of liberal branching laws on the overall operating efficiency of the banking system, one should compare the efficiency of the small group of relatively large branch banks that would exist under a liberal branching regime with the efficiency of the larger group of relatively small unit banks that would exist under a more restrictive regime. Hence, the relevant statistical question is whether a branch bank has lower costs than a group of unit banks of the same aggregate size which provide the same number of offices and other outputs.

The findings and conclusions summarized below are drawn from the most recent and comprehensive of the studies that focus on this question (Longbrake, cited above).

1. Unit banks with less than $15 million in deposits have lower costs than branch banks with offices of the same average size (these comparisons and those below are for unaffiliated banks). The cost disadvantage of branch banks shrinks, however, as the number of branch offices rises. (For example, a branch bank with 5 $10 million offices has costs 8.7% above those of 5 $10 million unit banks, while a branch bank with 25 $10 million offices has costs only 1.9% above those of 25 $10 million unit banks.) The data used in the study do not cover branch

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[2] Major studies include George J. Benston, "Branch Banking and Economics of Scale," *Journal of Finance,* XX (May 1969), pp. 312–331; Stuart I. Greenbaum, "A Study of Bank Costs," *National Banking Review,* IV (June 1967), pp. 415–434; Frederick W. Bell and Neil B. Murphy, *Costs in Commercial Banking: A Quantitative Analysis of Bank Behavior and its Relation to Bank Regulation.* Research Report No. 41. Boston: Federal Reserve Bank of Boston, 1968; William A. Longbrake and John A. Haslem, "Productive Efficiency in Commercial Banking: The Effect of Size and Legal Form of Organization on the Cost of Demand Deposit Services," *Journal of Money, Credit and Banking,* August 1975; William A. Longbrake, "Differential Effects of Single-Plant, Multi-Plant and Multi-Firm Organizational Forms on Cost Efficiency in Commercial Banking," *The Journal of Finance,* forthcoming.

[3] For a discussion of these problems, see George J. Benston, "Economies of Scale of Financial Institutions," *Journal of Money, Credit and Banking,* May 1972.

banks with more than 25 offices, but there is a distinct possibility that branch banks with more (small) offices would have lower costs than small unit banks.

2. Above $15 million in deposits per office, branch banks have lower costs than unit banks and the advantage rises with increases in the number of offices. For example, a branch bank with 5 $50 million offices has costs 1.6 to 2.9% lower than 5 $50 million unit banks, while a branch bank with 25 $50 million offices has costs 7.6 to 9.0% lower than 25 $50 million unit banks.

These data are not easy to interpret. On a static basis one could apply Longbrake's estimates to data on the existing size distribution of unit banks and branch banks (including branch offices) to determine whether branch banks or unit banks are currently more efficient. Such calculations would be interesting but not exactly what we want, since the results would be sensitive to the existing size mix of banks and bank offices, which in turn has been influenced by branching restrictions. The cost comparisons we want would be based on the equilibrium size mix associated with more liberal branching regimes. The bank structure projections required for such calculations would be a formidable research undertaking.[4]

While we cannot be sure, therefore, that liberalized branching laws would result in branch banks having lower overall costs than unit banks, there is a presumption that this is the case. The Longbrake data indicate that growth under branching, via either larger offices or increased numbers of offices, reduces costs relative to comparable office provision by unit banks. Furthermore, the new technology is likely to strengthen this tendency. If growth prospects are sufficiently favorable to allow branch banks to reach a size where costs are below those of unit banks, allowing such growth obviously will promote efficiency. If growth prospects are not favorable we would not expect branching to occur unless the cost disadvantages could be offset by the exercise of market power—a somewhat remote possibility given our anti-trust laws.[5]

III. Range of Services Offered

A special aspect of operating efficiency is the range of services offered by banks. Probably one major reason that cost studies have not revealed more extensive scale economies in banking (declining costs per unit of output as the volume of output rises) is that many services are provided only as banks become large enough to market them in volume sufficient to be economical.[6] With the exception of the basic "bread and butter" services offered by all commercial banks, it is customary for banks to add services as they grow in size; a larger institution generates the volume needed to make the specialized service profitable. The provision of services is also an aspect of competition for large business customers and the larger the bank, the more extensively they tend to compete, through the proliferation of services, for this type of business. Since branch banking leads to larger banks, we would expect it to be associated with a larger range of services offered to the public.

The available evidence, summarized in Guttentag and Herman,[7] is consistent with this hypothesis. Among the more important services that large banks consistently offer more frequently than small ones are revolving credit, trust services, special checking accounts, payroll services to business customers, and foreign exchange transactions. Mergers of unit banks into branch banks almost always results in the provision of new services by the merged office.

Guttentag and Herman also raise some questions regarding the significance of these differences in service provision. In areas where unit banks predominate, there may be very little demand for the services offered by large city banks, and where there is a demand, differences in the ability of branch banks and unit banks to meet it may not be as large as they seem. In some cases the

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[4] The Longbrake approach needs some modification to be used for this purpose. Most importantly, it needs to allow for the effect of distance between offices as a determinant of branch bank costs.

[5] The small branch banks in Longbrake's sample probably are in a state of transition to being larger banks with lower costs.

[6] Another reason is that an important benefit of size, namely, the ability to diversify risk, is not picked up in the type of cost studies referred to earlier. On this point, see Ernst Baltensperger, "Economies of Scale, Firm Size, and Concentration in Banking," *Journal of Money, Credit and Banking,* August 1972.

[7] Jack M. Guttentag and Edward S. Herman, *Banking Structure and Performance,* Institute of Finance, New York University, February 1967, pp. 162–166.

only difference between a branch bank that states that service X is available at all its offices and a unit bank that does not offer X, is that an office of the branch bank will refer an inquiry about X to its main office while the unit banks will refer such an inquiry to its city correspondent.

Since the Guttentag-Herman study, EFTS has emerged as a service of major importance which large banks perhaps can provide more effectively than smaller ones, but this has not yet been clearly established. It is quite possible that institutional arrangements will be developed comparable to those that have arisen for bank credit cards, that will allow small banks to participate on a more or less equal basis with large banks.

IV. Availability of Banking Facilities

One of the most pervasive arguments for branch banking is that branch banks provide more office facilities than unit banking "because of their greater ability to exploit the opportunities provided by specialized locations, i.e., by locations that provide demand for a limited range of bank services (e.g., deposits, but not loans)." (Guttentag and Herman, p. 151). This advantage of branch banking is said to be of particular value in rural areas and small towns.

In recent years a considerable amount of evidence has accumulated on this issue.[8] Studies focusing on differences between states have suffered from statistical problems and are inconclusive. The evidence is quite clear, however, that in metropolitan areas branch banks provide many more offices relative to population than unit banks. This is illustrated by Table I which shows that on average metropolitan areas in branching states have roughly twice as many offices as metropolitan areas of comparable size in unit banking states.

No appreciable differences appear as between metropolitan areas in statewide branching and in limited branching states, probably because in many limited branching states there is free branching within metropolitan areas.[9]

Early studies on the availability of bank facilities in small cities and non-metropolitan areas were inconclusive or showed branch banking to have only a small margin.[10] Several more recent (and improved) studies indicate a larger margin for branch banks. A recent study of banking choices available to residents of 90 rural southern towns shows that there were more choices if the town was in a branching state than in a unit banking state, although no significant difference was evident as between towns in limited branching states.[11] In that study "banking choices" were defined as banks rather than bank offices. Obviously the differences between branch and unit banking would have been larger if banking choices had been measured by the number of bank offices.

In connection with a recent (unpublished) study of bank structure in Alabama,[12] I measured the number of banks *and* bank offices within 5 and within 10 miles of all non-metropolitan area communities in the state that were listed in the *1970 Census of Population*—some 257 places. Since Alabama's branching laws vary county by county—in effect the banks in each county can decide whether they want countywide branching, limited branching or no branching—it provides almost an ideal laboratory for testing the effects of branching laws on office availability. The results are shown in Table II. On average Alabama residents of non-metropolitan communities within countywide branching counties were within five miles of 4.1 bank offices, compared to 2.9 offices for residents of towns in limited branching counties and 1.5 offices for residents of towns in

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[8] Most of the evidence is summarized in Guttentag and Herman, pp. 151–162; Larry Mote, "The Perennial Issue: Branch Banking," *Business Conditions,* Federal Reserve Bank of Chicago, February 1974, p. 13; and Gary G. Gilbert and William A. Longbrake, "The Effects of Branching of Financial Institutions on Competition, Productive Efficiency and Stability: An Examination of the Evidence," Part 1, *Journal of Bank Research,* Autumn, 1973, pp. 158–161.

[9] In a recent paper comparisons of the type shown in Table I are strengthened statistically by allowing for differences between metropolitan areas in economic and demographic factors that might affect the number of branch offices. The results, however, are basically the same. See William L. Seaver and Donald R. Fraser, "Branch Banking and the Availability of Banking Services: A Cluster Analysis," in *Bank Structure and Competition,* Federal Reserve Bank of Chicago, May 6–7, 1976.

[10] For an evaluation of the early studies, see Guttentag and Herman, pp. 158–161.

[11] See Paul F. Jessup and Richard Stolz, "Customer Alternatives Among Rural Banks," *Journal of Bank Research,* Summer, 1975.

[12] Jack M. Guttentag, *Branch Banking in Alabama,* Feb. 11, 1976 (mimeo).

unit banking counties. The differences in office numbers, furthermore, were larger for small towns than for larger ones.

These comparisons were supplemented by multiple regression analysis of intercounty differences in numbers of offices, in which economic and demographic factors affecting branching could be taken account of (Table III). In these comparisons countywide branching counties had 2.1 to 3.3 more offices on average than unit banking counties while the margin for limited branching counties was 1.6 to 1.8 offices.

The benefits to the public of having more convenient office facilities have never been quantified but most students of the subject believe them to be large.

V. Credit Allocation

One of the most hotly debated issues in the controversy over branch banking is whether branch banks or unit banks do a better job in allocating credit. The major issues in this debate, and the evidence bearing on them, will be summarized briefly.

1. It has been argued that branch banks provide an economical way of transferring loanable funds from areas of relatively low demand to areas of high demand. Such transfers are economical because they occur *within firms*, whereas comparable transfers between unit banks are market transactions subject to transaction costs and other "frictions." The available evidence, summarized by Guttentag and Herman, strongly supports this hypothesis. It appears that net deposit flows between correspondent banks do not shift credit toward areas of greater credit demand. Other types of interbank credit flows, including asset sales, interbank borrowing of federal funds, and loan participations are subject to various institutional frictions which impede their use.[13]

2. It has been argued that branch banks employ a larger proportion of their resources to meet local credit needs. Branch banks tend to have more stable deposit flows, thereby requiring less liquidity, while branch office networks provide the means to meet demands for consumer, residential mortgage and small business loans where borrowers value physical proximity to lenders. Again the available evidence, summarized by Guttentag and Herman, supports this hypothesis. The evidence shows that branch banks make more loans in relation to assets than unit banks and that this applies as well to business loans, consumer installment loans, and mortgage loans.[14] A more recent study focusing on business loans alone, which makes a more definitive distinction than previous studies between those loans that are locally limited and those that are not, concludes that "statewide branching has resulted in a greater proportion of business loans to locally limited business than either unit banking or limited branching."[15]

3. On the other side it has been argued that branch banks, being larger institutions, tend to favor larger customers (particularly business customers) over small ones. The evidence indicates that *large* banks do indeed allocate a smaller proportion of their business loans to small borrowers than small banks. However, large banks also place a larger proportion of their assets in business loans, so that the absolute volume of loans to small business relative to assets is not necessarily lower for large banks.[16] Furthermore, large bank-small bank comparisons are not definitive because they ignore possible differences between branch and unit banks of the same size.

The data compiled by Eisenbeis indicate that within given bank size classes, branch banks allocate significantly larger percentages of their business loans to locally limited borrowers than unit banks. However, this finding is not conclusive either because branch banks on average are substantially larger than unit banks. To make a definitive comparison requires specification of the size distribution of the systems of branch and unit banks that are viewed as alternatives, which no one has ever done. As a quick first pass, I assumed the 1973 banking structures of Illinois (the largest unit banking state) and California (the largest statewide branching state) represented alternative size distributions. On this assumption I

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[13] See Guttentag and Herman, pp. 132–141. Since this was written the Federal funds market has broadened to include smaller banks but the net flow is in the same direction as net deposit flows, namely, from smaller banks (and communities) to larger ones.

[14] See Guttentag and Herman, pp. 126–132.

[15] See Robert A. Eisenbeis, "The Allocative Effects of Branch Banking Restrictions on Business Loan Markets," *Journal of Bank Research*, Spring, 1975, p. 47.

[16] See Guttentag and Herman, pp. 143–146.

calculated the weighted average percent of business loans made to locally limited borrowers by banks in each state.[17] The averages turned out to be the same.

4. One of the oldest arguments against branch banking is that "the branch bank is likely to have its primary interest in the city where its head office is located, and that its relationships to the non-urban area will be essentially parasitic." (Guttentag and Herman, p. 142) While branch banks have higher overall loan ratios, as noted above, it is still possible that they could shortchange their outlying branches relative to the head office. Studies of branch systems in New York State and California, however, indicate that there is no substance in the argument that branch banks use outlying branches solely or mainly as fund sources.[18] It was found that outlying branch offices of branch banks usually had higher loan ratios than unit banks in the same areas, while unit banks acquired by branch banks generally increased their loan ratios after the merger.

In summary, branch banking provides an effective mechanism for transferring loanable funds to areas of greatest demand; branch banks use a relatively large proportion of their resources to meet local credit needs, and the evidence does not indicate that they shortchange small firms relative to large ones, or outlying areas relative to their head office communities.

VI. The Effect of Branching on Concentration and Competition

Perhaps the most debated issue in the controversy over branch banking is whether branching increases or reduces concentration of financial resources and competition in financial markets.

Concentration indicates the degree to which deposits, loans or other bank outputs are controlled by the largest banks in the market. Concentration is one dimension—the most easily measured and most widely used if not the most important—of the structure of an industry. Other important dimensions are ease of entry into the market by firms not now represented there, and the size and other characteristics of buyers. The general presumption is that the level of concentration and other dimensions of structure determine the extent to which banks will compete (greater concentration is associated with less competitive behavior). A further presumption is that competition leads to socially desirable performance by firms, i.e., to lower prices, higher quality and greater variety of services, high rate of product innovation, and so on. These general presumptions are widely accepted even though subject to important qualifications and exceptions.[19]

In assessing the impact of branching on concentration and competition in banking, three special problems arise. First, the specification of geographical market areas, which is necessary to measure market concentration and other dimensions of market structure, is exceptionally difficult. This reflects the multiplicity of bank products and the fact that branching per se may affect the boundaries of market areas. Market areas under unit banking are *customer determined* in the sense that the cost and inconvenience to customers of dealing with more distant banks largely defines the area within which banks are potential competitors. (If customers on each side of a river never cross it, then banks on each side are in separate markets and need not concern themselves about banks on the other side). Under branch banking, however, market areas can become *bank determined* if branch banks adopt uniform policies at offices that extend over areas wider than customer determined markets.[20]

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[17] The calculation uses Eisenbeis' data on the percent of loans made to locally limited borrowers in each bank size class for banks in unit banking and in statewide branching states, and FDIC data on the percent of total deposits in each state accounted for by banks in each size class.

[18] See Verle Johnson, "Comparative Performance of Unit and Branch Banks," in *Proceedings of a Conference on Bank Structure and Competition,* Federal Reserve Bank of Chicago, 1967; and Ernest Kohn and Bernard Kaye, *Meeting Local Credit Needs,* New York State Banking Department, 1973.

[19] For further discussion, see F. Scherer, *Industrial Market Structure and Economic Performance,* Rand McNally, 1973, pp. 4–7; Mote, pp. 14–15; Guttentag and Herman, pp. 66–67; and H. Prescott Beighley and Alan S. McCall, "Market Power and Structure and Commercial Bank Installment Lending," *Journal of Money, Credit and Banking,* November 1975, pp. 449–456.

[20] Why would branch banks maintain uniform policies at their branch offices? Uniformity reduces the cost of monitoring branch office operations, makes for economical areawide advertising, reduces the required quality of management at branch offices, and eliminates possible ill-will from customers who are forced to pay higher prices or who receive inferior services than customers in other areas. Against these advantages of uniform policies must be set the disadvantages of being unable to exploit local market situations. The more competitive are the local markets, of course, the smaller is this loss from adoption of uniform policies.

If banks open branch offices on both sides of the river and charge the same prices, a larger market area is thereby created and the banks on both sides are now competitors, even though bank customers never cross the river. Rarely do studies of branching make allowance for this important consequence of branching.

Second, in assessing the impact of branching on market concentration, it is necessary to distinguish the short-run impact when branch banks are entering new markets, and the long-run impact when banking structure has become more or less settled.

Third, entry conditions are a very important aspect of market structure, and while some observers have speculated that entry is easier under branch banking than under unit banking, until recently there has been little direct evidence on the issue. All of these problems will be referred to below.

There seems little question that during periods when branch banking is spreading, especially through *de novo* branching, banking concentration falls and competition increases. "This was apparently the case in Nassau County between 1961 and 1964; in the counties adjacent to Philadelphia between 1950 and 1957; and in California during the period of the rise of the Bank of America and the other major branch banking systems (1910 and after)."[21] A more recent study of changes in local banking markets in New York and Virginia following liberalization of branching laws in the early 60's shows that on balance concentration tended to fall.[22] A recent simulation study of the banking structure of Pennsylvania indicated that a switch from limited branching to statewide branching over a ten-year horizon would not increase concentration ratios in local markets.[23] Both of these studies assumed market areas remained unchanged over the period of branch bank expansion, which biased the results against finding a decline in concentration.

Evaluation of the longer run impact of branching is more complicated. While a comparison can be made of banking structures under branch banking with structures under unit banking, the results are heavily dependent upon the size of the geographical areas compared. The structures being compared, furthermore, are never in "long-run equilibrium," but are likely to be trending in one direction or another and these trends are not necessarily easy to discern.

In general, banking concentration is higher on both a state basis and a metropolitan area basis under brnching. Table IV shows, for example, that at the end of 1974 the five largest banks in each state on average held 75% of deposits in statewide branching states compared to 41% in limited branching states and 34% in unit banking states. Population per bank also is substantially higher in branching states. Tables V and VI show similar patterns in metropolitan areas, with the differences increasingly pronounced as the size of the metropolitan area increases.

No recent broadly-based data are available on concentration in non-metropolitan areas. Tabulations covering 1960 show no significant differences in numbers of banks per community, when community size and region are taken into account, between communities in statewide branching, limited branching and unit banking states.[24]

The higher concentration ratios that prevail under branch banking in states and metropolitan areas (especially in large metropolitan areas) does not necessarily mean less competition under branching. Metropolitan areas might well represent integrated market areas for such services as residential mortgage loans, consumer loans and savings accounts in branching states, but there is serious doubt that this is true of metropolitan areas in unit banking states. It is widely believed that under unit banking metropolitan areas are broken into a number of submarkets, with larger metropolitan areas containing more such sub-markets.

There are several plausible reasons for believing that there is a greater degree of market integration in metropolitan areas within branch banking jurisdiction. First, branch banks tend to have relatively uniform policies and practices throughout their entire systems. This implies a linkage and a degree of integration between office locations that tend to bind them into a

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[21] Guttentag and Herman, p. 77.

[22] Bernard Shull, "Multiple-Office Banking and the Structure of Banking Markets: The New York and Virginia Experience," *Proceedings of a Conference on Bank Structure and Competition,* Federal Reserve Bank of Chicago, 1973.

[23] "Changing Pennsylvania's Branching Laws: An Economic Analysis," *Business Review,* Federal Reserve Bank of Philadelphia, December 1972.

[24] See Guttentag and Herman, p. 54.

single market. Second, there are more offices in metropolitan area markets under branch banking, as already noted. As an illustration, the Philadelphia and Chicago metropolitan areas are located in limited branch banking and unit banking states, respectively. In 1962 the Philadelphia metropolitan area, exclusive of New Jersey counties, had 358 banking offices; the considerably larger Chicago metropolitan area had only 255 banking offices. Especially in those markets where proximity to the lender is important in setting market boundaries, the greater number of banking offices in metropolitan areas within branch banking jurisdictions is a factor tending to unify the market. Finally, there is a tendency for the larger banks to operate "across the board," whereas many of the smaller unit banks in metropolitan areas may restrict themselves to relatively specialized markets.[25]

The view that metropolitan areas contain larger and fewer markets under branching than under unit banking is supported by statistical evidence showing wider price variability in metropolitan areas in unit banking states than in branch banking states.[26]

As noted eariler, ease of entry is an important dimension of industry structure that affects the extent to which firms behave competitively. Easy entry encourages firms to behave as if they had more actual competitors than they have, for fear that otherwise new firms will enter the market.

Guttentag and Herman have argued that entry in banking tends to be easier under branching than under unit banking.

> A very important aspect of competition in banking, where major markets are geographically segmented, is new entry. There are several reasons for believing that this type of competition is likely to be more vigorous under branch banking than under unit banking. First, the establishment of new offices is a widely used form of non-price competition in banking, so that where branch banking is permitted, existing banks as well as outsiders interested in opening a *de novo* bank may be potential competitors at any site. Second, regulatory authorities are likely to be more cautious in granting new bank charters than branch permits to well-established institutions. If a new office is unprofitable, this implies failure for the unit bank, but it is not likely to jeopardize a branch bank. Under branch banking, also, the regulatory authorities are likely to be under less pressure from existing banks to restrict *de novo* entry, because the major institutions already in the field wish to retain their own freedom to establish new branch offices. Third, in urban areas a branch office evidently can be maintained in locations were a unit bank would not be economically feasible . . . Finally, as going concerns, branch banks are likely to move rapidly to exploit attractive banking opportunities.[27]

An interesting new study provides the first evidence that entry is indeed easier under branch banking.[28] In this study the characteristics and performance of banks in small isolated non-metropolitan communities were examined before and after these communities were entered by newly formed banks or by new offices of outside branch banks. In markets entered by new banks, which were in states that restricted branching, existing banks prior to entry were relatively poor performers, in the sense that they paid low rates on time deposits, had low loan volume and so on. In markets entered by branch banks, in contrast, existing banks were essentially average performers before entry. The authors plausibly attribute these differences to the greater "threat of entry" in branching states which is a "significant deterrent to market exploitation." [29]

It must nevertheless be recognized that the argument that entry is relatively easy under branching and the evidence supporting it, is based on U.S. historical experience. Thus, an important premise is that the underlying economy provides continuing growth opportunities for banks. Another related premise is that the banking structure does not evolve eventually into one consisting of a handful of large branch banks that share dominant market power. (Where such structures have developed in foreign countries, the demand for entry by new banks evidently is not very strong, and while the existing banks may compete for

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[25] See Guttentag and Herman, p. 61.
[26] See Mote, p. 17.
[27] Guttentag and Herman, pp. 76–77.
[28] Alan S. McCall and Manfred Peterson, *The Impact of De Novo Commercial Bank Entry*, mimeograph.
[29] This suggests that actual entry would have a greater impact on the performance of banks in markets entered by new banks than in markets entered by branch banks, and the study shows this to be the case.

market shares in growing areas the benefits accruing to customers from such office-expansion-competition may be severely limited by absence of other types of competition).

In summary, the spread of branch banking into non-metropolitian areas tends to increase competition, at least in the short run. Concentration at the state and metropolitan area levels rises over time with branching, but adverse effects on competition tend to be neutralized by expansion in the size of market areas and perhaps by relatively easy entry. (The thesis of neutralization is consistent with results of price studies of prices under branch unit banking, summarized in VII below). A question can be asked, however, regarding what lies further down the road, and whether in the long run, assuming liberal branching laws, our banking structure would not evolve into a highly concentrated one similar to those in many foreign countries? While no one can answer the question with full confidence, the following considerations appear relevant:

1. Free branching at an early stage of financial evolution is likely to lead to extensive concentration. In the U.S., however, restrictions on branching during the formative period of financial evolution have facilitated the development of large numbers of sizable banks throughout the country. Liberalized branching at this point in our history will not necessarily lead to the extensive concentration characteristic of countries which have had free branching since the early stages of financial evolution.

2. The impact of branching on banking concentration depends importantly on other aspects of public policy. Unlike most other countries, the United States does not generally tolerate many practices that are accepted in foreign countries and that contribute importantly to banking concentration. These practices include predatory tactics designed to drive competitors out of business, and mergers and holding company affiliations among competitors. The simulation study of Pennsylvania cited above and a similar one covering New Jersey [30] indicate that changes in banking structure stemming from liberalization of branching laws is affected appreciably by whether Federal regulatory policy toward bank mergers is liberal or restrictive. (The more restrictive the policy the less the tendency for branching to generate rising concentration). Structure is also affected by the criteria used by the state commissioners of banking and the Comptroller of the Currency in judging the acceptability of applications to open branch offices.

3. In the absence of benefits from the exercise of market power, incentives to branch are heavily dependent on cost functions. Branching costs rise with distance between offices and in a large country this imposes a constraint on expansion through branching. (Existing cost studies do not suggest that branching can reduce costs indefinitely without regard to distances between offices. None of the existing studies includes distance as a cost-determining variable, and the banks covered in the studies necessarily operate within a single state and in most cases have offices in fairly close proximity). It is possible of course that the emergence of EFTS will substantially reduce costs associated with branching at a distance. Even then, and assuming no legal barriers to branching anywhere in the country, the resulting shrinkage of banks would be accompanied by progressive widening of market areas, to the point where eventually national markets would develop in all major bank services. If mergers among competing and sizeable banks continue to be restrained, it is very likely that enough banks would be operating in these markets to assure competition. (If the United States were left with 100 banks but everyone in the country had convenient access to all of these banks, competition and choice would be substantially greater than it is today). If it appeared during the expansion process that the depletion of banks was proceeding too rapidly, additional constraints could be imposed, such as limitations on the numbers of facilities any one bank could have in a given area.

VII. Effects of Branching on the Prices of Banking Services

A large number of studies have attempted to determine whether branching affects the prices of major banking services. Price effects would constitute hard evidence on whether branching increases or reduces competition, although

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[30] George R. Junker and George S. Oldfield, "Projecting Market Structure by Monte Carlo Simulation: A Study of Bank Expansion in New Jersey," *The Journal of Finance*, December 1972.

branching may affect prices through other channels as well.[31] The literature is difficult to summarize because a number of different product markets have been investigated separately (such as small business loans, residential loans, consumer loans, checking accounts, and time and savings accounts). Some studies have compared rate differences as between branch and unit banks in "settled markets," while others have focused on changes consequent upon merger or other entry of branch banks into new markets. The studies have had varying success, furthermore, in controlling for other influences on prices, some of which may be directly or indirectly related to branching such as differences in market concentration, risk, or customer demand.

In general, the available evidence[32] suggests that in settled markets prices are not consistently higher or lower at branch banks than at unit banks. Some evidence suggests that the presence of both branch and unit banks in the same market results in more favorable terms to the public. Usually, the *entrance* of branch banks into non-metropolitan area markets results in more favorable terms to the public but checking accounts are an exception to this since branch banks usually bring with them higher service charges.[33] The evidence is thus consistent with the notion that the spread of branching increases competition in the short run without necessarily reducing it when market structures settle down.[34]

VIII. Effect of Branching on Small Unit Banks

Since liberal branching laws are associated with smaller numbers of larger banks, in some broad sense branching clearly is inimical to unit banking. It is nevertheless important to know precisely *how* branch banking affects unit banks. Do branch banks, when they enter new markets, drive unit banks out of business by using unfair competitive practices? Are unit banks unable to compete with branch banks because the latter are more efficient and/or provide better services? Or, alternatively, does branch banking reduce the number of unit banks merely by creating favorable opportunities for them to sell out through merger and by reducing economic incentives to form new banks? It is also important to know something about the characteristics of those unit banks that coexist with branch banks. We know as fact that significant numbers of unit banks survive in a branching environment. Even in California, for example, where statewide branching has existed for many decades and very large branch systems have developed (including the largest bank in the world), there were 67 unit banks in operation at year-end 1974, comprising one-third of all the banks in the state. An unknown number of branch banks in the state, furthermore, were quite small institutions, having only one or a few branches.

1. In past decades, fears were often expressed that branch banks when entering a new market would drive unit banks out of business through predatory price cutting. The only evidence of such behavior, however, applies to the Bank of Italy (precursor to the Bank of America) in the 1920's.[35] Studies of branch banking experience since World War II have not turned up evidence of predatory price cutting, which would be a violation of antitrust laws in any case. In general, predatory competition is not a profitable strategy (even if it were legal) where entry into the market is relatively free because, when the predator attempts to "cash in" by raising prices he will attract entry by others.[36]

2. There is evidence that unit banks can be as profitable as branch banks, and are not adversely affected by entry of branch banks into their market areas.[37]

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[31] For a discussion of potential channels of influence, see Mote, p. 18.

[32] For general discussion of the evidence see Guttentag and Herman, pp. 82–104, Mote, pp. 18–21, and Gilbert and Longbrake, pp. 164–165.

[33] The most important study of this question is "Bank Entry and the Public Interest: A Case Study," by David C. Motter and Deane Carson, *The National Banking Review*, June 1964.

[34] Even the higher service charges on checking accounts imposed by branch banks is consistent with this hypothesis. See Mote, p. 21.

[35] Even this evidence is completely anecdotal. See Paul M. Horvitz and Bernard Shull, "Branch Banking, Independent Banks and Geographic Price Discrimination," *The Antitrust Bulletin*, Winter 1969, p. 834.

[36] Predation could be a profitable strategy if entry was restricted by legal constraints or by collusion among potential entrants. In areas unattractive to new bank formations, liberal branching provisions could be a necessary condition for easy entry, although it would not be a sufficient condition if potential entrants are few.

[37] A good summary of the evidence is contained in Gilbert and Longbrake, pp. 304–305. In addition to the sources cited there, see Jerome C. Darnell and Howard Keen Jr., "Small Bank Survival: Is the Wolf at the Door?", *Business Review*, Federal Reserve Bank of Philadelphia, November, 1974.

Ernest Kohn has provided a succinct statement of the major reasons, based mainly on his studies of small bank exposure to large branch banks in New York state.

> First, recent studies suggest that whatever economies of scale exist in banking, they are slight and may even be less important that the diseconomies of a branch structure. Second, much of the public is insensitive to, or unaware of, interest rate differentials and doesn't require the more liberal loan terms or the highly specialized services offered by the larger institutions. Third, to the extent that the public in a community is sensitive to price differentials, small banks may adjust their interest rates and service charges to meet the competition. Fourth, as a recent Banking Department study indicated, unit banks in upstate New York evidenced a greater willingness to make unsecured "character" loans to small business and they also levy lower service charges on personal checking accounts. These factors may largely offset whatever other advantages larger banks may have. Fifth, convenience of location, more intimate knowledge of the local area, personal relationships developed over many years, and the preference of some people for doing business with a locally owned and managed institution would enable the small bank to hold its own in the competitive struggle . . .[38]

This statement is subject to several qualifications. Although the Longbrake cost study (not available to Kohn) shows that small unit banks have lower costs than small branch banks with offices of the same size, the small unit bank in the real world may be faced with a giant branch bank having hundreds of offices that may indeed have lower costs.

Furthermore, studies of the impact of new entry on existing small banks are necessarily biased in the sense that entry is always "screened" by a regulatory authority—if the regulator believes that branch bank entry will seriously damage local banks, probably the entry would not be permitted. Hence, while the proposition that unit banks in general can meet branch bank competition is plausible, neither costs studies nor entry studies support it to the degree suggested by Kohn.

3. Local unit banks faced with branch bank competition must have the will to survive and this often requires an ability to adjust and innovate. Such changes in behavior may provide important public benefits. Several studies have indicated that unit banks subjected to new competition from newly-formed banks may be forced to "shape-up," perhaps causing themselves discomfort in the short run, although not necessarily in the long run, while benefitting the local community.[39] Among these benefits are increased loan volume and higher rates on time and savings deposits. The presumption is that entry by branch banks would have similar effects if entry had previously been restricted, although this needs to be verified.

In short, the available evidence indicates that the declining number of unit banks associated with branch banking stems largely from increased opportunities to merge and reduced incentives to charter new banks, as well as from a tendency for some unit banks to become branch banks, even if small ones. There is no evidence that existing unit banks are driven out by predatory competition from large branch systems. In general, unit banks appear able to compete successfully with branch offices of large systems, although they may need the modicum of protection provided by regulatory screening of branch office applications. (Of course, such protection could be retained even if all geographical barriers to branching were removed). Unit banks in protected markets, however, which have grown lethargic from lack of challenge, may be forced to change their traditional ways of doing business, to the benefit of their local communities.

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[38] Ernest Kohn, "Competitive Capabilities of Small Banks," *Banking,* January 1968. The more comprehensive studies underlying this article are *The Future of Small Banks—An Analysis of Their Ability to Compete With Large Banks,* by Ernest Kohn, New York State Banking Department, December 1966; and *The Competitive Impact of New Branches,* by Ernest Kohn and Carmen J. Carlo, New York State Banking Department, December 1969.

[39] Donald R. Fraser and Peter S. Rose, "Bank Entry and Bank Performance," *The Journal of Finance,* March 1972, pp. 76–77; Robert H. Clandross, "The Impact of New Bank Entry on Unit Banks in One Bank Towns," *Journal of Bank Research,* Autumn 1971; and Alan S. McCall and Manfred O. Petersen, *The Impact of De Novo Commercial Bank Entry* (preliminary draft presented at the Midwest Finance Association meetings, April 1976).

X. Concluding Comment

A good case can be made that elimination of all geographical restrictions on branching would today be in the public interest. Branching provides important public benefits in greater numbers of facilities, intensified competition during the branch expansion process, efficient allocation of loanable funds, and probably greater operating efficiency. The dangers associated with branching arise out of tendencies toward increasing concentration of resources, but at this point these dangers are remote and they could easily be controlled in the future with available public policy tools, including restrictions on mergers and regulatory controls over branch office expansion. If necessary, other restraints could be imposed, such as limitations on the number of facilities that any banking organization would be allowed to have in any specified area. It should be possible eventually to have the best of all possible banking worlds, namely, integrated and efficient national banking organizations, in sufficient numbers to generate competitive national markets in all major bank services.

TABLE I.—AVERAGE NUMBER OF BANK OFFICES PER STANDARD METROPOLITAN STATISTICAL AREA, BY TYPE OF BRANCHING LAW, JUNE 1974

Population of SMSA	Metropolitan areas			United States
	Statewide branching	Limited branching	Unit banking	
50,000 to 99,999	20.5	15.6	9.5	14.0
100,000 to 499,999	53.9	47.3	24.4	43.1
500,000 to 999,999	145.0	131.0	67.0	123.2
1,000,000 and over	338.3	451.7	211.1	358.4
All metropolitan areas	111.5	109.6	48.8	94.2

Source: U.S. Department of Commerce, Bureau of the Census, Current Population Reports (Series P–26); Sales Management, "1975 Survey of Buying Power;" FDIC Summary of Deposits in All Commercial and Mutual Savings Banks, June 29, 1974.

TABLE II.—AVERAGE NUMBER OF BANKS AND BANK OFFICES IN JUNE 1974 WITHIN 5 MI AND WITHIN 10 MI OF LISTED NONMETROPOLITAN COMMUNITIES,[1] BY POPULATION OF COMMUNITY IN 1970 AND BRANCHING STATUS OF COUNTY PRIOR TO 1973 BRANCHING LEGISLATION

	Population of community in 1970			
	0 to 399	400 to 1,999	2,000 and over	All
Number of communities:				
Countywide branching	10	16	14	40
Limited branching	43	41	31	115
Unit banking	36	33	33	102
Number of banks within 5 mi:				
Countywide branching	2.0	1.8	3.1	2.3
Limited branching	1.3	1.7	2.0	1.6
Unit banking	.9	1.5	2.0	1.5
Number of banks within 10 mi:				
Countywide branching	3.8	3.2	4.6	3.8
Limited branching	3.1	3.0	3.5	3.2
Unit banking	2.3	2.6	2.8	2.6
Number of bank offices within 5 mi:				
Countywide branching	4.3	3.4	4.8	4.1
Limited branching	3.3	2.3	3.2	2.9
Unit banking	.9	1.5	2.2	1.5
Number of bank offices within 10 mi:				
Countywide branching	7.9	6.7	7.4	7.2
Limited branching	5.8	4.8	5.2	5.3
Unit banking	2.9	2.7	3.1	2.9

[1] All incorporated communities and unincorporated places with population of 1,000 persons or more, as reported in the 1970 Census of Population.

TABLE III.—REGRESSION EQUATIONS EXPLAINING NUMBER OF BANK OFFICES AND POPULATION PER BANK OFFICE IN ALABAMA COUNTIES IN 1974

Predictive variables	Predicted variable: Number of bank offices				Predicted variable: Population per bank office		
	Equation 1	Equation 2	Equation 4	Equation 3	Equation 5	Equation 6	Equation 7
Countrywide branching		*2.1		*3.3	**−1536	**−1493	*−1951
T-values		(2.1)		(4.2)	(2.0)	(2.0)	(2.4)
Limited branching		**1.6		*1.8	**−1354	*−1362	*−1579
T-values		(1.9)		(2.6)	(2.0)	(2.1)	(2.3)
Population	16x10^{-5}	*12x10^{-5}					
T-values	(37.9)	(3.6)					
Population ÷ personal income		*−0.2			*22.2	*24.0	*21.8
T-values		(2.6)			(2.5)	(2.7)	(2.4)
Average deposits per bank		**−7x10^{-5}					
T-values		(1.8)					
Number of savings [1] and loan offices				*−.46			
T-values				(2.3)			
Persons per square mile					**24.0	**33.0	**11.0
T-values					(1.9)	(2.3)	(2.5)
Employment		*17x10^{-5}			−.03		
T-values		(2.2)			(1.1)		
Retail sales			*5x10^{-5}	*8x10^{-5}		−.006	
T-values			(41.6)	(10.3)		(1.6)	
Percent change in population, 1960–74							2413
T-values							(1.3)
Percent change in personal income, 1969–73							−3276
T-values							(1.5)
R^2	.957	.968	.964	.975	.21	.22	.23

* Statistically significant at the 1-percent level.
** Statistically significant at the 5-percent level.

Note: Equations in which the predictive variable is population per bank office use the 4-fold classification of counties.

TABLE IV.—POPULATION, NUMBERS OF BANKS AND CONCENTRATION RATIOS, BY GROUPS OF STATES CLASSIFIED BY BRANCHING LAW, 1974

Branching law	Number of States	Number of banks	Population (thousands)	Population per bank	5-bank concentration ratio (percent)
Statewide branching	19	1,383	56,477	40,837	75.4
Limited branching	18	5,888	101,687	17,270	41.1
Unit banking	13	7,050	52,505	7,448	34.3
United States	50	14,321	210,669	14,711	----------

Note: Number of banks and population are as of June 30, 1974, concentration ratios as of Dec. 31, 1973.

Sources: FDIC, "Assets and Liabilities—Commercial and Mutual Savings Banks," June 30, 1974; U.S. Department of Commerce, Bureau of the Census, "Current Population Reports" (series P–20, No. 279); table X.

TABLE V.—AVERAGE NUMBER OF BANKS PER STANDARD METROPOLITAN STATISTICAL AREA BY TYPE OF BRANCHING LAW, JUNE 1974

Population of SMSA	Metropolitan areas			
	Statewide branching	Limited branching	Unit banking	United States
50,000 to 99,999	6.7	6.7	7.4	7.0
100,000 to 499,999	10.3	12.7	19.6	13.9
500,000 to 999,999	19.8	24.0	56.0	28.7
1,000,000 and over	36.6	56.7	171.5	77.2
All metropolitan areas	15.7	19.7	39.6	23.9

Source: U.S. Department of Commerce, Bureau of the Census, "Current Population Reports" (series P–26); "Sales Management," "1975 Survey of Buying Power;" FIDC, "Summary of Deposits in All Commercial and Mutual Savings Banks," June 29, 1974.

TABLE VI. –AVERAGE PERCENTAGE OF DEMAND DEPOSITS (IPC) ACCOUNTED FOR BY LARGEST BANK AND LARGEST 3 BANKS IN METROPOLITAN AREA, BY SIZE OF METROPOLITAN AREA AND BRANCHING LAW, 1974

Population	Number of SMSA's			Percent in largest bank			Percent in largest 3 banks		
	Statewide branching	Limited branching	Unit banking	Statewide branching	Limited branching	Unit banking	Statewide branching	Limited branching	Unit banking
50,000 to 99,999	6	7	11	41.9	39.6	38.7	81.3	84.0	81.8
100,000 to 499,999	39	78	40	37.0	35.5	25.5	74.3	71.9	58.3
500,000 to 999,999	9	18	6	37.5	29.0	20.3	71.3	63.2	43.3
1,000,000 and over	11	15	8	33.8	29.3	17.2	67.9	61.4	37.3

Notes: Figures are unweighted average for the individual metropolitan areas in each category. Excludes the following 18 metropolitan areas that cover portions of different States with different branching laws: Fort Smith, AR–OK; Wilmington, DE–NJ–MD; Augusta, GA–SC; Davenport–RI–Moline, IA–IL; Sioux City, IA–NE; Fall River, MA–RI; Springfield Chicopee–Holyoke, MA–CT; Duluth–Superior, MN–WI; Minneapolis–St. Paul, MN–WI; Omaha, NE–IA; Steubenville–Weirton, OH–WV; Providence–Warwick–Pawtucket, RI–MA; Kingport–Bristol, TN–VA; Texarkana, TX–Texarkana, AR; Huntington–Ashland, WV–KY–OH; Parkersburg-Marietta, WV–OH; Wheeling, WV–OH; and Washington, D.C.

Population classification based on Dec. 31, 1974 Sales Management estimates; certain States not listed in this publication were classified on basis of July 1, 1974, population estimates from the U.S. Department of Commerce.

Source: Federal Deposit Insurance Corporation; "Summary of Accounts and Deposits in All Commercial and Mutual Savings Bank," June 29, 1974. Sales Management, "1975 Survey of Buying Power." U.S. Department of Commerce, Bureau of the Census; "Current Population Reports;" series P–26.

MULTIPLE OFFICE BANKING AND COMPETITION: A REVIEW OF THE LITERATURE

by

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Multiple Office Banking and Competition: A Review of the Literature

By

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I. Introduction

Over the past 15 years, research on the competitive effects of multiple-office banking in the United States has largely been undertaken within an analytical framework that focuses on the "structure" of banking markets and the "conduct" and "performance" of banking firms within markets.[1] While the relationships among structure, conduct and performance are complex,[2] the dominant hypothesis underlying most of the work has been that structure is an important determinant of performance.

In banking, as in other industries, market structure has been viewed as having several dimensions, including the numbers of firms in the market, concentration of business among them, and barriers to entry confronting potential new entrants. In banking it has been recognized that regulation, including restrictions of multiple-office banking, has had and continues to have important effects on these structural characteristics; legal and regulatory restraints have mainly been studied in terms of their

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1 The analytical framework is that developed in the late 1940's and early 1950's out of a realization that the theory of "pure competition" was inadequate for the formulation of public policy. See J. M. Clark "Toward a Concept of Workable Competition," American Economic Review, 1940; Edward Mason, "The Current Status of the Monopoly Problem in the U.S." Harvard Law Review, 1949; and Joe S. Bain, "Workable Competition in Oligopoly: Theoretical Considerations and Some Empirical Evidence," American Economic Review, 1950.

2 See F.M. Scherer, Industrial Market Structure and Economic Performance, Rand McNally & Co., Chicago, 1971, pp. 3-6.

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structural effects. However, banking market structures and regulation, as they exist, are consistent with a wide range of "conduct." There has also been some effort to understand the behavioral implications of multiple-office banking, in terms of policies adopted with respect to "prices" or interest rates and types and quantities of "products" or services offered. Both market structure and bank conduct have been viewed as major determinants of bank "performance," defined mainly in terms of the resulting "level of 'prices'" on banking services, other terms and conditions related to the sale of services, and bank profits.

It is convenient to review research findings within this structure-conduct-performance framework. Studies dealing with effects of multi-office banking restrictions on market structure will first be reviewed. Then studies dealing with the competitive conduct of multi-office and unit banks will be discussed. Finally, studies that have investigated the effects of multi-office banking on performance will be considered.

II. Summary and Conclusion

Among the arguments against permitting and encouraging multiple-office banking in the United States has been the concern that large banks would acquire small ones and eliminate competition; that these acquisitions would result in higher "prices" for bank services and, in other ways, make bank customers worse off. There has been considerable economic research over the past 15 years into the competitive effects of multiple-office banking. A major contribution has been to disentangle the intertwining issues and to bring empirical evidence to bear where possible. Considerable light has been thrown on some issues. Others merit further investigation.

In general, extreme concerns about the anticompetitive effects of multiple-office banking do not appear warranted. To the contrary, research findings suggest that multiple-office banking has been a procompetitive phenomena, and continued prohibition of it is anticompetitive. It is important to keep in mind, however, that these conclusions are based on experience during a relatively short period of development in which law and banking regulation imposed notable restrictions on horizontal and market extension acquisitions. Had bank acquisitions been no more restricted than they were in, say, the 1950's, a different set of findings are conceivable.

Findings, based on this review of the literature, are as follows:

(1) The proportion of commercial bank deposits held by the largest 100 commercial banking organizations in the United States has been less than 50 percent for sometime now. The ratio has declined over the last 15 years despite the expansion of multiple-office banking. However, this ratio has no clear economic significance since there is no particular banking market to which it can be related. While there appears to be a "national market" in which large commercial banking organizations compete for the business of large firms, the vast majority of commercial banks are quite small and their business is confined to firms and households limited to local areas.

(2) The number of large banking organizations is sizeable and competition among them in the "national market" is generally believed to be vigorous. There has been little concern about the intensity of competition in this market, and little study. From a historical point of view, restrictions on multiple-office banking and the dominance of state law with regard to bank office location has probably produced larger numbers and lower concentration in this national market than otherwise would have been the case. Given the

existing numbers of strong banking organizations competing in this market, and current laws and regulation over acquisitions, it seems doubtful that the elimination of multiple-office banking restrictions at the state level would now have any serious anticompetitive effect on structure at the national level.

(3) The expansion of multiple-office banking in recent years has lead to fewer banks and higher concentration at the state level. The economic significance of this finding is unclear. On the one hand, states cannot be considered banking markets within which numbers and concentration have economic importance for banking performance. On the other hand, there has been consideration of the possibility that high concentration in a state, reflective of dominance by a few large banking organizations, may have anticompetitive effects on bank behavior and performance in local banking markets. It has been argued that when only a few large banking organizations remain, and meet in many local markets throughout a state, rivalry among them in these local markets will be restrained by "mutual forebearance;" rivalry between them and small local banks will also be restrained by their capacity to dominate. There is little empirical evidence on these questions, though some recent work will merit careful evaluation.

(4) The effects of multiple-office banking on numbers and concentration in local banking markets has been a principal concern to researchers. These local markets have generally been viewed as metropolitan areas (SMSA's) or portions thereof, and rural markets centered on "towns" or "places" outside metropolitan areas.

There is some reason to believe that branch banking might result in more rival banks in small local markets than unit banking. Regulatory authorities appear to be less constrained in approving the establishment of a new branch

than in chartering a new bank. Since, however, branch banking seems to result in fewer banks within a state, in large local markets (e.g., large metropolitan areas) one should not necessarily expect more rival banks under branch banking.

There are very few banks and, inevitably, high concentration in even the largest non-metropolitan area banking markets, whatever the state law on multiple-office banking. There is no more than a suggestion in the available data, which is not very current, that there are more rival banks represented in local rural markets where branch banking is permitted.

Numbers of banks and banking organizations (affiliated banks consolidated into holding company organizations) increase and concentration tends to fall as metropolitan areas increase in size. Within given size classifications, numbers of banks are fewer and concentration is higher where branch banking is permitted. The economic significance of these "cross section" comparisons are, however, unclear. While it seems likely that metropolitan areas in multiple-office banking states are, in their entirety, single banking markets, there are persuasive theoretical reasons for believing that metropolitan areas in single-office banking states are divided into several markets. In consequence, there would be an overstatement of numbers of banks and an understatement of concentration in single-office banking markets.

Recent studies tracing changes in numbers and concentration in metropolitan areas in states permitting multiple-office banking indicate that multiple-office banking expansion is not associated with falling numbers of banks and higher concentration. In fact, there is some indication that it results in lower levels of concentration. This finding tends to support the view that the cross section comparisons between branch and unit banking metropolitan areas are misleading.

(5) Another structural characteristic of importance is the condition of entry which, conceptually, measures the force of potential competition. In commercial banking, economic barriers to entry are thought to be relatively low. Regulatory barriers, particularly restrictions and prohibitions on multiple-office banking, including branching and holding company restrictions, state prohibition of offices or out-of-state banking organizations, and home office protection laws, are conceivably of considerable importance in reducing the intensity of competition within local markets.

There is, however, no easy way to measure the condition of entry in banking markets, and consequently, little empirical evidence on the effect of restrictions on multiple-office banking markets.

(6) The structure of banking markets presumably affects bank performance through bank behavior. But the linkage between structure and behavior is not tight. Within the structures that exist in banking markets, there is room for a variety of behavioral patterns. There has been some consideration of multiple-office banking as a determinant of bank behavior independent of its effect on structure.

The elimination of restrictions on multiple-office banking has resulted in new entry by established banking organizations into local banking markets. Such entry may have important procompetitive behavioral effects on local banks. Possible anticompetitive behavioral effects, associated with rising concentration at the state level, have been noted in (3) above.

(7) Important differences in performance of multiple-office banks and unit banks have been found. But these differences cannot all be ascribed to differences in competition; that is, due to market structure and competitive conduct.

To the extent multiple-office banking results in lower levels of concentration in local markets, empirical evidence indicates that it would yield lower prices for banking services. The magnitude of the effect due to multiple-office banking is probably of moderate importance.

The elimination of multiple-office banking restrictions has the immediate effect of lowering barriers to entry in many local markets. The magnitude of the effect is yet to be adequately determined, but there is evidence in the literature suggesting that it is quite important.

Studies of new entry have generally found important procompetitive effects, the magnitude of which seem considerable. However, the most persuasive studies are for entry by newly chartered banks into monopolistic and oligopolistic markets. The effects of new entry suggested by these studies should not be automatically extrapolated to entry by large well-established multiple-office banks. More research on this issue is warranted.

III. Multiple-Office Banking and Market Structure: Numbers of Banks and Concentration

It is widely understood that state laws and regulations affecting the ability of commercial banks to have offices in more than one geographic location will influence the numbers of commercial banks and concentration of deposits among them in various geographic areas-in the nation as a whole, among states, and possibly within smaller local areas. The economic significance of these effects, to the extent they exist, is mainly thought to depend on whether or not the geographic areas in question are banking markets for one or more of the "products" offered by commercial banks. The effect at the national level will briefly be discussed, and then the studies dealing with effects on states as a whole, which are not normally viewed as banking markets, and local areas within states that are, will be reviewed.

A. EFFECTS AT THE NATIONAL LEVEL

As mentioned, the number of banking organizations in the United States as a whole and concentration among the largest is substantially affected by state law which prevent out-of-state banks from opening offices, and which limit or prohibit multiple-office banking within state boundaries. It is clear that there would be far fewer banks in the United States, and far higher levels of concentration than currently exist if state law restricting geographic location of commercial banking offices had not been dominant through most of the 19th century to the present.[1]

The competitive significance of this observation is not, however, obvious. Only the largest commercial banks in the United States sell products in what might be considered a "national" market; so from a market point of view, it would be the numbers and concentration among these largest that is of interest. However, it is generally believed that there are now sufficient numbers to provide considerable competition for the business of customers large enough to shop for banking services nationally. Under current laws prohibiting out-of-state office locations and within the framework of the anti-trust laws, as currently interpreted, it does not appear that numbers and concentration among these large organizations in the "national" market is likely to change significantly in the foreseeable future.

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1 For a history of the development of branch banking restrictions in the U.S., see Gerald Fischer, American Commercial Banking, Columbia University Press, New York, 1968.

Were multiple-office banking, either in the form of branch banks and/or holding companies, permitted nationally, it is uncertain what the effect would be on numbers and concentration in this national market. Even under current law and regulation, there might be some acquisitions that reduced numbers and concentration. At the same time, intermediate-sized banks would have more of an opportunity to grow, tending to increase numbers and reduce concentration.

There has been a more general concern, of a political if not an economic, nature with the proportion of total commercial banking deposits held by the largest banking organizations, even though the vast majority of banks do not compete nationally. With the acceleration of bank mergers and holding company acquisitions in the 1960's and 1970's in those states permitting and liberalizing their multiple-office banking laws, fewer banking organizations and higher levels of concentration for the nation as a whole were to be expected.

During the 1960's however, there was little change in the numbers of commercial banks and banking organizations.[1] Rising levels of mergers and holding company acquisitions were more or less offset by organizations of new banks.[2] The proportion of deposits held by the largest banking organizations declined slightly. (See Table I).

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[1] "Banking organizations" consolidate banks that are members of the same multiple-bank holding company.

[2] Bernard Shull and William Wiles, Recent Changes in Banking Structure in the United States, Select committee on Small Business, U.S. Senate, March 30, 1970, p. 6.

Table I

PROPORTION OF TOTAL DEPOSITS HELD BY LARGEST, 5 LARGEST, 100 LARGEST AND 300 LARGEST COMMERCIAL BANKING ORGANIZATIONS IN THE UNITED STATES, JUNE 30, 1961, 1966, 1968, 1975

	1961	1966	1968	1975
Largest	4.55	4.20	4.03	4.2
Largest 5	14.33	14.29	14.25	13.5
Largest 100	49.44	49.27	48.99	48.1
Largest 300	62.95	62.88	62.80	63.4

Source: Shull and Wiles, op. cit., p. 21 data for 1961, 1966 and 1968. The data for 1975 were provided by the Board of Governors, Federal Reserve System.

NOTE: "Total deposits" include total domestic deposits of U.S. banks consolidated for holding company organizations.

Between 1968 and 1973, a period during which multi-bank holding company acquisitions accelerated, the proportion of deposits held by the 100 largest banking organizations declined from 49 percent to 47 percent.[1] A substantial proportion of the largest 100 banking organizations made no bank acquisitions at all. There is evidence to suggest that the internal growth of these banks, as a group, was significantly slower than that of smaller organizations, and that this factor more than offset the impact of the acquisitions that were made on the aggregate concentration ratio.[2] Had acquisitions by these large banking organizations not been permitted at all (and had nothing else occurred to promote their expansion), concentration would have fallen to less than 45 percent.[3]

B. EFFECTS AT THE STATE LEVEL

There is considerable evidence indicating that the existence of multiple-office banking is generally associated with higher levels of concentration at the state level;[4] and that the expansion of multiple-office banking in a state will result in fewer banks and higher levels of statewide concen-

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[1] Samuel H. Talley, The Impact of Holding Company Acquisitions on Aggregate Concentration in Banking: Staff Economic Studies, Board of Governors of the Federal Reserve System, 1974, p. 6. However, in 1975, the 100 largest held about 48 percent of total deposits. See Table I.

[2] S.A. Rhoades and A.J. Yeats, "Growth, Consolidation and Mergers in Banking," Journal of Finance, December 1974.

[3] Talley, op. cit., p. 7.

[4] Bernard Shull and Paul M. Horvitz, "Branch Banking and the Structure of Competition," The National Banking Review, March 1964, p. 324; Shull and Wiles, op. cit.; "Recent Changes in the Structure of Commercial Banking," The Federal Reserve Bulletin, March 1970; Talley, op. cit.; and Jack M. Guttentag, "Branch Banking in Alabama," February 1976, unpublished paper.

tration within a relatively few years.[1] Data presented in Table II compares average concentration ratios for commercial banks in states grouped by branch law classifications drawn from two roughly comparable studies. As can be seen, substantial differences have existed among states with different branching laws for some time.[2]

Holding company expansion has been most prominent in recent years in states that do not permit statewide branching. Limited branching and unit banking states can be divided into those that permitted expansion by holding companies between 1968 and 1973 and those that did not. Concentration ratios are compared for these classifications in Table III. As can be seen, concentration was, on average, higher in 1973 in those states within each branch law classification that permitted holding company expansion. It can also be seen that, on average, concentration ratios increased in those states permitting holding company expansion while it decreased in those that did not.

More specifically, Talley found that:

> "In 24 states, holding company acquisitions increased statewide concentration. These increases ranged up to 5 percentage points in 15 states, between 5 and 10 percentage points in 3 states and between 10 and 15 percentage points in 6 states."[3]

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1 See, for example, Bernard Shull, "Multiple Office Banking and the Structure of Banking Markets: The New York and Virginia Experience," Proceedings of a Conference on Bank Structure and Competition, Federal Reserve Bank of Chicago, 1972, pp. 30-40; Talley, op. cit; and Steven J. Weiss, "Factors Affecting Bank Structure Change: The New England Experience, 1963-74," New England Economic Review, July-August 1975, pp. 16-25.

2 The stability of average concentration ratios across branching law classifications between 1962 and 1973, even in the face of liberalization of laws in some states, need not be taken seriously since these data are not adjusted for holding company affiliations. Given the increases in holding company affiliations in the late 1960's and the 1970's, the ratios, and the underestimation would be greater in unit and limited branching states than in statewide branching states.

3 Talley, op. cit., p. 14.

Table II

Concentration Ratios by Groups of States
Classified by Branching Law

Branching Law Classifications	December 31, 1973*		December 31, 1962**	
	Number of States	5-Bank Concentration Ratio (Percent)	Number of States	5-Bank Concentration Ratio (Percent)
Statewide Branching	19	75.4	17	75.5
Limited Branching	18	41.1	17	41.2
Unit Banking	13	34.3	16	34.3

Sources:

* From Jack M. Guttentag, "Branch Banking in Alabama," op. cit.

** From Bernard Shull and Paul M. Horvitz, "Branch Banking and the Structure of Competition," op. cit.

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Table III

Average Concentration Ratios For
Commercial Banking Organizations in Limited Branching
And Unit Banking States Classfied
By Holding Company Law, 1968, 1973

Branching Law Classification	1968	1973	Change 1968-73
Limited Branching States:			
Permitting Multiple- Bank Holding Company Expansion	42.1	45.2	+3.1
Not Permitting Multiple-Bank Holding Company Expansion	35.9	32.9	-3.0
Unit Banking States:			
Permitting Multiple-Bank Holding Company Expansion	33.8	35.0	+1.2
Not Permitting Multiple-Bank Holding Company Expansion	35.7	33.0	-2.7

Source: Derived from data provided in Talley, op. cit.

Talley also found that, where permitted, holding company expansion had little impact on concentration in statewide branching states, presumably due to the availability of the merger-branching alternative.[1]

The data in Table III further confirms the conclusions reached in studies of experience in specific states or small groups of states cited above. Where multiple-office banking is undertaken, either because it is newly permitted by state law or newly perceived as profitable by established banking organizations in states where already permitted, concentration ratios at the state level will rise. Simulations of acquisition patterns showing likely impacts under liberalized multiple-office banking laws, also confirm the likelihood of this effect.[2]

In light of this general conclusion, it is of interest that between 1968 and 1973 concentration at the state level fell in some states that permit statewide multiple- office banking through branching and/or holding companies. So, for example, concentration fell in Oregon, a state that permits statewide branching and multiple bank holding companies, and also in New York. This fact should be interpreted as indicating that there are other important determinants of change in state level concentration as well as multiple-office banking laws.[3]

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1 Ibid., pp. 14-22.

2 George R. Juncker and George S. Oldfield, "Projecting Market Structure by Monte Carlo Simulation: A Study of Bank Expansion in New Jersey," The Journal of Finance, Dec. 1972, pp. 1101-1126.

3 For a discussion of some of these, See Shull, "Multiple Office Banking and The Structure of Banking Markets: The New York and Virginia Experience," op. cit., p. 8.

The economic significance of increases in statewide concentration due to the expansion of multi-office banking is uncertain. States are not thought to be geographic banking markets for any of the "products" offered by banks. Within the market structure-performance framework, concentration at the state level has no obvious importance. But, under current law, state boundaries do represent absolute barriers to entry by out-of-state banks. It is conceivable that high concentration coupled with this absolute barrier to entry may alter the pricing and production policies of "in-state" banks within local areas that are geographic markets. In any event, there has been some consideration of this possibility, which is discussed below in Sections IV and V.

C. AREAS WITHIN STATES

There is more certainty about the significance of concentration ratios in local areas within states that approximate markets for locally-limited banking customers. Local areas may be defined to include both large cities and their surrounding areas, and also identifiable communities outside such areas. Precise definitions of local banking markets normally requires careful study of each. However, it has rarely been practicable, for general analytical purposes, to use geographic market areas that have been individually determined.[1] Standard Metropolitan Statistical Areas (SMSA's), counties and "places outside metropolitan areas" defined by the Department of Commerce have

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[1] However, there has now been considerable experience in the determination of local markets in the Federal banking agencies. Sufficient numbers of markets have apparently been determined by the Federal Reserve in the course of evaluating merger and holding company acquisitions to permit the use of such determinations in statistical analyses. See David C. Whitehead and B. Frank King, "Multibank Holding Companies and Local Market Concentration," Monthly Review, Federal Reserve Bank of Atlanta, April, 1962.

been accepted as rough approximations of local banking markets in statewide and limited branching states.[1]

1. Numbers and concentration in non-metropolitan areas. There is no current data for the United States as a whole on numbers of banks and concentration in small rural communities outside metropolitan areas. Data for 1960 indicated that there were, and it seems likely that there still are, very few banks even in the largest such communities; that is, with populations of 25,000 and over, and very high levels of concentration.[2] When region and population size were accounted for, there seemed little difference in numbers in unit banking, limited branching and statewide branching states; there was no more than a hint of more banking organizations in these local areas in statewide branching states than in others.[3] More research on this issue might be helpful, though it seems reasonable that the effects of multiple-office banking on numbers and concentration in non-metropolitan areas, would be similar to effects in metropolitan areas, within the limits imposed by demand for banking services.

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1 There are reservations concerning comparisons of large SMSA's in multiple-office banking and single office banking states. In the latter, multiple-office banking cannot operate to tie the center city and suburbs into a single geographic market area. There are important theoretical reasons for believing that multiple-office banking tends to unify large metropolitan areas into a single local market. For a discussion of this issue, see Shull and Horvitz, op. cit., pp. 328-330. There is some empirical evidence on the effect, but it is not clear cut. See, for example, Franklin Edwards, "The Banking Competition Controversy," The National Banking Review, September, 1965, pp. 8-11; Paul Horvitz, "Price Uniformity and Banking Markets, The Appalachian Financial Review, Spring 1969; and Robert Eisenbeis, "Local Banking Markets for Business Loans," Journal of Bank Research, Summer, 1971.

2 Shull and Horvitz, op. cit., pp. 324 ff. However, for some indication of numbers and concentration in rural markets in Alabama, Florida, and Tennessee, based on ad hoc market determinations by the Federal Reserve, see David D. Whitehead and B. Frank King, op. cit.

3 Shull and Horvitz, op. cit., p. 325. In a recent study of banking in Alabama, a state in which counties have had an option to prohibit, limit or permit county-wide branching, Guttentag found that non-metropolitan area residents had, on average, access to more different banks within 5 miles of their community in counties permitting unlimited branching. Guttentag, op. cit., p. III-7.

2. Numbers and concentration in metropolitan areas. Data for standard metropolitan statistical areas is more readily available, and there is more evidence on effects in these areas. Data on the average number of banking organizations and concentration ratios for SMSA's in different branching law classifications in mid-1968 is presented in Tables IV and V. As can be seen, those SMSA's in states prohibiting or limiting branch banking had, on average, more banking organizations per SMSA and, generally, lower levels of concentration.

Data in Table VI are taken from the two roughly comparable studies mentioned above, and shows average numbers of banks in metropolitan areas and concentration ratios in 1962 and 1974. It should be noted, again, that these data are for "banks," not "banking organizations;" the ratios do not reflect consolidation for holding company affiliations. Therefore, the ratios would be seriously underestimated in unit banking states, and more so in 1974 than in 1962. The data are of interest, despite these deficiencies, because the effects of multiple-office banking expansion in unit banking areas is largely eliminated over the period, while the effect in statewide branching areas is not.

As can be seen, the proportion of deposits held by the largest bank in each population class was, on average, higher in statewide areas in both 1962 and in 1974. Average numbers of banks were higher in unit banking areas.

Over the 12-year period, however, there were increases in numbers of banks in all categories. Concentration fell in all categories. It is noteworthy that average concentration fell substantially in the smaller SMSA's in statewide branching areas-precisely where it had been the highest in 1962.

Table IV

AVERAGE NUMBER OF BANKING ORGANIZATIONS IN METROPOLITAN AREAS

June 29, 1968

Population of Standard Metropolitan Statistical Area	Statewide Branching States	Limited Branching States	Unit Banking States
	Bank Organizations		
50,000 - 100,000	6	5	7
100,000 - 500,000	8	11	18
500,000 -1,000,000	15	18	38
1,000,000 and over	35	46	120
All SMSA's	13	16	29

Source: "Recent Changes in the Structure of Commercial Banking, " Federal Reserve Bulletin, March 1970, p. 206.

Table V

PERCENTAGE OF TOTAL DEPOSITS HELD BY LARGEST BANKING ORGANIZATIONS IN METROPOLITAN AREAS

June 29, 1968

Population of standard metropolitan statistical area	Largest organization			Two largest organizations		
	Statewide branching States	Limited branching States	Unit-banking States	Statewide branching States	Limited branching States	Unit banking States
	Percentage of total deposits					
50,000 - 100,000	43.8	38.9	39.8	69.5	65.4	68.5
100,000 - 500,000	42.7	39.0	31.1	68.5	64.4	53.5
500,000 - 1,000,000	40.8	34.9	25.9	69.1	57.7	47.8
1,000,000 and over	32.7	31.1	23.9	55.0	51.5	42.7
All SMSA's	41.1	37.3	31.5	66.9	61.7	54.6

Source: "Recent Changes in the Sturcutre of Commercial Bank," Federal Reserve Bulletin, March, 1970, p. 207.

Table VI

Number of Banks and Concentration in SMSA's
Classified by Population
in Statewide Branching and
Unit Banking States,
June 1962 and June 1974

Population and Branch Law Classifications:	June 1962		June 1974		CHANGE June 1962-74	
	No. of Banks	Percent of Deposits held by Largest	No. of Banks	Percent of Deposits held by Largest	No. of Banks	Percent of Deposits held by Largest
Statewide Branching						
50,000 - 99,999	4.8	53.0	6.7	41.9	+1.9	-11.1
100,000 - 499,999	7.4	47.1	10.3	37.0	+2.9	-10.1
500,000 - 999,999	12.4	44.7	19.8	37.5	+7.4	- 7.2
1,000,000 and over	27.6	37.3	36.6	33.8	+9.0	- 3.5
Unit Banking						
50,000 - 99,999	6.2	42.1	7.4	38.7	+1.2	- 3.4
100,000 - 499,999	15.0	34.5	19.6	25.5	+4.6	- 9.0
500,000 - 999,999	38.8	27.5	56.0	20.3	+17.2	- 7.2
1,000,000 and over	105.7	28.0	171.5	17.2	+65.8	-10.8

Sources: 1974 data from Guttentag, op. cit., 1962 data from Shull and Horvitz, op. cit.

This limited comparison implies that multiple-office banking did not lead to increases in concentration in metropolitan areas over the period, nor is there any suggestion that it restrained declines in concentration. This finding is consistent with other evidence, indicating that multiple-office banking expansion has not resulted in increases in concentration in metropolitan areas.

Under the New York State Omnibus Banking Act of 1959, New York City banks began to branch into Nassau county in 1961. Motter and Carson found that between Jan. 1961 and Jan 1964 the number of banks having offices in Nassau County increased from 18 to 21, concentration (in terms of banking offices) fell and mutual savings banks and S & L's expanded also in terms of numbers of offices. They also found that over this period, the numbers of different banks represented in 16 submarkets into which Nassau County had been divided increased (in 13) or remained the same (in 3).[1] Over the 1960's, Shull found that in Virginia and New York (states that had liberalized their laws in the early 1960's so as to permit statewide banking) there was no systematic change in the numbers of different banking organizations in SMSA's; there was no systematic change in concentration--it declined in more areas than it increased; and initial entries into a metropolitan area by large banking organizations based elsewhere tended to reduce concentration in the area independently of whether a small or large bank was acquired to effect entry.[2/] Based on experiences in Alabama, Florida and Tennessee from June 1970 to December 1974, Whitehead and King found "no support for the proposition that

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[1]David C. Motter and Deane Carson, "Bank Entry and the Public Interest: A Case Study," The National Banking Review, June 1964, pp. 488-90.

[2]Shull, "Multiple Office Banking and the Structure of Banking Markets: The New York and Virginia Experience," op. cit.

multibank holding companies systematically cause increased bank deposit concentration when they enter local markets . . . of the 61 markets entered . . . only 13 percent recorded increased concentration." Apparently much of this increase bore no relationship to holding company entry.[1] Other studies have suggested similar patterns.[2] And simulation studies further suggest the liklihood of such developments.[3]

The "cross section" and "time series" comparisons raise an interesting question. Why is concentration higher in metropolitan areas where multiple-office banking is permitted than where it is not, while the expansion of multiple-office banking over time does not increase and perhaps reduces concentration in such areas? First, as noted above, the cross section comparisons are suspect because it is doubtful that all metropolitan areas prohibiting multiple office-banking are unified banking markets. It may also be noted that the cross section comparisons-whether 1962 or 1974- reflect structural changes that have occurred over a long period of earlier years, including those in which acquisitions and mergers were consummated in a far different legal and regulatory environment. Thus, prior to the 1960's, there was little regulatory control over mergers among large banks in the same metropolitan area. In many permitting multiple office banking, combinations substantially reduced numbers and raised concentration. However, since there is little incentive for merger or acquisition where the acquired bank's office

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[1] David C. Whitehead and B. Frank King, op. cit., p. 39

[2] See Judith B. Kunreuther, "Banking Structure in the New York State: Progress and Prospects," Monthly Review, Federal Reserve Bank of New York, April 1976, pp. 107-115.

[3] Juncker and Oldfield, op. cit.; see also George S. Oldfield and Ronald D. Watson, "Projecting the Structure of Local Banking Markets in Pennsylvania," Proceedings of a Conference on Bank Structure and Competition, Federal Reserve Bank of Chicago, 1972, pp. 44-78.

must be closed, metropolitan areas in which multiple-office banking was prohibited would not be subject to this influence. The simulation studies referred to above indicate that regulatory policy toward acquisitions can have significant effects on the number of competitors and concentration in local markets.[1]

The "time series" studies, on the other hand, trace changes in numbers and concentration in metropolitan areas within the last decade-and-a-half. Legal prohibition of horizontal combinations among large banks has been close to absolute since the Philadelphia-Gerald Trust decision by the Supreme Court in 1963.[2] In consequence, the principal effect of multiple-office banking on numbers and concentration is likely to emmanate from entry by large banking organizations into new local market areas. There is no unique a' priori expectation with regard to such entry, and the empirical evidence indicates that, at worst, it has not been anticompetitive, and at best, it has been procompetitive.

The underlying assumption in projections based on these findings is, of course, the continued existence of the legal and regulatory environment during which they occurred. This should not be taken for granted. The Motter-Carson findings in Nassau County following the rejection of two important merger proposals by the Comptroller of the Currency which would have permitted large New York banks to enter Nassau County by acquiring large Nassau-based banks. The Shull and Whitehead - King findings occurred in states in which

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[1] Juncker and Oldfield, op. cit.; Oldfield and Watson, op. cit.

[2] The Bank Merger Act of 1960 and related antitrust statutes appear to have been successful in eliminating the kinds of horizontal mergers which increased concentration in many metropolitan areas in the 1950's, and which so concerned Congress at that time. See Bernard Shull and Paul M. Horvitz, "The Bank Merger Act: A Decade After," The Antitrust Bulletin, Winter 1971.

Federal Reserve Holding Company Act decisions were particularly important, and during a period when the Federal Reserve gave particular emphasis to the effect of holding company acquisitions on "potential competition." The failure of the Supreme Court in recent decisions to support this regulatory approach to potential competition suggests at least the possibility of important changes in the regulatory environment that could invalidate the extrapolations of recent experience.[1]

IV. Multiple-Office Banking and Barriers to Entry

Within the analytical framework described above, the "condition of entry" is defined as astructural characteristic of markets, measured by the extent to which established frims can maintain prices above competitive levels without attracting entry by new firms.[2] Such potential price differentials above competitive levels will be determined by the height of economic and other "barriers to entry." Legal and regulatory restrictions of multiple-office banking represent barriers to entry which may effectively isolate established banks in local areas from the threat of potential competition, and thereby permit interest rates charged to be higher and interest rates paid to be lower than competion would require.

All restrictions on multiple-office banking may be interpreted as barriers to entry which tend to reduce potential competition. These would include state prohibitions against offices of out-of-state banking organizations, state prohibitions against multiple bank holding companies, geographic restrictions on branch banking within states, statutes providing for branching

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[1] For a discussion of the issues and a review of recent decisions, see Bernard Shull, "The Potential Competition Doctrine and Market Extension Acquisitions in Banking," Compendium of Major Issues in Bank Regulation, Committee on Banking Housing and Urban Affairs, U.S. Senate, August 1975, pp. 745-761.

[2] Joe Bain, Barriers To New Competition, Harvard University Press, Cambridge, 1956.

through merger only and so-called "home-office protection" provisions which forbid de novo branching into an area in which another bank has its home office.

Legal restrictions on multiple-office banking are, in concept, important. As indicated above, numbers of banks in many local markets are few, and concentration in most local markets is high. Competition among established banks is likely to be deficient; and potential competition, where not defused by legal restrictions, may serve to keep the prices of banking services close to competitive levels.

Legal barriers to entry assume importance because economic barriers to entry in banking are probably not very high.[1] Restrictions on multiple-office banking, in contrast to restrictions on entry by new charter, are of particular importance because banking regulators are less constrained in permitting the opening of a branch of an established bank than in chartering a new bank.

Eliminating or liberalizing multiple-office banking restrictions should have the immediate effect of lowering a critical barrier to entry in many local banking markets. However, there is relatively little empirical evidence on this issue because there is no readily available way to measure the intensity of potential competition directly. It is an intangible force, subjectively perceived by the managements of established firms within the market, which, presumably, operates to modify tacit or explicit agreements among oligopolists, to the extent such agreements exist. There is, however, at least a suggestion in some of the empirical findings on "performance" that

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[1]For a discussion of the issues, see Bernard Shull and Paul M. Horvitz, "Branch Banking and the Structure of Competition," op. cit., pp. 305-312; and Gerald Hanweck, "Bank Entry Into Local Markets: An Empirical Assessment of the Degree of Potential Competition Via New Bank Formation," Proceedings of a Conference on Bank Structure and Competition, Federal Reserve Bank of Chicago, 1971, pp. 161-172.

the condition of entry is an important structural characteristic of banking markets. These findings are discussed in Section VI. B below.

V. Multiple Office Banking and Bank Behavior

Theoretically, structure affects performance through "conduct" or "behavior;" for example, the condition of entry (a structural characteristic) may modify price agreements among established firms (a behavioral pattern), which would be reflected in the level of prices charged (a measure of performance).

In imperfect markets, such as commonly exist in banking, the linkage between structure and conduct is, however, not very tight. It has been recognized that the structural characteristics that have been quantified (principally, various measures of concentration) leave a considerable amount of variance in performance unexplained. It has been suggested that "conduct" -- patterns of behavior --may be important in explaining performance.[1]

In the wake of the anticompetitive measures implemented after the banking crisis of 1933 to forestall bank failure (such as restrictions on entry by new charter and prohibition on interest payments on demand deposits) a cooperative pattern of conduct among independent banks became fairly typical. It was characterized in the statement of one banker who noted that " . . . competition is now carried on among banks in a fine spirit of cooperation."[2]

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[1] Almarin Phillips, "Does Structure Matter," Panel Discussion in Proceedings of a Conference on Bank Structure and Performance, Federal Reserve Bank of Chicago, 1970, p. 68.

[2] As quoted by Lester Chandler, "Monopolistic Elements in Commercial Banking," The Journal of Political Economy, February 1938, p. 22. It was not until the early 1960's, particularly with the Supreme Court's decision in the Philadelphia-Girard case in 1963, that it became clear that the antitrust laws applied to commercial banks.

Collusion, implicit or explicit, is encouraged by fewness, and possibly also by the stability and local orientation of the "insiders." It is to be expected, then, that the elimination of multiple-office banking restrictions resulting in new entry into local areas by banking organizations based elsewhere could result in more competitive behavior, and improved performance.

As discussed in Section VI.C below, studies of new entry into local banking markets have generally found a substantial effect in terms of improved performance. How much of this effect should be attributed to the structural change brought about by new entry and how much to changes in behavioral patterns associated with the appearance of an "outsider" and intensified concern about the possible appearance of others has not been disentangled.

Multiple-office banks, where permitted, have accomplished new entry, de novo and by acquisition, in many local markets. The geographic spread of multiple-office banking has been criticized, however, as a form of conglomeration; and some of the same behavioral issues raised by conglomeration have been raised with regard to multiple-office banking.

One type of critique deals with the behavioral relationships among small groups of large banking organizations when they meet one another in many different markets, such as would occur in states where a few large banking organizations dominate. A second and related issue concerns the behavioral relationships between these large organizations and the small banks with whom they come in contact as they expand.

A. BEHAVIORAL RELATIONS AMONG LARGE ORGANIZATIONS.

Multiple-office banking expansion has resulted in falling numbers of banks, increasing size of large banking organizations and rising concentration at the state level. In some states important local banks have been acquired by the largest organizations in the state as they have attempted to enter new local areas with as much advantage as possible. Geographic expansion in states permitting multiple-office banking seems to imply an increasing number of geographic and product market contacts among relatively few large banking organizations.[1]

The existence of numerous separate market contacts by a few large firms has been viewed by some economists as detrimental to competition among them, and has been structurally characterized as a condition of "linked oligopoly." It has been argued that recognized mutual interdependence in many markets will result in mutual restraint or forebearance on the part of the major firms in each; the attempt by one to fully benefit in those markets where it has advantages will be seen as provoking retailiation in those markets where it does not. Corwin Edwards was an early exponent of this view:

> "The interests of great enterprises are likely to touch at many points, and it would be possible for each to mobilize at any one of these points a considerable aggregate of resources. The anticipated gain to such a concern from unmitigated competitive attack upon another large enterprise at one point of contact is likely to be slight as compared with the possible loss from retaliatory action by that enter-

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[1] An alternative possibility is that expansion leads to the unification of formerly separate local markets into a geographically larger "state" market. While such developments are conceivable, particularly if large banking organizations adopt policies of maintaining the same prices and terms on banking services at all offices, there is no evidence of statewide markets for any of the services provided by banks. See Robert Eisenbeis, "Local Banking Markets for Business Loans," Journal of Bank Research, Summer, 1971.

> prise at many other points of contact. There is an awareness that if competition against the large rival goes so far as to be seriously troublesome, the logic of the situation may call for conversion of the warfare into total war. Hence there is an incentive to live and let and live, to cultivate a cooperative spirit, and to recognize priorities of interest in the hope of reciprocal recognition.[1]

The structural condition of "linked oligopoly" has been seen as inducing an "interfirm" behavioral pattern, conceived by the participants as a modus vivendi, aimed at reducing the uncertainties resulting from their mutually recognized interdependence. This tacit or explicit interfirm agreement then becomes an objective of the firms, as a group, within which the individual firm might still be viewed as maximizing profits.[2]

In commercial banking, where "competition in a fine spirit of cooperation" was institutionally sanctioned for a long period of time, it does not strain the imagination to conceive of tacit interfirm agreements among even large aggressive banking organizations, "Phillips has observed:

> Much, but not all, of the private rationalization of competition is a side effect of certain cooperative arrangements among bankers --- clearing houses, loan participants, and correspondent relations for example--which add to the efficiency of the system. The point is not that there are conscious efforts to arrange conspiracies in restraint of trade, but rather that public regulation has the express purpose and private organization has the necessary effect of producing essentially non-competitive results."[3]

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[1] Corwin Edwards, "Conglomerate Bigness as a Source of Power, "Business Concentration and Price Policy, Princeton University Press, Princeton, N.J., 1955, p. 35. See also, Alexander Henderson, "The Theory of Duopoly," Quarterly Journal of Economics, 1954, pp. 565-84.

[2] Almarin Phillips, "A Theory of Interfirm Organization," Quarterly Journal of Economics, Novermber 1960, pp. 602-613.

[3] Almarin Phillips, "Competition, Confusion and Commercial Banking," Journal of Finance, March 1964, p. 39.

Within this general framework, Solomon has argued that market-extension acquisitions of strong local banks by large multi-market banking organizations result in a statewide structure of fewness that meet the conditions of the "linked oligopoly-mutual forebearance" hypothesis.[1]

There has been little empirical evidence to support this hypothesis. However, there have been some very recent efforts to test it that will require careful evaluation.[2]

B. BEHAVIORAL RELATIONS BETWEEN LARGE ORGANIZATIONS AND SMALL BANKS

The expansion of multiple-office banking brings large banking organizations not only into increasing numbers of contacts with one another, but into increasing numbers of contacts with small, local banks that were previously isolated from the competitive pressures of the larger organizations. Historically, local independent banks have expressed considerable fear and antagonism toward such contacts and have strongly supported multiple-office banking restrictions to avoid them. This position has been widely interpreted, with justification, as anticompetitive.

There is, nevertheless, a much debated theory in the economic literature on the willingness and ability of large multi-market firms to drive small local rivals out of business, into mergers or into tacit agreements unfavorable

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[1] Elinor H. Solomon, "Bank Merger Policy and Problems: A Linkage Theory of Oligopoly," Journal of Money, Credit and Banking, August 1970, pp. 323-336.

[2] In one unpublished paper, Arnold A. Heggestad and Stephen A. Rhoades test the hypothesized relationship between concentration at the state level and a "conduct" measure of bank rivalry in metropolitan areas within the states. "The Influence of Statewide Banking Structure on Bank Conduct;" and in another, a relationship between the number of separate geographic market contacts among large banking organizations in a state and bank rivalry. "The Influence of Mulit-Market Links on Local Market Competition." The tests indicate that state concentration does have a systematic influence on firm conduct, as does multi-market linkages.

to small firm growth and development. It is beyond the scope of this paper to fully review this debate.[1]

The "linked oligopoly - mutual forebearance" hypothesis implies, moreover, a differential relationsip among large multi-market organizations and between such large organizations and small local firms. After describing large organization "forebearance," Edwards made the point that:

> "Similar policies by a large company toward a small one are seldom encountered. The small concern's business is limited geographically, or in the commodities it covers, or in the classes of customers with which it is concerned, or in some other way; and the large company can seldom be seriously injured by agressive tactics which the small one may undertake, or by retaliatory or disciplinary tactics which may be employed against it by the small company."[2]

Solomon also gave attention to this issue in her application to commercial banking.

> "The suggestion, therefore, that in certain linked oligopolistic markets there may exist an effective interfirm organization, which may be strengthened by elimination of the mavericks (i.e., the non-members in this context), is not entirely novel. The theory may also be relevant to the analysis of a series of acquisitions, by leaders, which increases - usually within numbers of closely related markets - their market power and ability to dominate the remaining members of the group, especially when the mavericks or potential rivals are at the same time eliminated within the same network of markets."[3]

Others have also considered the possibility of anticompetitive practices and agreements between large multi-market banking organizations and small local

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[1] For a review of the theoretical literature, see B.S. Yamey, "Predatory Price Cutting: Notes and Comments." Journal of Law and Economics, April 1972, p. 129-42. John S. McGee has made the influential argument that the seemingly well known predatory practices of Standard Oil around the turn of the century were mythological. F. Scherer has suggested that McGee failed to look at all the evidence. See Scherer, op. cit., pp. 274-275.

[2] Edwards, op. cit., pp. 335-36.

[3] Solomon, op. cit., pp. 327-38.

banks.[1] But it remains true that there is little empirical evidence on this question. It seems likely that whatever evidence develops will be drawn from case histories arising out of regulation and litigation.[2]

VI. Multiple Office Banking and Bank Performance

Numerous studies have investigated differences in the performance of multiple-office and single office banks. Important differences in asset, liability and capital management have been found. Some systematic differences in kinds and prices of services have also been found.[3]

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[1] Paul M. Horvitz and Bernard Shull, "Branch Banking, Independent Banks and Geographic Price Discrimination," The Antitrust Bulletin, Winter, 1969.

[2] In a statement cited by Stephen Rhoades, the close association between "mutual forebearance" and large-small bank relationships is articulated by an official of a large bank. The statement was in the Justice Department files in U.S. vs. Marine Bancorporation, 1973. Rhoades' reporting of it in "The Impact of Bank Mergers and Laws on Statewide Banking Structure," an unpublished paper, follows:

> "An example of mutual forebearance in banking is provided by the Old National Bank of Spokane and the National Bank of Commerce (NB of C), Seattle. A bank official of Old National said to an official of NB of C, 'We would be a lot better off if they (NB of C) were in Ritzville than the unit bank there, and certainly the Old National would be better off if NB of C went into Pomeroy; that there would be better cooperation between two branch systems than where they had a unit bank as competition.

[3] For recent reviews of findings on performance differences between banks affiliated with holding companies and non-affiliated banks see Robert J. Lawrence and Samuel H. Talley, "An Assessment of Bank Holding Companies," Federal Reserve Bulletin, January 1976, pp. 15-21. See also Peter S. Rose and Donald R. Fraser, "The Impact of Holding Company Acquisitions on Bank Performance," The Magazine of Bank Administration, Spring, 1973. Recent reviews of literature comparing performance of branch and unit banks include: Gary Gilbert and William Longbrake,"The Effects of Branching by Financial Institutions on Competition, Productive Efficiency and Stability: An Examination of the Evidence. The Journal of Bank Research, Autumn 1973 and Winter 1974; and Larry R. Mot, "The Perennial Issue: Branch Banking," Business Conditions, Federal Reserve Bank of Chicago, February 1974. For an earlier review of the literature (through 1966), see Jack M. Guttentag and Edward S. Herman, Banking Structure and Performance, New York Univ.,Feb. 1967.

The differences that have emerged, however, cannot simply be ascribed, to a differential competitive environment produced by the two kinds of banking. Operational characteristics of different organizational structures, differential objectives (and, perhaps, skill) of management, and economies of scale, to the extent they exist, may combine with competitive factors to produce the observed differences.

The differential impact on performance due to competitive factors must, to a degree, be inferred from differential effects on market structure and conduct.

A. CONCENTRATION AND PERFORMANCE

The effect of multiple-office banking on numbers of banks and concentration in well defined local banking markets is of at least moderate importance. There is only a suggestion in the studies reviewed above that concentration is somewhat lower in non-metropolitan area communities where branching is permitted. With appropriate geographic definition in metropolitan areas, there is probably little difference in numbers and concentration in unit banking and branch banking areas. But there is evidence that the liberalization of multiple-office banking restrictions, coupled with a restrictive acqusition policy, can increase numbers and lower concentration in local markets.

It is, then, worthwhile to inquire into the likely effect of lower concentration on bank performance. There have been, in the past 15 years, a number of careful studies, using multiple regression techniques, of the hypothesized relationship between concentration and various measures of bank performance- in particular, "prices" of one or more of the "products" banks offer.[1] Typical

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[1] For a review of much of this literature, see George J. Benston, "The Optimal Banking Structure: Theory and Evidence from the United States," Kredit Und Kapital, Vol. 5, No. 4, 1972, pp. 438-76. Reprinted by Center for Research in Government Policy and Business, University of Rochester.

findings have been that higher concentration in local markets is associated with higher interest rates on business loans, consumer loans and mortgages and lower interest rates paid on time and savings deposits. However, the magnitude of this concentration-effect has generally been small.[1] Some recent studies have attempted to remedy recognized deficiencies of the older studies and have found statistically significant relationships of greater magnitude.[2]

On the basis of these findings, it is reasonable to conclude that the further expansion of multiple-office banking can reduce bank "prices" by reducing concentration in local markets. Given the legal-regulatory environment of the past 15 years, it does not seem likely that it would worsen bank performance by raising local market concentration.

B. THE CONDITION OF ENTRY AND PERFORMANCE.

As noted above, the elimination of restrictions on multiple-office banking has the immdeiate effect of lowering a critical barrier to entry into many local banking markets. In areas with high concentration, one possible result would be lower "prices" among established banks to forestall entry; another would be lower "prices" resulting from accomplished entry by new competitors. The first-mentioned effect depends on the existence of a tacit or explicit agreement among established banks.

As noted, the condition of entry has proved a difficult concept to quantify. Changes resulting from a liberalization of multiple-office banking restrictions have rarely been studied in a systematic fashion. This is somewhat

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[1] Ibid., pp. 448-451.

[2] See Franklin R. Edwards and Arnold A. Heggestad, "Uncertainty, Market Structure and Performance: The Galbraith-Caves Hypothesis and Managerial Motives in Banking," Quarterly Journal of Economics, August 1973, pp. 455-73; and Arnold A. Heggestad and John J. Mingo, "Prices, Nonprices and Concentration in Commercial Banking," Journal of Money, Credit and Banking, February 1976, pp. 107-17.

See Also H. Prescott Beighley and Alan S. McCall, "Market Power and Structure and Commercial Bank Installment Lending," Journal of Money, Credit and Banking, Nov., 1975

curious because the existence of a variety of restrictions, affecting many local markets and many recent changes in restrictions, might be thought to provide useful comparative data. In any event, there are some results reported by several researchers which could be interpreted as throwing light on the issue.

In a study of unit banks in small isolated rural markets, using multiple regression analysis, Horvitz and Shull found banks in states where branch banking was permited paid higher interest rates on time deposits independently of the actual presence of a branch office in the market. They interpreted these findings as reflecting lower barriers to entry where branching is permitted.[1] Similarly, in a study of the relationship between concentration and interest rates on business loans in metropolitan areas, Jacobs found that legal restrictions on branching were associated with higher interest rates on small business loans-presumably loans to locally-limited customers.[2] In both studies, the magnitude of the branching-effect on interest rates was greater than that of concentration. More recently, McCall and Peterson studied the impact of entry via new charter by independent banks in 31 one-to-three bank rural markets; and de novo branch entry in 11 one-and two-bank markets. They found that branch bank entry, in contrast to new charter entry, had little impact on the performance of banks already established in the market; and that the pre-entry performance of established banks in branch banking markets (as well as the comparable post entry performance) was more competitive in a number of respects than the pre-entry performance of established banks in unit banking markets. This result is consistent with the hypothesis that potential competition is greater in local markets within branch banking states.[3]

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[1] Horvitz and Shull, op. cit. pp. 173-76.

[2] Donald Jacobs, Business Loan Costs and Bank Market Structure, National Bureau of Economic Research, Occassional Paper 115, New York, 1971.

[3] Alan McCall and Manfred Peterson, The Impact of De Novo Commercial Bank Entry," unpublished paper, 1976.

C. NEW ENTRY AND PERFORMANCE

Actual entry into local markets by established banks could result in improved banking performance for several reasons. If accomplished de novo, there will be an increase in numbers and a decline in concentration. If effected through acquisitions, there would be no immediate effect on numbers or concentration; however accomplished, existing behavioral patterns in the market should be somewhat disturbed by the appearance of a newly managed rival.

There have been several studies of new entry and its effect on performance of established banks. An early investigation by Motter and Carson, discussed in part above, dealt with the effects of entry by New York City banks into Nassau County following passage of the Omnibus Banking Act in New York. Important changes in performance were found, including a decline in rates on consumer installment loans at Nassau County banks after new entry had occurred.[1]

The New York State Banking Department has published a series of monographs dealing with impact of multiple-office bank expansion on competition and small local banks. Ernest Kohn analyzed independent banks that remained in communities where another independent had been acquired by a larger "outside" institution and had been converted to a branch office.[2] His findings ran " . . . counter to the 'conventional wisdom' that small banks generally cannot compete with larger institutions." [3] They suggested that the conversion of an independent local bank to a branch of a large banking organization did not, per se, reduce

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[1]David C. Motter and Deane Carson, op. cit., p.

[2]Ernest Kohn, The Future of Small Banks, New York State Banking Department, Dec. 196(

[3]Ibid., p. 181

the profits of the remaining independent.[1] But such large entry "appears to have had adverse effects on the total deposit growth rate of most small banks."[2]

In a subsequent study, Kohn and Carlo tried to determine whether the opening of new branches in New York State had adverse effects on competing institutions.[3] "Before-and-after" analyses were made of profitability and deposit growth. They found that the opening of new de novo branches "did not have significant effects on the profitability of competing institutions."[4] Again they found significantly adverse effects on deposit growth rates.[5]

The above studies generally dealt with expansion and entry by established institutions. Other studies have attempted to determine the effect on performance resulting from entry by newly chartered banks. It is conceivable that the impact may be different, first because there is always an immediate beneficial effect on structure when a new bank is chartered, and second because the newly chartered entrant is always small and initially at least in a seemingly vulnerable position, unlike the large multiple-office organization, even when it expands de novo.

In a study of the performance of new national banks chartered in 1962, Motter traced the effects of entry on existing bank performance in 8 one-and two-bank towns. Among other things, he found that in the year following entry interest rates on time and savings deposits at previously existing banks

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[1] Ibid, p. 167

[2] Ibid.

[3] Ernest Kohn and Carmen J. Carlo, The Competitive Impact of New Branches, New York State Banking Department, Dec. 1969.

[4] Ibid., Ch. III.

[5] Ibid., Ch. VI.

increased.[1] In a survey of bank charges on checking deposits, Weiss found that "entry of new banks was crucial to the introduction of NSC plans (no service charge checking) in many areas and to their geographic spread."[2] Weiss observed that:

> "Many communities . . . would not have . . . NSC plans today were it not for the chartering of new banks. Relatively small firms in any oligopolistic market are the ones most likely to appear . . . where existing banks are roughly of similar size or character.[3]

Chandross studied the impact of newly chartered banks in 98 formerly one-bank towns. He found that entry resulted in an expansion of loan output and the reduction in above average earnings where they existed.[4] Rose and Fraser examined the impact of new charters on unit banks in isolated one-to-three bank towns in the Dallas Federal Reserve District.[5] They found new entry to have exerted a profound influence on the composition of assets (toward loans) and liabilities (toward time deposits), the rate of growth of deposits (higher) and profit (higher). They concluded that new entry intensified competition in these local markets, leading banks to accept more interest bearing deposits and to provide more local credit. They found no effect on interest rates. McCall and Peterson, in the study mentioned above, investigated the impact of new charters in 31 one-to-three bank towns through a five-year post entry period. They found that interest rates on time deposits increased and profits

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[1] David C. Motter, "Bank Formation and the Public Interest," The National Banking Review, March 1965.

[2] Steven J. Weiss, "Commercial Bank Price Competition: The Case of 'Free' Checking Accounts," New England Economic Review, Federal Reserve Bank of Boston, September/October 1969, pp. 3-22.

[3] Ibid., pp. 20-21

[4] Robert H. Chandross, "The Impact of New Bank Entry on Unit Banks in One Bank Towns," Journal of Bank Research, Autumn, 1971, pp. 22-30.

[5] Peter Rose and Donald Fraser, "Bank Entry and Bank Performance," Journal of Finance, March 1972, pp. 65-78.

of established banks fell.[1]

These entry studies are of considerable interest and importance. However, as mentioned, if the behavioral considerations discussed above, and in Section V as well, have any validity, it is necessary to distinguish between those studies dealing with entry by established multi-market banks and those dealing with entry by newly organized independent banks. Motter and Carson, Kohn, and Kohn and Carlo investigated established bank entry, and reported important changes in performance. However, these studies are limited to New York State, and their post-entry period time span is quite short. The more recent studies on entry by newly chartered banks are more persuasive.

On the basis of the available evidence, it is reasonable to accept the conclusion that new entry by multiple-office banking organizations will have a procompetitive impact on performance. But further study on both short- and long-run impacts would seem to be in order.

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[1]Alan S. McCall and Manfred O. Peterson, "The Impact of De Novo Commercial Bank Entry," op. cit.

The Impact of Multi-office Banking on the Availability of Credit in Smaller Communities

by

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THE IMPACT OF MULTI-OFFICE BANKING ON THE AVAILABILITY OF CREDIT IN SMALLER COMMUNITIES

Introductory Note

In preparing this survey the authors were requested to review the existing literature related to the following topics:

I. Loan to deposit (asset) ratios and local lending under unit and multi-office banking.

II. Loan approval and composition of the loan portfolio under unit and multi-office banking.

III. Mobility of funds under branch and multi-bank holding company banking.

IV. Ability of small local banks to compete with larger institutions.

In addition, to the extent possible in a 20 to 30 page article, we have included some findings from research on other topics which seem to be directly applicable to the question at hand.

In gathering material for this paper, all Federal banking agencies, including each of the Federal Reserve Banks, and major bank and bank holding company trade associations were contacted to determine whether they had done any research in the specified areas in the last five years. [Older research efforts have been well cataloged in numerous banking structure surveys: Guttentag and Herman, 1967; Mote, 1974; Benston, 1973; and Gilbert and Longbrake, 1973 and 1974.] In addition, the usual periodical references were checked as well as other standard library sources. Given the vast published and unpublished banking

literature, many of the references used in preparing this survey were not cited, and, no doubt, the contributions of some individuals have been overlooked. This was certainly not intentional, and the authors would appreciate having any omissions brought to our attention.

Some Problems of Measurement

The authors of this paper were asked to bring together the findings of available banking structure studies relating to "the impact of multi-office banking, particularly branching, on the availability of credit in smaller communities." The assignment appears to be fairly straightforward and almost routine until you begin to assess the significance and the meaning of these words. For example, few investigations in this field have been directed toward rural or local bank lending per se. Therefore, the research findings described relate to similar but not identical issues in many cases.

Problems of Definition. There is also a problem of semantics which must not be overlooked. The Continental Illinois National Bank and the Security Pacific National Bank both have roughly $10 billion in domestic deposits; yet, the former has one full service office in this country and the latter has about 500. Continental might be designated a unit bank and Security a branch bank, but apart from office locations they could be much more akin to each other than they would be respectively to a unit or branch bank with only a few million dollars in deposits. Similar comments could be made regarding large and small multi-bank holding companies. Thus, great care must

be taken in interpreting results and in posing questions to be analyzed. It is far too easy to confuse "big" banks or banking organizations with branching or holding companies and "small" with unit or so-called independent banks, and the results of studies supposedly aimed at testing structural characteristics of banks or banking organizations sometimes really reflect merely underlying differences in size or location (e.g., urban versus rural) rather than structure.

Data Problems. Much of the banking structure research undertaken has been devoted to performance as measured by ratios computed from reports of income and condition submitted to the Federal regulatory authorities. These reports provide no statistics on "local" versus "non-local" lending, the size of the community in which the loan is made, or the size of the borrowing firm. They present only a small number of statistics on lending by type of loan, and even within these few loan categories, banks in preparing their reports are not always consistent in their classification of loans. As a result there are often significant shortcomings in the data base utilized by the researchers. Finally, the statistical procedures employed by the researchers also can rightly be subjected to criticism, for the differences in findings may reflect the investigators' choice of statistical tools rather than variations in the underlying data. (This is discussed in Johnson and Meinster, 1973 and 1975; Gilbert and Longbrake, 1974, pp. 307-308; Piper, 1971, pp. 166-70.)

Utility of the Findings. While the problems of measuring and interpreting banking performance are substantial, the results of

structure research should not simply be ignored. The findings are valuable if they are used with proper caution and the limitations of any conclusions as well as the conclusions themselves are kept in mind. The research studies are particularly useful as a source of questions and as a means of shaking some of our preconceived ideas. With these caveats before us, let us consider the findings of structure research in the four areas designated.

I. Loan to Deposit (Asset) Ratios and Local Lending Under Unit and Multi-office Banking

A Federal Reserve Bank of Chicago paper published in 1974 [Mote, 1974, p. 22] stated: "Virtually, every study of branch bank lending has shown that, overall, branch banks have considerably higher loan to deposit ratios than unit banks." Similarly, the most recent published Federal Reserve Board staff research on bank holding companies reported: "Studies of BHC's [bank holding companies] have shown conclusively, however, that their banks tend to make more credit available to the local community than do comparable independent banks." [Lawrence and Talley, 1976, p. 17.] Thus, as a general statement, it would seem reasonable to conclude that loan to deposit or asset ratios are likely to increase under multiple-unit (holding company) or multiple-office (branch) banking.

Occasionally, researchers found no statistically significant differences between the changes in loan portfolios of merged banks and nonmerged banks. [Snider, 1973, pp. 56-57] And one study found mixed results with at least limited evidence that two large branch systems maintained lower average loan to deposit ratios than unit banks in rural areas while the reverse was true in small urban centers. [Kohn, 1964, p. 10.] In most instances, however, "there is clear evidence that branch banks have higher loan-to asset ratios than unit banks, even in given bank size categories" [Guttentag, 1967, p. 26.], and affiliation with a bank holding company typically, "alters the acquired banks' asset structure in favor of loans." [Hoffman, 1976, p. 2; and Jackson, 1975, p. 6 .]

These findings are not unexpected, particularly as they relate to branch banking. An analysis of rural bank services in Michigan noted:

> Excluding the extremes, the merged banks had higher target loan/deposit ratios. This finding may reflect that larger bank managers are willing to take slightly larger risks with a loan portfolio than are smaller bank managers. Also, with a larger portfolio there is a lower probability of liquidity problems resulting from large deposit withdrawals or bad loans, so a higher loan deposit ratio can be maintained with greater ease. [Hayenga, 1973, p. 10.]

Stated a little differently, a branch organization with offices in several local markets may be able to place a greater proportion of its resources in loans than a unit institution because, through the diversification achieved under branching, aggregate risk may in fact be reduced.

Some General Findings. The latest Federal Reserve study of multi-bank holding company performance, cited above, [Lawrence and Talley, 1976, p. 17] emphasized these organizations made more credit available to the local community than independent banks. Likewise, two Federal Deposit Insurance Corporation economists pointed out the presumption on the part of proponents of branching (which the FDIC staffers neither confirmed or denied) that the higher loan to deposit ratios in branch systems "primarily benefit local borrowers." The FDIC economists in summarizing their findings observed: ". . . Branch institutions extend a greater amount of credit and other services than unit institutions," and "there is no concrete evidence that branching per se discriminates against rural markets or small borrowers." [Gilbert and Longbrake, 1973, pp. 163 and 166.]

The Concept of "Local". Because of the lack of data on "local" lending, combined with complex problems of assessing the overall public

benefit derived from credit extended in community A versus community B or to firm A versus firm B, much of the literature in this area is especially weak. This is to be expected, however, for consider a few of the difficult questions raised in such analysis.

First, what is "local"? Several years ago, an FDIC economist undertook a substantial study focusing on the problems of identifying local markets for business loans. [Eisenbeis, 1971, pp. 31-39.] Utilizing metropolitan area data, he found "it was difficult, if not impossible, to generalize about the size of local market areas." Nevertheless, he felt that it was fair to assert that small loans to small firms were locally limited. [Other empirical studies support this view, see Jacobs, 1971, p. 23.]

Second, since "local" firms may be large as well as small even in nonurban communities, much of the discussion of "local lending" really refers to small customer loans not necessarily gross loan demand in a community. Actually, when a relatively large firm is located in a small community, much of the aggregate "local" loan demand is likely to be met by a sizable metropolitan area bank because large borrowers tend to turn to large banks to meet their credit needs. [Guttentag and Herman, 1966 and 1968.]

The question of aggregate (as opposed to simply small borrower) loan demand in a local community raises several other knotty problems. For example, from the point of view of the public interest in the United States, it is doubtful to say the least that an economist would argue that every bank should limit its lending (and by definition every borrowing firm should limit its bank borrowing) to its "local" community.

This would halt not only interregional but regional and even intercommunity flows of funds which are an essential element in our financial system. Thus, it is not correct to label local loans as per se "good" and nonlocal loans as per se "bad." The crucial question should be whether under one type of banking structure or another "local" loans which by any fair standard should be granted are being rejected, and the funds are being allocated by the financial institution to less credit worthy customers, and especially large customers, in other areas.

Most existing banking structure research really has not addressed itself to the above question, and perhaps given the data compilation problems connected with such a study this question will never be answered definitively. As a result, in reaching public policy decisions, we are forced to accept the views of what we hope are reasonably objective professionals who have carefully analyzed the existing evidence. Therefore, in summary: In regard to branching, the findings of a Federal Reserve Bank of Chicago economist are probably representative of the opinion of specialists in this field. He concluded:

> After most acquisitions of unit banks by branch banks, both the dollar volume of loans and the loan to deposit ratio of the acquired office increased. In short, while there is evidence that the deposits of some communities are used to make loans in other communities under branch banking, there is no evidence that communities other than the home office city [and perhaps offices in immediate suburbs] of the branch bank experience "siphoning" in the aggregate. [Mote, 1974, p. 22.]

And, the most quoted Federal Reserve Board researchers in the area of the performance of bank holding companies also found "holding company acquisitions result in affiliated banks making more credit available in their communities." [Talley, 1973, p. 28.]

II. Loan Approval and Composition of the Loan Portfolio Under Unit and Multi-office Banking

Critics of multi-office and multi-unit banking frequently suggest that there is significant bias in the lending of these institutions or organizations. The bias supposedly would take the form of systematic exclusion of certain types of loans or at least a lessened desire to make such loans, which in turn affects the bank or holding company's loan composition. Special concern is particularly expressed concerning the branch or holding company affiliate's attitude toward smaller agricultural loans, their apparent less personal approach (shifting away from "character" lending), and their attitude toward local municipal financing. Another issue sometimes debated is the respective lending authority of branch managers and officers of independent banks. And, finally, the role of the holding company in setting policies for affiliate banks and the subsequent impact on the affiliate's lending behavior is often questioned. Each of these items is discussed in this section.

Rural and Small Customer Lending

The claim is often made that the small unit banker will not neglect his smaller loan clients, particularly the farmer and small rural businessman. On the other hand, larger banks, it is argued, are more concerned with higher yielding consumer loans and larger business loans. Unfortunately, in existing research there is virtually no definitive evidence of the effect of structure on rural as opposed to non-rural

loans and large versus small loans. Reports of condition, which represent the only source of detailed national data for study, contain only aggregate loan information for individual banks (not branches) separated into general loan categories. Apart from these call report data, the alternate source of information is usually limited (particularly in terms of geographic representation) to relatively small surveys which typically do not lead to general conclusions. Thus, in view of these limitations the findings regarding rural and small customer lending are at best tentative.

Lending and Structural Change. Most recent structure studies which include lending characteristics have focused on before and after loan composition of banking units (in broad, general lending categories) where local structure has changed. Given the availability of individual bank but not individual branch data, most of the studies quite naturally examine differentials in loan composition of holding company banks in contrast to similar size independent banks. Lawrence (1967) and Talley (1971) found consistent evidence with respect to the asset behavior of banks acquired by multi-bank holding companies. This was true despite the fact that the acquisitions took place in different time periods. Lawrence studied 43 banks acquired between 1945 and 1963, while Talley examined the impact of acquisitions on 82 banks acquired by holding companies between 1966 and 1969.

In general their research (and numerous other studies) found, the holding companies held less cash items and U. S. government securities and a greater percentage of state and local securities. Additionally, total loans to total asset ratios increased.

A number of portfolio changes have been observed consistently in unit banks acquired by holding companies, although the changes are not always sufficient in magnitude to make them significant statistically. Lawrence found that the proportion of assets committed to business loans, residential mortgage loans and consumer installment loans increased for affiliate banks relative to independent banks for the period studied. In contrast, farm loans were found to decline slightly for the affiliates relative to independent banks. Talley found similar results for residential real estate loans, installment loans and business loans. He did not examine farm loans. Similar, but again not statistically significant, results were found for banks acquired by holding companies in Ohio [Ware, 1973] and in a long series of performance studies of other areas.

Some of this research has been challenged on statistical grounds [Johnson and Meinster, 1973], and to respond to this criticism more sophisticated procedures have been utilized including the analysis of holding company affiliate portfolios and those of independents in a multivariate setting. But, even with these new procedures the results vary little from previous studies. [Mingo, 1976] Portfolios of affiliates tend to have more consumer installment loans, more commercial and industrial loans, and somewhat less in farm loans but the magnitudes once again typically are not great enough to be deemed statistically significant. All the studies conclude that, in the aggregate, reported loans are higher for holding company affiliated banks than for independent banks.

Studies of branch banks, like the holding company studies, generally reveal that they have higher loan to asset ratios than comparable unit banks, and they are more aggressive in loans to consumers and

businesses. [see for example, Shull and Horvitz, 1966] But because of the lack of individual branch data, our knowledge of the effect of structural change on local lending is limited. This is true particularly where a unit bank became part of a larger branch system. And as is so often observed in the holding company research, the magnitudes involved are not large enough to produce statistically significant differences in the loan portfolios of branch and similar unit banks. [Snider, 1973]

A Note on Municipal Lending. The holding company studies also consistently showed growth in their holdings of obligations of state and local governments. Holding companies typically have made special efforts to participate actively in local financing. This includes bidding on local bond issues where the companies have municipal underwriting operations. While there is little published evidence on this, the same conclusion would seem to hold for larger branch systems.

Agricultural Lending. In considering the question of farm lending, the following conclusions in a recent Federal Reserve study should be kept in mind:

> The net effect of these factors on credit extensions in rural areas is conjectural; the little information available on agricultural lending is inconclusive. For instance, the large branch banking systems in the western part of the United States are significant factors in the farm credit market, but the nationwide systems in Canada have been criticized for failure to service their potential farm credit market. In general, a branch banking system that includes both rural and urban offices is likely to have more diverse lending opportunities than a rural unit bank, whether the latter is independently owned or a holding company affiliate. The total quantity of credit to agriculture may therefore be adversely affected or it may be enhanced, depending on the relative attractiveness of the farm lending opportunities. [Herder, 1975, p. 93]

Nevertheless, there have been a number of individual studies on bank structure and its influence on farm lending. An Ohio study of the impact of bank mergers on agricultural lending found that in 43 mergers 13 banks increased market share of farm loans and 13 banks decreased their market share. There was a slight overall decrease during the period studied by both independent and holding company banks but no significant differences between the two groups. [Gady and Carter, 1975]

In other research, a Virginia study found "no evidence that urban based branch systems slight farm borrowers." [Snider, 1975] And a study of branch law change in Wisconsin found that "During the first few years after adoption of limited branching legislation . . . the banks that established new branches tended to maintain their relative involvement in farm lending." [Roseblum, 1975]

A study by the Board of Governors of the Federal Reserve System revealed that banks in unit banking states were found to have encountered relatively more problems in financing of farmers than did banks in branching states. "However, they were also found to have made relatively more use of mechanisms designed to cope with such problems." In fact, the unit states accomplished this so well that farmers in the unit banking group obtained a greater proportion of their credit from banks. Hence, the Federal Reserve study concludes: "Problems of farm financing in unit banking States may possibly have other undesirable impacts, such as on the progress of individual farmers, but the aggregate volume of credit provided to agriculture does not appear to be adversely affected. [Melinchar, 1975, p. 109]

Loans to Small Business. A frequent criticism of the effect of multi-office banking on lending is that as a result of liberal branch laws, banks tend to be fewer and larger. This is coupled with the observed fact that larger banks lend a greater proportion of their resources to large non-locally limited businesses than do smaller banks. The conclusion is thus reached that large banks neglect small business loans.

Guttentag and Herman (1967, p. 27) refute this hypothesis. They point out the fact that when a merger takes place, the now larger branch bank can make loans to large as well as small business. The fact that small business loans as a percent of total loans will fall as a statistical inevitability does not imply that the dollar volume of small business loans falls. The authors use tentative calcu-. lations to demonstrate that small business loans will increase in total value as bank size increases to 100 million and possibly 250 million in deposits. [Guttentag and Herman, 1967, p. 146.]

Perhaps the best overall summary of the "Allocative Effects of Branch Bank Restrictions on Business Loan Markets" was prepared by the chief of the Economic Research Unit of the FDIC. He concluded:

> Previous studies have shown 1) that large banks make a greater proportion of their loans to non-locally limited firms than small banks and 2) that the average size of bank is greater in branching than in non branching states. Contrary to the traditional view, however, the direct comparisons in this study of the lending patterns of banks operating in unit banking, limited branching and statewide branching states, indicate that relative availability of business loans to locally limited firms may not be greater in unit banking states. In fact, although large banks, in general, make a greater proportion of nonlocal loans than small banks, large banks in branching or limited branching states make a much greater proportion of their

> business loans in local markets than similar size banks in unit banking states. It is also shown, however, that the overall allocation of funds between local and nonlocal markets is a function of not only bank lending patterns, but also the size distribution of banks. On average it would appear that statewide branching has resulted in a greater proportion of business loans to locally limited business than either unit banking or limited branching. However, public policy towards a particular proposal to liberalize branching laws should be determined by the desired allocative effects in conjunction with existing and projected bank structure. [Eisenbeis, 1975, p. 47]

Loan Authorities and Approvals

Character versus Collateral. One consistent finding of surveys is that the small unit bank tends to make more unsecured loans than the competing larger branch or holding company bank. [Kohn, 1964; Guttentag and Herman, 1967; Hayenga, 1973]. This occurs despite the supposed larger unsecured lending limits of the branch manager. This so-called character lending is an integral part of "local" banking, and its value should not be underestimated.

Still, a number of researchers have pointed to the fact that character lending as opposed to a stringent analysis of the credit and requiring collateral is not necessarily beneficial to the local community. While the local banker might correctly assess the desire to repay a loan made in the local community, he may incorrectly judge the individual's or firm's ability to repay. It is in the best interest of the bank and the local community that financial resources be channeled to productive uses and industries which will grow in conjunction with

the national economy and thus contribute to the growth of the community and region. This might call for a somewhat different allocation of resources than would occur based solely on longstanding relationships between a banker and an individual or family.

Lending Powers of Branch Managers. Supporters of independent unit banking often claim that in addition to the promptness of loans made without the need of pro forma statements and other records, larger loans can immediately be obtained from unit loan officers.

Typical is a complaint found in a Michigan survey which discussed farmers' observations that the branch manager's lending authority in rural areas is lower than an independent bank manager's. [Hayenga, 1973, p. 7] In this survey, fourteen rural banks which had been merged into branch systems were compared with fourteen small independent banks. The local lending authority of the bank managers was on average significantly less than that of the chief executives of unit banks. This complaint is not universal for all branch systems; however, and the branch manager does have the potential with approvals to lend up to the bank's limit.

Although this limited evidence of branch manager loan limits cannot be generalized to all states where branching is permitted it should be compared to the total lending limits of both alternatives where branch banks tend on average to be of larger size. In the branch system, once a credit is approved by the head office the branch is capable of making a larger loan than the competing independent bank which must find a correspondent to participate in each large loan. The lack of enthusiasm for this procedure on the part of some larger firms was well documented in a Federal Reserve Bank of Dallas study. [Stodden, 1975]

Loan Policies of Holding Company Affiliates. Although loan policies tend to be somewhat uniform for branches of a single bank there is no a priori reason why this need be the case for holding companies. The persistent agressive aggregate behavior of holding company affiliates does raise the question of the existence of a systematic centralized loan policy of holding companies.

A survey by Lawrence found holding companies to exhibit wide differences among various policy areas. He concludes:

> Differences in the degree of centralization of decision making among various policy areas are evident. Certain bank investments, specifically securities investments and federal funds transactions, and bank correspondent relationships including loan participations are generally closely controlled by the holding company or the lead bank. On the other hand, pricing policies, decisions on the composition of the loan portfolio, and decisions with respect to individual loan applications are usually made by the individual subsidiary banks. [Lawrence, 1971, p.52]

Although there is some belief that there is a tendency for small holding company systems to be operated like branch networks, Lawrence found no systematic evidence that any variable (geography, size, etc.) could be utilized to predict the centralization or decentralization of loan policy.

Summary. After a thorough examination of the literature, two FDIC researchers concluded that, "There is no concrete evidence that branching per se descriminates against rural markets or borrowers." [Gilbert and Longbrake, 1973, p. 163] Our review of banking structure research leads to the same conclusion. In addition we found no evidence that holding company affiliation leads to any systematic discrimination in credit extension in smaller communities or to smaller borrowers. Findings regarding the lending authority of branch managers and officers of unit banks are mixed, and lending policy in holding companies seems to be much less centralized than is often suggested.

III. Mobility of Funds Under Branch and Multi-bank Holding Company Banking

Flow of Funds. A few final observations on "local" lending data and research may be useful for those attempting to judge structural performance. First, the use of a loan to deposit ratio places great emphasis on the supply of loanable funds, but it tells us little about demand in one area as opposed to another. In one community a 30 percent ratio may be sufficient to meet local loan demand; in another it might be 50 percent or 70 percent, or as occurs so often in individual offices within a branch system even within a single community the figure might be well over 100 percent for some offices. [See Mote, 1974, p. 21 and references therein.] Therefore, the loan to deposit ratio itself is not always a good indicator of loan demand, although significant variation among banks in a given market would suggest different philosophies of local institution in meeting a given demand.

In its summary report in 1961, the Commission on Money and Credit (CMC) observed:

> Because capital is a scarce resource, the economic system must provide a mechanism for allocating it efficiently among competing uses. In a perfectly working market, the allocation would be done by interest rates, used in its broad sense to mean the price paid for funds. In a perfect market, differences in interest rates would persist only because of differences in the risk and cost of serving various classes of borrowers and savers and in the liquidity of loans. Intermediaries would allocate their funds among all potential borrowers willing to pay rates of interest at or above the going rate with appropriate allowances for risk, liquidity, and costs. The intermediary would pass on the return less its costs and profits to the savers as interest, as dividends, or in other ways. Savers would then decide the amounts and the forms in which they wish to hold financial assets. [CMC, 1961, p. 154]

The CMC goes on to note that we do not have a perfect system. It states: "The unit character of U.S. banking, for example, has limited inter-regional flows of commercial bank credit. As a result," the Report notes, "some borrowers, generally in smaller communities and rural areas, have been handicapped in obtaining funds." [CMC, 1961, p. 154.]

While there are numerous positive aspects of the correspondent system and these benefits have been documented over the years, particularly by the Federal Reserve Bank of Kansas City, clearly this system is not as efficient in achieving funds mobility as is branch banking. Multi-bank holding companies, on the other hand, are probably closer to the correspondent system than they are to branch banking systems in their ability to accomplish regional and interregional fund flows. Nevertheless, the close working relationship among affiliates within a bank holding company combined with common ownership improves the mobility of funds and adds a degree of certainty, especially in regard to supply in tight money periods, which is approached but probably not achieved under correspondent banking. [Golembe Associates, 1971, p. 67.]

A Federal Reserve study of correspondent banking in Illinois during the 1969 credit crunch provides numerous illustrations of the respondent bank's difficulty in such periods. For example, as other studies had observed, many correspondents required that rural banks purchase securities or loans from them in amounts equal to the correspondent's participation in loans originated by the rural banks. "Although this technique allowed rural banks to continue servicing customers' overline requests," the Federal Reserve study noted, "the participations no longer constituted a net inflow of funds into rural communities." [Benjamin, 1975, p. 82; also see Knight, 1970, p. 16.]

Participations and Correspondent Banking. When analyzing the efficiency of various forms of banking structure in achieving funds mobility, some basic problems of measurement resulting from this movement of funds cannot be ignored. In the case of multi-bank holding companies, for example, their handling of upstream and downstream participations can result in increases or decreases respectively in "local" lending even if the loan to deposit ratio of a given affiliate remains unchanged. Likewise, it is often assumed that a small bank's loans are local, but a respondent bank's participation in loans originated by its correspondent (a common practice) can boost the loan to deposit ratio of the small institution while the volume of local lending remains stable or possibly even declines. On the more positive side, banks outside the urban centers participate in loans with each other including direct correspondent-to-customer loans which can significantly change the supply of funds available locally. These factors and a great many others associated with loan participations make simple balance sheet comparisons and other traditional measures next to meaningless in judging local credit availability under different forms of banking organization.

From a review of the existing literature, nonetheless, some general conclusions about participations and funds mobility can be reached. First, the findings are mixed regarding the net (upstream minus downstream) effect of participations in multiple-office and multiple-unit banking. Funds do not appear to be shifted out of rural areas by branch or holding company systems [Gady, 1971, p. 12.], but they may be shifted from suburban areas to large cities. [Knight, 1970,

p. 21; and Kohn, Carlo, and Kaye, 1973, p. 18.] This question certainly merits further investigation.

Second, overall, the correspondent banking system has proved to be quite effective in using participations and direct correspondent loans both in meeting the needs of smaller banks and improving funds mobility within the economy. This includes some portfolio diversification and risk reduction which is commonly listed among the "pluses" for branch and multi-bank holding company banking. [Knight, 1970, p.13.] There can be no question that one of the strongest assets of correspondent banking has been the participation mechanism which has enabled independent banks to compete fairly successfully with larger banking institutions in the area of funds mobility.

Federal Funds Sales. Federal funds sales pose a particularly thorny problem. On the one hand, they are utilized quite properly as a seasonal adjustment device by many small banks. But, on the other hand, it is often argued that there are large numbers of small banks which make extensive sales of funds in this market and thereby neglect local loan demand. From the point of view of the ratios of net federal funds sold to total assets, it is true that the smaller banks (under $25 million) have substantially higher percentages of federal funds sold than their counterparts in the $100 million and over category. Nevertheless, the existing banking structure literature provides no clear evidence that this growth has occurred at the expense of a significant reduction in local lending to meet legitimate credit needs.

IV. Ability of Small Local Banks to Compete with Large Institutions

Economies of Scale. It is often asked whether a small independent bank can compete against a branch of a larger bank or against a similar - or larger - size affiliate of a holding company. The small bank might have difficulty competing, for example, if there were significant economies of scale in banking. Studies of economies of scale [see Bell and Murphy, 1968; and Benston, 1965], however, show that for most banking services, although some economies do exist these economies are not great. In addition, any operating cost advantages of banks tend to disappear rapidly as size increases.

Especially, for the very small bank operating costs as a function of output tend to be slightly higher. Nevertheless, this does not seem to affect average profitability significantly. In fact, Gallick [1975] in a study of performance as a function of size, found that from 1954 to 1974 aggregate net income as a percentage of total assets varied little across small - and medium - size banks. The findings were consistent for sub-periods as well as for the 20-year span studied.

Profitability and Deposit Growth. Given the assumption that scale economies are modest at best, it is not surprising to find considerable evidence to support the thesis that small, well-run banks can compete and survive when faced with the competition of larger institutions. This is apparent from a New York study [Kohn, 1966] which examined communities where two or more small banks existed and one later became a branch of a larger organization. The research found that the

profitability of most small banks was not adversely affected by the entry of a large competitor. This was true although some reduction in relative deposit growth of many of the small banks was observed. (Their absolute deposit growth continued.)

Another study paired 36 banks merged as branches in Virginia with 36 non-merged unit banks serving the same markets. [Snider (1973)] The research findings followed a pattern similar to that in the New York study with the merging banks on average reporting lower deposit growth before merger and slightly higher growth after merger. The variation was minimal, however, for in neither case was the difference in deposit growth statistically significant for merged and non-merged banks.

Another study of the acquisition of competitors of small banks, this one using Pennsylvania data, was conducted by Darnell and Keene (1974). In this research, the new competitor bank was on average ten times the size of the small independent bank studied. Using a time period of three years before and after the acquisition, the investigators found that the balance sheet ratios of the surviving banks did not change significantly, and the observed effect on profitability was similar to that found by Kohn with no significant changes in profitability of the small bank after the competitor's merger. But contrary to Kohn's findings, Darnell and Keene's research revealed that deposit growth of the small bank continued unchanged after the merger of a local competitor into a larger out-of-town bank.

In each of these state studies, no evidence was found that a small bank's earnings were seriously jeopardized by the change in size

and structure of a local competitor. This conclusion was confirmed by an American Bankers Association study by Mead (1970) which was based on the analysis of data drawn from the entire United States. Mead's study concluded: "There is no evidence from the earnings ratios of banks that in comparison to branch banks the small unit bank is declining in number because of lower profitability."

Positive Results from New Entry. Evidence that new entry in a single bank town can be favorable to the local community is found by Chandross (1971). He studied the impact of entry by a newly chartered bank on an existing unit bank in 98 different communities in various parts of the United States. Chandross found that after the de novo entry there was a substantial and significant expansion in loans by the original bank. And, once again, as in the merger studies, there was no evidence that the survival of the other local bank was jeopardized although it faced new competition. In the period after entry of a new bank, the earnings of the existing bank on average fell. But even after the decline, the unit banks' earnings remained above or at least equal to the average levels for banks in the same states during the same years.

A similar study by Fraser and Rose (1972) examined de novo entry into small, well-established bank markets by independent unit banks in the eleventh Federal Reserve district. Also in this study, a significant restructuring of assets took place with lending increasing dramatically at the established banks. Total deposits in the established banks during the period after the new entry grew faster than in selected counterpart communities where no entry took place. This was attributed

primarily to an increase in time deposits in the established banks. Profitability was found to remain about the same in the entry and non-entry communities.

The findings of Chandross, and Fraser and Rose regarding deposit growth differ from still another New York study, this one examining the impact of de novo branch entry in New York. In the New York de novo entry study, much as in the above mentioned merger study, "The evidence did not indicate that the opening of new branches had statistically significant adverse effects on the profitability of competing commercial banks, savings banks or savings and loan associations. There were, however, significant indications of a slowing down in rates of deposit growth, particularly for commercial banks." [Kohn and Carlo, 1971, p. 5]

Holding Company Results. The numerous studies of holding company affiliates yield no evidence, regardless of the standard of performance used, that the survival of competing independent banks is threatened. In fact, examining only the deposit share evidence, Goldberg (1976) found that market shares of banks do not change significantly when they are acquired by bank holding companies. In another study of market shares, Berkowicz (1976) examined three size classifications of banks acquired by multi-bank holding companies and found that the acquired affiliate banks of under $10 million on average gained market share while acquired banks in the $10 million to $25 million and over $25 million deposit size lost market share. These findings are fairly consistent with the results of similar bank holding company research undertaken by numerous economists over the past 10 or 15 years.

Summary and Conclusions

Some Problems of Measurement. Great care must be taken in interpreting results of banking structure lending and performance studies because of definitional problems; a lack of data specifically related to the question at hand; and results which may differ because of the statistical methodology used rather than because of differences in the underlying data. Nevertheless, if the limitations of the findings are kept in mind, the research is extremely valuable in eliminating (or confirming) preconceived ideas about the impact of banking structure upon lending.

I. Loan to deposit ratios and small customer "local" lending. Virtually every study of lending by unit, branch, and multi-bank holding company banks concludes that overall branch banks and holding company affiliates have higher loan to deposit (asset) ratios. Furthermore, there is no evidence that either branches or holding companies per se discriminate against rural markets or small borrowers. Moreover, if there was a net flow of funds from rural to urban areas or from small to larger borrowers, this may simply be consistent with the basic functions of a financial system which call for flows of funds to the uses in which they would be most productive. Thus, the area in which the funds are used need not necessarily be coterminus with the areas in which they are collected. In other words, from the point of view of the public interest "local" lending is not by definition good and regional or interregional lending bad.

II. Loan approval and composition of the loan portfolio. There are tremendous shortcomings in the data available for analysis of "local" lending, and this is especially apparent in trying to determine how well one form of banking structure meets local lending needs as opposed to another. Usually, it has been assumed by most researchers that the higher loan to deposit (asset) ratios of branch and holding company banks in general are reflected in an increased dollar volume of "local" lending. The composition of the loan portfolios is likely to experience some change with special emphasis on loans to consumers and to business. Loans to agriculture have shown a decline in some studies, but other research has questioned the capacity of the small rural bank to meet the credit needs of modern agriculture. In addition, the branch system or multi-bank holding company would appear to be as effective, and perhaps more effective, in meeting the municipal financing needs of communities.

III. Mobility of funds. The existence of mobility of funds among branches in a multi-office (branch) system and among banks in a multi-bank (holding company) system makes traditional balance sheet ratios almost meaningless in judging local credit availability. This is even more true given the apparent effectiveness of the correspondent system in achieving funds mobility. Therefore, probably all that can be concluded is that on balance funds do not appear to be "siphoned" out of rural areas by branch banks or multi-bank holding companies.

IV. Ability of small banks to compete. In the branch and holding company studies examined there was no evidence that on balance de novo entry or entry by acquisition by a branch bank or holding company affiliate ~~adversely~~ affected the profitability and/or ability to survive of the existing small independent bank. Furthermore, in some cases, (particularly in isolated communities or where a single bank existed prior to entry) a significant increase occurred in lending by the other local bank or banks. And, finally, examination of numerous bank holding company studies provides no indication that a small independent bank is incapable of maintaining its market share in the face of competition from a large multi-bank holding company's local affiliate.

Concluding note. In preparing this paper, the authors have been impressed by the "micro" (limited area) orientation of most of the literature which is now being called upon to produce meaningful information for a "macro" (national) study. In reality, banking structure probably has only a minimal impact upon the aggregate supply of funds in any specific local area, for it is income and not banking structure that people associate with saving and consumption. It is also the efficient and productive flow of funds in the nation which is the vital consideration in reaching conclusions about a national banking structure. And, in addition, the tremendous confusion between findings based on the structure of an organization (unit, branch, or holding company) and size weakens the validity of many of the conclusions reached by researchers

We feel the structure issue should not be decided by the qualitative elements in parochialism nor by the quantitative factors in the economist's

tests of significance. The choice of the optimum banking structure for the United States must be based on the overall public interest. It is our judgment that if this is the criterion many of the existing restrictions on the options available to bankers in terms of branching and holding company operations will be removed.

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Explanatory Note

The following papers by Donald I. Baker and William J. Brown address Title VI and VII pertaining to the relationship of branching policy to off-premises electronic banking facilities and the dual banking system, respectively. While somewhat dated, the papers were included because of their contribution to an understanding of the issues involved.

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AN AGENDA FOR THE NATIONAL COMMISSION ON ELECTRONIC FUND TRANSFERS

Donald I. Baker*

The National Commission on Electronic Fund Transfers has received a broad mandate from Congress to conduct an investigation in a continuum where facts and fancy converge. Professor Baker brings to bear on the subject his immense experience in dealing with EFT matters. His formulation and analysis of the issues which should engage the attention of the Commission illuminate many sensitive areas in this highly charged emotional field.

The Commission and Its Mandate

Congress has created a big Commission to do a big job: to tell us where to go in the burgeoning field of electronic fund transfers.[1] The job is big because it involves technology of yet uncertain dimensions—technology which may be able to make truly historic changes in how financial services are delivered to the public. The job is also big because any such change necessarily affects economic interests rooted in the past. Such change can do other things as well. It can arouse utopian dreams freed of any cost or efficiency constraints. It can arouse Orwellian fears of a world in which private matters become ever more public and public matters ever more private.

Such an enviroment of special interests and special fears

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* Visiting Professor of Law, Cornell Law School. The text is based on ideas contained in a speech that Mr. Baker gave as Deputy Assistant Attorney General, Antitrust Division, U.S. Department of Justice, before the Graduate School of Management, at Northwestern University on February 25, 1975.

[1] Pub. L. No. 93-495, Tit. II.

will make it very hard for a large and diverse Commission to come up with precise answers. And yet it should try hard to do so—since the Commission still seems to offer the best public forum available for weighing facts and judgments in a systematic and careful way. The Commission will have a diverse membership. It will have some staff. It will have more time and probably more expertise than any legislative body can hope to have for EFT issues.

Congress has given the Commission a broad mandate "to conduct a thorough study and investigation and recommend appropriate administrative action." The new Commission thus has a great many things that it *could* do. Its success will be measured in what it *actually does* to clarify issues and define wise public policy. To succeed, it will have to be able to focus its inquiry on the "right" questions and pursue them systematically to the end. It will have to try hard to separate facts from fantasy, and experience from emotion, in a highly charged climate. The alternative is to "muddle along" from the outset—which in turn is likely to lead to a "muddled" result.

The task is anything but easy. This is manifest from dealing with EFT issues during the past few years—and from working with other commissions and task forces in the past. Yet the fact that the task is difficult makes it all the more important that we all think now about the issues which the Commission must face. To stand back two or three years from now and say convincingly "you *should have* done this" will earn one little public gratitude—regardless of what it may add to an academic reputation. The time to think is *now*.

What we need now are the *right* questions. These fall into four main categories. The first concerns the basic technical and economic facts: What EFT is doing and could do if left simply to engineers and entrepreneurs. The second category concerns the probable impact of such EFT de-

velopment on existing laws and institutions, both public and private. The third concerns the public and private values at stake in the whole EFT development: It asks that these be defined as precisely as possible and placed in some rank order. The fourth category asks what legal tools and institutions are available to implement our values and priorities—to safeguard and encourage worthwhile institutional arrangements—and it asks which legal tools are likely to be most efficient in serving those ends.

There is no magic to the exact formulation of these categories. What is vital is that they be kept separate and pursued in some rational order.

The Factual Context: Technical and Economic Questions

The starting point must be with the facts (even if that sounds heretical back in Washington). If the Commission is to define sensible public policy, it must endeavor from the outset to pin down technical and economic facts which are essentially not in dispute, so that it can then focus on policies, goals, and legal tools which are highly disputed. Its role here is similar to that of the trial judge: He constantly presses contending parties to develop "stipulations" of fact for the purpose of simplifying the trial and allowing the court to concentrate on specific factual disputes and clear disagreements of law and policy.[2] The Commission's factual inquiry is on what *is* or *can be*—not with what should be. It could proceed along the following lines.

The inquiry should start with what we have in the paper-based world. How does it work technically? What are its costs, its scale economies, and its operating characteristics?

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[2] For example, in United States v. Grinnell Corp., 236 F. Supp. 244 (1964), a complex civil antitrust suit under Sections 1 and 2 of the Sherman Act, Judge Wyzanski was able to try the case in just six days as a result, in part, of the parties entering into fifty-eight pages of stipulations before the trial. 236 F. Supp. at 247.

What subsidies are built into it? How would it perform and develop if left to carry on a "business as usual" basis, freed of artificial subsidies or constraints? These are just basic, technical questions—but they are significant for several reasons: first, because EFT is not likely to come into place unless it can do a better job (or receive a bigger subsidy); and, secondly, because a clear picture of the existing system will tend to prevent use of blurred analogies and policies based on the very different paper-based and EFT technologies.

Next, we must ask a parallel set of questions about EFT technology. What kinds of computer-communications systems are in place, or have been tried in the past? In the financial sector, these must include both clearance systems between institutions, and various systems which enable the customer to direct financial transactions (including point-of-sale systems, automated tellers, check guarantee systems, and on-line terminals in the corporate treasurer's office). Each should be looked at both separately and in relation to each other. What are its costs, scale economies, and operating characteristics?

Switching and interchange arrangements are particularly vital here. What different types have been used in EFT and related fields? What direct costs do each involve? How does each affect the efficiency of other parts of the system through the constraints and costs it imposes?

Scale economies deserve equally careful scrutiny. Many EFT debaters seem to assume that EFT systems are highly monopolistic—that, like local electric and telephone companies, they are characterized by scale economies so pervasive that competition becomes unworkable.[3] Others take

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[3] These issues are extensively discussed in *The Economics of a National Electronic Fund Transfer System*, proceedings of a conference held in October 1974, sponsored by the Federal Reserve Bank of Boston. See Mitchell, "Agendas for Action on the Payments Mechanism," *The Economics of a*

the opposite view.[4] Yet despite its highly charged surroundings this is a fact question which economists and engineers can analyze. It should be asked about *each part* of an EFT system (switches, circuits, terminals, etc.). To what extent does a natural monopoly in one function necessarily dictate monopoly in others? The engineers should also be pressed to determine the level of operation at which any scale economies are likely to be exhausted—just as they would determine the need to build a second bridge across the river next to the first (which originally may have been a "natural monopoly" itself).

The relationship between technology and services must also be investigated. Does a particular technical development change what is actually being offered to the public, or does it simply change the cost and operational characteristics of an old service? For example, real time point-of-sale systems change the service, while MICR coding on checks simply changes the "back office" operation. This distinction may prove important because it may well affect the incentives for introducing EFT technology.

The ability and incentive to use EFT technology can come from a broad range of financial institutions and other enterprises. Therefore, the Commission should try to pin down who is using EFT technology and why. The inquiry should closely cover at least banks, thrift institutions, finance

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National Electronic Fund Transfer System at 13-14: "[C]ooperation among participating banks is a necessity for a viable point of sale service." Mitchell concludes that some degree of monopolization in some form is required—whether by a 'consortium of banks, a dominant bank, a third-party nonbank entity, the Federal Reserve . . . [or] various unregulated entities such as credit card companies." See also in the same work discussion by Fisher at 85 et seq.

[4] Hock, "EFTS or EVE," *id.* at 76: "It will generally prove far more cost effective and cause far better more competitive services to develop, if electronic systems are designed to meet the unique needs of industry segments or to create unique new services for customers, reformatting the value data where necessary for interchange than to incur the expense and rigidity of massive standardization." See also Hock, *id.* at 83.

companies, bank credit card associations, retailers, travel and entertainment card systems, communications utilities, and computer service bureaus. Have these various types of organizations concentrated on different areas or had differing experience? Have they had different costs or used different approaches to problems? Have they met with differing levels of customer acceptance?

In a sense, these questions are simply directed to the engineer and the entrepreneur. They ask how would EFT be likely to develop if freed of either legal restraints or special subsidies. Nobody expects, in the real world, that this would be allowed to happen entirely without legal constraints—for too many interests, apprehensions, and values at stake—but it is important to make this "norm" clear. Only if we do so will we have a factual basis for designing public policies.

There are some other technical and economic questions which are less concerned with what one might call the entrepreneurial spirit. These concern issues of fraud, security, and privacy. Thus the Commission must ask very clearly: what patterns of fraud have flowed from the use of EFT technology? What other risks are perceived? How do these differ from the risks under a paper-based technology? The same questions ought to be asked about risks to privacy. These questions must cover not only risks—but the technical methods available for reducing or eliminating the various types of risks exposed and the potential costs at such methods. The experience of other types of computer-communications systems in safeguarding files would be relevant here. These are clearly key questions.

This list of "technical" questions is not likely to answer our fondest hopes or dispell our worst fears—but it should establish a norm from which rational discussion can proceed. Anything which helps channel debate into lower decibel ranges will be useful. The exacting standards of the

engineer—and the careful calculations of the economist—provide a better starting point than impassioned rhetoric.[6]

Probable Impact of EFT Development on Existing Legal Systems and Institutions

The second stage of analysis would follow closely from the first, and hopefully would be just as clinical. In essence, the Commission would be asking this question: If EFT development went forward as the engineers and economists said it was capable of doing, what would be the precise impact on existing legal and institutional systems?

Such full EFT development clearly will have *some* impact on the highly complicated system of financial regulation we now have. The questions is: *How much* and *where?*

To start with, EFT is likely to affect the functional separations in a financial sector all divided up into various historic legal compartments. How precisely would EFT affect the existing separations between commercial banks and thrift institutions? How would it affect the separations between either of these and the finance companies which do not rely on deposits for funds? Needless to say, different aspects of EFT development could affect separations in different ways. For example, point-of-sale system development could reduce the practical advantage that commercial banks in fact enjoy in the third-party payments function, while automated clearinghouse development could weaken the ability of thrift institutions to obtain deposits from deposited paychecks. But, even taken together, these contrary

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[5] The substitution of rhetoric for economic analysis is well illustrated by the congressional passage of resale price maintenance and price discrimination legislation during the depths of the Depression. See Palamountain, *The Politics of Distribution,* Chs. VII and VIII (1953). These protectionist measures turned out to involve serious inefficiencies which consumers had to pay for. The resale price maintenance legislation was repealed in 1975, and the price discrimination legislation is being reconsidered.

trends might well tend to blur the line between commercial banks and thrift institutions—to encourage a customer to regard them as more interchangeable.[6]

Would full EFT development also affect the separations between depository institutions and others? Would, for example, a finance company or a retailer armed with a card and some terminals become some "near bank" substitute? What about insurance agents or stockbrokers: Could they use EFT technology to offer close substitutes for banking services?

Depository institutions, unlike other firms, are subject to severe geographic limitations on where they can operate offices. Would full EFT development—with terminals and point-of-sale systems—significantly affect these limitations? Would it render them entirely obsolete? Or would it just reduce the value of the franchise to operate a traditional

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[6] Clearly, a general drift in that direction can be perceived. The Hunt Commission recommended a number of measures which would broaden the investment and other powers of thrift institutions to compete with commercial banks. See *The Report of the President's Commission on Financial Structure and Regulation* 23-58 (1971). Some states have granted thrift institutions third-party payment powers (1) by statute: Mass. Ann. Laws, Ch. 167, § 16A (1974); Me. Rev. Stat. Ann., Tit. 9B, § 423 (1975); (2) by regulatory and judicial decisions, Hudson County Nat'l Bank v. Provident Inst. for Sav., 44 N.J. 282, 208 A.2d 409 (1965); Savings Bank v. Bank Comm'r, 248 Md. 461, 237 A.2d 45 (1968); and Consumers Sav. Bank v. Comm'r of Banks, — Mass. —, 282 N.E.2d 416 (1972). The *Consumers* decision led to the adoption of NOW (negotiable order of withdrawal) accounts by savings banks in Massachusetts and New Hampshire (which had a similar statutory scheme). This in turn led to federal legislation authorizing interest-paying NOW accounts for both commercial banks and savings banks in these two states, but not elsewhere. Pub. L. No. 93-100 § 2, 87 Stat. 342, enacted Aug. 16, 1973. 12 U.S.C. § 1832(a). In 1975, legislation passed in the Senate that would greatly broaden thrift institution payment powers, along lines recommended by the Hunt Commission. See Title II of S. 1267 ("The Financial Institutions Act of 1975"), as passed by the Senate on Dec. 11, 1975.

There are a few deviations from the general trend. At least two state supreme courts have rejected expanded savings bank payment powers. See Androscoggin County Sav. Bank v. Campbell, 282 A.2d 858 (Ind. 1971), largely overruled by a subsequent statute permitting thrift institutions to offer "personal demand deposits," Me. Rev. Stat., Tit. 913, § 423 (1975); and New York State Bankers Ass'n v. Albright (N.Y. App., Dec. 29, 1975), *aff'g* 46 App. Div. 2d 269, 361 N.Y.S.2d 949 (4th Dep't 1974).

office? What this asks essentially is this: Does a local terminal connection to a distant financial institution provide an effective substitute for financial services now provided on a face-to-face basis? Can anything but consumer-type loans be provided effectively this way? Will the remote terminal be more likely to help the institution in the nearby town, rather than one in a distant city? These questions involve both economic efficiency and customer acceptance.

Would full EFT development be likely to affect different-sized institutions in different ways? Would it dramatically change the level of scale economies in banking? Would small institutions be able to join together and offer electronic-based services if they wished? Would the correspondent system—or the national bank credit card systems—be likely to be used to provide such joint services?

Would full EFT development be likely to affect the balance between state and federally chartered institutions? Would the "dual banking system" be likely to fade away in such an environment?

Other institutional questions go well beyond competitive balance between particular institutions. For example, how would full EFT development affect the federally administered deposit insurance schemes? How would it affect monetary policy and its implementation? Such inquiries would have to distinguish carefully between depository institutions and others. Would unregulated EFT development by finance companies pose any risk to the depository insurance schemes or to monetary policy implementation?

This covers key areas of inquiry into the impact of full EFT development on institutional arrangements. It is imperative that the inquiry should be as clinical as possible: Its object should be to lay out the facts, based on the best available estimates of technology, costs, and consumer acceptance. Fears should not be allowed to fog the facts.

Public and Private Values

Having developed a full factual record, the Commission can then turn to the task of developing policies and legal tools to implement those policies. This exercise in turn requires a very careful inquiry into the whole issue of values, which should be protected and implemented. Congress has already given the Commission some *very general* guidance in this area, and no doubt will prove more willing to second-guess the Commission's judgment on value questions than on technical questions. In Section 203(a), Congress suggests the following values: the need to preserve competition among financial institutions and users; the need to safeguard the effectiveness of government financial regulation and minimize the government's operational role in EFT development; the need to protect privacy and confidentiality; and the need to protect the legal rights of users and consumers. The statute also declares a concern with issues of economic and monetary policy, availability of credit, international transactions, and expansion into other areas.

It is, of course, not enough to simply have a laundry list of the values that should be considered in the development of EFT. Some effort must be made to give them much greater precision—to provide a basis for rank ordering them in the case of conflict or for making intelligent trade-offs. In this connection, we should remember that these values are not necessarily "all or nothing" values. For example, a *certain level* of privacy may be found to be an "absolute" value, while privacy beyond this minimum point may be entirely a matter of customer preference and willingness to pay for safeguards.

The Commission is likely to have a wide diversity of values pressed upon it as being "essential." Some may turn out to be essential, others may not. Just to illustrate the range involved, here are some possibly essential, some pos-

sibly nonessential, values: efficiency; free trade; localism; small banks; institutional stability; priority investment; personal privacy; system security; and consumerism.

Efficiency

This basic concept simply means that waste is avoided, that services are performed in the least costly way. At stake is not only the efficiency of an individual firm or institution, but of the financial system as a whole—and this is particularly important in the clearing context. Efficiency in the EFT area turns heavily on technology, as well as on long-run demand (which is in turn affected by price). A giant, nominally efficient system is in fact efficient only if long-run demand enables it to be operated on a fully loaded basis. The ability to meet major changes in technology and demand is an important "efficiency" element.

Free Trade

This may simply be a subset of the efficiency value because competition, which is stressed in the Commission's enabling statute and in the antitrust laws, is generally seen as a spur to economic efficiency, as a means of driving down costs and forcing firms to charge prices based on those costs.[7] That would appear to be the better view. However, the commerce clause in the Constitution embodies an even broader value: namely, that businesses engaged in interstate commerce should be allowed to compete anywhere in

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[7] The Supreme Court has stressed that the goal of antitrust is assuring "competition based on efficiency." Connell Constr. Co. v. Plumbers & Steamfitters Local 100, 421 U.S. 616, 623 (1975). "The Sherman Act was designed to be a comprehensive charter of economic liberty aimed at preserving free and unfettered competition as the rule of trade. It rests on the premise that the unrestrained interaction of competitive force will yield the best allocation of economic resources, the highest quality and the greatest material progress. . . ." Northern Pac. R.R. v. United States, 356 U.S. 1, 4 (1958).

the country on their merits, freed from the protectionism which state and local ordinances may give their "home" businesses. Thus our law reports are filled with cases striking down state legislation, passed in the name of "health and safety," but really designed to place burdens on interstate commerce for the benefit of local entrants.[8]

Localism or States' Rights

In banking, the federal government has sometimes deferred to the states—particularly on the question of where banks can have offices.[9] This commitment to states' rights has been a key element in our unique "dual banking system." However, our national commitment to states' rights has not been unflinching, or all-inclusive. A century ago Congress tried to tax the state banks out of existence, and almost succeeded[10]; and then during the Depression, Congress gave some serious consideration toward allowing much more of

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[8] See, e.g., Dean Milk Co. v. City of Madison, 340 U.S. 349 (1951), where the Supreme Court struck down a local "regulation [which] in practical effect excludes" wholesome out-of-state milk. "In erecting an economic barrier protecting a major local industry against competition from without the State, Madison plainly discriminates against interstate commerce. This it cannot do . . . if reasonable nondiscriminatory alternatives, adequate to conserve legitimate local [health and safety] interests, are available."

[9] The McFadden Act, 12 U.S.C. § 36(c), explicitly subjects national banks to the geographical limitations imposed by state law on branch banking. The statute permits branch banking only in those states where state law permits branch banking by state banks and only to the extent permissible under state law. As the Supreme Court stated in First Nat'l Bank v. Walker Bank, 385 U.S. 252 (1966), "Congress intended to place national and state banks on a basis of 'competitive equality' insofar as branch banking was concerned." 385 U.S. at 261.

Some recent U.S. district court cases have held that the McFadden Act also applies to off-premises customer-bank communication terminals (CBCTs). See Independent Bankers Ass'n of Am. v. Smith, 402 F. Supp. 207 (D.D.C. 1975), State of Colo. *ex rel.* St. Banking Bd. v. First Nat'l Bank, 394 F. Supp. 979 (1975).

[10] Robertson, *The Comptroller and Bank Supervision* 53-54 (1968). After Congress in 1865 imposed a 10 percent tax on state bank notes, a majority of state banks immediately transferred to federal charters, and by 1866 the number of state banks was reduced to about one-fifth of the 1863 total.

a nationwide banking system.[11] National banks do have different powers; and more innovative regulation of these banks has from time to time been a spur to change at the state level. And of course all banks are free to solicit business outside their states, so long as this is not done by an established office.

Small Banks

We have a diverse banking system still heavily populated by small local institutions. These independent banks can often provide a more immediate community focus and more personalized banking service. They are arguably an essential alternative to our becoming a nation of "branch office towns." [12] This Jeffersonian value would suggest that public policy should affirmatively seek to perpetuate and protect these banks, regardless of whether they are (or prove to be) as efficient as larger banks. Alternatively, public policy simply need be concerned with avoiding imposition of rules or enforcement of restraints which unfairly discriminate against small banks. Here, one is reminded about Anatole France's famous adage about the evenhanded majesty of French justice which denies both rich and poor alike the right to sleep under the bridges of Paris. The first would raise important conflicts with the value of efficiency, while the second would not.

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[11] Robertson, *id.* at 132. Senator Carter Glass, extremely influential in banking matters, introduced a bill to permit national banks to branch across state lines. Similarly, Comptroller of the Currency John W. Pole advocated interstate branching in trade areas which transcended state boundaries.

[12] Justice Douglas's concurring opinion in United States v. Falstaff Brewing Corp., 410 U.S. 526, 538 (1973), reflected this view clearly:

> "Control of American business is being transferred from local communities to distant cities where men on the 54th floor with only balance sheets and profit and loss statements before them decide the fate of communities with which they have little or no relationship. As a result of mergers and other acquisitions some states are losing major corporate headquarters and their local communities are becoming satellites of a distant corporate control." 410 U.S. at 541-542.

Institutional Stability

Since 1933, we have had a broad public mandate to government to avoid widespread bank failures.[13] This value is really bottomed in the importance of public confidence in financial institutions—for if the public lacked confidence in institutions, they would tend to withhold funds from the system and the system will become less efficient as a result. Some would perhaps go further, and argue that capital has been invested in the banking system on the assumption that it would be heavily regulated to protect those in it from the full rigors of competition and that therefore it would be unfair to allow new competitive developments which undermine that assumption.

Priority Investment

Housing has—rightly or wrongly—been given high priority in public policy-making for the financial sector.[14] A

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[13] In the House debates on the Banking Act of 1933, Rep. Steagall declared:

> "We may talk about percentage of gold back of our currency, we may discuss technical provisions of legislation touching affiliates, investments, open-market operations, group banking, chain banking, and branch banking. The public does not understand these technical discussions, but from one end of this land to the other the people understand what we mean by guaranty of bank deposits; and they demand of you and me that we provide a banking system worthy of this great Nation and banks in which citizens may place the fruits of their toll and know that a deposit slip in return for their hard earnings will be as safe as a Government bond.
>
> "They know that banks cannot serve the public until confidence is restored, until the public is willing to take money now in hiding and return it to the banks as a basis for the expansion of bank credit. This is indispensable to the support of business and the successful financing of the Treasury. It will bring increased earnings, higher incomes, and make it possible to balance the Government's Budget without resort to vicious and vexatious methods of taxation. We must have this great reform, the sooner the better. Now is the time of all times to bring to pass this great achievement. The sooner it comes the quicker we shall begin to move along the way that leads from darkness and despair into the gladsome light of prosperity and happiness."

77 Cong. Rec. 3840 (1933). The Banking Act of 1933 guaranteed bank deposits by creating the Federal Deposit Insurance Corporation by the addition of Section 12B to the Federal Reserve Act.

[14] See generally the National Homeowners Act as amended (12 U.S.C.

separate class of thrift institutions have been looked upon as the principal sources of housing investment.[15] Anything that adversely affects their deposit base arguably undermines the whole scheme of priority investment in housing. Other priority lending areas (e.g., minority-owned business) appear to involve less commitment to any single class of institutions.

Personal Privacy

The Bill of Rights reflects a broad commitment to privacy which reverberates throughout our legal system.[16] Yet

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§§ 1461-1478), and the National Housing Act as amended (12 U.S.C. §§ 1701-1750g); also *The Report of the President's Commission on Financial Structure and Regulation* 77-86 (1971).

[15] This does involve a problem that was concisely summarized by President Nixon in his financial reform message of August 2, 1973:

> "By law, thrift institutions—a category primarily composed of savings and loan associations but also including mutual savings banks—were created to provide funds for housing by maintaining large holdings of residential mortgages. However, earnings on holdings of previously acquired mortgages do not respond to changes in market interest rates. When market rates rise, the ability of thrift institutions to attract funds is limited and their ability to lend additional mortgage money is diminshed.
>
> "Attempts to alleviate this problem by restrictive laws and regulations have achieved very little at great cost. The main technique has been to impose ceilings on the interest rates that financial institutions could pay savers for funds. The result, however, has often been a reduction in the flow of deposits to financial institutions. In many cases, in fact, deposits have been withdrawn so that they could be invested in higher yielding securities. Thus interest ceilings that were intended as a protective shield for the housing market turned out instead to be an additional burden."

"Recommendation for Change in the U.S. Financial System," at p. 1, Department of the Treasury (Sept. 24, 1973).

[16] In Roe v. Wade, 410 U.S. 113 (1973), Justice Blackmun reviewed the constitutional right of privacy:

> "The Constitution does not explicitly mention any right of privacy. In a line of decisions, however, going back perhaps as far as *Union Pacific R. Co.* v. *Botsford*, 141 U.S. 250, 251 (1891), the Court has recognized that a right of personal privacy, or a guarantee of certain areas or zones of privacy, does exist under the Constitution. In varying contexts, the Court or individual Justices have, indeed, found at least the roots of that right in the First Amendment, in the Fourth and Fifth Amendments; in the penumbras of the Bill of Rights; in the Ninth Amendment; or in the concept of liberty guaranteed by the first section of the Fourteenth Amendment. These decisions make it clear that only personal rights that can be deemed "funda-

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the rights to be free from having soldiers quartered in your house or having a law enforcement officer break in without a warrant are factually simple compared with our complex world of computers and communications circuits. The computer makes possible more subtle invasions of privacy—including those which come from effective collection of what would be regarded as a lot of diverse but routine information.[17] The problem then becomes one of defining what is essentially "private" in this environment, and relating it to established legal safeguards for it. Moreover, the right of privacy has always been traded off to some extent against the interests of society in effective law enforcement; no absolute right to privacy has existed in most circumstances, but rather law enforcement officers have been required to use methods which were regarded as reasonable in contemporary terms and in the particular circumstances in a case.[18] The Bank Secrecy Act—which makes a lot of pre-

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mental" or "implicit in the concept of ordered liberty," *Palko* v. *Connecticut,* 302 U.S. 319, 325 (1937), are included in this guarantee of personal privacy. They also make it clear that the right has some extension to activities relating to marriage; procreation; contraception; family relationships; and child rearing and education." 410 U.S. at 152-153. [Citations generally omitted.]

[17] For an exhaustive discussion of the privacy issues inherent in the increased utilization of computer technology, see Miller, "Personal Privacy in the Computer Age: The Challenge of a New Technology in an Information-Oriented Society," 67 Mich. L. Rev. 1091 (1969).

[18] For instance, the Fourth Amendment protects individuals from unlawful searches and seizures of tangible property as well as from the unreasonable surveillance of private speech, Katz v. United States, 389 U.S. 347 (1967). However, the Court in United States v. United States District Court, 407 U.S. 297 (1972), noted that some incursions into conversational privacy via electronic surveillance may be permissible under the Fourth Amendment:

"As the Fourth Amendment is not absolute in its terms, our task is to examine and balance the basic values at stake in this case: the duty of Government to protect the domestic security, and the potential danger posed by unreasonable surveillance to individual privacy and free expression. If the legitimate need of Government to safeguard domestic security requires the use of electronic surveillance, the question is whether the needs of citizens for privacy and free expression may not be better protected by requiring a warrant before such surveillance is undertaken. We must also ask whether a warrant requirement would unduly frustrate the efforts of

viously "private" data available to law enforcement officials —embodies recent congressional policy in this area.[19]

System Security

This involves security both against fraud and against negligent loss. If a financial system does not have a certain minimal level of security, the public simply will not use it, because it does not regard routine financial transactions as gambling deals. Hence, entrepreneurial considerations and normal legal risks may force operators to try to maintain security of at least a certain minimal level. The problem is complicated in a large system, however, by the fact that different parties may have control over different parts of the system, and therefore some overall security standards may raise some very special issues, since fraud losses (as opposed to negligent ones) are less likely to be random.

Consumerism

This value (recognized in the enabling statute) would dictate that some minimum level of information be available to the public with regard to use of an EFT or other financial system. Moreover, to the extent that consumers have special legal rights under the paper-based system, this value would tend to argue that these rights should be preserved in the electronic environment—even if this resulted in higher costs and hence lower efficiency.[20]

Government to protect itself from acts of subversion and overthrow directed against it." 407 U.S. at 314-315.

[19] Pub. L. No. 91-508 (1970), 12 U.S.C. § 1951 et seq., 31 U.S.C. § 1051 et seq., upheld as to constitutionality, California Bankers Ass'n v. Shultz, 416 U.S. 21 (1974).

[20] For example, the instantaneous nature of electronic transactions may effectively eliminate the customer's right to stop payment under Section 4-403 of the Uniform Commercial Code. Interestingly, the California Automated Clearing House has dealt with aspects of this issue by private rules which cover preauthorized electronic debits and which guarantee the customer (1) seven days' notice of changes in amounts of an entry, and (2) fifteen days to set aside an entry as being in error. See Homrighousen, "One Large Step Toward

In a sense, many of these values call for the kind of careful weighing and balancing that we are getting increasingly used to in the environmental area.[21] Many of these values involve some departures from efficiency. The question then centers on how large that departure should be and who should pay the cost of it. On the other hand, that which is most efficient is likely to transpire on its own, if freed of artificial constraints and of competition from subsidized substitutes. Moreover, these issues must be looked at in a dynamic, rather than static, sense. Our financial system has changed and continues to change—indeed ever more rapidly—over time. A century ago banks created funds primarily by printing notes, while today they do it primarily by making loans and creating new deposits. Traditionally, banks did not engage in consumer lending, now they are among the largest consumer lenders.[22] Thus the Commission must look not only to what is—but what can be—in determining values.

Less-Check: The California Automated Clearing House System," 28 Bus. Law. 1143, 1151-1153 (1973). Such rules could of course be applied generally by suitable amendments to the Uniform Commercial Code. This is of course only one part of a complicated set of questions raised by the need to accommodate the real time, paperless environment to the traditional legal concepts in the Uniform Commercial Code. See, e.g., Ege, "Electronic Funds Transfer: A Survey of Problems and Prospects in 1975," 35 Md. L. Rev. 1, 24-34 (1975).

[21] While refusing to grant a stay in an environmental contest in Aberdeen & Rockfish R. Co. v. SCRAP, 409 U.S. 1207 (1972), Chief Justice Burger, sitting as circuit justice, observed:

> "Our society and its governmental instrumentalities, having been less than alert to the needs of our environment for generations, have now taken protective steps. These developments, however praiseworthy, should not lead courts to exercise equitable powers loosely or casually whenever a claim of "environmental damage" is asserted. The world must go on and new environmental legislation must be carefully meshed with more traditional patterns of federal regulation. The decisional process for judges is one of balancing and it is often a most difficult task." 409 U.S. at 1217-1218.

[22] Commercial banks have enjoyed a growing share of the rapidly growing consumer credit field. Total U.S. consumer credit has grown from $5.7 billion in 1945 to $188.1 billion in November 1974. Commercial banks held only $1.4 billion of this paper in 1945, but this increased to $84.4 billion by November 1974. Commercial banks as a group thus increased their share of consumer credit from 25 percent to 45 percent between 1945 and 1974. Fed. Res. Bull. 875 (1966); 61 Fed. Res. Bull. 847 (1975).

Values must be given specific content and weighed. Old values need to be reexamined in the light of contemporary experience, attitudes, and needs. Values must be ranked in terms of priorities—to the extent that this can be done—to help resolve conflicts between values.

The Commission should press the public to be specific on values; it should especially press those asking for legal insulation against full EFT development why their *private* economic interests should be equated with *public* values. If values are not defined with some precision, the legislative process over EFT development is likely to become a "horse trading" exercise among various vested interests. The result may be thoroughly satisfactory to the horse traders, but it is not likely to produce anything approaching optimum results for the public.

Legal and Institutional Tools

Public laws and institutions should be servants of public needs. Once the Commission has developed the facts and more clearly focused the values at stake, then it can turn to the final stage of the exercise—namely, to design the laws and institutions necessary to make the electronic world work. The theoretical range of options is clearly large, although each probably responds to specific sets of facts and values.

There appear to be at least five broad institutional approaches which might be applied to EFT development: the "chosen instrument" approach, the "public utility" approach, the "compulsory shaping" approach, the "general licensing" approach, and the "open entry" approach.

The Chosen Instrument Approach

The "chosen instrument" would normally be a single organization designated by legislation to carry out responsi-

bilities for EFT development, in whole or in part.[23] Such an approach would probably rest on a factual finding that overwhelming economies of scale existed,[24] combined with a policy decision that certain nonefficiency values (such as the preservation of certain institutions) should be served without regard to costs. The "chosen instrument" approach could be applied in theory to the whole EFT development (a mind-boggling thought). Or, it could be applied to some specific aspect of EFT development, with clearing being the most likely candidate. The Federal Reserve System is clearly the logical candidate for any "chosen instrument" role; but the Board has not shown any desire to take on that role,[25] and it has been widely urged by others not to do so.[26]

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[23] The discussion assumes a federally created "chosen instrument." Of course, a state legislature might seek to create some sort of "chosen instrument" for EFT development within its borders, but this could well run into serious constitutional objections as an unreasonable restriction of interstate commerce. See Gibbons v. Ogden, 22 U.S. 1 (1824) (invalidating a state-granted steamboat monopoly on the Hudson River).

[24] Interestingly, our best recent example of a "chosen instrument" is COMSAT, which was designed by Congress on the assumption that overwhelming scale economies existed. Communications Satellite Act of 1962 (47 U.S.C. §§ 701 et seq.). While correct at the time, this assumption was soon proven quite incorrect by the development of a new type of satellites. The Act of 1962 had been based on the assumption that satellite communications would require a large system of revolving satellites, and many complicated earth stations to pick up each revolving satellite as it passed overhead. This technology involved very large-scale economics, making it too expensive to ever contemplate duplicating such a system. But, within a year, the so-called synchronous satellite was developed, which stayed in a single place in relation to the earth. This meant that a single satellite (with perhaps a spare in orbit) and much simpler ground stations could provide service on a single route. Competitive satellite systems became possible, and these are now belatedly coming to pass in the United States. See Domestic Satellite Servs., 35 F.C.C.2d 844 (1972).

[25] The Federal Reserve Board has not undertaken any broad operating of EFT systems. Its most relevant action was in rejecting the request of the Atlanta Point-of-Sale Project (operated by the Federal Reserve Bank of Atlanta and several leading Atlanta banks) for a subsidy from the Federal Reserve System. See American Banker, Sept. 12, 1974 n 1.

[26] See, e.g., "Comments of the U.S. Department of Justice" (May 14, 1974) in response to the Board's release dated November 19, 1973. The Board had invited comment on proposed amendments of Regulation J. The notice of an inquiry asked for comments on the basic structure of the nation's payment mechanism and the appropriate role of the Federal Reserve System and other

The "chosen instrument" concept could be developed on even a more limited scale, covering only gaps in the electronic fund transfers if it turned out that market forces were not meeting essential needs defined by the Commission.

Public Utility Solution

The second institutional approach, the "public utility" solution, assumes that a single enterprise or a small number of enterprises are going to conduct EFT services of particular types in particular areas. It would then provide for government regulatory control over entry into the business plus, presumably, some sort of rate regulation to avoid monopolistic abuses. The "public utility" approach would rest on factual findings of such large-scale economies that competition would not work in a practical sense. It might be combined with a policy decision that certain nonefficiency values (such as the preservation of certain institutions) should be subsidized.[27] It would be strengthened by a factual finding (which seems improbable) that "public utility" enterprises are more trustworthy enterprises in dealing with such matters as privacy and security.

Compulsory Sharing Approach

A variant on the "public utility" theme is the "compulsory sharing" approach.[28] This need not involve detailed

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institutions in the ownership and operation of an electronic payments system. CCH Fed. Banking L. Rep. ¶ 96,130. The general thrust of the comments submitted was against the Federal System operating the whole electronic payments system.

See also the statement of George W. Mitchell, Vice-Chairman of the Board of Governors of the Federal Reserve System to the House Subcommittee on Bank Supervision and Insurance, Nov. 26, 1973, reprinted in 59 Fed. Res. Bull. 874 (1973).

[27] See Posner, "Taxation by Regulation," 2 Bell J. (1971).

[28] A majority of the states which have recently enacted legislation governing off-premises EFT facilities require some form of sharing as a condition to operating such facilities. Such mandated sharing takes several different forms in the state statutes. For example, Connecticut requires any institution (com-

entry regulation, but it would require that those who had entered to share facilities with anyone else specified in the law. It would be rather analogous to general compulsory licensing of patents (something we generally rejected in our legal system). A "compulsory sharing" scheme would be primarily justified on grounds of trying to protect particular classes of institutions against competitive disadvantage. Absent a factual showing of very large economies of scale, it would tend to be subject to some serious "efficiency" objections.[29]

General Licensing

The fourth institutional approach is what I would label "general licensing." It would rest on findings that overwhelming economics of scale had not been shown, and hence competition was possible. Under licensing, certain hopefully objective standards would be set, and those desiring to offer EFT services would be allowed to do so provided they met these standards. The exact nature of the licensing standards would depend on the values that the Commission found to be endangered. Legal safeguards for privacy and security would be obvious candidates for inclusion in such a scheme, and this could be done by requiring every license candidate to install systems meeting *minimum technical*

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mercial bank, savings bank, or savings & loan association) to make its EFT facility available on a nondiscriminatory basis for use by any other depository institution. Connecticut Public Act 75-373, § 3. By contrast, Washington requires commercial banks to share, but does not mandate sharing between commercial banks and thrift institutions. Wash. Rev. Code Ann. §§ 30.43.030 and 30.43.040. Other states which have very recently adopted mandatory sharing statutes include Florida, Kansas, Maine, Maryland, Nebraska, New Hampshire, New Jersey, North Dakota, and Oregon.

[29] Antitrust law will compel access to a "bottleneck" monopoly (i.e., a unique resource where large-scale economies are present). See, e.g., United States v. Terminal R.R. Ass'n, 224 U.S. 383 (1912); Associated Press v. United States, 326 U.S. 1 (1945). Yet antitrust also appears flexible enough to allow for competition between two or more "bottleneck" monopolies. See Worthen Bank & Trust Co. v. National BankAmericard Inc., 485 F.2d 119 (8th Cir. 1973) (competing bank credit card systems).

performance standards. Adequate insurance against customer losses, or management free from criminal convictions would be included. A "licensing" scheme, one presumes, would be concerned not with economic values, but in insuring nonmarketplace values were in fact served. Unfortunately, any "licensing" scheme can become a cover for economic protectionism, and it is particularly likely to do so where it is administered by private individuals with an economic interest in holding down competition (as distinct from independent public officials).[30]

Open Entry

The final institutional category might be labeled "open entry." This would in essence say that any ordinary business could engage in any form of electronic fund transfers activity it wishes, subject to the normal laws of contracts, negligence, antitrust, and the like. It would leave financial institutions subject to their existing systems of legal regulation and oversight—subject perhaps to further modifications of these rules to make it easier for financial institutions to enter into various types of EFT services. This approach would generally be supported by factual findings that no overwhelming economies of scale existed, and that competition would promote efficiency and protect the public from

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[30] In Gibson v. Berryhill, 411 U.S. 564 (1973), the Supreme Court held that the Alabama Board of Optometry "was so biased by prejudgment and pecuniary interest that it could not constitutionally conduct hearings looking toward the revocation of appellees' licenses to practice optometry." 411 U.S. at 578. Members of the Board were required to be members of the Alabama Optometric Association, an association limited to independent practitioners of optometry *not* employed by others and which originally instituted the challenge to appellees' licenses. The appellees were employees of the Lee Optical Company which did a large business in Alabama and whose major competition included private practitioners of optometry.

Similarly, in Goldfarb v. Virginia State Bar, 421 U.S. 773 (1975), the Court struck down the minimum fee schedule enforced by the Virginia State Bar and stated that "the fact that the State Bar is a state agency for some limited purposes does not create an antitrust shield that allows it to foster anticompetitive practices for the benefit of its members." 421 U.S. at 791.

economic and other abuses. It would also require some determination that any threats to such public values as security and privacy could be met by general laws providing appropriate civil and criminal remedies.

The Commission's task here will be greatly complicated by the need to define at least some basic accommodation between state and federal law in the EFT area. To what extent should the Federal Government seek to preempt the field—for example, to assure that common interchange standards are used throughout the country? To what extent should the states be permitted to place burdens on interstate EFT development—perhaps for no other purpose than to protect their own institutions against outside intrusion? The analogies to the past may not prove helpful: states can establish extensive barriers to bank office opening without disrupting the banking system (as distinct from inconveniencing local customers), but the same is not likely to be true of a complex, real time computer network. Special local rules can place burdens on those far away.[31] This means that workable accommodations will have to be found between the federal interest in protecting interstate commerce and the states' rightful interest in protecting their citizens and consumers against invasions of privacy, fraud, and onerous contracts, among other things. The states' traditional interest in banking structures will no doubt also have to be considered in the accommodation process.

The Ultimate Concern About Economic Efficiency

Regardless whether the Commission finds efficiency to be a high priority value, it must be concerned about the impact of any legal rules and institutions on efficiency. The

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[31] See, e.g., Southern Pac. Co. v. Arizona, 325 U.S. 761 (1945), striking down under the commerce clause a state maximum train length law, which necessarily required the railroads to break up freight trains to go through the state.

reason for this is obvious: EFT systems can only be expected to come in place to the extent they can do a better job for the public—a better job in terms of cost and responsiveness to public demands.[32] If the legal system loads EFT down with expensive extras or operational restraints,[33] then EFT will become progressively more costly, less flexible, and less attractive to the public. Lessened use will in time drive up unit costs and eventually force price rises—which in turn will trigger reduced demand, higher costs, and higher prices. (Public subsidy, either directly from tax revenues or indirectly from the Federal Reserve System, might offer an alternative to meet certain public needs for EFT services at lower prices—but the use of subsidy raises other problems, and still does not banish cost questions.)

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[32] There is clearly no groundswell of public demand for electronic impulses to replace paper, for instantaneous entries to replace "float." The public likes checks. As one author (who happens to be an official of Consumers Union) put it this way: "[S]ignificant consumer demand for any extensive EFT system or, indeed, for any change in the present paper system, apparently, does not exist. Indeed consumers appear to be actually hostile to the institutions of such systems." See Schuck, "Electronic Funds Transfer: A Technology in Search of a Market," 35 Md. L. Rev. 74, 75 (1975).

This conclusion is consistent with many of the consumer surveys taken in recent years. *Id.* at 76-78. Similarly, most consumers with whom I have talked would vote against the new descriptive billing that the bank credit card systems instituted in 1975, because the new system requires greater customer vigilance against forgeries or unauthorized entries, and they make it more difficult for customers to get errors corrected. Customers like to get their own signed instruments and to be able to send other people's back to the bank! What all this means is that, where consumer choice is important to EFT development, progress can only be expected when financial institutions can offer something which is *clearly* cheaper or more convenient. An efficient system is unlikely to produce these.

[33] For example, branch-banking-type rules could so confine an EFTS to such a small geographic area that it would necessarily be a natural monopoly within that area (i.e., it would have large potentially unrealized economies off scale which far exceeded the potential demand in that area). On the other hand, if the legal rules permitted an EFTS to operate over a very broad geographic area, then it might not have natural monopoly characteristics, and the system might be able to compete for business. These facts clearly have to be explored in detail. What is important to recognize is that law as well as economics can create a natural monopoly situation. One can be avoided, the other cannot.

This all suggests that the Commission must try to measure carefully the potential costs and efficiency losses (or gains) from one legal tool or another. It should try to design these tools as precisely as possible to serve whatever its priority goals, when use of these tools involve efficiency losses. We may well be willing to pay the price, but we should be given a chance to see that price clearly and to be satisfied that no less costly alternative is suitable.

In this connection, the Commission should investigate whether such values as security and privacy can be written into general laws, or whether they necessarily need be delegated to government regulators. It should be vitally aware of what those in the law enforcement business are all too aware, that the policemen's role is difficult at best, and that overly vague or complex laws can make it nearly impossible.

Conclusion

The importance of the Commission's mission is, alas, underscored by some of the sadder chapters of modern American economic history. We have been among the most innovative people on earth in developing new technology. We have been at the same time among the least successful in implementing those technological inventions in regulated environments where the technology threatened the economic status quo.

Cable television represents perhaps the best—or worst—example.[34] About five or six years ago, every visionary

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[34] Another is the Federal Communications Commission's *Authorized Users* decisions, which prevented COMSAT from passing international satellite transmission savings on directly to the using public. *Authorized Users*, 4 F.C.C.2d 421 (1966), *rehearing denied* 6 F.C.C.2d 511 (1967). Instead, carriers with a vested interest in the competing undersea cable technology were given an exclusive franchise to "wholesale" satellite circuits, and they made certain that the low cost satellite circuits never went below sea cable rates. Needless to say, this "wholesale" function proved highly lucrative—with high returns on virtually no investment.

looked on cable the way we now look on EFT—as the wave of the future.[35] People saw cable as offering programming diversity and free goodies on an undreamed-of scale. Unfortunately, cable ran into the broadcasters and their regulators. The conflict was not compelled by technology or logic: Our system of broadcast regulation exists because frequency spectrum is scarce and thus government regulation was necessary to avoid interference. Cable television, with its many-channeled systems, greatly reduced the spectrum scarcity as a practical factor: The home viewer can be given many more choices than ever existed over the air. Unfortunately, cable thus threatened the economic value of the existing scarcity. This proved too much for the regulatory system. The broadcasters' regulator (the Federal Communications Commission assumed some de facto jurisdiction over cable systems,[36] and placed on them legal limitations and requirements which increased their costs and severely limited their growth—especially in large metropolitan areas where broadcasting spectrum is both the scarcest and hence the most

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[35] See, e.g., Sloan Commission on Cable Television, *On the Cable: The Television of Abundance* (1971).

[36] First, the FCC (which had made unsuccessful efforts to obtain statutory jurisdiction over cable television) asserted that it had ancillary jurisdiction over cable systems' distribution of over-the-air signals which they imported from other markets. United States v. Southwestern Cable Co., 392 U.S. 197 (1968). The Supreme Court found this activity to be "reasonably ancillary to effective performance of the Commission's various responsibilities for the regulation of television broadcasting." This activity was used to place a freeze on the importing of such distant signals into the 100 largest television markets. Then, the FCC successfully asserted further ancillary jurisdiction to place burdensome programming duties and other requirements on cable systems which rebroadcast any television signals. United States v. Midwest Video Corp., 406 U.S. 649 (1972). Chief Justice Burger, the fifth member of a 5-4 majority, notes rightly in his separate opinion, "Candor required acknowledgement . . . that the Commission's position strains the outer limits of even the open-ended and pervasive jurisdiction that has evolved by the decisions of the Commission and the courts. . . . I am not fully persuaded that the Commission has made the correct decision in this area. . . . But the scope of our review is limited." 406 U.S. at 676. That the Commission's assertion of jurisdiction was a "bootstrap" effort, frequently questioned on both jurisdictional and substantive grounds, has not apparently detracted from its effectiveness as a tool for retarding cable system growth.

valuable.[37] The result is that cable television has not yet made it in the large markets which are the heart of the entertainment industry.

The same thing can happen to EFT development. It can be loaded down with legal restrictions to protect existing institutional interests, and with expensive obligations to serve the dreams of social engineers. If this happens, it is likely to lose cost effective advantages it now has and to become a relatively minor factor in a muddled future.

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[37] This sad history is clearly set forth in a just-released staff study by the Subcommittee on Communications, of the Committee on Interstate and Foreign Commerce of the House of Representatives, *Cable Television: Promise versus Regulatory Performance* (Jan. 1976). The report found that the FCC had followed a protectionist policy because it felt itself bound to show "primary concern for individual broadcasters rather than the needs of the audience being served." (p. 3.) See also the author's speech to the same effect, "The Cable Cycle: From Freeze to Slush," in New Orleans, April 14, 1975.

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DOES ANTITRUST LAW PRECLUDE THE NEED FOR GEOGRAPHIC CONSTRAINTS ON BANKING?

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The antitrust laws are generally concerned with competition; and, if actively enforced,they will preserve competition in the financial sector, as well as elsewhere in the economy. The branch banking laws are generally concerned with protecting competitors; and, if expansively enforced, they will retard innovation and limit service. What is confusing is that both antitrust law and geographic banking restrictions are supported by those who profess to be overridingly committed to competition and opposed to monopoly. Both use the same jargon but mean very different things. When the antitruster uses the concept "competition" he is generally talking about hard nosed head-to-head competition between competitors in real market; and he tends to be opposed to all restrictions on an individual competitor's ability to price based on his own costs. When the unit banker uses the concept "competition" he is really concerned more with institutional diversity and with numbers than he is with cutting price or expanding service. When the antitruster

uses the concept "monopoly", he is talking about the situation faced by the customer in a large or small market who lacks any effective choice. When the unit banker talks about "monopoly", he thinks that some evil giant in a vast and distant city who may threaten his own Jeffersonain values.

What this all means is this: if the real purpose of the geographic restrictions on banking is to promote competition (as the rhetoric would tend to suggest), then antitrust can be counted on as the substitute for most purposes. Indeed, antitrust will do this better, because it will allow for the greater flexibility inherent in the market process. If, however, the purpose of the geographic restrictions is to preserve a large number of competitors who might not be able to hack it in a more competitive market, then antitrust will not serve as a suitable substitute. The thing is as simple as that.

What is politically troublesome about the burgeoning EFT development is that it casts this issue in a much clearer light. New technical opportunities are coming up head-to-head against old legal rules which are often no longer seem very clear or very clearly justified. Large law suits are being fought over issues which legislatures never considered, let alone resolved. It is a world of legal mirrors and mirages. It is a world in which the lawyers get richer and the public gets poorer service. It is a time when we ought to rethink our values rather than patch up our rules.

What Antitrust Can and Cannot Do

For those of us who believe in competition--real competition--antitrust law enforcement is clearly important. It embodies a

commitment to consumer choice and to entreprenurial initiative in meeting that choice. It embodies a commitment to new services and new ways of doing things when these are more efficient than the old ways. Choice and change are the name of the game.

Antitrust enforcement is concerned with agreements among competitors not to compete, with monopolies (which are rare) and attempts at monopoly, and with mergers (especially with mergers between direct competitors in a market). The broad thrust of antitrust enforcement has focussed on the retail sector--for it is here that the immediately available choices for the bank customer have been most limited and the effect of regulation most oppressive. Neither bank regulation, nor the inconvenience of distance, prevents "travelling salesmen thinly veneered as vice presidents" (as one friend of mine put it) from travelling the country to serve larger commercial customers. Nor does the branch regulation really impinge upon the corporate treasurer who wants to have his CRT terminal plugged into a distant bank's computer. So it is in the local retail market, where competitive choices are more limited and the competitors' relationships often more cozy, that antitrust is a continuing factor. It is also in this very area that EFT technology most threatens to disrupt the status quo.

Antitrust provides effective remedies against explicit agreements to fix prices or carve up markets. Section 1 of the Sherman Act outlaws every combination of conspiracy in restraint of trade. Some of these are judged under a "rule of reason" standard, which mandates a full factual inquiry. Many, however, are judged under a so called per se standard and these generally are the ones

that are punishable as felonies. Included in this category are price fixing, boycotts, and allocations of customers and territories. In fact, antitrust enforcement seems to have eliminated the price fixing on service charges which was frequent among local competitors in the banking industry 15 or 20 years ago. In 1961, the Department of Justice brought a civil case against banks in a small town in New Jersey for agreeing on service charges.[1] And in 1963 it followed with indictments of banks in Minnesota for fixing prices on service charges, correspondence services, and certain loans.[2]

The Sherman Act has also been used against some less-obvious banking restraints. For example, in 1970 a Government suit against several individuals who quietly acquired control of two of the three banks in a community of 45,000 people in Kentucky. The Government charged that this eliminated competition and its civil suit asked for divestiture (which was subsequently obtained by consent decree).[3]

More important Sherman Act questions have been raised by collective denials of access to common facilities that are increasingly being built up in the banking area. One interesting case

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[1] United States v. Hunterdon County Trust Co., 1962 Trade Cases ¶70,263 (D.N.J. 1962)(consent decree).

[2] United States v. Northwestern National Bank of Minneapolis, et al., 1964 Trade Cases ¶71,020 (D.Minn. 1964); United States v. The Third National Bank of St. Paul et al., 1964 Trade Cases ¶71,021 (D.Minn. 1964); and United States v. The Duluth Clearinghouse Association et al., 1064 Trade Cases ¶71,022 (D.Minn. 1964)(consent decrees).

[3] United States v. Queensboro National Bank, 1972 Trade Cases ¶73,789 (N.D.Ky. 1971).

involved the question of whether the members of one national bank credit card association (BankAmericard) could exclude banks from membership if they issued cards in another credit card system. The court of appeals essentially held that this was too difficult a question to be resolved without a full factual inquiry--over whether the exclusion lessened competition among individual banks or enhanced competition between the different credit card systems.[4] Where a true monopoly facility is involved--where no realistic altervative exists--then antitrust will clearly require compulsory access to the facility.[5] The theory is that those who control a monopoly facility should not be allowed to use it to control other areas which could be competitive. This principle could prove important in the EFT field, where some monopoly facilities may indeed emerge.[6] Thus, I see the Sherman Act as a fully adequate remedy to deal with the theoretical risks that a very few giants might jointly control these key central facilities in such as way as to insure that local retail banks will not compute.

The second broad area of antitrust concern is with single firm monopolies and attempted monopolies. Section 2 of the Sherman Act

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[4] Worthen Bank & Trust Co. v. National BankAmericard, 485 F.2d 119 (8th Cir. 1973).

[5] See, e.g., United States v. Terminal Railroad Ass'n, 224 U.S. 383 (1912). However, Associated Press v. United States, 326 U.S. 1 (1945) seems to suggest that an even lesser amount of monopoly power will suffice.

[6] In fact, I still expect that such situations will be the exception rather than the rule. See Baker, "Competition, Monopoly and Electronic Banking", in Federal Reserve Bank of Boston, The Economics of a National Electronic Funds Transfer System (1974) 47-64.

makes it a crime to monopolize, or to attempt to monopolize, or to conspire to monopolize any relevant market. In fact this provision has been little used in banking, and it has not been widely used in other sectors of the economy either. Yet the learning is instructive for it makes clear what a "monopoly" is in antitrust terms--namely a single firm controlling about two thirds of a relevant market. This "monopoly" becomes illegal when it is obtained or maintained by means that are "exclusionary".[7] This means the"willful acquisition or maintenance of that power as distinguished from the growth or development of a superior product, business acumen or historic accident."[8] In fact, where monopolies exist in banking they are generally created directly by government regulation--and such government-maintained monopolies are generally not subject to suit under Sherman Act §2.

Section 2 can also be used to deal with predatory practices. A large banking organization would not be able to come into a market and price its services way below marginal cost for a long period of time, in order to drive others out of the business, without running serious antitrust risks.[9] In fact, we see very little suggestion of this kind of thing, either in banking or elsewhere.[10]

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[7] See United States v. Aluminum Co. of America, 148 F.2d 416 (2d Cir. 1945).

[8] United States v. Grinnell Corporation, 384 U.S. 563, 571 (1966). As one commentator put it, "The offense [of monopolization] lies in conduct which reveals that the firm likes to have and means to keep its power." See A.D. Neale, The Antitrust Laws of the U.S.A. (1970) 445.

[9] See Standard Oil v. United States, 221 U.S. 1 (1911); and American Tobacco Co. v. United States, 328 U.S. 781 (1946).

[10] See, Areeda and Turner, Predatory Pricing and Related Practices under Section 2, 88 Harv.L.Rev. 697 (1975).

A more usual complaint is that some new bank has entered a market and is trying to establish itself by some new competitive device--such as "free" checking or extended hours. There is nothing particularly wrong with this. This is competition, and it is good for the consumer, and good for the industry as well.

The third--and by far the most important in practical terms--aspect of antitrust enforcement has been with respect to mergers. Indeed, the Government has brought antitrust suits against bank mergers (and has secured more Supreme Court victories!) than in any other industry. These enforce Clayton Act §7 which declares illegal any corporate acquisition whose "effect may be to lessen competition substantially or tend to create a monopoly" in any relevant market.[11] The thrust of bank merger enforcement since Philadelphia National Bank was decided in 1963[12] has been toward preserving a reasonable range of local competitive choices within a community. The fact that entry from outside a local geographic market is frequently barred, or narrowly restricted, by law and regulation has made the antitrust enforcement authorities more concerned about preserving diverse alternatives already there. Thus, a local bank which may not be all that strong itself comparatively, may provide a "foothold" by which a strong outside bank can enter a relevant local market; and a local merger with a direct competitor would

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[11] Bank mergers are also subject to the special procedures of the Bank Merger Act as amended in 1966 (12 U.S.C. §1828(c)) which require approval of bank regulatory agency and allow a special "convenience and needs" defense for special cases of community need.

[12] U.S. v. Philadelphia National Bank, 374 U.S. 321 (1963).

eliminate this.[13] Thus, bank entry regulation--and a potential lack of competitiveness in local markets--has had a lot to do with the Government's hard-nosed assertion that any small bank merger which eliminates direct competition and significantly increases local market concentration is illegal under Clayton Act §7.[14] If there were lower legal barriers to entry, then I would certainly expect fewer local merger cases. There would be less need for the Government to struggle to retain "whatever competition" is left. There would be more room for market forces to correct local monopoly (or oligopoly) conditions.

The Government's bank merger program has also been concerned about "concentration" in broader geographic areas; and this again is closely related to the government-created geographic barriers to bank expansion. It has tried (and largely failed) to prevent domination of a single state by a very few banking organizations. This was seen as important because federal law now prevents an out-of-state bank from establishing a new bank or acquiring a bank within the state. Thus the state boundaries are given a peculiar significance, not by business dynamics, but by law. The Government's concern was that, if the leading banking organizations in a state which have few such organizations were able to go around and pick up the local market leaders, then not only would the state be left with relatively few strong banking alternatives but individual

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[13] See Baker, Banking Competition in the Age of the Computer, 90 Banking L.J. 193 (1973).

[14] See U.S. v. Phillipsburg National Bank, 399 U.S. 350 (1970).

markets within the state would necessarily be left with relatively few alternatives; and these would tend to be the same ones in each local market.

Accordingly, the Government brought a whole series of "potential competition" cases, challenging the acquisition of a leading local bank in a particular local market by one of a small number of dominant banking organizations in the state. It lost them all. Three got to the Supreme Court. One loss was affirmed by an equally divided vote,[15] and two others were decided against the Government on the grounds that it had not shown sufficient probability that the leading state-wide organization was in fact a potential entrant into the particular local market.[16] It rejected all broader statewide analysis of a particular merger. What the Supreme Court in Marine Bancorporation did was affirm that in principle the "potential competition" doctrine applied in banking--but it proceded to set a standard of proof which would be almost impossible to meet in almost every case. And, the stricter the branch banking law the more difficult that standard is as a practical matter for the Government (which is another way of saying that the states which need such suits are probably the ones least likely to get them!) Therefore,I find it unlikely that the Government will bring future market-extension bank merger cases except in very, very clear situations.

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[15] U.S. v. First National Bancorporation, 410 U.S. 577 (1973), affirming 329 F.Supp. 1003 (D.Colo. 1971).

[16] U.S. v. Marine Bancorporation, 418 U.S. 602 (1974); and U.S. v. Connecticut Nat. Bank, 418 U.S. 656 (1974).

To summarize, what the antitrust laws do is a good job of preventing existing competitors from restraining competition, or from merging; and they also offer an adequate safeguard against predatory practices or anticompetitive denials of access to joint facilities. What the antitrust laws do not do is provide a particularly effective barrier against changes in the broad structure of state banking where these are secured by means of mergers other than those involving direct competitors.

What the Branch Banking Laws Do and Do Not Do

The federal government has--perhaps unwisely--deferred to the states on the whole question of banking structure. National banks are essentially bound to the same rules as state banks, by virtue of the McFadden Act.[17] This gives the states broad power to restrict competitive entry into local markets, and by the same token the power to restrain "concentration" within the state. It is almost inevitable that a unit banking state will have a lower level of "concentration" than a state-wide banking state. Of course this is achieved at a very high price: established banking competitors are simply prevented from establishing new operations, regardless of consumer needs or potential efficiencies. The loss to competition in come circumstances can be really quite substantial.

Let me be specific. For years, we went out to West Virginia--a beautiful state, with strict unit banking, no holding companies and a very low statewide concentration. Our banking choice was to go 25 miles and wait in long lines at one monopoly bank, or to go

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[17] 12 U.S.C. §36.

20 miles and wait in similar lines at another monopoly bank. When you asked a local person, "which is better?" he would be apt to reply, "you mean which is worse?" But this kind of inconvenience is not confined to rural areas. Take Chicago, located in another strict unit banking, no holding company state. You go into one of those big office buildings that almost always has a branch bank in New York or California and what do you find--something called a "currency exchange". It cashes checks for a fee: 30 cents or 1 percent of the value of the check, whatever is more. Can you imagine such an institution surviving in New York or San Francisco?

The branch banking problem is of course compounded by applying such restrictive rules to the new EFT facilities. What a CBCT enables a bank to do is expand its effective marketing area--but this is resented because it necessarily impinges on someone else's protected market. The CBCT does not make it possible for a far-distant metropolitan bank to come in and compete hundreds of miles from its nearest office, but it does make it possible for a bank in a neighboring community or county to do so; and it allows the customer the convenience of routine transactions and means that he has to go to the not-so-distant bank only on major matters. The application of branch banking laws to CBCT shows that these laws are complex, and generally inflexible, in dealing with the opportunities opened up by the new technology.

These restrictive rules are supported by a lot of excited rhetoric about "concentration" and "monopoly" which requires careful analysis. Highly restrictive state laws may limit statewide "concentration" at the price of protecting local "monopolies". Less restrictive measures--including greater reliance on antitrust laws--are available to protect markets against undue concentration, coercive restraints, and predatory practices. "Antitrust" or "competition" policy does not dictate that banking law should discourage bank expansion--particularly de novo expansion--in order to "protect the public". The antitrust rhetoric in support of these banking rules is pure Humpty Dumpty!

Conclusion

We clearly need more flexible rules to deal with the opportunities created by the electronic revolution. Bank managements should be given greater flexibility to take risks and even to lose when they decide to install manned facilities or automated facilities in the wrong place. "Financial supermarkets" should be treated more like regular supermarkets--as entrepreneurial undertakings, who win or lose based on their skill in anticipating public demand and meeting it efficiently.

The judgments involved are ones which legislators and bureaucrats are poorly suited to make.

I see no reason to believe that such a more liberal approach would seriously threaten the country with widespread bank failure (which is the reason for having most bank economic regulations). All that we know about the costs in banking suggests that in the retail sector the economies of scale are not overwhelming,[18] and that well managed local banks can compete effectively against much larger ones. This is what a current survey by the Comptroller's Office has recently found, and what New York State studies found earlier.[19]

In this environment, antitrust can deal with most competitive restraints and anticompetitive mergers directly within a local retail market. Unfortunately, the Supreme Court's Marine decision does undermine the antitrust ability to prevent the dominance of a state by a relatively few competitors--and this is important as long as state lines retain their banking significance. I tend to believe that a reasonable degree of pluralism is worthwhile--to avoid creation of what are essentially statewide oligopolies.[20] Since antitrust now doesn't provide it, some legislative restrictions

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18 See F.W. Bell and N.B. Murphy, Costs in Commercial Banking: A Quantitative Analysis of Bank Behavior and Its Relation to Bank Regulation (Federal Res. Bank of Boston 1968).

19 E. Kohn, The Future of Small Banks (N.Y. State Banking Dept. 1966); Kohn and Carlo, The Competitive Impact of New Branches (N.Y. State Banking Dept. 1968).

20 See Solomon, Bank Merger Policy and Problems: A Linkage Theory of Oligopoly, 89 Banking L.J. 116 (1972).

on acquisition of leading local banks is necessary. This can be done in ways that are far less restrictive than most of the geographic restraints have in banking. To start with, no restriction on de novo expansion--either with manned facilities or automated ones--is necessary or desirable. Essentially, all that is required is that Congress amend the Bank Merger Act and the Bank Holding Company Act to provide that no banking organization may make an acquisition which increases its share of statewide deposits above a set figure.[21] That percentage figure should, in my judgment, be not higher than 20%--since that figure would assure that there are potentially at least five strong banking organizations in a state. I made this kind of suggestion in testimony almost three years ago--but then urged that all action be deferred until the Supreme Court had spoken authoritatively on the "potential competition" question.[22] Now that the Court has spoken--and has unfortunately decided the wrong way--something really needs to be done. This type of proposal really ought to be carefully considered by banks--because it does offer a clear and workable way of getting the "concentration" myth out of the branch banking controversy.

The percentage test proposal could indeed then be paired with a McFadden Act repeal, thus allowing national banks to branch

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21 Senator Proxmire has just proposed such a test--using 20% as a bench mark--in S.2721, introduced on December 1, 1975. It may be that deposit should be based on deposits of a certain size (e.g., $100,000), since the market for very large deposits is generally national--or at least regional--in scope. To include such deposits, may have little to do with the local situation.

22 Statement on Recurring Monetary and Credit Crises, House Banking and Currency Committee, September 17, 1973, pp. 30-32.

anywhere in a state and to establish CBCT's anywhere within the state. Of course, McFadden repeal raises "dual banking" issues--which do concern me, for the dual banking system has served to make bank entry more liberal in individual cases. This is good. Yet in the end, I am inclined to vote for "competition" over "competitive equality" here because I see these state legislative deliberations on branch banking as little more than "parochial battles among various banking functions", and because I see no adequate consumer representation in the process. McFadden Act repeal would, as a practical matter, solve this issue at one time in the consumer's favor.

In sum, the percentage on overall acquisitions would provide a reasonable safeguard against any state becoming completely monopolized by one or two or three banking organizations; and the elimination of internal geographic barriers would allow banking organizations far greater flexibility in how they deployed their operations within the state. Such a program is ambitious and yet it is worth considering.

An even more ambitious alternative would be to eliminate the geographic barriers between the states (and thereby reduce the need for such controls within a state). In fact, I think the interstate banking issue is much less important than promoting more effective consumer choice in local markets. To the extent that they have policy unpinnings (as opposed to ancient lineage),

the present interstate banking prohibitions are justified as a means of protecting us from becoming a country with a very few, very large banks. Of course, the argument is not overwhelmingly strong--since we are not really threatened with being monopolized by a very few banks. Moreover, nationwide percentage limitations could be used to put all fears to rest, and vigorous antitrust enforcement against horizontal mergers should probably minimize any risk substantially. On the other hand, the opposite policy argument is not too strong either: proven scale economies in banking do not suggest that wide open interstate banking can be expected to change substantially the cost performance in the industry. There is two exceptions: the public would be better served by some liberalization of the rules in metropolitan areas (such as New York, Philadelphia, Washington, and St. Louis) which cross state lines; and secondly, it would be better served if out-of-state banks were able to acquire a "failing" bank which would otherwise have to be disposed of in an anticompetitive merger with a bank within the state. Beyond that, the interstate issue is more "political" than "economic".

In the end, I am inclined to bow to "political reality" for now; and to urge now change in the interstate bank rules only within a single metropolitan area and for "failing" banks. We can of course continue the present pattern of using §4(c)(8) as a means of allowing banking organizations to diversify into "near bank" activities across

the country. This is indeed providing growing diversity in the financial sector. Combined with the liberalization of intrastate restrictions, it should probably be sufficient to meet our needs in the foreseeable future.

The Dual Banking System in the United States

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Foreword

In the field of public administration the concept of dualism is a unique contribution to the philosophy of government regulation of business and one in which the banking industry can take justifiable pride.

Most other areas of governmental regulation must rely upon the system of checks and balances built into our structure of government through the separate existence of the legislative, executive, and judicial branches. In the banking field historic circumstance and the dedication of public officials and industry leaders, to make the system work, have produced a remarkable synthesis of public responsibility and flexible responsiveness to changed conditions in the doctrines and institutions of the dual banking system.

For all its uniqueness, the dual banking system is not well understood by legislators, principals, and staffs of the regulatory agencies or the general public. To all too many it is thought of as a device to whipsaw public regulatory bodies for narrow, selfish interests or, equally bad, as another example of accidental confusion in government with which the present generation must unfortunately live and make function. Even bankers are sometimes prone to see the system as a bothersome substitute for more rational regulation rather than an integrated system of value in its own right. All too often the phrase "dual banking" is used as a shibboleth for industry self-interest.

Yet the present study very clearly shows that the dual banking system has an existence as a viable, complete system separate from its individual parts and one that, although largely of historical origin, could scarcely have been better created by rational and expert planning. Dr. Brown clearly demonstrates that the

convoluted strands of regulatory power are, through the system of dual banking, formed into a conscious and viable fabric with considerable unity of purpose and substantial benefits to the industry and the public. As the reader will find, however, the task of discovering the trail has not been easy. Nevertheless, the A.B.A. regards Dr. Brown's work in tracing the development and explaining the nature of the dual banking system as a significant contribution to the literature of practical banking regulation.

Dr. Brown completed this study while on the staff of The American Bankers Association. He holds degrees from Bowdoin College, The University of Chicago, and New York University. At present he is a member of the faculty of Northern Illinois University.

CHARLS E. WALKER
Executive Vice President

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Introduction*

Dual banking involves two separate bank chartering and supervisory jurisdictions. Despite the existence for more than a century of what has been described as a dual banking system, extensive changes in legislation affecting banking make it difficult to discern how the system now operates or, for that matter, whether it is operating at all. Nevertheless, changes in the structure of commercial banking are rarely, if ever, proposed except in the name of strengthening dual banking. Opponents of change are usually equally positive in stating that their position is firmly in keeping with the long tradition of dual banking.

For the first time in more than a quarter of a century, proposals for major change in the commercial banking system are now receiving serious consideration at both the state and national levels. Because the effect of any adopted proposals upon dual banking will be central to the controversies which must inevitably arise, an attempt to provide an analytical study which can be of assistance in appraising the relationship of any proposed banking change to the dual banking system was deemed of considerable importance.

This paper is not intended as a history of the dual banking system. Neither is it intended to justify or condemn dual banking. It represents an attempt to expose the essential elements of the dual banking system, to examine each in turn, to establish whether each is a working part, and, if so, whether it is working well.

There is no universally accepted definition of when dual banking began or exactly what degrees of state and Federal participation in the banking business delineate dual banking, so it is

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* This paper was prepared by William J. Brown while he was Associate Economist in the Department of Economics and Research of The American Bankers Association. He is now Associate Professor, Northern Illinois University.

difficult to pinpoint the roots of the problems involved.

There are, however, two general conceptions today of what is meant by dual banking. One holds that any situation where both Federal and state authorities are influential in banking constitutes dual banking. Adherents of this view suggest that the dual banking system began with Federal chartering of the Bank of North America (1781), which was established in large part to finance military operations of the Federal Government. Since there was doubt at the time about the legality of Federal charters for banks, the institution subsequently obtained a Pennsylvania charter. Howard Crosse, a well-known student of commercial banking, recently wrote, "The first bank organized in the newly independent United States perfectly exemplified the 'dual' banking concept. The Bank of North America was chartered by the Continental Congress in 1781, and was subsequently chartered by the Commonwealth of Pennsylvania as well." [1]

If that view is pressing history too much, the chartering of the First Bank of the United States in 1791 might be called the genesis of dual banking. Two professors recently enunciated this view in the Commission on Money and Credit series: "Had it not been for the rather dismal record of state chartered banks in the years following the demise of the First Bank of the United States, *the resurrection of dual banking might well have been postponed much longer than was the case in fact.*" [2]

More often, dual banking refers to a system under which states and the Federal Government have approximately equal rights regarding chartering, supervision, and examination of *privately operated* commercial banks. The National Currency Act of 1863, which later became the National Banking Act, initiated chartering and supervision at the Federal level. States, of course, had char-

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[1] Howard D. Crosse, *Management Policies for Commercial Banks*, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1962, p. 13.

[2] D. Carson and P. H. Cootner, "The Structure of Competition in Commercial Banking in the United States," *Private Financial Institutions*, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1963, p. 57. (Emphasis added.)

tered private banking institutions for many years, and still do, providing what, on the surface, appears to be a path of entry into commercial banking separate from Federal influence.

Dual banking does not imply that the chartering powers possessed by states and by the Federal Government should be uniformly exercised in every respect. The case for diversity in chartering was recently put this way: "A principal feature of the dual banking system is diversity in the regulation of entry, based not only upon differing statutory provisions, but also upon the manner in which these various statutes are interpreted by duly constituted regulatory authorities. Inherent in the latter are fundamental differences in regulatory philosophy—the basic function of regulation held by the individual or commission to whom authority is delegated." [3]

One thing is clear from the diverse definitions of dual banking discussed above. The central issue of dual banking remains the same as it has always been—more than one route of entry into the commercial banking business with the chartering authority supervising operations of banks authorized by it. The term "dual banking system" refers to the separate paths of entry utilizing Federal or state charters, but it does not preclude multiple routes of entry through one or more Federal or state agencies with statutory power to authorize the chartering of commercial banks.

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[3] D. C. Motter and D. Carson, "Bank Entry and the Public Interest: A Case Study," *The National Banking Review*, Vol. I, No. 4, June 1964, p. 470.

Bank Chartering*

Economists have long championed rigorous competition for its efficiency in allocating resources and for the low prices and wide choice of products which it assures consumers. Although the conditions of perfect competition rarely are realized in practice, evidence of workable competition is usually viewed with favor.

Of all the criteria for workable competition,[1] freedom of entry into an industry is usually considered of paramount importance. If capital requirements are so enormous as to be restrictive, if existing firms have the power to forestall new entrants, or if other factors preclude relatively easy entry into a business, competition is surely restricted in some degree.

When new competitors enter an industry, unusually high profits tend to disappear and product prices tend to decline. But competition is not a game businessmen play to produce goods at lowest possible cost. It is rough-and-tumble economic fighting by each firm for a little more of the industry's business. Inefficient producers in a competitive market will be quickly forced out of business. Business failure is part of the game. Lamentable as lack of business success may be from a personal viewpoint, it has

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* My former associate, Carter Golembe, of Carter Golembe Associates, Washington, D. C., has permitted me to incorporate parts of a paper he prepared on the subject of bank entry, and I am grateful to him for this assistance. In addition, we shared views extensively on all parts of this paper.

[1] The expression "workable competition" was introduced by J. M. Clark in his article, "Toward a Concept of Workable Competition," *American Economic Review*, Vol. XXX, No. 2, June 1940, pp. 241–56. Clark expresses workable competition in terms of specific conditions which per se suggest competition. Jesse W. Markham subsequently suggested that workable competition need not be defined in terms of arbitrary conditions but in terms of industry *performance*, regardless of the nature of the industry. ("An Alternative Approach to the Concept of Workable Competition," *American Economic Review*, Vol. XL, No. 3, June 1950, pp. 349–61.) Thus the concept of workable competition is not a rigid one, although the terminology is frequently used and most economists would come reasonably close to agreeing on the factors that delineate it. The performance criterion is now accepted much more widely than the structure criterion by economists, but the courts seem more willing to accept the structure argument.

always been the fate of the maladroit administrator or the man who incorrectly judged his market. Over 13,000 industrial, commercial, retail, and wholesale firms folded in 1966.[2]

Government policy concerning competition derives in part from the English Common Law and is embodied in our antitrust statutes as amended by legislation and as interpreted in court contests. Basically, the laws aim to foster competition in virtually all industries, except in the utilities.

Banking, however, is partly shielded from the full force of competition. New entry into commercial banking is restricted enough to minimize the likelihood of failures. If all who wanted to establish banks could do so, failures in the industry would undoubtedly rise, possibly to a level approximating that in nonfinancial businesses. Transfer of funds by check would be made less certain and the payments system of the nation would be vastly encumbered. The public rightly regards bankers as having a public trust for the safekeeping of their deposits, regardless of insurance safeguards which protect small depositors from losing part or all of their savings.

The principal reason banks are partly shielded from competition is to protect the safety of their deposits. However, the lending side of the banking business is much more akin to ordinary commercial endeavors and the case for special protection is substantially absent. When a bank fails, borrowers must find a new source of credit for subsequent borrowings, and this could pose problems during tight-money periods—or for some borrowers—but they would not be of the same magnitude as those faced by a depositor in an insolvent bank.

In recognizing the importance of protecting deposits, regulatory authorities permit the establishment of new banks only when, among other things, it reasonably can be assumed that a new bank will not compete so aggressively with existing banks

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[2] *Survey of Current Business*, various issues.

that it would possibly bring about their downfall.[3] Also, the lending part of the business is much like any other type of enterprise organized in the private sector of the economy, so regulatory authorities permit some—but not too much—competition. The result has been an uneasy compromise for banking regulatory authorities.

The large measure of autonomy that commercial banks enjoy is a major element contributing to the uneasiness. They set their interest charges and other operating practices within the context of a broad system of rules and regulations designed to insure safety and sound practices.[4] Unlike public utilities—where competition is also sharply restricted—the prices charged or paid for most bank services are neither established nor reviewed by regulatory authorities. This means that some competition must be permitted to provide reasonable prices on the services which banks perform. How much competition? No one knows for sure because there are no recognized measures or rules of thumb for determining the degree of competition in a market.[5] Conversely, no one

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[3] The text uses terminology frequently used in economic analysis, but bankers and bank regulatory agencies seldom use such language in public announcements. More often, they would say the same thing by suggesting that the market in a given area would not profitably support another bank. Prospective bank organizers must, of couse, be reputable citizens who also comply with all the standards specified in the relevant laws regarding chartering.

[4] Banks are regulated in many ways regarding the extent to which they can seek deposits and in the way they conduct their lending operations. These regulations are intended in large part to lessen the possibility of cutthroat competition for deposits (e.g., Regulation Q and the prohibition of interest payments on demand deposit balances), and also to prevent monopolistic pricing practices by lenders (usury laws). These laws are not solely for the protection of bank customers. In significant degree they are intended to prevent the bank itself from engaging in practices which, although possibly profitable in the short run, might ultimately bring the institution to grief.

[5] Regulatory authorities have had to consider the effect of competition from other types of financial institutions in the postwar period. Restrictions on bank entry into a particular market do not insure isolation of the banking system from strong competitive pressures either in the market for deposits or in the market for loans. At present, however, the legal framework surrounding entry into commercial banking does not take formal cognizance of competition from nonbank financial institutions.

See also, David A. Alhadeff, "A Reconsideration of Restrictions on Bank Entry," *Quarterly Journal of Economics*, Vol. LXXVI, No. 2, May 1962, p. 252 ff. Current bank chartering practice aims in large part to protect banks from failure in order to prevent loss to depositors of those banks. Mr. Alhadeff draws attention to deposit insurance and to the possibility of gaining the economic efficiencies of competition while still retaining the traditional goal of protection of depositors through deposit insurance. At present, of course, deposit insurance is limited, and free entry into banking would have to be coupled with 100 per cent deposit insurance to prevent depositor losses in case of bank failures.

knows whether a new bank will provide too much competition, or whether there is a real need for the bank's services.[6]

The following section sketches the historical record of how regulatory authorities have handled the problem of competition in the commercial banking industry.

Early Period

Long before the Constitution vested in Congress the power to create money and regulate its value, groups of private individuals established banks of issue. The first seems to have been the so-called Massachusetts Bank, founded in 1681. Neither the Massachusetts Bank nor any of the other financial institutions established in the next 50 years did a banking business in the sense that we now know it. These were banks of issue, using real estate for their collateral. The notes issued by individual banks in the course of their lending served as part of the circulating medium of the nation.

Borrowers pledging their land as collateral subscribed for a mortgage from the banks, and they received in return notes issued by the bank stating that it held collateral equal to the value of the notes. The borrower then used the notes issued by the bank to buy whatever he needed. The notes would pass from hand to hand as Federal Reserve notes do today. The land banks should not be confused with the specie banks which were organized between 1733 and 1739. These banks issued notes redeemable in 15 years in silver. Most people considered these notes as being of much higher quality than the notes of land banks and, as a result, the specie bank notes were hoarded and did not satisfy the need for a circulating medium in the colonies.

Early in our history businessmen and civic leaders recognized

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[6] The question of economies of scale is not directly considered here. Studies to date suggest that economies of scale are reached in a deposit range which automatically dictates one bank for many small communities. In this case, the economics of the situation may discourage entry more effectively than the regulatory authorities.

that the right to conduct a banking business conferred extraordinary powers on the individuals concerned, and that the conduct of the bank profoundly affected the community in which it was located. The operations of a land bank or manufactory scheme in 1740 in Massachusetts became the subject of bitter controversy. The bank was finally put out of business by an extension of the provisions of the Parliamentary "Bubble Act," originally enacted in 1720 to curb John Law's colorful escapades. The Bubble Act provisions invoked in the Land Bank case prohibited the establishment of joint stock companies without specific legislative authority.

Two scholars say of this bank's fate: "Thus, a major principle of bank regulation was established in America: the business of banking required governmental sanction. While this power was subsequently delegated to regulatory agencies, the original view that specific legislative authorization was required prevailed for many years." [7] Whether or not the 1740 scheme played a key role in the development of American banking, the principle that legislative approval must be obtained for new banking enterprises was established early in our history.

First and Second Banks of the United States

In subsequent years the banks of North America (1781), New York (1784), Massachusetts (1784), and Providence (1791) were chartered and they represented the nucleus of American commercial banking in the late 1700s. Due almost entirely to Hamilton's ceaseless efforts to establish a national bank, one was finally chartered by Congress—the Bank of the United States (1791). From a national point of view the bank worked efficiently, providing an important source of dependable currency and serving as a regulator of state bank notes. The latter function was facilitated by the Federal bank's practice of returning notes issued by other banks for redemption in specie—a course of action that

[7] D. Carson and P. H. Cootner, *op. cit.*, p. 56.

mitigated against overissue. In addition to its contribution to national growth, the bank was a financial success. It paid high dividends during its life and accumulated a substantial surplus.

Despite its twin successes, the bank's charter was not renewed at the end of its original 20-year life. The Federalist Party was no longer in control of the Government, and the question of foreign (mostly British) control of some of the bank's shares at a time when war clouds were forming proved embarrassing. The bank was liquidated in 1811 after a close negative vote by Congress on a bill to continue its existence.

> Had it not been for the rather dismal record of state-chartered banks in the years following the demise of the First Bank of the United States, the resurrection of dual banking might well have been postponed much longer than was the case in fact. Between 1811–1816 the number of state banks almost tripled, but there existed a deplorable lack of sound banking practices in many states. Note issues were excessive, specie payments were suspended (outside of New England) in 1814, and competition for Government deposits led to the establishment of imprudent banking practices of every sort. Regulation by the states appears to have been inadequate in scope and rather poorly enforced where it existed.[8]

Sustained abuses by state banks led to increasing pressure for another federally chartered bank. The pressures were satisfied in 1816 by the establishment of a second Bank of the United States. Unfortunately, the new bank got off to about as poor a start as the state banks it was intended to improve upon. The new bank failed to return state bank notes quickly for conversion to specie and it did not redeem some of its own notes. Mismanagement by the bank's officers and a stock scandal in the Baltimore branch did little to increase public confidence in the new undertaking. But after a change of management, the bank initiated regular redemption of state bank notes and straightened out its own affairs.

Despite its contribution to monetary prudence during part of its life, the second bank, like the first, became involved in politics.

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[8] *Ibid.*, pp. 57–58.

President Jackson assumed office in 1829 and became a strong foe of the bank. In 1832 he vetoed a bill that would have renewed the bank's charter for an additional 20 years, and in the same year withdrew the Federal Government's deposits from the bank—thus killing it for all practical purposes.

By the mid-1830s, when it became apparent that the second bank would not be continuing operations under a Federal charter, there was fairly widespread dissatisfaction with the entire banking system on two key issues: safety of deposits and freedom of entry into banking. Failures had become fairly commonplace by the 1830s, whereas they had been almost unknown in the early decades of the nation's banking history (the nature and extent of banking had changed substantially, however). At the same time, there was dissatisfaction with the method of chartering banks. It was believed—usually with good reason—that entry into the banking business was open only to entrepreneurs who could muster enough political influence to wring a charter from a state legislature. There were no provisions for obtaining a bank charter merely by compliance with a specific set of criteria. Each new charter required action by the state's legislature.[9]

Free Banking

The public's dissatisfaction with the method of entry into banking was assuaged by the introduction of what has come to be known as "free banking." Under this procedure state bank charters were granted to individuals who possessed the attributes and financial backing specified in state statutes. Compliance with the specific requirements of a statute was substituted for the possibly

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[9] "The practice of granting exclusive privileges to particular individuals invited competition for these legislative favors. They were soon regarded as part of the spoils belonging to the victorious party and were dealt out as rewards for partisan services. This practice became so shameless and corrupt that it could be endured no longer; and in 1838 the legislature sought a remedy in the general banking law." G. E. Barnett, *State Banks and Trust Companies*, Vol. VII of the *National Monetary Commission Series*, U. S. Government Printing Office, Washington, D. C., 1911, pp. 26–27, quoting Millard Fillmore, Comptroller of the State of New York, in the *Annual Report of the State*, 1849.

arbitrary and tendentious legislative approval that previously governed. New York and Michigan passed free banking legislation in the late 1830s, and other states enacted similar legislation in subsequent years. States tried to assure safety of deposits under free banking by providing that banknote issues should be backed by high-quality notes, bonds, or in some cases by a mixture of notes, bonds, and mortgages. In addition, some states began to experiment with deposit or banknote insurance systems.

Unfortunately, some of the banking laws passed after 1836 did not provide adequate safeguards in terms of capital requirements, reserves, quality of management, or operating procedures. The resulting bank failures and irredeemable currency provided the impetus for continuing regulation of banks—a feature of the period that carries over to the present. Not only is entry restricted initially, but the regulatory authority continues to be vitally concerned with the enterprise as long as it operates.

It was also during the free banking period that our present system of correspondent bank relationships was established. Some state authorities began permitting banks to count balances on deposit with other banks as reserves, and other states soon followed the precedent.

The nation's commerce and trade had grown remarkably since the turn of the century and banks were playing an increasingly important role in the process. During the free banking period bank deposits became the most important part of the nation's money supply. Previously, coin and bank notes—issued by individual banks on the basis of some kind of security—had formed the bulk of the nation's payments medium. As money transfers were made over longer distances, as the scale of business expanded, and as time became a more important element in business costs, deposits proved to be overwhelmingly more convenient than currency. Nevertheless, the money supply of the nation was often cumbersome and confusing. Some bank notes were conservatively issued and were readily exchangeable for gold coin or

other bank notes. Other notes were badly depreciated and were avoided, or accepted only at a discount. The situation was characterized as "chaotic" by more than one writer. In addition to the currency difficulties, the lack of a central bank meant that the banking system ran like a steam engine without a governor: rapid money expansion to a peak of business, then a sharp cumulative contraction that exacerbated the natural decline of business.[10]

Accurate appraisal of the banking situation around 1860 is difficult because of the paucity of data and of credible business commentaries, but it appears likely that in many states entry into commercial banking was again becoming difficult. The free banking laws had been overhauled in many states as a result of numerous failures in the early 1840s and again in 1857, when many banks permanently closed their doors. Free chartering practices, however, were not the only root of difficulties in that period. Supervision varied from excellent in some states to virtually nonexistent in others, and the lack of a central bank to act as a lender of last resort contributed to the recurring financial panics of the era.

The National Bank Act

Entry into commercial banking was eased by the introduction of Federal chartering in 1863. The financial pressures caused by the Civil War revealed how shaky the state bank systems were and how unsuited the existing system was for the massive financing a war demanded. Secretary of the Treasury Salmon P. Chase and others believed an additional market for government bonds could be created by permitting the establishment of new banks which could issue notes secured only by their holdings of government bonds.

Chase saw two major advantages in a system of federally

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[10] ". . . in 1834 there was $95,000,000 in circulation; in 1837 the volume had risen to $149,000,000, and before the end of the year it fell to $116,000,000. In 1841 there was $107,000,000; at the end of 1842, only $59,000,000." Davis R. Dewey, *Financial History of the United States*, 10th ed., Longmans, Green and Company, New York, 1928, p. 324.

chartered banks to be owned and operated by individuals. First, they would replace the confusing mélange of state bank notes with a safe and uniform currency. Second, they would provide a new source of loans with which to finance the Civil War. Interestingly, the bill that was finally passed proved much more useful as a means of banking reform than as a source of Civil War funds.

Adopting the philosophy of the free banking acts embraced by many states, the National Bank Act [11] provided that any individual or group of individuals of good character could organize banks if they were able to meet certain requirements and if their circulating notes were secured by U. S. Government obligations specifically provided for the purpose. The number of national banks organized in the first year after passage was relatively small, but the law was soon amended to place a prohibitive tax on state bank note issues, thus making national bank charters the most attractive. Many new national banks were created in 1864 and in 1865, and others converted to national from state charters. Table 1 on page 14 shows the number of national and state banks in existence in selected years.

At the time of its enactment many observers thought the National Bank Act would greatly reduce barriers to entry and the spectre of excessive competition with attendant loose banking practices was raised repeatedly. Although there was little haste to apply for national charters in the first two years after passage of the act, a rush developed in subsequent years that tended to confirm the thinking of those who predicted national banks would become dominant. The number of state banks dropped precipitously from 1,466 in 1863 to 349 in 1865.[12]

By 1870, however, there was a noticeable uptrend in the number of state banks reflecting, in large part, legal changes enacted

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[11] Originally titled the National Currency Act of 1863, and renamed the National Bank Act in June 1874.

[12] The data used here refer only to commercial banks. More inclusive figures may be found in the Census Bureau's publication, *Historical Statistics of the United States, Colonial Times to 1957*, U. S. Government Printing Office, Washington, D. C., 1961, Series X 64–85.

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Table 1

COMMERCIAL BANKS IN THE UNITED STATES 1835–1966, SELECTED YEARS[a]

Year[b]	State Banks[c]	National Banks	Private Banks[d]
1835	704		
1840	901		
1845	707		
1850	824		
1855	1,307		
1860	1,562		
1861	1,601		
1862	1,492		
1863	1,466	66	
1864	1,089	467	
1865	349	1,294	
1866	297	1,634	
1867	272	1,636	
1868	247	1,640	
1869	259	1,619	
1870	325	1,612	
1875	586	2,076	
1880	650	2,076	2,573
1885	1,015	2,689	3,456
1890	2,250	3,484	4,305
1892	3,773	3,759	4,004
1895	4,369	3,715	3,924
1900	5,007	3,731	5,187
1905	9,018	5,664	5,291
1910	14,348	7,138	3,669
1915	17,748	7,597	2,737
1920	20,635	8,024	1,736
1925	19,573	8,066	915
1930	15,798	7,247	598
1933	8,908	4,897	330
1935	9,752	5,425	246
1940	9,181	5,164	57
1945	8,994	5,017	
1950	9,163	4,958	
1955	9,024	4,692	
1960	8,942	4,530	
1963	8,954	4,615	
1964	8,988	4,773	
1965	8,989	4,815	
1966	8,971	4,799	

Refer to footnotes on following page.

by states to make their charters more attractive. An additional stimulus to the organization of new state banks was the growth of deposit banking. Even before the Civil War deposits had become more significant to commercial banking than the issuance of circulating notes. By approximately 1890, deposits became increasingly important and the exclusive right of national banks to issue circulating notes was less crucial to organizers of commercial banks.

During the first several decades of the twentieth century entry into the commercial banking system was probably the easiest it has ever been in this country. By 1900, there were 5,000 state banks and 3,731 national banks. The numbers continued to increase, reaching a peak in 1920 when there were more than 30,000 commercial banks—8,000 operating under Federal charter, and the others under non-Federal auspices.

The Federal Reserve Act

In the perspective of history, the national banking period brought marked improvement to the nation's banking system, but it still had serious imperfections. Chief among them was the financial instability which the system generated. Country banks could hold as much as 60 per cent of their legal reserves with a correspondent in a reserve city. Reserve city banks, in turn, could hold as much as 50 per cent of their reserves with correspondents in New York, Chicago, and St. Louis. This system of pyramiding reserves greatly encouraged growth of the system of correspondent relations that had developed in the free banking era. Unfortunately, it also served to create and transmit financial pressures

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[a] Data for the years 1835–1940 selected from Board of Governors of the Federal Reserve System, *Banking Studies* (Baltimore: Waverly Press, Inc., 1941), pp. 418 and 419; for the years 1945–1966, data compiled by the Board of Governors of the Federal Reserve System and published in current issues of the *Federal Reserve Bulletin*. (Includes noninsured banks.)

[b] All figures for the years 1835–1940 are as of June 30, or nearest available date; for the years 1945–1966, data are as of December 31.

[c] Excludes mutual savings banks. Includes unincorporated banks for the years 1945–1966.

[d] Data for years prior to 1877 are not available. Because of their small and diminishing number, figures for these banks for the years 1945–1966 are included in the state bank column.

with extreme speed. At the slightest sign of difficulty depositors withdrew funds from country banks, country banks withdrew funds from the reserve city banks, and the pressure was ultimately transmitted to the money centers. Clearinghouses attempted to ameliorate crises by issuing certificates that could be used for settling obligations owed them, and the Treasury engaged in attempts at monetary management, but its powers were too weak and the system was inherently unstable.[13]

The result was a series of financial panics, with particularly severe downturns in 1893 and 1907. These recurrent crises, clearly rooted in the financial system, generated increasing concern that was finally crystallized by the panic of 1907. In response to considerable popular support for an overhaul of the banking system, Congress established the National Monetary Commission in 1908. After extensive study the Commission recommended establishment of a central bank, and Congress implemented the proposal by passing the Federal Reserve Act.

Significant as the Federal Reserve System has been for continued financial stability and growth, it has not, however, played a key role in the development of the dual banking system. The more important influences developed from organizations established during the crushing financial stresses of the Depression and from the attitudes engendered during that experience.

A Change in Attitude

The first decade and a half proved relatively uneventful for the fledgling Federal Reserve System. The era included, of course, a remarkably euphoric period of automobiles, flappers, speakeasies, and a stock market that reflected the spirit of the age in reassuringly rising values.

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[13] Another limitation of the national banking system was that it had inadequate means for providing a secular increase in the volume of currency. In addition there was no way of increasing or decreasing the volume of circulating notes in response to seasonal demands. At harvest time a great deal of currency was needed, for example, while less was needed at some other times of the year.

The year 1929 marked a turning point. After the stock market break, confidence began to wane and unemployment rose. The banking system was soon caught in the general economic malaise that was apparent during the latter part of 1930 and thereafter. Bank closings by the thousands wiped out the holdings of both large and small depositors and left many with a fear of banks that lingers to this day.

Looking back on the turbulent period, most observers agree that the pressures on the banking system were thrust upon it from outside, but the extensive bank closings created questions. Was excessive competition—fostered by relatively liberal chartering policies—an important contributing factor in the large number of insolvencies? Or was it a case of a fundamentally sound banking system caught in a malevolent maelstrom?

Answers to such questions were never explicitly sought by the states or by Washington. Both Federal and state authorities, however, acted as though the massive number of bank failures was ample evidence of excessive competition.

Where bank chartering had once been extremely easy, it became considerably more difficult. Not only did fewer applicants apply for bank charters in the period of severely depressed business, but state and Federal authorities began to take a considerably longer and harder look at applicants. Ironically, a more restrictive chartering philosophy developed after the depression-caused failures had relieved the overbanking situation. The concepts of underbanking and overbanking, although emotive and frequently used, are not precise. But if any overbanking situation prevailed prior to 1929—a situation that is sometimes alleged—it was surely cured by bank failures in the depression.[14] Additional competition, through permissive chartering practices, was vigorously combatted in the late 1930s and early 1940s. Looking back

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[14] Some would argue that the depressed conditions of the day cried for easier credit availability and possibly less restrictive chartering practices, coupled with a strengthening of supervision and regulation.

on the period, this delayed reaction may have been inconsistent with the needs of the nation.

The number of new banks organized, which had averaged 341 per year during the 1920s, fell drastically—to about 155 per year during the 1930s.[15] Not all the decline, however, reflected more restrictive chartering practices. Depressed economic conditions during the period discouraged applications. Also, a number of state legislatures had liberalized branch banking laws, and the Federal laws were liberalized in 1933, permitting national banks to operate branches to the full extent authorized under the laws of the states in which they operated.[16]

Deposit Insurance

It became obvious during the depression that many fundamentally sound banks were forced into difficulty by massive and sudden deposit withdrawals. The slightest adverse rumor about a bank's condition was enough to generate a queue of anxious depositors at the bank's front door, or to trigger a "silent run" of demand deposit withdrawals. If there had been time for things to work themselves out, many banks would not have gone under. But there never was time because the deposit runs occurred so suddenly.

The reaction was a series of broad changes in the financial arrangements of the nation, including establishment of deposit insurance under Federal auspices.[17] The Federal Deposit Insur-

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[15] Data apply to the Continental United States. Sources: for 1921–1934, *Annual Report*, 1960, Federal Deposit Insurance Corporation, Washington, D. C., 1961, p. 32; for 1934, *Federal Reserve Bulletin*, Vol. XXIII, No. 11, Board of Governors of the Federal Reserve System, Washington, D. C., November 1937, p. 1087; for 1935 and later, *Annual Reports* for various years, Federal Deposit Insurance Corporation, Washington, D. C. Note that the data given here are not comparable with the net data in Table 1. The data here are gross openings of new commercial banks.

[16] Previously, in 1927, national bank branching laws had been changed to allow national banks to branch only in home office cities and only if the same rights were enjoyed by state banks.

[17] Other changes included abolition of the gold coin standard, resumption of a silver purchase program, changes in the Federal Reserve's powers and structure, establishment of Federal credit agencies to undertake direct loans and loan guarantees, and the establishment of comprehensive regulations restricting the activities in which banks could engage.

ance Corporation (FDIC) began operation on January 1, 1934, and was open to all commercial banks as long as they met the regulations of the Corporation. Simple as the insurance concept was, establishment of the FDIC changed the framework of bank entry regulation.

Today, as before 1933, there are two apparent ways of entering banking—with either a Federal or a state charter. The two courses of action, however, no longer have the same degrees of importance they once had. The compelling necessity for a new bank to have Federal deposit insurance means that organizers of a new institution must secure approval from a Federal agency if they are to have a reasonable chance of success.

At the same time, however, there remain separate paths of entry into banking, preserving the spirit of the dual banking concept, even if it no longer exists in the clear state-Federal dichotomy that was once true. Aspiring bankers may apply for a national bank charter through the Office of the Comptroller of the Currency, for a state charter and an application for membership in the Federal Reserve System, or for a state charter with insurance for deposits through the FDIC. No matter which route the aspirants take, the resulting bank's deposits will be insured by the FDIC, but the Corporation will only have veto power when the new bank is to be state chartered without Federal Reserve membership.

Officials of the Federal Deposit Insurance Corporation often say, denying the importance of their decisions, that the Corporation has no authority either to charter a bank or to close an existing one. Although their statements are true, it nevertheless is apparent that the FDIC wields decisive authority on both the entry and exit of state-chartered nonmember banks.

Seldom can a new bank hope to be successful if its deposits are not insured, so that the final decision on whether a bank with a state charter (not a member of the Federal Reserve System) may open for business rests with the FDIC. In many states the

supervisory authorities flatly refuse to sanction the chartering of a new bank unless it has favorable prospects of obtaining deposit insurance. Kansas has obliquely incorporated such a requirement into its laws by providing that any state bank which is not admitted to Federal deposit insurance must furnish a blanket fidelity bond of such large size as to make the cost prohibitive.

Although seldom acknowledged publicly, the importance of the FDIC's final judgment regarding the opening of a new bank is indicated in the Corporation's instructions to examiners: "A great responsibility rests with the Corporation in administering those provisions of law which relate to the admission of State nonmember banks to the benefits of deposit insurance. The granting of deposit insurance confers a valuable status. Its denial to a bank may have serious competitive consequences, and, in the case of a new bank, effectively preclude entry into the banking business. . . ." [18]

If a new bank is accepted for membership in the Federal Reserve System, however, the FDIC's influence concerning entry will not be brought to bear on the entry decision since the bank will be automatically insured. The law requires the Federal Reserve Board and the FDIC to consider the same elements in deciding whether a bank is eligible for insurance, but their interpretations of the facts may differ, making the difference in routes of entry a significant one.

State Control Over Entry after FDIC

There is, therefore, a question as to whether or not the United States banking system has been characterized by dual control over entry since the enactment of FDIC legislation. The desire by virtually all banks to have deposit insurance has meant that state approval for a new bank charter (for state or state member banks) is necessary but not sufficient. Federal approval, in the

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[18] *Examiners Manual,* Section Z, Federal Deposit Insurance Corporation, Washington, D. C.

form of favorable action by the FDIC or the Federal Reserve Board, is also critical. This means that individual states cannot formulate their own standards for chartering and then proceed to implement their policies independently of the actions taken at the Federal level. When the Comptroller of the Currency is brought into the picture, the ultimate decision as to how many unit banks a community should have—or where they should be located—is no longer a matter for state determination alone.

Organizers of new banks might be able to counter chartering reticence at the state level by applying for a national bank charter, but they would not have the same flexibility in responding to uniformly restrictive Federal policies by attempting to secure a charter from the state government. For, as noted earlier, a charter to operate a noninsured bank may not be of great value.[19]

The result is that states are faced with an asymmetry of choices. If they are stricter in their chartering policies than Federal agencies, aspiring bankers in their states may enter through the Federal route. If the state is less restrictive than Federal authorities, entry via state charters will be facilitated by Federal deposit insurance.

Recognizing that effective entry into banking is no longer determined by the ease of obtaining a bank charter but rather by the ease of obtaining a charter plus deposit insurance, most observers hold that more than one entry route is still open because of the alternative available to those who seek a charter plus insurance. A would-be state bank rejected for FDIC membership may, for example, apply for a national charter, and its application need not be prejudiced by its being refused by the FDIC for membership as a state bank. Alternatively, a state bank may obtain deposit insurance by becoming a member of the Federal Reserve System. Thus, the FDIC may not block deposit insurance for newly organized banks which are acceptable either to the Comp-

[19] Note, however, that this discussion would require a *uniform* degree of chartering reluctance in *all* Federal agencies, and that is not an easy thing to envisage, although it is not inconceivable. The discussion, of course, is concerned with possibilities, not with actual practice.

troller of the Currency as national banks or to the Federal Reserve as member state banks.

This does not mean, however, that state control over entry routes is now as meaningful as before the passage of the FDIC Act. Three alternative routes of access to deposit insurance have proven to be a sound feature of the American banking system, but the critical point is that, for all practical purposes, state banks cannot be chartered without the cooperation and approval of a Federal agency. Since the organization of the FDIC, the states and the Corporation have worked together harmoniously, and there is currently no feeling among the states that the FDIC is oppressive or arbitrary in its decisions. Nevertheless, the ultimate decisiveness of state authority with respect to chartering has largely disappeared.

Entry via branching is a separate problem. In the regulation of entry through branching, states have the ultimate authority to restrict or permit branching powers for all banks (state as well as national banks) as much as they see fit. Within the broad limits set by their branching laws, however, the authority of the states to decide on individual branching applications is far more restricted than that of the Federal Government. A Federal agency may veto applications for branches by state-chartered banks if the applying bank is insured whereas state authorities cannot veto decisions by the Comptroller on branching applications submitted by national banks. Thus, although states are the ultimate authority in deciding the extent of the area in which branching will be permitted within their boundaries, the pattern of branching which develops within these areas may be determined in significant degree by agencies of the Federal Government.

Entry Standards

The Banking Act of 1935 provided, among other things, that the FDIC should pass on applications for deposit insurance by state-chartered banks that were not members of the Federal Reserve

Table 2

NUMBER OF NEWLY ORGANIZED COMMERCIAL BANKS CHARTERED OR OPENED, BY STATE AND BY CHARTERING AUTHORITY,* 1952–1964

State	1952		1953		1954		1955		1956		1957		1958		1959		1960		1961		1962		1963		1964	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
Alabama	1	4	0	4	1	3	0	6	0	1	0	3	0	1	0	4	0	1	0	0	0	1	4	4	6	6	10	10
Alaska	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Arizona	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	3	0	0	0	2	1	4	1	10
Arkansas	1	0	0	1	0	4	1	1	0	3	1	0	0	0	0	0	0	1	0	1	1	3	1	0	4	2	7	14
California	2	2	1	11	1	3	1	7	0	2	2	3	0	0	0	2	3	4	1	10	5	7	12	18	38	11	66	78
Colorado	0	3	0	3	0	0	0	4	0	5	0	4	2	8	1	5	1	6	0	1	6	4	15	7	11	8	36	60
Connecticut	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	1	4	1	6	5
Delaware	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
District of Columbia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	1	0	4	0
Florida	1	5	2	3	4	5	3	8	11	12	4	5	3	7	2	11	9	7	2	11	8	14	26	16	23	16	98	120
Georgia	1	2	0	2	0	5	0	6	1	6	1	2	0	2	1	4	2	10	0	4	0	1	2	4	1	8	9	56
Hawaii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
Idaho	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0	0	1	0	0	0	2	4
Illinois	0	2	2	4	4	7	3	8	2	7	2	11	0	7	1	10	1	12	5	7	3	22	2	11	7	18	32	126
Indiana	0	1	0	0	0	1	0	1	0	2	1	0	0	0	0	0	0	1	1	0	0	2	0	1	0	1	2	10
Iowa	0	2	0	0	0	1	1	5	1	2	0	1	1	2	0	2	0	1	2	2	1	1	4	1	1	1	11	21
Kansas	0	2	0	2	0	1	0	1	0	1	0	1	0	1	0	3	0	0	2	2	1	4	0	1	2	0	5	19
Kentucky	0	1	1	0	0	0	0	0	0	2	0	0	0	1	0	0	1	0	0	1	0	2	0	0	0	1	2	8
Louisiana	1	0	2	2	1	1	1	4	0	5	0	2	0	4	1	0	0	3	0	2	3	3	0	2	3	7	12	35
Maine	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	4
Maryland	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	1	0	0	1	0	1	0	3	2	4	0	12	4
Massachusetts	0	1	0	0	0	1	0	2	0	0	0	2	1	2	0	5	0	4	0	3	1	3	1	2	1	0	4	25
Michigan	0	1	0	3	0	0	2	0	1	2	0	1	1	2	0	1	0	2	0	1	4	0	4	0	3	0	15	13
Minnesota	0	1	1	2	0	2	0	4	1	2	0	2	1	3	0	1	0	2	1	0	1	4	8	6	3	9	16	38
Mississippi	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	2	0	6	2
Missouri	0	2	0	1	0	2	1	4	0	7	0	1	0	6	3	9	0	5	0	1	1	0	5	5	7	3	17	46
Montana	0	0	0	0	1	0	1	2	0	1	1	0	0	0	0	1	1	5	0	1	0	0	1	1	1	3	6	14
Nebraska	1	0	0	2	0	1	0	2	0	2	0	0	0	2	0	4	0	1	0	2	0	2	1	3	3	2	5	23
Nevada	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	3
New Hampshire	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	0	0	2	3
New Jersey	2	0	0	1	0	0	0	1	0	1	0	1	0	3	0	2	0	2	1	1	3	4	1	3	5	3	12	22
New Mexico	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	0	1	1	0	2	1	3	1	0	3	0	8	7
New York	0	0	0	1	1	0	1	0	2	1	0	1	0	0	0	1	0	1	1	4	0	1	1	7	5	4	11	21
North Carolina	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	3	3
North Dakota	0	3	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	1	3	2	4	10
Ohio	0	2	2	0	1	0	1	0	0	3	0	2	0	3	1	0	0	1	0	3	0	0	1	1	1	0	7	15
Oklahoma	1	3	1	0	0	2	1	0	0	1	0	1	0	1	0	2	2	2	1	0	1	4	8	1	11	6	26	23
Oregon	0	3	0	1	0	0	0	5	0	3	0	4	0	2	1	0	0	1	0	0	0	0	1	1	0	2	2	22
Pennsylvania	0	1	0	0	0	0	0	0	1	1	0	0	0	1	0	0	0	1	0	0	0	0	0	4	1	1	2	9
Rhode Island	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
South Carolina	0	0	0	1	0	1	1	1	0	2	0	1	0	1	0	2	0	1	1	1	2	1	1	2	0	0	5	14
South Dakota	0	2	0	0	0	1	0	2	1	0	0	1	0	0	0	1	0	1	0	0	1	3	1	1	0	0	3	12
Tennessee	0	0	0	1	0	1	2	0	0	1	1	0	1	0	0	0	0	1	0	1	0	0	0	0	1	1	5	6
Texas	2	5	1	3	2	6	5	8	6	12	5	8	4	11	7	13	8	18	5	8	14	14	34	19	25	9	118	134
Utah	0	1	0	1	0	0	0	0	0	2	0	5	0	0	0	1	0	1	0	0	1	0	3	1	2	1	6	13
Vermont	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Virginia	0	1	0	1	0	1	0	2	1	0	1	4	0	0	0	0	1	1	0	2	2	1	5	3	9	4	19	20
Washington	1	2	0	1	0	2	1	5	1	1	0	0	0	3	2	0	1	2	0	4	1	3	1	3	5	2	13	28
West Virginia	0	1	0	0	0	2	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	2	0	0	3	1	4	8
Wisconsin	0	1	0	1	0	0	0	0	0	0	0	1	1	1	1	2	1	3	2	4	0	5	3	3	3	0	11	21
Wyoming	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0	1	0	7	0	4	1	14	4

* National bank (NB) data represent charters issued. State bank (SB) data represent openings; noninsured banks are included.

SOURCE: *The National Banking Review*, Vol. 2, March 1965, p. 350.

System. This provided a minimum set of standards which all similarly situated state-chartered banks were required to meet if they hoped to open with insured deposits. States could set more stringent tests for the granting of a charter, but the FDIC established the minimum standards.

In order to grant insurance to a state-chartered bank not a member of the Federal Reserve System, the Board of Directors of the FDIC must consider the following factors: the financial history and condition of the bank, the adequacy of its capital structure, its future earnings prospects, the general character of its management, the convenience and needs of the community to be served by the bank, and whether or not its corporate powers are consistent with the purposes of the Federal Deposit Insurance Act. In the case of new state banks which apply directly to the Federal Reserve for membership, or in the case of new national banks, the supervisory agency involved (the Board of Governors of the Federal Reserve System or the Office of the Comptroller of the Currency) must certify that consideration has been given to all the above factors.

In addition to the broad statutory guidelines, there are other, more detailed requirements concerning entry into banking markets enforced by the FDIC. A state's law may require, as an example, that a new bank have $50,000 paid-in capital in order to open in a particular locality. All states but one have statutory minimum capital requirements, usually varying with size of locality.[20] Although the organizers of a new state bank might be able to meet the $50,000 capital requirement for their locality, the FDIC regulations for them could be far more stringent. The Corporation requires initial capital based on the anticipated growth in the bank's assets during the first three years. If, for

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[20] Report of the Subcommittee on Domestic Finance, Committee on Banking and Currency, House of Representatives, *Comparative Regulations of Financial Institutions*, 88th Cong., U. S. Government Printing Office, Washington, D. C., November 22, 1963, Table A, p. 6. The state with no statutory minimum is Rhode Island, and although there is no mandatory minimum, the board of incorporation may demand such capitalization as is appropriate.

example, the nationwide capital/asset ratio is 8 per cent, and the FDIC estimates a bank's assets will grow to $5 million at the end of three years, the organizers would need $400,000 initial capital to qualify for insurance. Similar, but not necessarily identical, procedures are followed by the Federal Reserve and by the Comptroller of the Currency.[21]

The example given here is fictitious but it is illustrative of the differences in capital requirements that might face a group hoping to charter a new state nonmember bank. The strict Federal requirements coupled with near universality of deposit insurance indicate that Federal regulations prevail.

Have Federal entry requirements been excessively strict? On balance, there is little evidence to suggest that they have, as indicated by the following pieces of evidence.

1. The growth of commercial bank branches in many areas may have lessened the need for new unit banks in those areas. These branches, totaling well over 8,000 in the past 25 years, have been established where unit banks otherwise might have been organized.[22]

2. Where branches could not be organized, the number of new unit banks organized has often been large. Table 2 on pages 24–25 shows that the largest number of new banks have been chartered in unit banking states such as Illinois, Florida, and Texas.

3. The decline in the number of banks during the past quarter century does not appear to have been accompanied by a marked increase in bank concentration: A study made by the FDIC in

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[21] The Corporation has described its capital adequacy standard as follows: "(a) A capital structure which provides a ratio to the applicant's probable total assets at the end of 3 years at least equal to the national average of capital to total assets for all insured commercial banks (8 per cent at the end of 1962, exclusive of valuation reserves); where the future asset volume is particularly uncertain, commitments for the provision of additional capital from organizers and stockholders may be required to assure sufficient capital in the event that asset expansion is greater than anticipated; (b) generally (as a minimum), a basic paid-in capital stock and surplus of not less than $50,000 and $10,000 respectively; (c) basic paid-in capital stock with par value in reasonable proportion to anticipated asset volume. This proportion is set at the national average of basic capital to total assets for all insured commercial banks." *Comparative Regulations of Financial Institutions*, p. 8.

[22] The FDIC must approve branch applications for insured nonmember banks.

1960 showed that between 1934 and 1960 the proportion of deposits held by the 100 largest banks declined from 54 per cent to 46 per cent. In the majority of states the proportion of deposits held by the largest bank and by the five largest banks declined between 1940 and 1960, and in half the metropolitan areas of the nation the proportion of deposits held by the largest bank and by the five largest banks declined between 1934 and 1958.[23]

4. Acceptance of the large majority of bank charter applications (insurance in the case of FDIC) since 1935 suggests that supervisory authorities have not imposed excessive restrictions on entry. Table 3 on page 28 shows the disposition of new bank applications by two Federal agencies since 1940.

The period since the bottom of the Depression to 1961 was one of caution, with new chartering made difficult, but far from impossible. Excesses of earlier periods have been avoided, and Federal supervisory authorities followed a deliberate policy of erring on the side of more rather than less restraint.

The FDIC and Congressional Intent

The right of both states and the Federal Government to charter banks has traditionally been thought of as the concept of dual banking. There can be little doubt, however, that the introduction of Federal deposit insurance weakened the hand of the states in the chartering process because the insurance corporation was in a position to enforce certain minimum standards. Aspiring bankers had to conform to these if they were to open with insured deposits. States could be more restrictive about chartering than the Federal Government, but they could not meaningfully enforce less restrictive standards except to the extent that banks may open without deposit insurance. This did not mean, however, that the choices open to aspiring bankers were any more limited than they once were, because alternative Federal entry routes poten-

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[23] *Annual Report*, 1960, Federal Deposit Insurance Corporation, Washington, D. C., 1961, pp. 27–61, and 101–103.

tially offered a diversity of interpretations of the uniform statutory requirements.

The extent to which deposit insurance legislation weakened

Table 3

NEW BANK APPLICATIONS AND THEIR DISPOSITION
1940–1965

Year	Membership: Federal Deposit Insurance Corporation [a]		National Charter: Comptroller of the Currency	
	Approved	Disapproved	Approved	Disapproved
1940	14	2	3[b]	3
1941	27	1	6[b]	6
1942	7	7	—	—
1943	30	2	—	—
1944	44	1	—	—
1945	75	5	—	—
1946	102	11	21[b]	21
1947	64	17	17[b]	20
1948	42	18	—	—
1949	39	12	—	—
1950	56	5	—	—
1951	58	8	15	—
1952	43	4	—	—
1953	51	14	—	—
1954	56	9	20	15
1955	103	14	38	23
1956	58	14	23	20
1957	50	19	12	13
1958	74	3	18	11
1959	89	3	21	17
1960	87	7	17	22
1961	81	2	24	25
1962	108	1	132	17
1963	117	2	230	175
1964	112	4	156	241
1965	79	9	—	—

[a] Data for years prior to 1953 reflect applications by existing banks as well as new banks. Data for subsequent years reflect only new bank applications.

[b] Number of charters *issued* rather than approved during year.

SOURCES: Federal Deposit Insurance Corporation, *Annual Reports;* Comptroller of the Currency, *Annual Reports;* and *National Banking Review,* March 1964 and 1965.

the states' role in dual banking was not overlooked by the Congress at the time the legislation was enacted. In hearings before the Senate Committee on Banking and Currency in 1931, Charles Collins (a former Deputy Comptroller of the Currency) testified as follows: "The question has definitely been raised of the desirability of the establishment of a single system of commercial banking under the national law in order that Congress may set up adequate standards of banking which cannot be avoided through an exit into a state system of competing banks." [24]

Eugene Meyer of the Federal Reserve Board contended in 1932 that competition between the state and national banking systems had weakened both. He testified: "It should be recognized that effective supervision of banking in this country has been seriously hampered by the competition between member and nonmember banks, and that the establishment of a unified system of banking under national supervision is essential to fundamental banking reform." [25] Governor Meyer indicated that the Board was entirely in sympathy with a view expressed by Senator Carter Glass, Chairman of the Senate Committee on Banking and Currency, to the effect that ". . . the curse of the banking business of this country is the dual system." [26]

The Chairman of the Federal Reserve Bank of New York, Owen D. Young, testified in a similar vein: "I would say that all commercial deposit banking in the United States should be carried on under one law, that examination of banks and their controls should be under one authority. Their reserves should be mobilized in the Federal Reserve System. Then we could develop for the country as a whole a sound banking system, and definitely

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[24] Hearings Before the Committee on Banking and Currency, United States Senate, *Operation of the National and Federal Reserve Banking Systems*, 71st Cong., 3d Sess., on S. Res. 71, U. S. Government Printing Office, Washington, D. C., 1931, Part V, p. 652.

[25] Hearings Before the Committee on Banking and Currency, United States Senate, *Operation of the National and Federal Reserve Banking Systems*, 72d Cong., 1st Sess., on S. 4115, U. S. Government Printing Office, Washington, D. C., 1932, Part II, p. 403.

[26] *Ibid.*, p. 395.

fix responsibility. That would mean that all banks of deposit, as distinguished from savings, should be national banks." [27]

In March 1932, Senator Glass asked Governor Meyer to draw up a constitutional means for establishing a unified banking system. In response, the general counsel of the Federal Reserve Board presented an analysis concluding that Congress had ample power to create a unified system and to repress the state banking systems.[28] Despite the report, congressional leaders did not take direct action on legislation to create a unified system. In 1933, the proponents of unification saw an opportunity to gain their objective without involving themselves in a constitutional controversy. Leaders in the House of Representatives, headed by Representative Steagall, had developed a plan for the guaranty of bank deposits. Senator Glass, who had formulated a banking reform plan as a result of his hearings in 1931 and 1932, was opposed to insurance, but he saw an opportunity to use the House plan to advantage. After discussion with House leaders, he agreed to support the plan because it could be used as a vehicle for unifying the banking structure. To accomplish the unification end, he inserted a provision in the deposit insurance bill requiring insured banks to join the Federal Reserve System by July 1, 1936, or else they would lose their insurance. The House opposed this provision, but yielded to its inclusion rather than have the whole bill killed.[29] The President and the Secretary of the Treasury apparently had been opposed to the deposit insurance plan but were finally convinced that it could bring a unified system of commercial banking.[30]

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[27] Hearings Before the Committee on Banking and Currency, United States Senate, on S. Res. 71, *op. cit.*, Part II, p. 353.

[28] The text of this report is in the *Federal Reserve Bulletin*, Vol. XIX, No. 3, Board of Governors of the Federal Reserve System, Washington, D. C., March 1933, pp. 166–86.

[29] Hearings Before the Committee on Banking and Currency, House of Representatives, *Banking Act of 1935*, 74th Cong., 1st Sess., on H.R. 5357, U. S. Government Printing Office, Washington, D. C., 1935, p. 114.

[30] Hearings Before the Committee on Banking and Currency, United States Senate, *Banking Act of 1935*, 74th Cong., 1st Sess., on S. 1715 and H.R. 7617, U. S. Government Printing Office, Washington, D. C., 1935, p. 46.

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Proponents of unification were talking, in most cases, of bringing the entire banking system under Federal control as far as both entry and supervision were concerned. That aim was never achieved because the provision that insured banks would have to join the Federal Reserve was extended to a later date and subsequently repealed by legislation before it was to have gone into effect. But the aims at the time were quite clear and it appears that they achieved a measure of success, as far as new entry into commercial banking was concerned, in the traditional sense of state versus Federal independence.

Private Banking

Entry into commercial banking is most often granted via state or Federal charters, but for a significant part of our history it was also possible for businessmen in many states to enter banking on a partnership or sole proprietorship basis, without obtaining a state or Federal charter. Compared with chartered banking, however, the information on nonchartered banking (private banking) is scarce and frequently unreliable. Since private banks often did not need to register with any regulatory authorities, they were typically not recorded in annual statistical compendia. According to the information now available, it appears that private banking was most common from about 1880 to 1920. Table 1 shows the estimated number of private banks in existence at specified periods.

Despite the prosperity of the 1920s, there were many bank failures, and numerous private banks were forced to close their doors. The records of depositor losses, unfortunately, are as meager as other statistics concerning private banks. The depression dealt the final blow to all but the strongest private banks, greatly reducing their number. Table 1 shows that only 330 private banks were still operating in 1933, a reduction of nearly one-third from the number operating in 1925.

In addition to attrition through failure, private banking was

slowly legislated out of existence in all but a few states. In 1932, only 14 states and the District of Columbia still permitted private banking and 34 states prohibited it. From the information now at hand, it is not possible to determine exactly how many of the 14 states actually permitted new entry into private commercial banking as late as 1932 because some of them may have discouraged new private bank formations even though statutes did not specifically prohibit them.

Private banking has involved both very poor and exemplary banking throughout most of its history. Many of the wildcat banks were private banks, although it is not true that wildcat banking and private banking were synonymous. Private banks filled many genuine needs, especially in states which for one reason or another discouraged or did not permit state-chartered banking.

Another aspect of private banking is exemplified by the type of business done by certain private unincorporated banks in New York City. Such firms have a reputation for negotiating intricate deals seldom touched by other banks and, in addition, the assets of the partners, widely assumed to be substantial, are vulnerable in case the firm's assets are insufficient to meet obligations.

Several distinguished private banks are in existence today, but private banking has not provided an important avenue of entry into commerical banking since the 1920s. Many states adopted laws prohibiting or greatly restricting the freedom of private banking before the depression.-

Where they still exist, private banks will probably be forced to shed their private status before long and to submit to the same regulations and examinations applying to chartered banks.[31]

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[31] Brown Brothers Harriman, the nation's largest private bank, for example, is examined and regulated by the Superintendent of Banks in New York and by the Department of Banking of the Commonwealth of Pennsylvania.

Bank Supervision and Regulation

In each of the six years from 1960 through 1966, the number of state-chartered banks which converted to national charters exceeded the number of banks converting from national to state charters. For the six years, a total of $17.8 billion of bank assets ($4.8 billion exclusive of the $13.0 billion Chase Manhattan conversion) moved from state to national jurisdiction, and only $0.5 billion moved in the opposite direction. A total of 140 banks converted to national charters and 51 converted to state charters. In addition, mergers of banks removed an additional 311 banks from state jurisdiction, but only 119 mergers of national and state banks resulted in a bank operating under state charter. These changes in the structure of commercial banking between 1960 and 1966 are detailed in Table 4 on page 34.

Obviously, a national bank charter was more attractive in this period than a state bank charter—the opposite of the situation that existed in 1957. This was due in part to the permissive attitude of the Comptroller of the Currency between 1962 and 1966 concerning the establishment of new branches and new national banks. During the same period, a number of regulations pertaining to national banks were changed, enabling them to be somewhat more flexible in their operations than they had been and further enhancing the attractiveness of national bank charters to those in a position to exploit the branching permissiveness or other regulatory changes.

Some of the more significant changes affecting the competitive position of national banks that were changed by the Comptroller of the Currency between 1960 and 1965 involved the following general subjects—

- Lending limits on unsecured loans to a single borrower
- Trust powers—collective investments
- Real estate loans
- Investment and underwriting powers

Table 4

CONVERSIONS AND MERGERS OF NATIONAL AND STATE COMMERCIAL BANKS IN 50 STATES (NOT INCLUDING D. C. AND OTHER AREAS)
1960–1966

	1960	1961	1962	1963	1964	1965	1966	Total
Number of banks converting								
National banks resulting	15	9	13	26	32	23	22	140
State banks resulting	9	1	6	13	6	7	9	51
Net effect on state system	—6	—8	—7	—13	—26	—16	—13	—89
Assets of banks converting (millions)								
National banks resulting	$347	$307	$233	$476	$2,115	$13,629	$731	$17,838
State banks resulting	83	2	34	166	40	72	141	538
Net effect on state system	—264	—305	—199	—310	—2,075	—13,557	—590	—17,300
Number of banks merging								
National banks resulting	44	42	49	50	41	44	41	311
State banks resulting	14	16	23	16	14	20	16	119
Net effect on state system	—30	—26	—26	—34	—27	—24	—25	—192
Assets of banks merging (millions)								
National banks resulting	$834	$536	$459	$582	$500	$604	$344	$3,859
State banks resulting	324	276	230	166	231	514	115	1,856
Net effect on state system	—510	—260	—229	—416	—269	—90	—229	—2,003

NOTE: Data are available by state and are published annually in the compendium, *State Banking*. Data on mergers include only mergers of national banks with state banks. They do not include mergers of national banks with national banks nor of state banks with state banks.

- Banking practices (senior securities, disclosure to shareholders, employee option plans)
- Corporate savings accounts
- Insurance sales.

Not all the new regulations introduced by the Office of the Comptroller of the Currency during this period actually became strong competitive tools in the hands of national banks because some were successfully challenged or delayed, either in court or by other regulatory agencies. Nonetheless, the broad range of the changes illustrates that national banks were gaining advantages not merely in one or a few areas, but in many at the same time. Not all national banks were in a good position to exploit the more liberal regulations, but the scope of the liberalizations was broad enough to touch nearly every national bank.

In addition, some state banking laws and regulations had become antiquated, and the quality of supervision in some states was not improving. The state banking departments that were alert provided examinations of as high quality as those given by Federal agencies, but in other states the supervisory authorities had been content to let the burden of bank regulation fall largely into the hands of the Federal regulatory authorities.

The gradually eroding position of the state-chartered banks evoked enough concern on the part of bankers to lead to formation of an interim committee on state banking laws and supervision within The American Bankers Association during 1966. In addition, state bankers associations were important at various times in urging an overhaul of the state banking codes and regulations. Pennsylvania, Michigan, and Oklahoma were notable examples in this endeavor, and many other states succeeded in modernizing their banking laws.

This evidence of reaction to a change in the value of one type of bank supervision rather than another is exemplary of the checks and balances intended to exist in a dual or multiple system of

Table 5

MAJOR SUPERVISORY FUNCTIONS OF BANK SUPERVISORY AGENCIES

Supervisory Function	Supervisory Authority[1] Exercising Specified Function with Respect to			
	State-chartered Banks[2]			
	National Banks	Members of Federal Reserve System	Other Participants in Federal Deposit Insurance	Incorporated Noninsured Banks[3]
Chartering	CC	S	S	S
Permission to open for business[4]	CC	S	S	S
Admission to Federal Reserve membership	CC	FR		
Admission to FDIC insurance	CC	FR	FDIC	
Examination (visitorial)[4]	CC (FR, FDIC)	FR, S (FDIC)	FDIC, S	S
Required reporting[5]				
Assets and liabilities (reports of condition)[4]	CC (FR, FDIC)	FR (FDIC), S	FDIC, S	S
Earnings and dividends[4]	CC (FR)	FR, S	FDIC, S	S
Certified statement of deposits for deposit insurance assessment	FDIC	FDIC	FDIC	
Reserves held and required, and deposits subject to reserve	FR	FR (S)	S	S
Required approval for				
Opening of a branch[4]	CC	FR, S	FDIC, S	S
Relocation of bank or branch[4]	CC	FR, S	FDIC, S	S
Assumption of liabilities of another bank (including mergers with continuing bank in class indicated)[4]	CC, FDIC	FR, FDIC, S	FDIC, S	S
Assumption of liabilities of a noninsured bank	FDIC	FDIC	FDIC	
Acquisition of control by bank holding company	FR	FR	FR	FR
Exercise of trust powers	CC	FR, S	S, FDIC	S
Interlocking directorates with Federal Reserve member banks	FR	FR	FR	FR
Issuance of regulations regarding[6]				
Reserves	FR	FR, S	S	S
Payment of interest on deposits[7]	FR (S)	FR (S)	FDIC (S)	S
Acceptable investments in securities	CC	FR	S	S
Margins on loans for purchasing or carrying securities	FR	FR	FR	FR
Taking disciplinary action (including requirement of corrections) for				
Violations of general banking statutes[4]	CC	S	S	S
Continued engagement in unsafe or unsound practices or violations of law or regulations[8]	CC, FR, FDIC	FR, FDIC, S	FDIC, S	S
Closing of a bank for insolvency or other statutory specifications[4]	CC	S	S	S

[1] Abbreviations are as follows: *CC*, Comptroller of the Currency; *FR*, Board of Governors of the Federal Reserve System (or Federal Reserve Bank); *FDIC*, Federal Deposit Insurance Corporation; *S*, state banking authority. Abbreviations in parentheses signify a power that the agency possesses but in practice does not exercise, or does so only under special circumstances. Since the supervisory powers of the various state authorities are not identical, some of the functions designated *S* may not be possessed or exercised in all the states.

[2] Excluding banks in the District of Columbia in the case of functions to which note 4 is attached.

[3] Includes unincorporated banks if state statutes empower state supervisory authority to exercise specified functions with respect to such banks.

[4] Exercised by Comptroller of the Currency for all banks in the District of Columbia.

[5] Items listed here refer to the reports regularly required from all banks subject to the jurisdiction of the respective authorities. In addition, other periodic or occasional reports may be required, under specific or general statutory powers, from all banks under the authority's jurisdiction (e.g., summary of deposits, by type and size of account, by insured banks).

[6] Items listed here do not cover regulations directly related to the major specific activities of Federal Reserve banks (e.g., discounts and advances by such banks) or of the Federal Deposit Insurance Corporation (e.g., payment of deposits of insured banks placed in receivership, or advertising of a bank's insured status).

[7] When the state maximum is lower than the Federal maximum, the state regulation applies in practice to all banks.

[8] Comptroller of the Currency surely can take disciplinary action, and so can states.

SOURCE: Adopted, with additions, deletions, and alterations from Table 24, p. 57, *Comparative Regulations of Financial Institutions* (Subcommittee on Domestic Finance, Committee on Banking and Currency, House of Representatives, 88th Cong., November 22, 1963).

chartering and supervision. When national bank supervision became more profitable, forces were set in motion to reexamine state supervision. If it had been found that national bank supervisors had merely increased the risk of assets that banks under their jurisdiction could purchase, state authorities would have waited to see if the new policies were sound. But when it became obvious the Comptroller's office had revealed weaknesses in state bank supervision and statutes, the response was considerably different. This, of course, is the sort of response a dual or multiple system of banking is intended to produce instead of the lethargy that sometimes characterizes a supervisory authority that has no competition from other quarters.

The potential danger in competition is that it could lead to continued deterioration of standards as one regulatory authority and then the other courts the favor of the banking community by offering successively easier standards. This possibility is lessened in commercial banking by the overlapping jurisdictions of the various regulatory authorities. National banks, as an example, are regularly examined by representatives of the Comptroller of the Currency, and state-chartered Federal Reserve member banks are regularly examined by examiners from the regional banks; but the FDIC, by virtue of its insurance of the deposits in these banks, could examine them if it chose to do so. In similar manner, all national banks must belong to the Federal Reserve System; thus, Federal Reserve rules and regulations as well as those of the Comptroller apply to national banks. The extent to which the jurisdiction of the various Federal agencies overlap is shown in Tables 5 and 6. (See pages 36–37 and 39.)

The FDIC has a strong interest in seeing that banks whose deposits are insured by it do not fail, and it is safe to assume that they would vigorously resist any tendency toward increasing laxity in banking regulation. In an analogous way the overlapping of jurisdictions between the other Federal agencies would also mitigate against changes in regulatory standards solely for the

Table 6

ALL BANKS IN THE UNITED STATES[1] CLASSIFIED BY SUPERVISORY STATUS AND FEDERAL DEPOSIT INSURANCE PARTICIPATION DECEMBER 31, 1965

Supervisory Status	All Banks			Commercial Banks and Trust Companies[2]		Mutual Savings Banks	
	Total	Insured	Noninsured	Insured	Noninsured	Insured	Noninsured[3]
Number of banks and trust companies	14,324	13,876	448	13,547	271	329	177
Banks of deposit	14,274	13,876	398	13,547	221	329	177
Examined by and reporting to[4]							
Comptroller of the Currency[5]	4,882	4,822	—	4,822	—	—	—
State authorities and Federal Reserve banks[6]	1,401	1,401	—	1,401	—	—	—
State authorities and FDIC[7]	7,653	7,653	—	7,324	—	329	—
State authorities only[8]	448	—	448	—	221	—	177

[1] United States includes the 50 states, the District of Columbia, Puerto Rico, Guam, and the Virgin Islands.

[2] Includes stock savings banks.

[3] One hundred and seventy-one of these banks were insured by the Massachusetts Savings Central Fund, Inc.

[4] Classification relates to regular examination and periodic submission of reports of condition (assets and liabilities).

[5] Includes all national banks and seven nonnational banks in the District of Columbia; of the latter, four are members of the Federal Reserve System.

[6] Includes all state banks that are members of the Federal Reserve System, except four commercial banks in the District of Columbia and one noninsured trust company.

[7] Includes all insured banks not members of the Federal Reserve System, except three in the District of Columbia.

[8] Includes 22 branches of foreign banks located in three states, Puerto Rico, and the Virgin Islands. Also includes 74 unincorporated banks located in seven states. Unincorporated banks in three of these states (Georgia, Iowa, and Texas) are not examined by the state authorities, and do not submit detailed periodic condition reports to the state authorities. Financial statements for four unincorporated banks were not available to the Corporation at the close of 1965.

SOURCE: *Annual Report of the Federal Deposit Insurance Corporation*, 1965, Washington, D. C., p. 98.

sake of attracting banks to one or another type of jurisdiction.

State banking regulations also apply to state-chartered banks and to certain overall aspects of a national bank's situation. The states, too, have a strong interest in guarding against a large number of failures of commercial banks within their boundaries. A common arrangement is for state bank regulatory authorities to accept one Federal examination each year in lieu of one examination by state personnel each year, although the practice varies from one state to another. Remaining examinations are made jointly by state and Federal personnel wherever possible so as not to disrupt the normal business of the bank unduly. At present no Federal agencies accept state examinations in lieu of a Federal examination, although there is wide agreement that examination staffs in some states provide examinations as thorough in every detail as those provided by the Federal examiners. The Federal Government could help to raise the quality of state bank examinations by agreeing to accept a state examination meeting stipulated standards in lieu of one Federal examination each year. Incentive for other states to improve standards would be created by publishing a list of states whose examinations were acceptable in lieu of Federal examination.[1]

There can be no doubt that some of the appeal of Federal Reserve System membership for smaller banks is the high quality of the examinations given by Reserve System examiners. Rightly or wrongly, the managements of many smaller banks feel that a Federal Reserve examination is almost as good as a complete audit. Contrary to the popular impression that bankers are eager to avoid having their operations scrutinized, most bankers are eager to have potential problems spotted long before they can become serious. They know, either from experience or from association with their colleagues, that it is far more profitable to run

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[1] There is a precedent for this course of action. Until 1917, the Federal Reserve Board was authorized to accept examinations and reports by state authorities of state-chartered banks in lieu of examinations by the Comptroller of the Currency who until that time examined state Federal Reserve member banks. See *FDIC Annual Report*, 1961, p. 44.

a bank with sound and liquid assets than one with slow assets that require a great deal more managerial effort to supervise and collect.

In early 1967, there could be little doubt that the Federal Reserve examinations were substantially better than those given by many states. This situation could, of course, have been corrected long ago by the states if they had material incentive to do so. Since the states know that Federal examinations will continue to be required no matter how high the quality of state examinations, there is relatively little incentive to upgrade the quality of state examinations.

Regulation of Bank Lending and Investment

The primary goal in a bank examination is to insure that a bank's assets are sound—that they can be sold at a satisfactory price in the market or that they stand a good chance of being repaid when due. The first step in examining the quality of a bank's assets is to determine that applicable laws, rules, and regulations concerning bank investments have been followed.

For the most part, restrictions applicable to state banks are established and enforced by state banking departments and those applicable to national banks are set by the Comptroller of the Currency. Both national banks and state-chartered member banks are also subject to the regulations of the Federal Reserve Board. The Federal Deposit Insurance Act is silent on lending and investment restrictions, so the majority of banks are subject only to state restrictions on those functions.

The actual enforcement of state statutes and regulations is in the hands of state bank regulatory personnel. The FDIC and Federal Reserve examiners note violations of state requirements in their examination reports, copies of which are filed with the state, and they normally make efforts to obtain compliance with state law.

If a state bank's violations of state statutes or regulations were

so numerous as to threaten the solvency of the institution, the FDIC might threaten to take action under Section 8(a) of the FDIC Act to terminate the insurance of a bank found to be in an unsafe or unsound condition because of persistent violations of state laws.

The Comptroller's Manual for National Banks provides that "The total obligations to any national banking association of any person, copartnership, association or corporation shall at no time exceed 10 per centum of the amount of the capital stock of such association actually paid in and unimpaired and 10 per centum of its unimpaired surplus fund." (The general rule is subject to numerous exceptions for specific loans.) About one-third of the states have adopted the 10 per cent rule, and the remaining states have established a somewhat more liberal legal loan limit. Requirements vary from state to state regarding security for loans, the size of a bank, and its location, making precise comparison with national banks impossible, but it is fair to say that state banks often enjoy a somewhat less restrictive loan limit than do national banks.

Between 1960 and 1965, the Comptroller supplemented the statutes concerning the maximum unsecured loan to one borrower by interpretations, and the effect of these interpretations has been to substantially enlarge the lending powers of national banks. Among them have been the decision to include undivided profits in the capital base, the decision to include capital notes and debentures (debt capital) in the capital base, and the definition of transactions in Federal funds as "sales" of funds rather than as loans of such funds, thus excluding them from the loan limit statutes and applicable regulations.[2]

The limits placed on general credit loans to an individual borrower by state banks vary considerably. Most states use capital

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[2] The Federal Reserve Board has not gone along with the Comptroller's interpretations of the statutes, but national bank examiners, not Federal Reserve examiners, examine national banks.

and surplus as the base for computing the percentage, but four also permit the inclusion of undivided profits. The limits range from 10 per cent of the base amount in 11 states to 35 per cent of capital and surplus in Alaska. Eight states place the loan limit to a single borrower at 15 per cent, 11 have set the limit at 20 per cent, and Nevada and Texas allow up to 25 per cent to be loaned to a single borrower.

Loan limits are intended to reduce by statute any tendency for a bank to expose itself to an undue amount of risk from any single source. This would not be necessary if banks received all their loanable funds from capital, nor if deposits were 100 per cent insured, but neither case is true. The ability of depositors to obtain all their funds at some future date depends partly upon deposit insurance and partly on the continuance of the bank in business.

One problem confronting legislators and banking regulatory authorities is the desire to keep lending limits as high as possible in order to accommodate large businesses in a particular area that may want to borrow from one bank. This desire conflicts directly with the wish to keep lending limits low so that banks will be well protected against severe risk exposure. A loan limit that is too high negates the purpose of a loan limit. One that is too low may force large borrowers in the community to do their banking business elsewhere, and it could even encourage large firms to move their administrative offices to other locations where more suitable banking facilities are available.

Local banks can circumvent some of these difficulties by having borrowers obtain funds at several banks or by arranging with city correspondent banks to lend the amount in excess of the local bank's lending limit. For a variety of reasons, however, neither of these alternatives may be wholly satisfactory. Medium-size borrowers may find it difficult to establish banking connections other than in their own locality, especially since the prospect of a good deposit account from such borrowers is not as likely for distant

banks as it is for the local bank. Correspondent banks may also not be familiar with local businesses, and they might want to impose considerably more restrictive covenants on the loan than would the local bank.

Nationally known firms would not be inconvenienced to the same extent as small- or medium-size borrowers because they could easily bring their business to a large city bank. In this case, however, the local bank will lose the deposit of the large borrower and therefore local growth may not be as rapid as if the local bank were also growing rapidly.

Late in 1962, the aggregate real estate loan limit for a national bank was raised to 70 per cent of time and savings deposits (or, as before, 100 per cent of capital and surplus, if this were larger). The Comptroller of the Currency, at that time, pointed out that many national banks faced a competitive disadvantage because most states permitted real estate lending volume in excess of the 60 per cent of time deposits previously permitted national banks. At the end of 1960, only seven states had a 60 per cent limit. In 13 states, no limits are set by law; and seven other states are more liberal than the new Federal law. There is no accurate way to judge the relative degree of permissiveness of the national bank regulation, but it does not seem grossly out of line with standards and practices in state banks.

There is some overlapping of jurisdiction between Federal agencies, and between them and the states, but for the most part, there is a reasonably clear separation of powers. It is important for the preservation of the dual banking concept that there be enough separation of powers so that some competition between regulatory authorities can exist. There need not be complete separation; indeed, it is not necessarily desirable from a safety viewpoint, and there must be enough interaction for each agency to be acutely aware of the others. This state of affairs seems to exist in the regulation of commercial bank lending and investment.

National banks are permitted to charge interest at the rate

allowed by the state, territory, or district where the bank is located, or a maximum of 7 per cent if not limited by state law, or a rate 1 per cent higher than the Federal Reserve discount rate on 90-day commercial paper, whichever is higher. State banks are subject only to state regulations. During the postwar period up to 1965, interest rate regulations were of relatively little importance because the maximum rates were well above the market rates. Tight money during 1966, however, brought some interest rate ceilings into question, and this question could become more important if the general structure of interest rates continues upward as it has since the end of World War II.

Reserve Requirements

Of the powers vested with regulatory agencies, those concerning reserve requirements are among the most important. Reserves serve as a fulcrum for the operation of monetary policy, and they are an important influence on bank costs and liquidity. If a banker must keep 20 per cent of his time and savings deposits as cash on hand or with another bank, his earnings from such deposits will be less than if he only keeps 5 per cent of them as reserves. Furthermore, costs will be lower if reserves may be invested in short-term Governments or in other high-grade securities compared with the situation where reserves must be kept as currency or demand deposits.

Fifty supervisory jurisdictions—49 states and the Federal Reserve System—impose reserve requirements on banks subject to their separate influences.[3] Somewhat surprisingly, reserve requirements are seldom exactly the same among as many as three separate jurisdictions, a situation highlighted by Table 7. (See pages 46–52.) The required reserve percentages differ substantially from state to state as well as the requirements concerning

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[3] All states except Illinois have statutory requirements concerning reserves and in about half the states the supervisor of banking or some other responsible person or body has the authority to change reserve requirements.

Table 7 (Part I)

STATE RESERVE REQUIREMENTS FOR COMMERCIAL BANKS AND TRUST COMPANIES

Alabama: As required by Bank Board: Demand deposits 7 per cent to 22 per cent, current 11 per cent; time and savings deposits 3 per cent to 6 per cent, current 3 per cent. Vault cash and due from banks.

Alaska: Statutory 20 per cent of demand deposits, and 8 per cent of time and savings deposits. Cash in vault, gold, and due from banks.

Arizona: As required by Superintendent: Demand deposits 7 per cent to 14 per cent, current 10 per cent; time and savings deposits 3 per cent to 6 per cent, current 4 per cent. Lawful money or solvent credits on deposit in reserve depositories approved by the Superintendent.

Arkansas: As required by Commissioner and Board: Demand deposits 15 per cent to 20 per cent, current 15 per cent; time and savings 4 per cent to 15 per cent, current 4 per cent plus 11 per cent of U. S. Government obligations due in one year or less. Vault cash and due from banks on demand.

California: As required by Superintendent: 12 per cent to 18 per cent for demand deposits depending upon location and type of business, and 5 per cent for time and savings deposits. Cash in vault, gold bullion, due from banks, and U. S. Government obligations.

Colorado: Statutory 15 per cent of total deposits. Cash in vault, due from banks, and U. S. Government obligations.

Connecticut: As required by Advisory Council: Demand deposits 12 per cent to 24 per cent, current 12 per cent; time and savings deposits 5 per cent to 10 per cent, current 5 per cent. Vault cash, due from banks, and U. S. Government obligations.

Delaware: As required by Commissioner: Demand deposits 7 per cent to Federal Reserve requirements, current 11 per cent; time and savings deposits 3 per cent to Federal Reserve requirements, current 4 per cent. Vault cash and due from approved banks.

Florida: Statutory 20 per cent of total deposits. Cash, due from banks on demand, and U. S. Government obligations.

Georgia: Statutory 15 per cent of demand deposits, and 5 per cent of time and savings deposits. Cash in vault and demand balances with approved banks. Unpledged U. S. Government obligations may be counted as reserve against time and savings deposits.

Hawaii: Statutory 12 per cent of demand deposits, and 5 per cent of time and savings deposits. Cash in vault and demand balances with approved banks.

Idaho: Statutory 15 per cent of total deposits. Cash in vault, demand balances with other banks, and U. S. Government obligations.

Illinois: No statutory requirements.

Indiana: Statutory 10 per cent of demand deposits, and 3 per cent of time and savings deposits. Cash in vault and due from banks.

Iowa: Statutory 7 per cent of demand deposits, and 3 per cent of time and savings deposits. Cash in vault and due from banks.

Kansas: Statutory 12½ per cent of demand deposits, and 5 per cent of time and savings deposits. Cash in vault and due from banks.

Kentucky: As required by Commissioner: 7 per cent of demand deposits, and 3 per cent of time and savings deposits. Cash in vault and demand balances due from banks.

Louisiana: 20 per cent of demand deposits. Cash in vault and due from banks.

Maine: As required by Commissioner, normally as required by Federal Reserve. Current requirements are—demand deposits, 12 per cent; time and savings deposits, 4 per cent. Vault cash and demand balances with approved banks.

Maryland: Commissioner may adjust reserve requirements with advice and counsel of the Banking Board. Current requirements are 15 per cent of demand deposits, and 5 per cent of time and savings deposits. Cash in vault and certain specified securities.

Massachusetts: Commissioner may increase or decrease statutory reserve requirements for demand deposits and time deposits withdrawal within 30 days. Current percentages are 15 per cent or 20 per cent, depending upon location. Other time and savings have no requirements. Vault cash, due from banks, and U. S. Government obligations.

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Michigan: Commissioner may set requirements for all deposits between 12 per cent and 24 per cent. Current requirement is 12 per cent. Vault cash, demand balances due from banks, and U. S. Government obligations.

Minnesota: As required by Commissioner, not to exceed Federal Reserve requirements. Currently 15 per cent of demand deposits for Reserve city banks, and 12 per cent for country banks; 5 per cent of time and savings deposits. Cash in vault and demand balance due from banks.

Mississippi: Statutory 15 per cent of demand deposits, and 7 per cent of time and savings deposits. Cash in vault and due from banks.

Missouri: Statutory 16½ per cent of demand deposits for Reserve city banks and 12 per cent for all other banks; 3 per cent of time and savings deposits. Cash in vault and due from banks, clearings, and cash items in process of collection.

Montana: After July 1, 1967 as required by Superintendent, within a range of 75 per cent to 100 per cent of Federal Reserve requirements. Current percentage is 10 per cent of total deposits, 15 per cent if a Reserve bank. Vault cash and due from Reserve banks.

Nebraska: Statutory 15 per cent of demand deposits; 5 per cent of time and savings deposits. Cash in vault, due from banks, and U. S. Government obligations for 20 per cent of required reserve.

Nevada: Statutory 10 per cent of demand deposits, and 5 per cent of time and savings deposits. Cash in vault and due from banks.

New Hampshire: The required reserves for commercial banks are 15 per cent of demand deposits and 5 per cent of time and savings deposits, which are now in effect. The Board of Trust Company Incorporation may by regulation increase reserve requirements not to exceed those of the Federal Reserve.

New Jersey: Commissioner, with concurrence of Bank Advisory Board, may change reserve requirements for commercial banks but not to exceed those of the Federal Reserve. Current requirements: 12 per cent of demand deposits, 4 per cent of time and savings deposits. Vault cash and demand balances due from banks.

New Mexico: By regulation, 7 per cent to 12 per cent of demand deposits, current 12 per cent; 3 per cent to 7 per cent of time and savings deposits, current 4 per cent. Cash in vault, demand balances due from banks, and U. S. Government obligations.

New York: Rates prescribed by Banking Board: 11 to 16½ per cent of demand deposits depending upon location and nature of business; 4 per cent of time and savings deposits under $5 million and 6 per cent of time deposits over $5 million. Cash in vault and demand balances due from approved banks.

North Carolina: Statutory 15 per cent of demand deposits, and 5 per cent of time and savings deposits. Cash in vault and due from banks approved by commissioner.

North Dakota: As required by State Examiner: Demand deposits 10 per cent to 20 per cent, current 10 per cent; time and savings deposits 5 per cent to 10 per cent, current 5 per cent. Vault cash and due from banks.

Ohio: As required by Bank Board: 15 per cent of demand deposits, and 10 per cent of time and savings deposits. Cash in vault and due from banks.

Oklahoma: As required by Bank Board: 15 per cent of demand deposits, and 5 per cent of time and savings deposits. Cash in vault and due from banks.

Oregon: As required by Banking Division: 15 per cent of demand deposits, and 5 per cent of time and savings deposits. Cash in vault and balances due from approved banks.

Pennsylvania: As required by Department: 12 per cent of demand deposits, and 4 per cent of savings deposits; 4 per cent of other time deposits up to $5 million, 5 per cent in excess of $5 million. Cash in vault, due from banks, and U. S. Government and Commonwealth of Pennsylvania obligations.

Rhode Island: Statutory 15 per cent of demand deposits; no requirements for time and savings deposits. Cash in vault, due from banks, and U. S. Treasury notes.

South Carolina: Statutory 7 per cent of demand deposits, and 3 per cent of time and savings deposits. Cash in vaults and due from banks.

South Dakota: Statutory 17½ per cent of total deposits. Cash in vault, due from banks, and U. S. Government obligations.

Tennessee: Statutory 10 per cent of demand deposits, and 3 per cent of time and savings deposits. Cash in vault and due from banks.

Texas: Statutory 20 per cent of demand deposits; and 5 per cent of time and savings deposits. Cash in vault and due from banks.

Utah: Presently required by Bank Board: 16½ per cent of demand deposits in Salt Lake City banks, and 12 per cent of time and savings deposits. Cash in vault and due from banks.

Vermont: Presently required by Board: 30 per cent of demand deposits, and 8 per cent of time and savings deposits. Cash, due from banks, U. S. Government obligations, and state of Vermont obligations.

Virginia: Statutory 10 per cent of demand deposits, and 3 per cent of time and savings deposits. Cash in vault and demand balances with other banks.

Washington: Statutory 15 per cent of demand deposits, and 6 per cent of time and savings deposits. Cash in vault and due from approved banks.

West Virginia: Statutory 10 per cent of demand deposits, and 5 per cent of time and savings deposits. Cash in vault, due from banks, and U. S. Government obligations.

Wisconsin: Statutory 12 per cent of total deposits. Demand: 8 per cent in cash and due from banks, 4 per cent in 18-month U. S. Securities. Time: 5 per cent in cash and due from banks, 7 per cent in 18-month U. S. Securities.

Wyoming: Statutory 20 per cent of demand deposits, and 10 per cent of time and savings deposits. Cash in vault and demand balances with approved banks.

NOTE: Data as of December 31, 1966.

SOURCE: *State Banking,* State Bank Division, The American Bankers Association, New York, 1967.

Table 7 (Part 2)

STATE RESERVE REQUIREMENTS FOR COMMERCIAL BANKS AND TRUST COMPANIES, JANUARY 1, 1962

State[1]	Required Holdings in Vault Cash or Balances with Depository Banks		Additional in Securities, Cash, or Due from Banks	
	Demand Deposits	Savings Deposits[2]	Demand Deposits	Savings Deposits[2]
Alabama*	15.0%	4.0%		
Alaska	20.0	8.0		
Arizona*	10.0	5.0		
Arkansas*	15.0 (20)	15.0 (20)		
California*	12.0 (15-18)	1.0		4.0%
Colorado			15.0%	15.0
Connecticut*	10.0		2.0	
Delaware*	11.0	5.0		
District of Columbia*	16.5	5.0		
Florida			20.0	20.0
Georgia	15.0			5.0
Hawaii	12.0	5.0		
Idaho	10.0	10.0	5.0	5.0
Illinois				
Indiana	12.5	3.0		
Iowa	7.0 (10)	3.0		
Kansas	12.5 (20)	5.0		
Kentucky*	7.0 (10)	3.0		
Louisiana	20.0			
Maine*	11.0	5.0		
Maryland*	15.0			5.0
Massachusetts*	9.0 (12)		6.0 (8)	
Michigan*	12.0			12.0
Minnesota*	12.0 (15)	5.0		
Mississippi	15.0 (25)	7.0 (10)		
Missouri	15.0 (18)	3.0		
Montana	10.0 (15)	10.0 (15)		
Nebraska	12.0 (16)	4.0	3.0 (4)	1.0
Nevada*	12.0	6.0		
New Hampshire*	15.0			15.0
New Jersey*	12.0	5.0		
New Mexico*	12.0	12.0		
New York*	11.0 (16.5)	5.0		
North Carolina	15.0	5.0		

Table continued on page 52.

Table 7 (Part 2) *(Continued)*

State[1]	Required Holdings in Vault Cash or Balances with Depository Banks		Additional in Securities, Cash, or Due from Banks	
	Demand Deposits	Savings Deposits[2]	Demand Deposits	Savings Deposits[2]
North Dakota*	10.0%	5.0%		
Ohio*	15.0	4.0		6.0%
Oklahoma	15.0 (18)	5.0		
Oregon*	15.0	5.0		
Pennsylvania*	8.4	3.6	5.6%	2.4
Rhode Island	15.0			
South Carolina	7.0	3.0		
South Dakota	7.0	7.0	10.5	10.5
Tennessee	10.0	3.0		
Texas	15.0	5.0		
Utah*	15.0 (20)	5.0		
Vermont*	12.0	3.2	18.0	4.8
Virginia	10.0	3.0		
Washington	15.0	6.0		
West Virginia	10.0	5.0		
Wisconsin	8.0 (13.33)	8.0 (13.33)	4.0 (6.67)	4.0 (6.67)
Wyoming	20.0	10.0		

[1] In states marked with asterisk (*) the state banking authority has power (usually within specified limits) to vary the percentage requirements.

[2] Applicable also to time deposits except as follows: In Arizona, California, Connecticut, Nebraska, Rhode Island, Utah, Vermont, and Wyoming the requirement for time deposits, other than savings deposits, is the same as for demand deposits; in Connecticut the requirement for time deposits is 4.17 per cent, and in New Hampshire, 5 per cent.

NOTE: Figures are percentages of deposits: Those not in parentheses apply to all state banks not members of the Federal Reserve System or to such banks other than those described in note 1; those in parentheses to banks designated as reserve agents or depositories, banks in reserve cities, or banks in cities exceeding a specified population. Applicable to banks designated as reserve agents or reserve depositories in Arkansas, Montana, Oklahoma, and Wisconsin; to banks in places with 50,000 to 100,000 population and reserve depositories in smaller places, 15 per cent, and to banks in places with population of 100,000 or over, 18 per cent, in California; to banks in designated reserve cities in Iowa, Kentucky, and Minnesota; to demand deposits due to banks in Kansas; to Boston banks in Massachusetts; to banks in places with population exceeding 25,000 in Nebraska, 50,000 in Mississippi and Utah, and 200,000 in Missouri, and to banks in Buffalo and Manhattan Borough in New York.

SOURCE: "Compilation of Federal and State Laws Relating to Reserves Against Deposits in Banking Institutions," February 1, 1962, prepared in the Legal Division of the Board of Governors of the Federal Reserve System, as presented in U. S. House of Representatives, Committee on Banking and Currency, Subcommittee on Domestic Finance, *Comparative Regulations of Financial Institutions*, 1963, p. 17.

the form in which reserves must be held. Some states permit reserve holdings to be in the form of short-term U. S. Government securities, others permit the reserves to be in the form of cash or deposits due from other banks, principally correspondent banks in money market cities.

Members of the Federal Reserve System—all national banks and state banks that have chosen to join—are subject to the reserve requirements described in Table 8.

Table 8

RESERVE REQUIREMENTS FOR FEDERAL RESERVE MEMBER BANKS

Legal Limits	Net Demand Deposits		Time Deposits	
	Reserve City Banks	Country Banks	Reserve City Banks	Country Banks
Minimum	10	7	3	3
Maximum	22	14	10	10
In effect	16½	12	3 (savings)	3
			3 (other time deposits to $5 million)	
			6 (time deposits over $5 million)	
January 1, 1967				

NOTE: Net demand deposits are gross demand deposits less cash items in process of collection and demand balances due from domestic banks.

SOURCE: *Federal Reserve Bulletin*, October 1967.

All Federal Reserve members must hold their reserves as deposits with the regional Federal Reserve Bank except for the portion represented by vault cash. Unlike many nonmember banks, there is no opportunity for Federal Reserve members to earn interest on their reserves, although excess reserves may be loaned to temporarily deficient member banks.

It is true that many state banks have an advantage compared with Federal Reserve members concerning the form in which they hold reserves (they may also enjoy an advantage in the form of lower percentage reserve requirements), but there may be offsetting differences in the area of time and savings deposits. Many states require reserves against time and savings deposits of 4 per

cent or more, and some have reserve requirements against savings deposits exceeding 6 per cent.[4]

On a national basis, the only way of measuring the approximate impact of various reserve requirements would be to calculate the total volume of deposits subject to various reserve percentages and compare those figures with the totals subject to Federal Reserve jurisdiction. Given the varying ways in which banks in different states may hold their reserves, however, it is not clear that any unambiguous method exists for computing the total reserve burden on one class of banks vis-à-vis another. In one state, the differences between Federal Reserve requirements and the state's requirements may be gross and completely obvious, but in an adjoining state the differences might be difficult to calculate.

Further complicating the issue, Federal Reserve membership may help reduce costs even if reserve requirements are somewhat higher than those of a particular state's laws for nonmember banks. Check clearing through the Federal Reserve System reduces the need for correspondent balances, and the Federal Reserve banks absorb the expenses connected with transporting and distributing currency and coins for regular shipments to out-of-town banks.[5] In addition, the regional Federal Reserve Bank performs valuable safekeeping functions for member banks and also provides telegraphic transfer of funds and Government securities to Federal Reserve members.[6] Perhaps the most important advantage of Federal Reserve membership is the ability of members to borrow from the regional reserve bank if they are ever

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[4] State reserve requirements may be changed from time to time and they may vary at different locations within the same state due to population differences, making comparisons somewhat difficult. However, on December 31, 1965, there were 18 states with time and savings deposit reserve percentages *greater* than 4 per cent, and five with reserve percentages *greater* than 6 per cent.

[5] Lucile S. Mayne, *The Cost of Federal Reserve System Membership*, Research Paper No. 2, Department of Economics and Research, The American Bankers Association, 1967.

[6] Fees for telegraphic transfers are regulated by the Treasury Department, and they have been changed from time to time. As of January 1967, transfers of bills, certificates, and bonds of any maturity were transferred at a fee of $3.00 per transfer.

faced with the need to do so. If, for example, deposits run off unexpectedly in large amounts, the member bank can borrow while it arranges to liquidate assets.

Federal Reserve membership as a proportion of all commercial banks is tabulated in Table 9 on page 56. It is possible to identify some states with extremely high reserve requirements for state banks and with a very high proportion of Federal Reserve members (such as Wyoming). It is also possible to point to states with very low reserve requirements that also have a high proportion of Federal Reserve membership. Illinois is a good example: It has no reserve requirements for either demand deposits or time and savings deposits, but more than half the banks in the state choose to belong to the Federal Reserve.

Special Factors

In addition to the factors discussed above, which guide a bank's decision about the jurisdiction under which it should operate, there are a number of special factors which may dictate a particular choice of regulatory authority. Some banks situated in or near areas where nonpar banking is prevalent are eager to absorb exchange charges in return for the balances such services bring. Obviously, such a bank would not be a state Federal Reserve member bank, no matter how high its opinion of the Reserve System. The Board of Governors has consistently proscribed the absorption of exchange charges by labeling it the payment of interest upon demand deposits. Neither the FDIC nor the Comptroller of the Currency, however, has taken such a position on the matter. Since the examiners of the Comptroller of the Currency regularly examine national banks, they may enforce Federal Reserve regulations or not, and they have chosen not to enforce the Federal Reserve position that absorption of exchange charges is prohibited. The FDIC has maintained that it does not have statutory authority to proscribe the absorption of exchange charges, and it has never tried to prevent the practice by regulation.

Table 9

FEDERAL RESERVE MEMBER BANKS AS A PERCENTAGE OF ALL COMMERCIAL BANKS DECEMBER 31, 1966

State	Member Banks as Percentage of Total	State	Member Banks as Percentage of Total
Alabama	41.5%	Missouri	25.2%
Alaska	41.7	Montana	69.6
Arizona	27.7	Nebraska	31.6
Arkansas	34.9	Nevada	66.6
California	54.4	New Hampshire	70.6
Colorado	53.1	New Jersey	82.7
Connecticut	53.7	New Mexico	64.0
Delaware	35.0	New York	80.1
District of Columbia	85.7	North Carolina	22.6
Florida	46.0	North Dakota	26.9
Georgia	16.6	Ohio	65.3
Hawaii	18.1	Oklahoma	57.8
Idaho	64.0	Oregon	28.8
Illinois	49.4	Pennsylvania	71.6
Indiana	49.1	Rhode Island	45.4
Iowa	23.7	South Carolina	25.0
Kansas	35.1	South Dakota	35.3
Kentucky	27.0	Tennessee	28.7
Louisiana	25.9	Texas	53.7
Maine	61.3	Utah	43.6
Maryland	45.9	Vermont	56.2
Massachusetts	66.6	Virginia	65.8
Michigan	61.0	Washington	40.0
Minnesota	30.8	West Virginia	60.0
Mississippi	22.1	Wisconsin	27.5
		Wyoming	78.2

SOURCE: *Federal Reserve Bulletin*, April 1967.

Obviously, the number of banks absorbing exchange charges as a percentage of all banks is small. The illustration given here is intended to be exemplary of the type of special influence which may override otherwise reasonable causes for choosing one type of supervision over another.

Another such consideration is that state and local authorities may prefer to leave their deposits with state-chartered institutions rather than with the federally chartered banks. The pledging of securities by banks against public deposits means that public bodies do not need to worry unduly about the quality of a depository bank's assets. As a result, state and local authorities would not necessarily be inclined to choose the largest bank in the state whether it be state or national. This is not to imply that possession of a state bank charter is, of itself, sufficient to insure that the bank will receive public deposits. It has often been remarked that a bank must offer services to its local government, just as it must for local firms, in order to obtain sizeable deposits.[7]

Conclusions

The dual Federal-state authority for supervising commercial banks appears to have considerable vitality, without a preponderance of power on either side that would vitiate the dual banking concept. The concern with which Federal and state authorities regard the supervisory and regulatory powers of the other is probably the clearest evidence of very active participation in the dual banking concept by both. There is no presumption that the dual banking system promotes constant harmony between the two factions, and periodic expressions of deep concern about the other party's intentions reinforce the notion that each is conserving its share of power.

The dual banking concept is based upon the premise that two

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[7] Wray O. Candilis, "Commercial Banks As Sources of Loan Funds for State and Local Governments," *State and Local Public Facility Needs and Financing*, Vol. 2, U. S. Congress, 89th Cong., 2nd Sess., December 1966, p. 339.

or more regulatory authorities share power. They need not share equally but the balance must not be so lopsided that one acts and the other reacts without meaningful alternatives. Naturally, we would expect a time lag between action and reaction, and this was evident in the early 1960s. The Office of the Comptroller of the Currency was unusually active then in a number of areas which appeared to give some competitive advantage to national banks. For a few years, there was relatively little reaction from state-chartered banks. Finally, they became aware that some state laws and regulations had become outmoded and that change was needed soon. In several states, the decision was to completely rewrite the banking code, whereas in other states only a repair job was needed.

A nationwide exchange of information was facilitated by workshops and other meetings under the auspices of The American Bankers Association working in concert with state bankers organizations and groups. At these meetings, bankers discussed their problems and solutions with bankers from other states to the mutual benefit of all. Where required, state banking code revisions were accomplished within a few years, bringing the state-chartered banks into greater competitive equality with the national banks.

The actions by the Comptroller of the Currency and the reaction from state legislatures represent a striving toward "competitive equality," that was lauded by Chairman K. A. Randall of the Federal Deposit Insurance Corporation in a speech delivered to the Texas Bankers Association in Dallas on June 6, 1967. The FDIC chairman noted that the competitive equality between national and state banks "can be a constructive means whereby a healthy and dynamic banking system can be fostered."

Conclusions:

Dual Banking As It Now Exists

Historically, the fundamental prerequisites for dual banking have been considered to be (1) the existence of entry routes into commercial banking at both the Federal and state levels, and (2) the freedom of existing banks to shift from one type of charter to another, and thereby to substitute one set of regulatory and supervisory standards for another. The desirability of alternative entry routes and of alternative supervisory frameworks within which to operate is, of course, a subject which is not devoid of controversy. Critics of the dual banking system sometimes regard it as little more than an arrangement under which commercial banks seek to play off one supervisory authority against another—or to escape strict regulation implemented at either level—and thereby to derive advantages which other highly regulated industries do not have.

Such a criticism ignores the fact that the historic value of dual banking lies in its ability to provide an escape valve from arbitrary or discriminatory chartering and regulatory policies at either the state or Federal level. The possible intrusion of such inequities into either the chartering of banks or their regulation, with consequent implications for the allocation of credit among prospective borrowers, is an eventuality against which the strongest public safeguards should be erected. Dual banking has served as such a safeguard but, in the process, it has not enabled the nation's commercial banks to escape regulations designed to promote the safety of the banking system.

Much has changed, of course, since dual banking was thrust onto the scene by the National Banking Act of 1863. Prior to the creation of the Federal Deposit Insurance Corporation, state and Federal governments were on roughly equal footing in regulating the entry of new banks into the commercial banking system.

Either could prevent unduly conservative control over entry by the other from stifling banking expansion in a given area. Neither could counter excessively liberal chartering policies pursued by the other, however, since neither could exercise a veto over the other's decisions on new charter applications.

With the subsequent development of deposit insurance as a virtual necessity for new banks, the FDIC has acquired what is, in effect, a potential veto over entry into banking by new state-chartered institutions not members of the Federal Reserve. And the Federal Reserve can veto deposit insurance for banks which seek it through the Federal Reserve membership route. Does this mean that dual banking no longer exists, as some observers claim?

Duality in Supervision

Both logic and experience suggest that the reduced authority of states over new entry of banks has not, in fact, rendered dual banking an outmoded concept without current applicability. Had the introduction of Federal deposit insurance preceded the development of strong and viable state banking systems, this development might well have spelled the end of dual banking in the United States. The sequence of events was otherwise, however, and the *de facto* intrusion of a Federal agency into state decisions regarding new entry came too late in the development of this nation's banking structure to exercise a decisive influence on the proportion of existing banks operating under state charters. For the 9,000 banks now operating under state charters, the significance of dual banking lies in the ability to obtain a national charter in the event that state supervision and regulation should become unduly oppressive, arbitrary, or discriminatory. And for the 5,000 banks now operating under national charters, dual banking offers the same safeguard against the emergence of oppressive, arbitrary, or discriminatory regulation at the Federal level.

The fact that banks switching from a national to a state charter

would nevertheless remain subject to some degree of Federal regulation (that is, by the FDIC and possibly by the Federal Reserve) does not alter this judgement. The regulatory and supervisory authority exercised by the FDIC is, in fact, considerably different from that exercised by the Office of the Comptroller of the Currency over national banks. Thus, under present arrangements, the conversion from a national charter to a state charter remains a meaningful option for existing national banks so long as the conversion does not jeopardize the bank's insured status.

It is worth noting that the Federal Deposit Insurance Corporation follows no practices calculated to make it difficult for national banks to switch to state charters while retaining their insurance. And, as long as the deposits of state-chartered banks are insured by a Federal agency completely separate from the authority which formulates chartering and regulatory policies for national banks, it does not appear likely that conversion from a national charter to a state charter would be considered grounds for revoking a bank's insured status.

Just as national banks presently could escape the regulatory and supervisory limitations made by the Office of the Comptroller of the Currency that they considered excessive to the point of becoming a major problem, it also is clear that there exist no serious barriers to the conversion of state-chartered institutions into national banks. Thus, under present institutional arrangements, effective choices can be made by existing banks as to the source of the charter and supervision under which they will continue to operate.

It may be argued that safeguards against arbitrary treatment are as adequate now as they were before the introduction of deposit insurance and the Federal Reserve System. Banks currently may escape from the Comptroller of the Currency's regulation and supervision by switching to a state charter, they may escape active FDIC regulation and supervision by becoming a member of the Federal Reserve System, and they may escape the latter's

supervisory and regulatory jurisdiction by becoming a nonmember bank. All escape routes could be closed to commercial banks, of course, if regulation and supervision were uniformly applied by all three Federal agencies, or if all policy making was concentrated in one agency. In either case, dual banking would cease to exist.

Under normal circumstances, the first possibility appears distinctly remote because of the differing attitudes, interests, and objectives of the three agencies. And although the protection afforded the dual banking system by the three-way division in Federal supervisory and regulatory authority undoubtedly could not survive a frontal assault against duality by a Federal Government dedicated to its elimination, the situation is little different now than it was before the introduction of deposit insurance. The ultimate safeguard of dual banking is no stronger than the will of the Congress to preserve it.

Duality in Chartering and Regulation of Entry

Previous sections of this study have emphasized the erosion of state authority regarding entry into banking which resulted from the introduction of deposit insurance. Participation by a Federal agency in decisions with respect to virtually all new charter applications—whether they be for state or national charters—does not mean, however, that dual entry routes no longer exist. Such would be the case if the agency which rejects an applicant for a national charter also could act on the application of a state-chartered bank for deposit insurance—and further provided that the requirements for a national charter were the same as the requirements for granting insurance to a new state bank applicant.

In fact, the Federal agency which approves or rejects applications for national bank charters is not the agency which approves or rejects the application of new state banks for deposit insurance. And, although the factors each agency must consider in reaching its decisions are precisely the same, the fact that the criteria

permit subjective evaluations means that the decision reached in one agency may differ from the conclusion reached in the other. Thus, alternative entry routes into the banking system continue to exist, and the relative ease or difficulty of obtaining a charter for a state bank is not necessarily identical with the ease or difficulty of obtaining a national charter.

In a sense, the regulation of entry into commercial banking is now characterized by "duality" at the Federal level. This is not the type of duality traditionally associated with the United States banking system between 1863 and 1934, but neither does it render obsolete the traditional arguments in favor of dual chartering authority of the state-versus-national variety. Duality served a number of important objectives other than that of permitting states to exercise a decisive influence over entry standards for state banks. One of these objectives was to assure nondiscriminatory handling of new charter applications submitted by qualified applicants, and the preservation of dual chartering arrangements continues to serve this function today.

Thus, as a means of safeguarding against the discriminatory or arbitrary processing of charter applications, current institutional arrangements offer as much protection as has ever been provided. (This assumes, once again, that Federal supervisory authorities will not be united in following arbitrary and selective policies concerning state bank chartering.)

Still another historical aspect of dual chartering which exists unchanged from earlier days is its significance in allowing new bank organizers to choose the regulatory framework under which their banks operate as going concerns. Subject only to Federal influence on standards, qualified applicants for a bank charter continue to have virtually complete freedom in choosing whether they will operate under the regulatory and supervisory framework established for national banks or the regulatory and supervisory framework established for state banks. This choice is as viable today as it was 50 years ago.

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The conclusion which must be reached concerning dual chartering is that although the introduction of Federal deposit insurance deprived dual chartering of one of its objectives—that of allowing states effectively to set entry standards for state banks—it did not alter the significance of dual chartering as a means of assuring nondiscriminatory processing of charter applications, nor did it destroy the significance of dual chartering as a means of allowing bank organizers an effective choice as to the regulatory and supervisory framework under which they wished to operate.

Duality and State Control of Banking Structure

The ability of states to decide on the type of banking structure which is best suited to their needs has always been a prime characteristic of dual banking, and it remains so to this day. As was noted earlier, states continue to exercise autonomous authority in deciding the extent to which branching will be permitted within their borders, although the particular pattern of branching which emerges within a permissible area depends in part upon actions taken at the Federal level. Moreover, the power of states ultimately to achieve specific structural objectives may be curbed by antitrust activities on the part of the Federal Government or by Federal statutes pertaining to bank holding companies.

These modifications of the earlier concept of dual banking are not without significance, but the effectiveness of dual banking in continuing to allow states wide latitude to determine for themselves the structural arrangements which are best suited to their needs cannot be denied.

Summary of Conclusions

On the basis of the foregoing analysis, the following conclusions appear in order.

1. One of the historic objectives of dual banking has been to provide alternative supervisory frameworks under which commercial banks may choose to operate, thereby safeguarding

against the extension of harsh, oppressive, and discriminatory supervision to institutions without recourse to alternative arrangements. In practice, meaningful choices now can be made as to the supervisory authority under which a bank functions, and the essence of duality in supervision is as meaningful today as it ever was.

2. Traditional aspects of alternative chartering have included: (a) the right of states to regulate entry by state-chartered banks, (b) the assurance of nondiscriminatory treatment of new applicants for bank charters, and (c) the option allowed new bank organizers to choose the regulatory framework under which they will operate their new institutions. The introduction of Federal deposit insurance has largely removed state control over new *entry standards* (at least in the sense of establishing a limit on liberal entry), but it has not reduced the importance of dual chartering *rights* as a means of assuring nondiscriminatory processing of charter applications or as an avenue for charter applicants to choose the supervisory framework under which their new banks will operate.

3. The existence of three banking regulatory authorities at the Federal level having combined powers which could be used in unison to impose harsh Federal regulatory and supervisory practices on all banks has fostered the impression in some circles that meaningful dual banking hangs in the balance or already has been destroyed. This conclusion would be erroneous. It is true that dual banking could not survive a dedicated onslaught by these agencies acting in unison, but the prospects that such unison could be achieved in the pursuit of oppressive regulation are remote. Moreover, even granting the theoretical possibility of such a development, this does not mean that dual banking stands in greater jeopardy today than at earlier times in our history. For, in the final analysis, the ultimate protection against unreasonable assault by Federal regulatory agencies lies in the Congress. Even before the proliferation of Federal banking agencies, the dual

banking system was never stronger than the desire of Congress to sustain it.

4. Although subject to some erosion as a result of Federal anti-trust activities and Federal regulation of holding companies, the objective which dual banking traditionally has served of enabling each state to determine the structural characteristics of banking within its borders remains a vital and continuing attribute of duality.

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Explanatory Note

The following paper is a summary of an original research project undertaken by the staff of the Federal Home Loan Bank Board addressing all seven titles of the "Outline for Study" in the context of multi-office expansion within the savings and loan industry.

BRANCHING IN THE SAVINGS AND LOAN INDUSTRY:

Economic Analysis and Federal Policy Review

EXTENDED SUMMARY, EXCERPTS AND CONCLUSIONS
FROM THE FULL STUDY

A Staff Study
Federal Home Loan Bank Board
Washington, D.C.

October 15, 1976

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Preface

This study of branching in the savings and loan industry was undertaken in response to a request to Acting Chairman Garth Marston from Senator Thomas J. McIntyre, Chairman of the Financial Institutions Subcommittee of the Senate Banking Committee. The complete study is available in monograph form from the Federal Home Loan Bank Board. Presented here is an abridged version including an extended summary, excerpts and conclusions from the full study.

The study was developed as a coordinated effort of the Bank Board's Office of Economic Research and the Office of General Counsel. Individuals within other offices at the Bank Board were instrumental in providing data and review of written material, most notably the Office of Industry Development, several of the regional Federal Home Loan Banks, and the Federal Savings and Loan Insurance Corporation.

William Weber, Counsel for the Financial Institutions Subcommittee of the Senate Banking Committee, clarified the study topics that the Subcommittee wanted to have covered. In addition, many people reviewed various sections of the study and are to be thanked for their time and effort. Particularly helpful were Robert Eisenbeis, Assistant to the Director, Division of Research and Statistics, Federal Reserve Board; Dr. Alan McCall, Financial Economist, and Gary Gilbert, Chief, Economic Analysis Section, Division of Management Systems and Economic Analysis, FDIC; and Bill Longbrake, Associate Director of Banking Research, Comptroller of the Currency. Of course, all findings and conclusions are those of the study team and do not necessarily reflect the views of either the Bank Board or the Study reviewers.

Finally, very substantial thanks go to a number of people who contributed their efforts in the data collection or in providing some of the ideas developed in the full study. These individuals are too numerous to name them all, but aside from those cited on the cover, special thanks go to Donald G. Edwards for his painstaking efforts in compiling the majority of the data and tables, and to Leo Scherschel for supplying similar assistance. Others who are to be especially thanked are Dona Burney, Betty Miller, Jack Brodsky, Dave Schulze, John Ghizzoni, Bob Thompson, William B. Selby, Cherida Smith, K. Diane Boyle, Larry Cox, Jr., David Whitmire, and Bill Carey. The ardous typing of many drafts was done by Bonnie Bryant, Denise Mitchell, Joy Burr, Leanne Patton, Andrea Johnson, Connie Washington, Paula Anderson, and Crystal Purnell.

Abstract of Study

BRANCHING IN THE SAVINGS AND LOAN INDUSTRY: Economic Analysis And Federal Policy Review

A Staff Study
Federal Home Loan Bank Board
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The purpose of this study of economic and policy aspects of branching in the savings and loan industry is to (1) review the existing scholarly studies on the subject, (2) develop some new economic analyses, and (3) provide an objective and factual basis for subsequent policy discussions. The study itself is not an advocacy or Federal Home Loan Bank Board policy position. The major part of the study consists of bringing together data and developing analyses of the economic effects of branching. The remainder of the study presents the salient legal and historical background on S&L branching.

A major theme of this study is that S&Ls compete in the savings account and mortgage loan markets with many other types of financial institutions. Thus, the economic effects of S&L branching must be viewed, to the extent feasible, within these

product markets rather than with respect to S&Ls alone.

Economic research on the effects of S&L branching was conducted or reviewed in four major areas. First, with respect to the availability of financial services, it was found that there is a strong statistical relationship between the degree of S&L branching and either S&L or thrift institution offices per capita. Increased branching also permits S&Ls to operate with lower liquidity ratios and to hold a larger percentage of mortgage loans in relationship to savings accounts. This is related to a greater use of FHLB advances and borrowed money by multi-branch associations. No evidence was found to indicate that branching, per se, has any significant impact on the allocation of funds between metropolitan and rural areas, although the lack of appropriate data made it difficult to arrive at a definitive conclusion.

Second, it was concluded that there is no theoretical reason for branching to have necessarily either a pro or anti-competitive impact. Statistical evidence on market concentration, used as a proxy for the degree of competition, was difficult to interpret because of the fact that concentration ratios had to be computed for uniform types of geographic market areas, specifically, States and standard metropolitan statistical areas. Yet the boundaries of savings markets do not necessarily coincide with these geographic entities. In fact such markets are likely to be larger with an increased degree of branching. From an analysis of the data, it was concluded that branching does not have an anti-competitive impact and, if

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corrections are made for the bias introduced by the use of uniform geographic markets, regardless of the degree of branching, it appears that branching might well have a pro-competitive impact.

Third, the Study reviewed the impact of S&L branching on operating costs of S&Ls. Three existing studies were examined in this regard. Although each of these studies differ in their methodology and data, they indicate that there are economies of scale as an S&L grows, holding the number of offices constant. However, these studies also indicate that branching increases the average operating cost of an association, holding the size constant. In practice, branching and size are correlated. Thus, we would like to know if the economies of increased size outweigh the diseconomies of branch operation. Unfortunately, the three studies examined give conflicting results with respect to this issue.

Fourth, this Study examined evidence on the relationship of S&L branching to the safety and soundness of S&Ls. It appears from the data that the existence of branches and the ability to branch may have a positive effect on safety and soundness of S&Ls and may lead to less drain on the reserves of the Federal Savings and Loan Insurance Corporation.

This Study also reviewed the meager evidence and knowledge available on the use of electronic funds transfer systems within the S&L industry. The important phenomenon of sharing of remote service units by different types of financial institutions was

pointed out. So far, it is by no means clear that larger S&Ls have any particular advantage over smaller S&Ls in the use of remote service units, although relevant cost data to conduct a careful analysis of this issue are not available.

Finally, an attempt was made to evaluate the role of Federal S&L branching policy within a dual system of Federal-state regulation of S&Ls. This issue was found not susceptible to quantitative analysis because of differences of opinion on the criteria necessary for a genuine dual system and because of the highly emotional aspects of the issue.

The research conducted for this study should be regarded only as a first step. In the process of evaluating the economic impact of S&L branching, many economic issues were not covered and many unresolved questions remain for future analysis.

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INTRODUCTION

The purpose of this study of economic and policy aspects of branching in the savings and loan industry is to (1) review the existing scholarly studies on the subject, (2) develop some new economic analyses, and (3) provide an objective and factual basis for subsequent policy discussions. The study itself is not an advocacy or Federal Home Loan Bank Board policy position. The major part of the study consists of bringing together data and developing analyses of the economic effects of branching. The remainder of the study presents salient legal and historical background on S&L branching.

HISTORICAL EVOLUTION OF BRANCHING

Early savings and loan associations were of a self-help character in which depositors themselves played an active role in managing their organization. This mode of operation is more akin to that of credit unions in recent times. As a result of this orientation, branching was not a common business practice for S&Ls for a long time, and the savings and loan industry remained highly fragmented. Thus, there were 12,666 associations in 1928, with the average S&L having less than $700,000 in assets at that time.

It is against this background that branching in the S&L industry needs to be discussed. It was not until well

after World War II that branching became a significant means of expansion for S&Ls. Even as recently as 1955, only 379 out of 6,071 operating S&Ls had branches (table 1). Such branches aggregated only 601 in number. By March 1976, however, 2,415 out of 4,052 FSLIC-insured S&Ls had branches aggregating 10,435 in number. The trend toward branching has accelerated in recent years, with the number of branches more than doubling since 1971.

The increase in branching is illustrated more dramatically by the rise in the number of large multi-branch S&Ls as indicated in table 2. The number of S&Ls with 10 or more branches increased to 226 by March 1976 from 26 in September 1967 (the first year for which such data was collected). The number of large multi-branch S&Ls, however, still is limited and is concentrated in certain geographic regions. Five States account for more than half of the S&Ls with 10 or more branches. These are California, Florida, Ohio, Texas, and Michigan.

The extent of branching varies considerably from State to State. This is brought out in table 3.

Reasons for S&L Branching

There are good reasons for the explosive growth in branching within the last 20 years or so. First is the extremely large internal growth of deposits by S&Ls after World War II, aided by the enormous demand for housing credit and the ability and willingness of S&Ls to offer a much higher interest rate

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Table 1. Savings and Loan Association Branch Offices

December, Unless Noted	FHLB Member Associations[1/] Assns with Branches	% of Assns	Number of Branches	All Operating Associations[2/] Assns with Branches	% of all Assns	Number of Branches
1955	NA	NA	NA	379	6.2%	601
1956	NA	NA	NA	434	7.1	754
1957	520	11.6%	915	534	8.7	946
1958	587	12.9	1074	608	9.8	1120
1959	680	14.8	1290	713	11.5	1341
1960	791	16.9	1536	826	13.1	1611
1961	910	19.0	1820	928	14.9	1851
1962	1007	20.6	2101	1027	16.3	2179
1963	1069	21.6	2316	1142	18.3	2469
1964	1198	24.0	2642	1240	19.9	2769
1965	1278	25.5	2884	1321	21.4	2994
1966	1328	26.7	3086	1367	22.4	3206
1967(Sept)	1351	27.5	3182	1395	23.1	3357
1968(Sept)	1397	28.8	3363	1500	25.2	3667
1969(Nov.)	1466	31.0	3667	1579	26.8	3938
1970(Nov.)	1542	33.6	4056	NA	NA	4318
1971(Nov.)	1631	36.6	4631	NA	NA	4961
1972(Nov.)	1760	40.4	5420	NA	NA	5851
1973(Sept)	1921	46.2	6389	NA	NA	7036
1974(Sept)	2176	52.8	8005	NA	NA	8775
1975(Sept)	2362	58.0	9764	NA	NA	10441
1976 (March)	2415	59.7	10435	NA	NA	NA

1/ Data for 1973 to present is for FSLIC-insured savings and loan associations only.

2/ League of Savings Associations' Savings and Loan Fact Book.

NA Not available.

Table 2. Number of Savings and Loan Associations Classified by Number of Branches 1/

Number of associations with branches totaling	0	1	2	3-5	6-9	10 or more
Sept. 1967	3,558	674	305	268	78	26
Sept. 1968	3,454	696	297	291	88	25
Nov. 1969	3,262	698	317	328	92	31
Aug. 1970	3,087	716	333	340	105	36
Aug. 1971	2,892	694	364	370	115	57
Aug. 1972	2,648	722	393	403	138	76
Sept. 1973	2,237	732	438	472	174	105
Sept. 1974	1,942	784	452	562	224	154
Sept. 1975	1,713	756	476	661	266	203
March 1976	1,629	724	489	696	280	226

1/ Data prior to 1973 includes all FHLB member S&Ls; 1973 to present are based on FSLIC-insured savings and loan associations. This affects primarily data on number of S&Ls with 0 branches since FHLB member S&Ls that do not have FSLIC insurance are generally small S&Ls that operate a limited number of hours per week.

Table 3. Branches and the Average Number of Branches of S&Ls by State, by FSLIC-Insurance Status, and by Federal and State Charter, 1975

State	Number of Branches: FSLIC Insured Federal	FSLIC Insured State	Non-FSLIC S&Ls (Insured and Uninsured)	Total	FSLIC Insured as a percent of the Total	State	Average Number of Branches per Association Represented in the State: FSLIC Insured Federal	FSLIC Insured State	Non-FSLIC S&Ls (Insured and Uninsured)	State
1. Alabama	107	24	0	131	100%	1	1.9	4.0	0.0	1
2. Alaska	11	0	0	11	100	2	2.8	0.0	0.0	2
3. Arizona	59	111	0	170	100	3	14.8	9.3	0.0	3
4. Arkansas	54	22	0	76	100	4	1.3	0.9	0.0	4
5. California	614	1075	0	1689	100	5	7.8	11.6	0.0	5
6. Colorado	68	123	0	191	100	6	3.6	4.4	0.0	6
7. Connecticut	74	24	0	98	100	7	3.9	1.4	0.0	7
8. Delaware	7	2	0	9	100	8	3.5	1.0	0.0	8
9. District of Columbia	64	2	0	66	100	9	3.6	2.0	0.0	9
10. Florida	627	12	*	639	100	10	5.3	2.4	*	10
11. Georgia	240	0	0	240	100	11	2.5	0.0	0.0	11
12. Hawaii	41	51	0	92	100	12	8.2	8.5	0.0	12
13. Idaho	18	10	0	28	100	13	2.3	2.5	0.0	13
14. Illinois	132	108	*	240	100	14	0.9	0.4	*	14
15. Indiana	126	26	*	152	100	15	1.3	0.5	*	15
16. Iowa	73	44	*	117	100	16	1.7	1.4	*	16
17. Kansas	42	79	0	121	100	17	1.4	1.5	0.0	17
18. Kentucky	83	4	0	87	100	18	0.9	0.3	0.0	18
19. Louisana	30	92	*	122	100	19	0.8	1.3	*	19
20. Maine	10	7	0	17	100	20	1.1	0.6	*	20
21. Maryland	141	40	36	217	83	21	2.3	2.4	0.3	21
22. Massachusetts	86	0	80	166	52	22	2.8	0.0	0.6	22
23. Michigan	206	130	*	336	100	23	6.1	4.3	*	23
24. Minnesota	152	9	*	161	100	24	3.2	0.9	*	24
25. Mississippi	44	7	88	139	37	25	1.3	1.4	2.1	25
26. Missouri	116	170	*	286	100	26	2.8	2.4	*	26
27. Montana	16	0	*	16	100	27	1.2	0.0	*	27
28. Nebraska	60	21	0	81	100	28	2.4	1.5	0.0	28
29. Nevada	9	30	0	39	100	29	9.0	5.0	0.0	29
30. New Hampshire	2	1	0	3	100	30	0.3	0.1	0.0	30
31. New Jersey	113	336	*	449	100	31	4.9	2.1		31
32. New Mexico	12	28	1	41	98	32	1.3	1.2	0.3	32
33. New York	322	129	5	456	99	33	4.1	2.1	0.8	33
34. North Carolina	87	118	8	213	96	34	2.1	1.0	0.4	34
35. North Dakota	37	12	*	49	100	35	3.7	12.0	*	35
36. Ohio	294	375	32	701	95	36	2.2	2.1	0.3	36
37. Oklahoma	66	11	*	77	100	37	2.1	0.6	*	37
38. Oregon	104	86	0	190	100	38	6.1	7.8	0.0	38
39. Pennsylvania	252	230	0	482	100	39	2.3	1.5	0.0	39
40. Rhode Island	3	21	0	24	100	40	1.5	5.3	0.0	40
41. South Carolina	82	39	*	121	100	41	1.7	1.7	*	41
42. South Dakota	5	1	*	6	100	42	0.6	0.1	*	42
43. Tennessee	96	0	2	96	100	43	1.3	0.0	0.1	43
44. Texas	103	544	*	647	100	44	1.4	2.4	*	44
45. Utah	23	20	0	43	100	45	4.6	2.5	0	45
46. Vermont	2	0	0	2	100	46	1.0	0.0	0.0	46
47. Virginia	112	140	*	252	100	47	3.6	3.1	*	47
48. Washington	149	73	0	222	100	48	5.0	3.2	0.0	48
49. West Virginia	20	0	*	20	100	49	0.7	0.0	*	49
50. Wisconsin	58	157	*	215	100	50	1.7	1.9	*	50
51. Wyoming	8	3	0	11	100	51	0.9	0.6	0.0	51
Aggregate	5260	4547	252	10059	98%		2.6	2.2	.4	

* Data not obtained for this study; non-FSLIC S&Ls in these states held less than one percent of S&L deposits. Branches for non-FSLIC S&Ls were not recorded for states with less than one percent of S&L deposits in non-FSLIC S&Ls. The number, location, and approximate deposit size of the branches in the states having one percent or more of the S&Ls were obtained from the state supervisory agencies in a special survey for this study.

on savings accounts than commercial banks. The percentage growth in S&L deposits exceeded that of all other depository institutions except credit unions. This catapulted S&Ls into the largest type of financial intermediary after commercial banks. The high rate of internal growth of the S&L industry converted what had previously been small firms into large operations that required much more professional business management. As S&L management took on a more professional character, S&Ls were better able to assume the responsibilities incident to branching.

Second, much of the motivation for branching was incident to the rapid geographic expansion of urban areas after World War II. This meant that existing S&Ls were increasingly located at a long distance from newer residential neighborhoods and shopping areas.

Third, a major factor behind the growth in branches by S&Ls was the competition afforded by offices of other depository institutions, especially commercial banks. During the years when most commercial banks did not compete aggressively for savings accounts, S&Ls did not have to concern themselves to any significant extent with the competitive advantage accruing to commerical banks from their large number of branches in many States.

Once savings competition from commercial banks became intense, dating approximately from the early 1960's, S&Ls found it urgent to compete with them in terms of convenience of location. Today they are still in the process of adjusting their branching policies to

meet this competition. Also, to the extent that, since 1966, deposit rate control held rates below what they would have been in a free market and limited rate competition between S&Ls and commercial banks, it added to the incentive for non-rate competition, which includes branch offices providing convenience of location.

Still, as of 1975 commercial banks continued to have far more branches and total offices (including both home offices and branches) than did associations. Commercial bank offices totalled 43,714, about three times as many as S&L offices, which totalled 14,959 (table 4). This ratio was not much different from that of 1955. At the same time there were 2,263 offices of mutual savings banks. In contrast to S&Ls, mutual savings banks are a regional phenomenon, located mostly in the Northeast. Yet in many States where they operate, they have far more savings deposits than do S&Ls.

Fourth, branching has been aided by statutory and regulatory increases in the mortgage lending territory of S&Ls and the correspondingly greater willingness of S&Ls to lend over a broader geographic area. While in theory an S&L might establish an office in an area where it could not lend, the purpose being merely to obtain deposits, this is not likely to occur.

Fifth, there has been increasing liberalization in the degree to which State and Federally chartered S&Ls are permitted to branch. Such liberalization has probably reflected, in large part, the changing nature of the savings and loan industry and the external environment in which it operates.

Table 4. Number, Deposits, and Branches of U.S. Commercial Banks, Mutual Savings Banks, and Savings and Loan Associations, by State, 1975

State	Number of Institutions Represented: Commercial Banks[a]	Mutual Savings Banks[a]	S&Ls[b]	S&Ls as a percent of the Total	State	Savings Deposits ($ Billions): Commercial Banks[a]	Mutual Savings Banks[a]	S&Ls[b]	S&Ls as a percent of the Total	State	Number of Branches: Commercial Banks[a]	Mutual Savings Banks[a]	S&Ls[c]	S&Ls as a percent of the Total	State
Alabama	294	0	62	17%	1	$5.11	$0.00	$2.33	31%	1	436	0	131	23%	1
Alaska	9	2	4	27	2	0.57	0.11	0.15	18	2	83	1	11	12	2
Arizona	16	0	16	50	3	3.78	0.00	2.76	42	3	433	0	170	28	3
Arkansas	260	0	68	21	4	3.22	0.00	1.96	38	4	297	0	76	20	4
California	195	0	172	47	5	48.03	0.00	45.77	49	5	3531	0	1689	32	5
Colorado	338	0	47	12	6	4.01	0.00	3.76	48	6	52	0	191	79	6
Connecticut	72	68	36	20	7	3.47	8.51	2.36	16	7	556	239	98	11	7
Delaware	17	2	21	53	8	1.08	0.61	0.17	9	8	133	22	9	5	8
District of Columbia	16	0	19	54	9	1.47	0.00	2.50	63	9	127	0	66	34	9
Florida	739	0	124	14	10	13.84	0.00	20.75	60	10	169	0	639	79	10
Georgia	446	0	100	18	11	6.07	0.00	5.30	47	11	670	0	240	26	11
Hawaii	8	0	11	58	12	1.57	0.00	1.38	47	12	150	0	92	38	12
Idaho	24	0	12	33	13	1.55	0.00	0.55	26	13	196	0	28	13	13
Illinois	1216	0	426	26	14	36.04	0.00	20.65	36	14	203	0	240	54	14
Indiana	406	4	172	30	15	10.95	0.17	5.41	33	15	877	2	152	15	15
Iowa	662	0	84	11	16	7.10	0.00	3.43	33	16	394	0	117	23	16
Kansas	614	0	87	12	17	4.84	0.00	3.44	42	17	142	0	121	46	17
Kentucky	342	0	110	24	18	5.01	0.00	3.01	38	18	485	0	87	15	18
Louisiana	253	0	108	30	19	6.38	0.00	3.74	37	19	561	0	122	18	19
Maine	48	32	24	23	20	1.20	1.51	0.35	11	20	281	32	17	5	20
Maryland	114	3	215	65	21	4.78	1.06	5.73	50	21	728	43	217	22	21
Massachusetts	151	168	168	34	22	6.56	15.96	5.37	19	22	897	351	166	12	22
Michigan	346	0	66	16	23	19.85	0.00	8.37	30	23	1515	0	336	18	23
Minnesota	745	1	68	8	24	8.86	0.87	5.20	35	24	39	1	161	80	24
Mississippi	184	0	80	30	25	2.93	0.00	1.58	35	25	524	0	139	21	25
Missouri	701	0	120	15	26	8.92	0.00	7.33	45	26	293	0	286	49	26
Montana	154	0	17	10	27	1.77	0.00	0.62	26	27	15	0	16	52	27
Nebraska	448	0	43	9	28	3.27	0.00	2.31	41	28	93	0	81	47	28
Nevada	8	0	7	47	29	1.09	0.00	0.78	42	29	109	0	39	26	29
New Hampshire	80	28	18	14	30	1.04	1.60	0.56	18	30	105	26	3	2	30
New Jersey	216	20	245	51	31	13.02	5.11	11.30	38	31	1379	96	449	23	31
New Mexico	78	0	35	31	32	1.59	0.00	0.98	38	32	198	0	41	17	32
New York	302	118	145	26	33	51.63	58.63	15.85	13	33	3156	611	436	11	33
North Carolina	94	0	180	66	34	6.69	0.00	5.72	46	34	1565	0	213	12	34
North Dakota	172	0	13	7	35	1.80	0.00	1.01	36	35	81	0	49	38	35
Ohio	497	0	423	46	36	18.91	0.00	19.39	51	36	1644	0	701	30	36
Oklahoma	459	0	57	11	37	5.45	0.00	2.52	32	37	98	0	77	44	37
Oregon	50	1	28	35	38	3.47	0.19	3.24	47	38	428	5	190	30	38
Pennsylvania	402	8	444	52	39	27.16	7.29	11.99	26	39	2240	157	482	17	39
Rhode Island	16	6	6	21	40	2.28	1.13	0.48	12	40	217	64	24	8	40
South Carolina	91	0	74	45	41	1.74	0.00	2.99	63	41	594	0	121	17	41
South Dakota	159	0	19	11	42	1.86	0.00	0.48	20	42	119	0	6	5	42
Tennessee	342	0	92	21	43	7.71	0.00	3.38	30	43	749	0	98	11	43
Texas	1328	0	305	19	44	22.52	0.00	13.72	38	44	131	0	647	83	44
Utah	57	0	16	22	45	1.75	0.00	0.82	32	45	192	0	43	18	45
Vermont	33	6	7	15	46	0.92	0.48	0.41	9	46	134	7	2	1	46
Virginia	291	0	81	22	47	8.39	0.00	3.88	32	47	1159	0	252	18	47
Washington	97	8	53	34	48	5.62	2.39	3.99	33	48	671	88	222	23	48
West Virginia	217	0	37	15	49	3.39	0.00	0.70	17	49	29	0	20	41	49
Wisconsin	621	3	122	16	50	9.80	0.05	5.94	38	50	329	0	215	40	50
Wyoming	77	0	14	15	51	0.92	0.00	0.36	28	51	2	0	11	85	51
Aggregate	14505	478	4900	25%		$420.96	$105.69	$276.46	34%		29209	1765	10059	25%	

Sources: [a]FDIC Summary of Accounts and Deposits, June 30, 1975. The savings deposits of commercial banks were "individual, partnership, and corporation" savings and time deposits, plus public time and savings deposits.

[b]FHLBB Branch Office Survey, September, 1975, for FSLIC-insured associations. State supervisory authorities, end of 1975, for non-FSLIC associations.

[c]Same sources as for b, but see notes to table 3.

BRANCHING AUTHORITY

Branching of State-chartered S&Ls is solely under the jurisdiction of the States regardless of the Federal deposit insurance or Bank System status of these S&Ls. On the other hand, branching of Federal S&Ls is subject to the exclusive jurisdiction of the Bank Board which, under the Homeowners' Loan Act of 1933 and the uniform and consistent decisions of numerous courts, has full authority to prescribe branching regulations and practices for Federal S&Ls.

The Board's policy is, and has been for almost 30 years, to authorize branches for Federal associations except where the State has clearly indicated and established a flat prohibition against branches for all major competing depository institutions, not merely State-chartered S&Ls. Further, branching by these institutions is used in the broad sense of the term to include chain, group, or affiliate operations. This policy is consistent with the economic point of view, expressed below, that S&Ls compete not only with other S&Ls but with all depository institutions for savings and time account business.

The nature of branching restrictions at both the Federal and State levels has many complicated dimensions that are difficult to summarize. These involve different geographic limits within which State vs. Federal S&Ls may branch and the degree of liberality or restrictiveness with which State vs. Federal regulatory authorities pass on branching applications of S&Ls under their jurisdictions. Also, there has been a considerable

change in the nature of branching restrictions in recent years for both State-chartered and Federally-chartered S&Ls.

Any discussion of branching restrictions must recognize that the term "branch" has a specific legal meaning and that both the Federal Government and States provide for a variety of types of offices, each of which may be treated differently for regulatory purposes. Thus, there are limited facility offices, mobile facilities, satellites, and agency offices, all of which differ in varying degrees from "full service" branch offices. State statutes and regulations often define such offices in different ways. Each type of office is treated differently in terms of criteria required for approval.

In the early phase of this study it was hoped that a table on State-by-State branching restrictions could be put together according to whether or not S&Ls were not permitted to branch, had limited branching, or had State-wide branching. Since this has been done in prior studies on commercial banks, it was expected that a study of the economic effects of branching could be carried out, based on the same type of classification scheme.

However, it soon became apparent that any statistical results based on such a classification for S&Ls would be meaningless. First, there are currently only two States in which State S&Ls cannot branch and no States in which Federal S&Ls cannot branch. Second, branching restrictions have changed rapidly in recent years in many States so that there has not been enough

time for current branching practices to be reflected in the actual S&L branching structure in these States.

Third, since there are differences in branching restrictions as between Federal and State-chartered S&Ls in some States, it would have been impossible to classify many States in a given branching category for S&Ls generally. Fourth, States differ considerably as to the number of Federal versus State-chartered S&Ls. Where Federal S&Ls are predominant in a State, the Board's regulations on branching are more controlling with respect to S&L branching than is the State practice. In the opposite case, where State-chartered S&Ls are more predominant, it is State policy that is more controlling than Bank Board policy.

Fifth, within each of the classifications "limited" and "State-wide" branching, there is a wide variety of different types of practices. Thus, the ease of branching varies considerably among States that might be classified as "limited" branching and similarly with respect to those that might be classified as "State-wide" branching. In some cases, branching is easier and more extensive in limited branching States than State-wide branching states.

Finally, as noted above, there are many qualitative differences in the way branch applications are treated both as among States and as between the States and the Board. There is no feasible way of taking account of these qualitative aspects in any general classification scheme. Yet these differences may be quite crucial in explaining variations in branching

structure and the economic impact of such structure.

Our decision that statistical results based on regulatory branching restrictions would not be feasible had a signficant bearing on many parts of our economic analysis. Thus, in lieu of an economic analysis of branching based on the nature of regulatory restrictions in each State, our analysis is based on the actual degree of branching in each state. The degree of branching for S&Ls is measured by the number of S&L offices per S&L in each State, with States grouped into three categories according to whether they have a high, medium, or low degree of branching. The degree of branching is computed separately for S&Ls, thrift institutions (S&Ls and mutual savings banks), and for all depository institutions (commercial banks and thrift institutions). The degree of branching for thrift institutions is measured by the average number of thrift institution offices per thrift institution represented in each State and for depository institutions by the average number of depository institution offices per depository institution represented in each State.

OVERVIEW OF THE THEORY OF BRANCHING

In turning to the study of the economic impact of S&L branching, we emphasize that we should not be primarily interested in the effect of branching on S&Ls alone. Rather, we should be interested in its impact on the product markets in which S&Ls compete. In these product markets -- primarily

savings accounts and mortgage lending -- there are many other active competitors.

Thus, S&Ls compete directly with commercial banks, mutual savings banks, and credit unions with respect to savings account business (and checking and NOW accounts in certain States). Also, there is weaker, but, nonetheless some, degree of competition with respect to savings media other than savings accounts. As regards mortgage lending, S&Ls compete not only with other depository institutions but also with a number of non-depository financial institutions that may be active at times in the mortgage market.

Given this competitive situation, it would be meaningless to regard the S&L industry as a line of commerce by itself and to assume that the impact of S&L branching can be analyzed merely through its effect on S&Ls alone. Thus, our statistical analyses are concerned as much as possible with the effect of branching on the overall savings and mortgage markets within which S&Ls are only one major type of competitor. Unfortunately, because of data availability problems, it has not been feasible to carry this approach out as fully as desired.

AVAILABILITY OF FINANCIAL SERVICES

Our first area of economic analysis is concerned with the impact of branching on the availability of financial services. Ideally, we would like to assess this impact in the most general sense of the term. However, this is not possible.

For example, savings accounts offered by S&Ls encompass passbook accounts and a wide variety of certificate accounts at different interest rates, maturities, minimum denominations, and other terms. Mortgage loans encompass such categories as home loans, apartment loans, conventional loans, Federally underwritten loans, permanent (long-term) loans, and interim construction loans. In addition, S&Ls may offer such housing-related credit as mobile home and property improvement loans. There is a wide range of terms--including interest rate, down payment, maturity, and maximum size--on which S&Ls make loans. It is simply not feasible to relate degree of branching to the availability of such a large heterogeneous group of services as the above. Nor is it always clear where the public benefit lies in the trade-off between various types of financial services and the terms on which these services are offered.

Therefore, we have directed much of our efforts toward the impact of branching on the convenience with which the customers of S&Ls can obtain financial services. This convenience is a function of the number and location of offices. This suggests that one useful proxy for the level of financial services is the number of offices in the relevant geographic markets. The number of offices should be related to a pertinent demographic or economic base, in particular, population. Thus, we have the basis for the major statistical analysis of this section, namely the relationship between the degree of branching as defined above and number of offices per capita (i.e. per 100,000 population).

Relationship Between Number of Offices and Degree of Branching

Our statistical results indicate that there is a strong positive relationship between the degree of branching in various States and both S&L and total thrift institution officer per capita. This relationship exists in both metropolitan and nonmetropolitan areas.

These results do not, however, carry over for total depository institutions (including commercial banks) per capita related to the degree of branching for all such institutions. This raises the question of why various previous studies carried out for commercial banks have shown a definite relationship between branching and the number of commercial bank offices. One possible answer is that these studies have been based on the classification of States not by the actual degree of branching, as in this study, but rather by the type of branching permitted by statutes or regulations. We have noted above the difficulties in this latter type of classification, a few of which also hold in studying commercial banks.

Impact of Branching on Liquidity and Lending

We can also take as a proxy for the availability of financial services the percentage of savings that S&Ls have in loans. Theory suggests that, with an increase in branches, an S&L should be able to place a higher percentage of its savings in loans

by holding a smaller percentage in short-term liquid assets. This assumption rests in part on the relationship between deposit variability and the geographic diversity resulting from S&L branching. With a geographically diversified and extensive branch network, an S&L should have a less volatile deposit flow.

Our statistical investigations into the impact of branching on liquidity ratios and loan-to-savings ratios led us to results that are consistent with this hypothesis. Thus, in 1975 the liquidity ratio was substantially higher for unit S&Ls (10.9 percent) than for the large multi-branch S&Ls (as low as 9.1 percent for S&Ls with 21 or more branches).

What does this decline in the liquidity ratio for all S&Ls as branching increases imply for lending? The ratio of mortgage loans to savings rises significantly with branching. The ratio of "other loans" to savings also increases. It turns out that these results are related to the fact that there is a much greater use of borrowed money--reflected in both Federal Home Loan Bank advances and other borrowings--as the degree of branching increases. In computing the various ratios above with assets rather than savings, we find that there is little variation in the ratio of mortgage loans or other loans to assets as branching increases. However, this hides the fact that there is an expansion in both mortgage loans and assets as a result of the greater willingness to use borrowings

as a supplement to savings. As a caveat, it should be pointed out that the greater use of borrowings also reflects a size effect and that the relative importance of size per se versus number of branches was not identified in this study.

Impact of Availability of Funds for Rural Areas

One of the economic issues raised by branching is its impact on rural areas. There are at least two aspects to this issue. The first is the distribution of funds between rural and metropolitan areas. A concern that has been voiced is that branches of metropolitan-based associations located in rural areas might "drain" away funds to metropolitan areas. Lack of data on flows of funds between offices of individual S&Ls precludes us from determining whether or not this concern is valid.

Instead, we have computed the net purchase of mortgages relative to total loanable funds in 1975 for three classes of S&Ls. The first of these classes comprises "metro" S&Ls, defined as those whose offices in SMSAs accounted for more than 80 percent of deposits of the S&Ls. In the second class are "nonmetro" S&Ls, defined as those whose offices in non-SMSAs accounted for more than 80 percent of deposits. The third class includes all other S&Ls.

The data indicate that nonmetro S&Ls purchase, on average, twice the volume of mortgage loans relative to loanable funds that metro S&Ls do. This indicates that S&Ls whose deposits

come primarily from nonmetro areas cannot, or do not, originate enough mortgage loans to absorb as much of their total loanable funds as metro S&Ls. Hence, they purchase a substantial volume of their mortgages from other areas. The question is whether geographic shifts of funds arising from such purchases of mortgages result in an "unwarranted" drain of funds from rural to metropolitan areas. To the extent that we can meaningfully interpret the available data, it is doubtful that this is the case.

The reason for this conclusion is that we define nonmetro S&Ls as those whose offices derive more than 80 percent of their deposits from offices located in non-SMSAs, which implies that these are basically rural in orientation. Many of them are, in fact, unit S&Ls that operate entirely in rural areas. Even those that are branching S&Ls have their offices and operations completely or almost completely in rural areas. These S&Ls would most certainly be expected to use as much of their funds as possible in originating mortgages locally, which means primarily rural areas. The fact that they purchase a significant amount of mortgages from others would imply a lack of alternative outlets for funds locally, not an "unwarranted" drain of funds to other areas. It should be emphasized that we do not know the geographic areas in which the mortgages being purchased are originated, so that it is not clear to what extent, if any, funds are shifted between rural and metropolitan areas.

The other aspect to the rural issue raised by branching concerns the impact that branching has on the number of S&L offices. Our data indicate that, in high branching States, low-population density rural counties have over twice the number of both S&Ls and S&L offices than is the case in low branching States. However, in per capita terms, the number of S&Ls and S&L offices is about the same regardless of population density.

BRANCHING AND COMPETITION

In this part of the study we examine the impact of branching on competition. We assume that S&Ls are similar to other types of firms in that they attempt to maximize their rate of return. If S&Ls operate in competitive markets, this means that S&Ls are under pressure to operate at maximum efficiency and pass on the benefits to consumers by paying as high a rate on savings and time accounts and charging as low a rate on mortgages as possible. This is the result of pressures from "competitors" in the relevant geographic savings and mortgage markets. These competitors include a wide range of financial institutions as well as S&Ls alone. Interest rates on savings accounts and mortgage loans under competition are such as to hold down profit rates of S&Ls and their competitors to a level just adequate--neither too high nor too low--to attract capital and entrepreneurial ability.

How Branching Can Promote Competition

First, we discuss the possible pro-competitive impacts of branching. Branching may promote competition since it is a means by which an established competitor in one market can enter a new local geographic market. In a mature industry, especially where there are obstacles to the establishment of new firms because of cost barriers or the difficulty of getting regulatory approval--a situation which characterizes the S&L industry--branching is an especially important means by which an additional competitor can enter a local geographic market. Where the market is small, a branch may be a lower cost, hence more feasible, means of entry into the market than the chartering of a new S&L. Also, the pro-competitive impact of branching does not require that the branching actually occur. Potential entry through the possibility of a branch coming into a market in the future may be adequate by itself to promote competition.

In examining the impact of branching on competition, one must define carefully the product and geographic markets in which competition is being affected by branching. As noted above, S&Ls participate significantly in two different product markets, each of which may have different geographic dimensions.

Office location is not as significant to an S&L in terms of ability to originate mortgage loans as it is in attracting savings and time accounts. There is considerable evidence that savers prefer the convenience of transacting their savings and time account business at an office close to their residence, work, or where they shop. Branching is an essential means of expanding

savings and time account business. Thus, it is when we consider the market for savings and time accounts that branching and its impact on competition assumes a potentially great importance.

Any pro-competitive effect of branching depends on whether it increases the number of S&Ls that actually or potentially compete directly, i.e. in locations close to each other, and hence of roughly equal convenience to customers. To the extent that branching institutions promote such direct competition more than unit S&Ls, the existence of such multi-branch S&Ls may well enhance competition. In fact, a smaller number of multi-branch S&Ls than unit S&Ls may provide the same degree of competition to the extent that multi-branch S&Ls promote more geographic overlap in savings competition.

The existence of multi-branch institutions that compete directly in many locations and that are perceived to be potential competitors in other locations may expand the size of the geographic market. Thus, a State with extensive branching may be characterized by larger geographic savings markets than a State with limited or no branching. In addition, to the extent that an S&L offers the same interest rate and other terms on savings accounts in all of its offices, which appears to be the general practice, a multi-branch S&L transmits competitive pressures from the more competitive geographic areas in which it operates to other savings markets as well.

Another way of phrasing the possible pro-competitive impact of branching is that it may increase and speed up the degree to

which rate changes by some S&Ls are transmitted to others in a broad geographic market. This would be expected where a large number of competing S&Ls have overlapping markets because of the proximity of their offices in many locations.

How Branching May Lessen Competition

We now turn to aspects of branching that may be anti-competitive. Even in the absence of restrictions on branching, there is a limit to the number of offices that can be opened by different institutions and operated profitably within a specific geographic area. This limit is much smaller in markets with a smaller population than in those with a large population. It is not clear whether an outside institution will necessarily take advantage of possible branch locations in a local market rather than the depository institutions located in that market already. If it is the latter, branching may increase the degree of concentration and market power.

The question arises more generally -- regardless of size of market -- as to who will open branch offices. Will a relatively small number of S&Ls and other depository institutions do the branching and "dominate" various savings markets? This may occur if there are continuous economies of scale derived by S&Ls from further growth, even taking into account the costs of branch operations. In this connection it must be noted that not all S&Ls have the financial resources and managerial aggressiveness to open many branch offices. It is an open question as to how many S&Ls meet this criterion.

Measuring the Degree of Competition

The above analysis indicates that branching may have both positive and negative effects on competition. Which effects predominate is an empirical question. In measuring the impact of branching on competition, we find, as in the case of commercial bank studies, that it is difficult or impossible to measure competition directly in the sense of whether the pricing of savings accounts and mortgage loans is competitive. This is because pricing and the resulting rate of return on net worth can be affected by many factors other than the degree of competition, particularly in the short-run. Rather, the approach taken by researchers generally and, for the most part in this study, is to measure competition indirectly through market structure characteristics. These include concentration ratios and the number of competitors in the relevant geographic markets.

There is the critical question of what is the size of the relevant geographic markets for both savings accounts and mortgage loans to use in examining concentration ratios and number of competitors. We noted above the possibility that, unlike unit S&Ls, multi-branch S&Ls may compete directly in many locations with each other or be perceived as potential competitors in such locations. This extensive overlap among offices of competing multi-branch S&Ls could well expand the size of the geographic savings market. Hence, there is nothing static about the size of a geographic market. This size is

itself a function of market structure, including the existence of branching. Thus, geographic areas in which substantial branching occurs may often be viewed as having larger size savings market areas than those in which there is little or no branching.

This suggests that using a uniform type of geographic area -- such as a State or SMSA -- for all markets in comparing the number of competitors or concentration ratios may be quite misleading and may seriously bias the results against showing any pro-competitive impact of branching. We ourselves take the obvious route of presenting structural data only for uniformly defined geographic market areas because this is the only feasible thing to do in light of limitations of time and the type of data readily available. Yet, clearly, this is only a first step. Any exhaustive empirical study needs to be based on the actual geographic savings market areas, which do not always coincide with States or SMSAs, and which, as noted above may often be larger for areas in which there is a high degree of branching than in areas in which there is little or no branching. If we were to take the latter approach, the results would likely show more competitors and less concentration in high branching as opposed to low branching States as compared to our statistical results.

Statistical Evidence on Market Structure: Measures of Competition

In analyzing the impact of branching on competition, we utilize three measures of savings market concentration. First is

the three-firm concentration ratio, defined as the percent of deposits held by the three largest firms in an area. The second is the Gini coefficient, and the third is the Herfindahl index.[1] The important point about each measure is that they can assume any value between zero and one, with a value closer to unity representing a higher degree of concentration. None is a universally accepted measure of concentration, but each of the three have been used extensively in the literature.

We have computed concentration ratios and the number of institutions represented in both States and standard metropolitan statistical areas (SMSAs) according to the size of these areas

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1 The Gini coefficient measures the area between the "Lorenz curve" and the "line of equality." The Lorenz curve describes the relationship, when financial institutions are ranked by the dollar amount of deposits they hold, between the cumulative percentage of the number of institutions and the corresponding cumulative percentage of their deposits. When all institutions have the same amount of deposits, the Lorenz curve becomes the "line of equality," and the Gini coefficient is zero. This can occur when there are two or two hundred institutions in an area, as long as they are of the same size, so the Gini coefficient can be misleading. However, it does show when a relatively small percentage of institutions -- regardless of the total number--control most of the deposits. Then the Gini coefficient approaches unity.

The Herfindahl index is the sum of the squares of the market shares of all the institutions in a market. Thus, if there were only one S&L in a market, the index would be unity. If there were two of the same deposit size, then the index would be 0.5; and if one of the two held 75 percent of the deposits, the index would be 0.625, closer to unity to represent a higher degree of concentration.

as measured in millions of dollars of deposits. Presenting these measures by size of market allows us to adjust for the impact of the size of the market on the degree of concentration.

Results for S&Ls

First, we review the results for S&Ls alone. They are what we would expect in the case of States since these generally cover such a wide area, and are much larger than economically meaningful savings markets in most States, particularly those with limited branching. Thus, the number of S&Ls represented in each State tends to rise considerably as the degree of branching declines, within each size category. With respect to at least two of the measures of concentration -- namely the three-firm concentration ratio and the Herfindahl index -- the results are similar to those above, i.e. concentration falls as the degree of branching declines. However, the Gini coefficient does not show a consistent relationship to branching.

For SMSAs, however, there is no such relationship between the degree of branching and the number of S&Ls represented in SMSAs in different size categories. In other words, judged on a metropolitan area basis, branching neither decreases nor increases the number of S&L competitors, holding the size of the SMSA constant. Neither does the degree of branching have a significant or consistent impact on the degree of concentration as measured by the three-firm concentration ratio and the Herfindahl index. However, the Gini index shows some tendency to rise with the degree of branching, but this is only slight.

Thus, for SMSAs, unlike States, the results do not indicate rising concentration as the degree of branching increases. However, the use of a uniform type of geographic area for all markets still produces a bias toward more concentration as branching increases. Since, even with this bias, the results show a neutral impact of branching on concentration, the results could be interpreted as favorable to the hypothesis that S&L branching promotes competition.

Results for All Thrift Institutions

Second, we review the results for total thrift institutions. Contrary to the results for S&Ls alone, these show some tendency toward increasing concentration as the degree of branching rises for SMSAs, although this is not the case for all size categories of SMSAs. The results vary for each of the measures of concentration. Again, these results need to be corrected for the bias noted above.

Results for All Depository Institutions

Third, the data for all depository institutions (including commercial banks) show a pattern not at all characteristic of the S&L data. Generally speaking, the average number of depository institutions in each deposit-size category tends to be greater as we move from SMSAs in high branching States to low branching States. This result is heavily influenced by the commercial bank data and is, therefore, as might be expected, consistent with results in studies of commercial banks alone.

However, any possible anti-competitive implications of this relationship are largely offset by the fact that the number of depository institutions represented in each SMSA is still fairly substantial (except for the very smallest SMSAs) in terms of volume of savings and time deposits. It is only when we get to the small number of SMSAs that have deposits below $100 million that we get less than an average of 8 depository institutions per SMSA.

With respect to the Gini index, we find little variation among SMSAs in each deposit size category according to different degrees of branching. With respect to the three-firm concentration ratios and the Herfindahl index, we do find that there is generally a moderate increase in concentration in SMSAs as we go from low branching to high branching States. Again, the difference in these results from those of S&Ls alone is accounted for by the inclusion of commercial banks, which dominate the data. Yet the average three-firm concentration ratio for all depository institutions still remains below 50 percent for the bulk of SMSA's. The Herfindahl indices are more difficult to interpret, but the average Herfindahl index is well below two-tenths for most SMSAs. These results once again need to be interpreted in the context of the fact that comparing concentration ratios for a uniform type of market such as SMSAs probably understates any positive impact of branching on competition.

Deposit Rate Evidence

A more basic test of the impact of branching on competition in savings markets would be the effect on interest rates. If branching enhances competition, it should lead to higher rates on savings and time accounts to the extent that rate control permits this. If branching reduces competition, it should lead to the opposite effect on rates.

First, we examine how the deposit rate varies for FSLIC-insured S&Ls classified by the number of branches, using 1975 data. There is little variation in the deposit rate by number of branches. Second, we examine the average effective deposit rate for States classified as high, medium, or low branching States. The variation is also slight although the highest deposit rate is, suprisingly, for medium branching States.

This result probably has little bearing on the relationship between branching and the deposit rate, however, probably reflecting the fact that rate control was binding for the period during which the data was taken (1975).

OPERATING COSTS OF S&Ls

A perfectly competitive market requires that S&Ls operate efficiently, i.e. that S&Ls succeed in minimizing their average cost. However, this means operating at the bottom point of a U-shaped cost curve. It is important that the cost curve be U-shaped and not decline indefinitely. Otherwise the result would be the dominance of savings or mortgage markets

by one or a few firms. There would then be a conflict between productive efficiency and competition. Depending on one's trade-off between policy objectives, one might have to sacrifice some degree of competition in order to obtain the greater operating efficiency of a small number of large S&Ls or vice versa.

This raises the question of the impact of branching on the cost curve. Economies of scale may exist in varying degree both at the branch level and at the firm level, although the nature of such economies of scale may differ between these two levels.

We have reviewed three cost studies that differ considerably in terms of methodology and data. They all show, on the firm level, that there are economies of scale in the sense of a declining average cost curve as size increases, holding the number of offices constant. They also show that branching increases the average operating costs of an association, given a constant size of the firm. Yet there is no agreement among the three studies on the issue of the degree to which economies of scale resulting from growth do or do not outweigh diseconomies of branch operation. Hence, we cannot determine what is the net impact on average operating costs of an expansion in size resulting from branching.

Since growth in size and branch office operation go hand in hand, the lack of agreement on this issue is a serious gap in our knowledge. Perhaps the existence and spread

of multi-branch S&Ls in recent years may be taken as evidence that economies of scale must outweigh diseconomies of branch operation over a fairly broad size range. But the critical question is what we mean by such a "fairly broad size range," since this determines the degree to which operating efficiency is consistent with competition.

SAFETY AND SOUNDNESS OF S&Ls

In this section we consider how branching affects the safety and soundness of S&Ls. It is a difficult subject to investigate since safety and soundness are affected by external factors over which S&Ls have little or no control as well as by factors internal to S&Ls.

There are two basic hypotheses concerning the direct effects of branching on safety and soundness: (a) too many branches lead to failure and (b) too few branches lead to failure. The two hypotheses need not be mutually exclusive.

The financial problems with too many branches may conceivably originate from a number of sources. They could be caused by a too rapid expansion of offices beyond the abilities of existing management to cope with problems generated by multiple offices. Also, the decision to branch may not be consistent with the S&L's financial capacities as measured by net income or net worth, and there may be a mistake with respect to the choice of branch location. It is possible that, as additional layers of management are added to provide supervision for branches, effective control over costs

or loan quality is weakened. Whether this is so depends upon the quality of management of the S&L, but it is entirely possible that branching puts a greater strain on management.

The possible financial problems produced by the opposite hypothesis--too few branches--are explainable in terms of theory. A single-office S&L stands a greater chance of failing because of adverse financial conditions--most notably savings withdrawals and mortgage defaults--to the extent that there is a heavy geographic concentration of deposits, and particularly loans. A heavy concentration of loans in a particular area makes an S&L vulnerable to local economic conditions that may affect a large part of the loan portfolio.

Insofar as a single office stands a greater chance of failure, it follows that, if that office were part of a branch network, adverse conditions for the one branch could be offset by stable or favorable conditions at the other branches. Thus, the S&L could withstand localized adversity better with such a branch network, and could even close down a branch that could not be operated profitably. A single-office S&L can attempt to relocate, but this is difficult to do and may occur too late to avert financial problems.

We have reviewed evidence pertaining to the relationship between branching and safety and soundness. The first is with respect to FSLIC-insured S&Ls encountering financial difficulties severe enough to result in actions to relieve their distress through supervisory mergers or assistance by FSLIC during 1966-75. In all but four States, the average number of branches for the problem

S&Ls is smaller than that for the FSLIC-insured S&Ls. In each of the four States in which the problem S&L branch networks were larger than for all FSLIC-insured S&Ls, there was only one problem S&L. Thus, the data appear to indicate that it is generally the S&Ls with fewer branches that get into trouble, as opposed to the S&Ls with many branches.

When problem associations are arranged according to their number of branches, the inverse relationship between the number of problem associations and the number of branches becomes evident. Of problem associations for the time period under consideration, 63 percent had no branches and 90 percent had two or fewer branches. These percentages are greater than those for all FSLIC-insured S&Ls (42 and 72 percent, respectively).

California and Illinois Problem S&Ls

Given the relatively large number of problem associations found in California and Illinois during the period under consideration, combined with the extremes in branching practices found in these two States, a detailed analysis of these cases and how they related to branching was undertaken. Problem S&Ls in California were mostly those with only a few branches. All Illinois failures were S&Ls without any branches, since the branching structure in Illinois was minimal in the last part of this period and nonexistent before 1971. It should be emphasized, however, that poor lending practices, conflicts of interest, and criminality were present in many cases so that the factor of branching was not necessarily an issue.

Analysis of a Sample of the Examiners' Reports

The problem associations in the years 1966-1975, as indicated above, can be divided into two broad categories: those receiving FSLIC assistance and those supervisory mergers that did not require FSLIC assistance. Fifty-six of the FSLIC-insured problem associations over the period 1966-76 were given financial assistance by FSLIC in the form of contributions, loans, or purchases of assets. Out of this, the examiners' reports explaining the reasons for the trouble were available for 22 S&Ls.

For most of these S&Ls, numerous reasons for failure were cited by examiners. However, the reports showed that 18 percent of the sample S&Ls were in deteriorating neighborhoods, 23 percent experienced savings outflows, 41 percent experienced both simultaneously, while 18 percent were in trouble for other reasons. From these data, along with an analysis of the branching structure in each of these cases, it appeared that inadequate brancing was more likely a contributing factor to the S&Ls' problems than the opposite, to the extent that branching was a factor at all.

Insurance and Branching

Over the period 1969 to September, 1974, 51 branch offices were closed by FSLIC-insured S&Ls. From an analysis of the reasons for closure, if the branches had been unit S&Ls, they might well

have been in some sort of financial difficulty although no profit or loss data for the individual offices are available to confirm this. If this impression is accurate, these offices, viewed as unit S&Ls, would have been involved in a supervisory merger or would have needed FSLIC assistance, or both. Reliance on the FSLIC would have drawn down FSLIC reserves (or income) and hence indirectly affected the safety and soundness of the industry.

As a rough estimate, we can use the actual experience of problem S&Ls, in which 41 percent required FSLIC-assistance. If the branch closures had been unit S&Ls in unit States, and were all assumed to have been potential failure cases, then 41 percent of the 51 branch offices closed--namely, 21--would have required FSLIC assistance. The supervisory merger route could not have been used because of the unit State assumption. This would have almost doubled the number of S&Ls needing FSLIC assistance over this period. This computation is very rough and based on assumptions, however, for which we do not have quantitative evidence. At best we can say that the existence of branches may have had the salutary effect of indirectly maintaining the safety and soundness of the industry by reducing the payout from FSLIC, thereby increasing its ability to meet future crises.

In addition, further analysis of the California and Illinois problem S&Ls showed that the drain on FSLIC reserves is likely

to be less when S&Ls have the ability to branch. This was especially evident in Illinois.

There were no branches of FSLIC-insured S&Ls in Illinois before 1971, and in the time period 1966-70 each and every one of the 10 problem S&Ls in Illinois required some kind of FSLIC assistance involving a payout. However, starting in 1971, branches were allowed through supervisory merger, and the number of branches in Illinois subsequently increased. Simultaneously, the percentage of problem S&Ls in Illinois that required FSLIC assistance fell precipitously. Of the 13 S&Ls that did not require FSLIC assistance after 1970, all became branches of the acquiring S&L (and 5 of the 7 S&Ls requiring FSLIC assistance became branches).

Thus, the evidence indicates that the ability to acquire branches by merger enhanced the attractiveness of the problem S&L to the acquiring S&L, hence obviating the necessity of a payout by the FSLIC.

PRESENT STATUS OF EFTS AND ITS IMPACT ON BRANCHING

What is the relationship of S&L branching to electronic transfer systems (EFTS), in the sense of applying electronic technology to provide retail consumer services at locations remote from offices? Whatever the ultimate answer, present EFTS developments may be viewed as only tentative steps and hardly provide much evidence on any ultimate economic impact.

Most specifically, progress in EFTS will depend upon the increasing use of remote service units (RSUs). At present RSUs are limited in number.

What does the definition of RSUs encompass? One common form of an RSU is the automated teller machine; however, it is only when these are used in locations remote from Board-approved offices that they may qualify as RSUs. Also, in addition to automated teller machines, there is the merchant-operated terminal generally located in a retail establishment. These terminals may be at the checkout counter (point of sale) or at a special "courtesy" counter. Generally, they are operated by employees of the retail establishment and require for activation a machine-readable instrument (generally a plastic card) controlled by the account holder.

An important development has been the shared use of RSUs by more than one depository institution, including the sharing by a number of different types of institutions. Thus, an RSU may be shared by S&Ls, mutual savings banks, commercial banks, and credit unions in any combination.

What is the relationship of RSUs to branching? It is obvious in the above discussion that RSUs perform certain functions that are currently carried out in branch offices. There are substantial differences, nonetheless, between branch offices and RSUs. Unlike offices, RSUs cannot be used to open new accounts or extend credit (on other than a line of credit basis), or engage in functions that require the use of a person and are not amenable to automation. As a result, the Board's RSU regulations provide that a remote service unit is not a branch office. Nor is

it any other type of office of a Federal association as otherwise defined in regulations.

While RSUs cannot be considered branch offices in the traditional sense of the term, the development of RSUs and EFTS generally may have an impact on the need for branch offices. As the number of transactions done on RSUs become more substantial and as RSUs become more geographically dispersed, there may be a decreasing need for branch offices. It is misleading, however, to discuss EFTS merely in terms of impact on offices. As EFTS is developed in more sophisticated versions, it will simply make the traditional concept of office outmoded. The use of telephones for transactions, for example, would be a technological revolution that could hardly be described in traditional "office" terms.

The important question is not how RSUs are related to offices as traditionally defined, but rather the impact of RSUs on competition. One possible argument is that only the largest S&Ls will be able to use RSUs extensively so that the latter will simply be a means of increasing the dominance of already large S&Ls. However, a counter-argument is that RSUs are much cheaper than branch offices, and thus much more within the financial reach of smaller S&Ls. This raises the factual question of the capital and developmental costs of RSUs and the degree to which there are economies of scale in the use of RSUs. At this time, we have no evidence on this; however, the fact that RSUs can be shared by a large number of financial institutions certainly has a bearing on the cost to smaller S&Ls.

An important element in maintaining competition is to ensure that existing RSU-sharing agreements do not provide a basis for exclusion and do not deter the development and use of alternative sharing agreements based on new or better technology. Parties to existing sharing agreements need to have the freedom to shift to other types of shared RSU facilities with minimal cost where these appear more desirable. This is something that presumably can be dealt with by regulatory policies on the nature of sharing agreements and the conditions that these agreements impose on the various members. Of course, there is also the broader question of the pros and cons of sharing into which we have not delved.

BRANCHING WITHIN A DUAL SYSTEM OF S&L REGULATION

What is the role of Federal branching policy in a dual system of Federal-State regulation of savings and loan associations? This is a difficult subject to discuss since the preservation of a dual system is a highly emotional subject, and there is little unanimity even on the question of what we mean by a dual system.

The creation of Federal S&Ls was the result of the Great Depression. The Homeowners' Loan Act of 1933 was only one of a series of Federal statutes enacted in large part in response to the disorganized state of the mortgage and housing markets and the loss of confidence by the public in our monetary system and depository institutions.

Under these circumstances, it would hardly be expected that Federal S&Ls were created merely to duplicate the system of

State-chartered S&Ls. As a matter of fact, the Homeowners' Loan Act specifically stated that, in issuing charters for Federal S&Ls, the Board was to give "primary consideration to the best practices of local mutual thrift and home-financing institutions in the United States." This would appear to indicate that Federal S&Ls were not meant to embody merely the practices of State S&Ls in general, but that the Board was to take advantage of experience gained as to the "best" practices of thrift and home-financing institutions.

There are certain paradoxes inherent in any idea that the State and Federal systems of regulation--embodied in the dual system--should be independent of each other and that neither the Federal nor the State system should interfere with the independence of the other. The major paradox arises from the fact that, to the extent that either system appears to provide for more favorable conditions of operation in any given State, there is inevitably an incentive for S&Ls in that State to belong to the system that is the most liberal. Thus, the dual system carries within itself the possible seeds of its own demise. Yet, to the extent that, through statutory restraints, we bind certain conditions of operation of one system to the other, the effect is to force the two systems to resemble each other. This then eliminates the independence of operation that should presumably be the hallmark of a dual system of regulation.

From a practical point of view, however, if one looks at the

way in which the Federal and State systems have evolved, one finds that as innovations and new practices in a wide variety of areas are introduced into some of the State systems or, alternatively, into the Federal system, the result is to induce the adoption of many of these innovations and practices by most or all of the systems. This is certainly the case with respect to lending and investment powers of S&Ls, where these have evolved in a similar manner. Sometimes Federal practices, but at other times State practices, have led the way, exerting pressure on Federal or competing State systems to adopt similar practices. For example, State S&Ls have led the way with respect to such innovations as consumer loan authority, NOW accounts and checking accounts, line of credit provisions incident to checking account powers, variable rate mortgages, and GNMA futures transactions.

With respect to the dual system of regulation, the particular question for this study is whether there is something unique about branching in terms of how it should be treated relative to other S&L practices. Should branching by Federal S&Ls be singled out as subject to constraints and tied specifically to practices of State-chartered S&Ls in each particular State? This is not the case with other powers of Federal S&Ls generally and seems to imply that the independence inherent in the concept of a dual system should not be permitted for the Federal system of S&Ls with respect to branching.

Savings and loan associations do have characteristics

that should be considered in light of the question of whether any practices of one class of S&Ls namely, Federal, should be tied to the practices of others, namely State S&Ls. Savings and loan associations are competitive not only with each other but with a large variety of other financial institutions in the two major products that they offer--savings accounts and mortgage lending. Thus, as emphasized above, S&Ls compete in the savings market not only with other S&Ls but with commercial banks, mutual savings banks, credit unions, and even to some degree with savings media other than deposits offered by financial institutions, such as open market securities and money market funds. Savings and loan associations also compete in the mortgage market with commercial banks, mutual savings banks, and a variety of nondepository institutions that may be active in the mortgage market at various times. Thus, from a competitive point of view, any restrictions on branching of S&Ls that do not take into account the branching powers of all competing financial institutions in either the savings or mortgage markets could create a serious competitive disadvantage for S&Ls.

It has been emphasized above that S&Ls have labored under the disadvantage of the convenience of location afforded commercial banks in many states by their extensive branch networks. Moreover, holding company affiliations for banks and chain banking have often served the same purpose as branches for competing depository institutions (although such affiliations may exist for S&Ls, too). From the point of view of an individual

S&L, the offices of other types of financial institutions may be of as much importance as the offices of other S&Ls in determining its ability to compete effectively in the product markets in which it operates. In recent years, much of the incentive for branching by S&Ls has come not from branching by other S&Ls but, as noted above, from branching (or other types of affiliations) by commercial banks.

CONCLUSION

The research conducted for this study should be regarded only as a first step. In the process of evaluating the economic impact of S&L branching, many economic issues were not covered and many unresolved questions remain for future analysis.

Explanatory Note

The papers and materials reprinted in this appendix have been included to supplement the review papers in several important ways. Those by the Office of the Comptroller of the Currency, Samuel Talley and Jerome Darnell are included to cover areas not specifically or only lightly touched on in the summary papers. The paper by the Comptroller of the Currency provides a history of litigation of the McFadden Act to augment the institutional history covered in the first two review papers. The articles by Jerome Darnell describe the roles of chain banking and interlocking directorates as important mechanisms by which banks and other financial institutions have become joined together into both inter- and intrastate multi-office institutions. The importance and role of bank holding company expansion in affecting aggregate concentration of bank resources is covered by Samuel Talley and adds important detail to Bernard Shull's review of the impacts of multiple office banking on concentration and competition.

It became clear in reading the survey articles prepared for this compendium dealing with the effects of branching on community convenience and needs and competition that each drew important insights from previous survey papers by Larry Mote, George Benston, and Gary Gilbert and William Longbrake. Because of this and despite the fact that they are now somewhat dated, these three papers have been included as supplemental background material.

Finally, a central issue pertaining to branching focuses on the effects that relaxation of branching restrictions would have on the competitive climate in previously isolated local markets. The most complete and thorough research relevant to this point has recently been completed by Alan McCall and Manferd Peterson. This previously unpublished paper was available to the authors of the survey articles and it played an important role in their findings. For this reason, it was decided that the paper should be included so that its analysis and results could be subjected to critical review.

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A Judicial Impact Statement on the McFadden Act

(By Ford Barrett, Assistant Chief Counsel, Comptroller of the Currency)*

In the early 1930's, the growing number of bank insolvencies stimulated a thorough inquiry into banking policy, including the issue of branch banking upon which Congress had first legislated in the McFadden Act of 1927.[1] Believing that the failure of small banks had been brought on by inflexible state branching provisions, the Senate Banking and Currency Committee concluded that "a larger experiment with branch banking" was "essential" to prevent further insolvencies.[2] Accordingly, the committee and its chairman, Senator Carter Glass, recommended enactment of a bill to authorize national banks to establish branches "not merely in the towns and cities in which they are located but also outside of such limits at any point within the borders of the state in which they exist, irrespective of state laws."[3] The bill thus would have enabled national banks to branch statewide in every state. The bill was shelved, however, when its opponents launched a filibuster and successfully defeated a cloture motion by a margin of one vote.[4] Compromise legislation was then drawn authorizing statewide branching by both national and state member banks, but only to the extent "authorized to State banks by the statute law of the State in question by language specifically granting such authority affirmatively and not merely by implication or recognition, and subject to the restrictions as to location imposed by the law of the State on State banks."[5]

The effect of the defeat of Senator Glass' statewide branching bill is most apparent in the vast amount of litigation spawned by the language finally adopted and still in existence today. The incorporation of 50 different state laws into federal branching legislation creates yearly a multitude of lawsuits about whether a particular installation is a branch and how the state requirements as to location and standards should be interpreted. Litigation has become so prolific and frequent that a banker who files a branch application with the Comptroller's Office counts himself lucky to escape a legal challenge. Undoubtedly, a more simple federal statute, unencumbered by state restrictions on location and standards, would produce less confusion and far less litigation.

IS IT A BRANCH?

The existing language of the McFadden Act raises several questions which have occupied bankers and the courts. The first issue is whether the installation in question is a branch. If it is, state law in the 33 states permitting less than statewide branching will restrict its location within the state. If it is not a branch, the device may be installed without geographic limitation.

The consequences of this determination assume greater importance as technological advances make banking transactions possible at locations other than the traditional brick and mortar establishment.[6] If automatic teller machines and point of sale terminals are branches under the McFadden Act, their utility is severely limited by state geographic restrictions, particularly in states where branching is prohibited altogether. The Comptroller's decision that these de-

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*The opinions expressed herein are those of the author only, and do not necessarily represent the views of the Comptroller's Office.

[1] Act of Feb. 25, 1927, ch. 191, 44 Stat. 1224, codified at 12 U.S.C. 36 and 332 (1970).

[2] S. Rep. No. 584, 72d Cong., 1st sess. 11 (1932).

[3] Id.: S. 4412, 72d Cong., 1st sess. (1932).

[4] 76 Cong. Rec. 1935, 2077.

[5] Act of June 16, 1933, ch. 89, 48 Stat. 162, § 23(c)(2), codified at 12 U.S.C. 36(c)(2) (1970).

[6] See generally Murphy and Barrett, Legal Problems of Applying Electronic Funds Techniques to Retail Banking, 17 Jurimetrics Journal —— (Fall 1976).

vices are not branches[7] has created a storm of litigation, with suits filed in nine states and the district of Columbia.[8]

The best known case in the "Is it a Branch?" category is *First Nat'l Bank in Plant City* v. *Dickinson*, 396 U.S. 122 (1969), where the Supreme Court held that an armored car service which picked up deposits from businesses and a stationary off-premises receptacle for the receipt of deposits were "branches" within the meaning of 12 U.S.C. 36(f), and therefore in contravention of Florida's prohibition on branching. This case was one of the first indications that a "branch" could take a form other than the brick and mortar structure contemplated by the framers of the McFadden Act. The idea was so novel that Justice Douglas was compelled to exclaim, "It will come as a shock, where common sense is the guide, to learn that an armored car picking up merchants' cash boxes and checks is a branch bank."[9]

Another armored car case is *Jackson* v. *First Nat'l Bank of Gainesville*, 292 F. Supp. 156 (N.D. Ga. 1968), *aff'd*, 430 F. 2d 1200 (5th Cir. 1970), *stay denied*, 396 U.S. 1963.

A number of cases have discussed whether a drive-in or walk-up facility in close proximity to an established branch or main office constitutes a McFadden Act branch or merely an extension of the bank's existing premises. As a result of these cases, the Comptroller's Office and the courts have been forced to resort to elaborate analysis of the physical aspects of each drive-in facility. One federal district court in Virginia recently listed the following data to be considered:

1. the distance separating the facility from the existing bank office;
2. the number of intervening structures;
3. the presence or lack of physical connection, such as pneumatic tubes, between the facility and the existing bank office;
4. the economic effect of the facility on the balance of competition between competing bank;
5. whether it would have been feasible for the existing bank office to physically attach the drive-in windows to the existing office;
6. whether the facility could have been constructed closer to the existing bank office;
7. whether the drive-in's hours are the same as those of the existing office.

After struggling with all these factors, the court upheld the Comptroller's decision that the drive-in in that case was not a separate branch, and this holding was affirmed on appeal.[10]

Other courts have come to different conclusions. In a recent decision, the Eighth Circuit Court of Appeals, siting *en banc*, reversed its own three judge panel as well as the district court, holding that a drive-in facility located one-half block from a national bank's main office was a branch in violation of Nebraska law.[11] The Supreme Court subsequently vacated and remanded on the grounds that a recent amendment to Nebraska's branching statute "may have a substantial bearing on the outcome of this case." The case is now subject to further proceedings in the lower federal courts.

Other court decisions over the branch status of drive-ins or walk-up facilities in the proximity of an established banking office include:

Dakota Nat'l Bank & Trust Co. v. *First Nat'l Bank & Trust Co. of Fargo*, 414 F. Supp. 1161 (D. N.D. 1976).

Driscoll v. *Northwestern Nat'l Bank of St. Paul*, 484 F.2d 173 (8th Cir.

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[7] 12 C.F.R. 7.7491.

[8] As of Oct. 13, 1976, the following cases had been decided: *Independent Bankers Ass'n. of America* v. *Smith*, 402 F. Supp. 207 (D. D.C. 1975), aff'd, 534 F. 2d 921 (D.C. Cir. 1976), cert. denied 45 U.S.L.W. 3239; *State of Illinois* v. *Continental Illinois National Bank and Trust Co.*, 409 F. Supp. 1167 (N.D. Ill. 1975), aff'd in part and rev'd in part, 536 F. 2d 176 (7th Cir. 1976), cert. denied, 45 U.S.L.W. 3238: *State of Colorado* v. *First National Bank of Ft. Collins*, 394 F. Supp. 979 (D. Colo. 1975), aff'd in part and rev'd in part, — F. 2d — (10th Cir. 1976); *State of Missouri* v. *First Nat'l Bank in St. Louis*, 405 F. Supp. 733 (E.D. Mo. 1975), aff'd, 538 F. 2d 219 (8th Cir. 1976); *State of Oklahoma* v. *Bank of Oklahoma*, 409 F. Supp. 71 (N.D. Okla. 1975), appeal dismissed per stipulation; *State of Ohio* v. *Smith*, — F. Supp. — (S.D. Ohio 1976).

[9] 396 U.S. at 138 (dissent).

[10] *Commonwealth of Virginia* v. *Farmers & Merchants Nat'l Bank*, 380 F. Supp. 568 (W.D. Va. 1974), aff'd per curiam, 515 F. 2d 154 (4th Cir. 1975), cert. denied, 423 U.S. 869 (1975).

[11] *Nebraskans for Independent Banking, Inc.* v. *The Omaha Nat'l Bank*, 530 F. 2d 755 (8th Cir. 1976), vacated and remanded, 44 U.S.L.W. 3700 (June 7, 1976).

1973) (Walk-up TV teller located 300 feet from bank office).

Mid-America Nat'l Bank of Chicago v. *Watson*, No. 72 C 2636 (N.D. Ill. 1973) (unreported decision).

North Davis Bank v. *First Nat'l Bank of Layton*, 457 F.2d 820 (10th Cir. 1972).

Dunn v. *First Nat'l Bank of Cartersville*, 345 F. Supp. 853 (N.D. Ga. 1972).

Schneider v. *Nat'l Bank of Washington*, Civ. No. 3402 (W.D. Wash. 1970) (unreported decision referred to in *Dunn, supra*).

Mid-West Nat'l Bank of Lake Forest v. *Comptroller*, 296 F. Supp. 1223 (N.D. Ill. 1968).

Lincoln Bank & Trust Co. v. *Exchange Nat'l Bank & Trust Co. of Ardmore*, 383 F. 2d 694 (10th Cir. 1967).

First Nat'l Bank of Logan v. *Walker Bank & Trust Co.*, 19 Utah 2d 18, 425 P.2d 414 (1967).

State Chartered Banks in Washington v. *Peoples Nat'l Bank of Washington*, 291 F. Supp. 180 (W.D. Wash. 1966).

Jackson v. *First Nat'l Bank of Valdosta*, 246 F. Supp. 134 (M.D. Ga. 1965).

Michigan Nat'l Bank v. *Saxon*, Civ. No. 821–862 (D. D.C. 1962) (unreported decision quoted in *Dunn, supra*).

The "Is it a Branch" issue has also arisen in conjunction with the establishment of trust offices. Since these offices do not pay checks, receive deposits or lend money, the Comptroller believes that they do not come within the McFadden Act's definition of branch, and may therefore be erected anywhere by a national bank without a branch certificate. Problems are created when state banks are barred from establishing similar offices. Among the pending and decided cases on this issue are:

Continental Illinois Nat'l Bank & Trust Co. v. *Lignoul*, Civ. No. 76 C 2009 (complaint filed June 15, 1976, N.D. Ill.).

St. Louis County Nat'l Bank v. *Mercantile Trust Co.*, Civ. No. 74–266 C(2) (E.D. Mo., decided June 18, 1976).

Applications to organize a new national bank frequently raise the "Is it a Branch" question, the contention being that the bank will be operated merely as a branch of an existing bank rather than as a separate, independent institution. In some situations, a bank holding company attempts to organize a new bank in an area in which its lead bank subsidiary is prohibited from branching by state law. In other cases, controlling ownership of stock in one bank by the organizers of the new bank gives rise to the charge that the latter will be a de facto branch of the former in violation of state law. Cases on the subject include:

Central Bank v. *Smith*, 532 F.2d 37 (7th Cir. 1976).

City Nat'l Bank v. *Smith*, 513 F.2d 479 (D.C. Cir. 1975).

Independent Bank of Georgia v. *Board of Governors*, 516 F.2d 1206 (D.C. Cir. 1975).

North Hills Bank v. *Board of Governors*, 506 F.2d 623 (8th Cir. 1974).

American Bank of Tulsa v. *Smith*, 503 F.2d 784 (10th Cir. 1974).

First American Bank of Memphis v. *Smith*, Civ. No. 73–205 (W.D. Tenn.) (dismissed per stipulation).

Gravois Bank v. *Board of Governors*, 478 F.2d 546 (8th Cir. 1973).

Bank of Commerce of Laredo v. *City Nat'l Bank of Laredo*, 484 F.2d 284 (5th Cir. 1973).

Community State Bank & Trust Co. v. *Watson*, Civ. No. 296–73 (D. N.J. 1973) (unreported decision).

Wood County Bank v. *Camp*, 348 F. Supp. 1321 (D. D.C.), *vacated and remanded*, 489 F.2d 1273 (D.C. Cir. 1973).

Bank of Utah v. *Camp*, Civ. No. NC 15–72 (D. Utah).

Lewis and Clark State Bank v. *Camp*, Civ. No. 72 C 402(2) (E.D. Mo. 1972) (Complaint dismissed in unreported order).

Commercial Nat'l Bank of Little Rock v. *Board of Governors*, 451 F.2d 86 (8th Cir. 1971).

Pineland State Bank v. *Proposed First National Bank of Bricktown*, 335 F. Supp. 1376 (D. N.J. 1971).

Leuthold v. *Camp*, 273 F. Supp. 695 (D. Mont.), *aff'd per curiam*, 405 F.2d 499 (9th Cir. 1969).

Whitney Nat'l Bank v. *Bank of New Orleans & Trust Co.*, 379 U.S. 411 (1965).

State of South Dakota v. *Nat'l Bank of South Dakota*, 335 F.2d 444 (8th Cir. 1964).

Camden Trust Co. v. *Gidney*, 301 F.2d 521 (D.C. Cir. 1962), *cert. denied*, 369 U.S. 886.

First Nat'l Bank in Billings v. *First Bank Stock Corp.*, 306 F.2d 937 (9th Cir. 1962).

Other cases questioning the applicability of state law branch restrictions to national banks include situations where a bank wishes to move its main office to a new site and convert its former main office to a branch. A problem can arise when state branching restrictions prohibit a state bank from similarly rearranging its offices. Some courts have held that 12 U.S.C. 30, which together with section 7(e) of the McFadden Act delegates exclusive authority to the Comptroller to approve relocations of main offices and branches of a national bank, is limited by the state law provisions of the McFadden Act. Other courts have held the contrary view. Cases involving this and other relocation issues include:

Merchants and Planters Bank of Newport v. *Smith*, 516 F.2d 355 (8th Cir. 1975).

Dept. of Commerce of the State of Minnesota v. *Camp*, Civ. No. 4–72–Civ–8 (D. Minn. 1972).

The Ramapo Bank v. *Camp*, 425 F.2d 333 (3d Cir.), *cert. denied*, 400 U.S. 828 (1970).

Midland Bank & Trust Co. v. *Camp.*, Civ. No. 1174–69 (D. N.J. 1969), *aff'd*, (3d Cir. 1971).

Peoples Trust Co. v. *Camp*, Civ. No. 1191–91–69 (D. N.J. 1969).

Marion Nt'l Bank v. *Saxon*, 261 F. Supp. 373 (N.D. Ind. 1966), *aff'd*, 418 F.2d 121 (7th Cir. 1969).

Metropolitan Nat'l Bank of Farmington v. *Camp*, 281 F. Supp 238 (E.D. Mich. 1968).

Bank of Dearborn v. *Saxon*, 244 F. Supp. 394 (E.D. Mich. 1965), *aff'd*, 377 F.2d 496 (6th Cir. 1967).

Merchants and Miners Bank v. *Saxon*, Civ. No. 1042 (W.D. Mich. 1966) (unreported decision cited in *The Ramapo Bank, supra*).

Traverse City State Bank v. *Empire Nat'l Bank*, 288 F. Supp. 948 (W.D. Mich. 1964).

From the numerous cases listed above, it is apparent that the courts have been flooded with litigation over what constitutes a branch. The issue is important for if the installation in question is a branch, state law determines its location. But the problem is not so much centered in the McFadden Act's definition of "branch" as in its incorporation of the location restrictions of state law. If the McFadden Act were amended to remove the reference to state law restrictions, questions might still arise about whether a particular installation should be certified as a branch, but the absence of restrictions on where it can be located would make the issue insignificant in comparison to the importance the question assumes today.

IS IT A "STATUTE LAW" OF THE STATE?

The McFadden Act's incorporation of state law also raises questions as to what constitutes the "statute law of the State" within the meaning of the Act. In these cases, the courts are asked to decide the extent to which state court decisions and opinions and regulations issued by state banking supervisors are binding on the Comptroller. This issue has been discussed in numerous cases, not all of which agree:

Dakota Nat'l Bank & Trust Co. v. *First Nat'l Bank & Trust Co. of Fargo*, 414 F. Supp. 1161 (D. N.D. 1976).

First Bank & Trust Co. v. *Smith*, 509 F. 2d 663 (1st Cir. 1975).

First Nat'l Bank of Southaven v. *Camp*, 471 F.2d 1322 (5th Cir. 1973).

Independent Bankers of Oregon v. *Camp*, 357 F. Supp. 1352 (D. Ore. 1973).

First Nat'l Bank of Fairbanks v. *Camp*, 465 F.2d 586 (D.C. Cir. 1972), *cert. denied*, 409 U.S. 1124.

Springfield State Bank v. *Nat'l State Bank of Elizabeth*, 459 F.2d 712 (3d Cir. 1972).

Jackson v. *First Nat'l Bank of Gainesville*, 292 F. Supp. 156 (N.D. Ga. 1968).

Leuthold v. *Camp*, 273 F. Supp. 695 (D. Mont. 1967), *aff'd per curiam*, 405 F.2d 499 (9th Cir. 1969).

Howell v. *Citizens Nat'l Bank of Ridgewood*, 385 F.2d 528 (3d Cir. 1967).

Nuesse v. *Camp*, 385 F.2d 695 (D.C. Cir. 1967).

Bank of Sussex County v. *Saxon*, 251 F. Supp. 132 (D. N.J. 1966).

Jackson v. *First Nat'l Bank of Valdosta*, 349 F.2d 71 (5th Cir. 1965).

State of South Dakota v. *Nat'l Bank of South Dakota*, 219 F. Supp. 842 (D. S.D. 1963), *aff'd* 335 F.2d 444 (8th Cir. 1964).

Union Savings Bank of Patchogue v. *Saxon*, 335 F.2d 718 (D.C. Cir. 1964).

IS IT A "LOCATION" RESTRICTION?

Another group of cases involves the McFadden Act's incorporation of "restrictions as to location" imposed by state law. The issues concern not only whether the requirements as to physical location have been met, but also whether other state law prerequisites not clearly "restrictions as to location" are incorporated in the McFadden Act. In these cases all parties concur that the installation is a "branch," but don't agree on whether the applicant can install it at the proposed location.

The best known case in this category is *First Nat'l Bank of Logan* v. *Walker Bank & Trust Co.*, 385 U.S. 252 (1966). The Utah branching statute "expressly authorized" (to use the language of the McFadden Act) state banks to have branches in their home municipalities, but these branches could be maintained only through merger with an existing bank. The question, which generated three separate lawsuits in two different circuits, revolved around whether this merger limitation of state law was a "location" restriction under federal law, and thus applicable to national banks. The Supreme Court held that it was.

The location restrictions of state law have occasionally raised a question about the ability of a national bank to branch within or outside a U.S. military reservation. Cases include:

The First Hardin Nat'l Bank v. *Fort Knox Nat'l Bank*, 361 F. 2d 276 (6th Cir. 1976), *cert. denied* 385 U.S. 959 (application to branch outside military reservation where bank was located.)

State of Texas v. *Nat'l Bank of Commerce of San Antonio*, 290 F. 2d 229 (5th Cir. 1961), *cert. denied*, 386 U.S. 832 (application to open a facility on a military reservation by a bank not located there).

Many cases have centered on whether the McFadden Act's incorporation of state location restrictions intended to include need and convenience and other standards imposed on state banks by state law. These standards are not clearly "restrictions as to location" within the literal meaning of section 7(c) of the McFadden Act. They are more accurately described as public policy restrictions than "location" restrictions. Moreover, they are many and varied. New York, for example, stipulates that a branch office may be authorized if it is found "upon investigation that the public convenience and advantage will be promoted by the opening of such branch office. . . ." [11] North Carolina requires that the branch ". . . meet the needs and promote the convenience of the community . . ." and that ". . . the probable volume of business and reasonable public demand in such community are sufficient to assure and maintain the solvency of said branch. . . ." [12]

According to some courts, the Comptroller must consider not only the location requirements of state law but also make specific findings on the public policy standards established by each state. Since each state law differs on the appropriate standard, the burden on the Comptroller's Office and the courts is considerable.

Listed below are some of the cases construing the standards set by state law and their applicability to the Comptroller's branching decisions:

Hempstead Bank v. *Smith*, 407 F. Supp. 31 (S.D. N.Y. 1976), *aff'd*, Docket No. 76–6047 (2d Cir. Aug. 12, 1976).

First Bank & Trust Co. v. *Smith*, 509 F.2d 663 (1st Cir. 1975).

Grenada Bank v. *Watson*, 361 F. Supp. 728 (N.D. Miss. 1973), *aff'd without opinion*, 488 F.2d 1056 (5th Cir. 1974).

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[11] New York Banking Law § 29 (McKinney 1971).

[12] N.C. Gen. Stat. § 53–62(b).

First Nat'l Bank of Southaven v. *Camp*, 471 F. 2d 1322 (5th Cir. 1973).
Independent Bankers of Oregon v. *Camp*, 257 F. Supp. 1352 (D. Ore. 1973).
Bank of New Bern v. *Wachovia Bank & Trust Co., N.A.*, 353 F. Supp. 643 (E.D. N.C. 1972).
First Nat'l Bank of Catawba County v. *Wachovia Bank & Trust Co.*, 325 F. Supp. 523 (M.D. N.C.), *aff'd per curiam*, 448 F.2d 637 (4th Cir. 1971).
Clermont Nat'l Bank v. *Citizensbank, N.A.*, 329 F. Supp. 1331 (S.D. Ohio 1971).
Citizens Nat'l Bank in Gastonia v. *Wachovia Bank & Trust Co., N.A.*, 329 F. Supp. 585 (M.D. N.C. 1971).
Farmers Nat'l Bank of Annapolis v. *Camp*, 345 F. Supp. 622 (D. Md. 1971).
First Citizens Bank & Trust Co. v. *Southern Nat'l Bank*, 329 F. Supp. 186 (E.D. N.C. 1971).
Citizens Nat'l Bank of Southern Maryland v. *Camp*, 345 F. Supp. 630 D. Md. 1971).
Cottage Grove State Bank v. *Camp*, Civ. No. 70–C–50 (W.D. Wis. 1971) (unreported decision).
Citizens Nat'l Bank of Southern Maryland v. *Camp*, 317 F. Supp. 1389 (D. Md. 1970).
First Citizens Bank & Trust Co. v. *Camp*, 409 F.2d 1086 (4th Cir. 1969).
Industrial State Bank & Trust Co. v. *Camp*, 284 F. Supp. 900 (W.D. Mich. 1968).
Nat'l Bank of McKeesport v. *Saxon*, 268 F. Supp. 720 (W.D. Pa. 1967).
Bank of Haw River v. *Saxon*, 257 F. Supp. 74 (M.D. N.C. 1966).
First Nat'l Bank of Smithfield v. *Saxon*, 352 F.2d 267 (4th Cir. 1965).

INTERPRETATION OF STATE LAWS

Even if all parties agree (a) that the installation involved is a "branch," (b) that the state law involved is "statutory," and (c) that limitations of state law are "restrictions as to location," questions still may arise about the proper interpretation of state law. The problem is illustrated by a case in Virginia, which allows branches to be established in cities "contiguous" to the county or city in which the parent bank is located. A bank located in Norfolk, on one side of the James River and the harbor of Hampton Roads, applied for a branch in the city of Hampton, which is situated on the other side. The boundary line between the two cities lies beneath the waters of Hampton Roads, so the two are clearly "contiguous" from a strictly geographic standpoint. But the state argued that "contiguous" should be construed in its economic sense, for it was debatable whether the large body of water separating the two jurisdictions made the cities contiguous in that sense of the word. The case generated four separate lawsuits, two in state courts and two in federal court, embroiling the parties in other time-consuming issues, such as whether the federal court should delay its decision until the state's Supreme Court had decided its case. In the end, the federal court upheld the Comptroller's view that "contiguous" means geographically contiguous and that therefore a national bank in Norfolk can branch across Hampton Roads into Hampton.[13]

Another group of cases in this category are the "Michigan village cases" construing the Michigan branching statute permitting banks to establish branches in villages, among other places, within a prescribed radius of the main office.[14] Since the Michigan courts have interpreted "village" to include unincorporated as well as incorporated villages,[15] the Comptroller has had to devote considerable time to determining whether a proposed branch location in an unincorporated area has the attributes of a village. This is usually a question of fact involving extensive analysis of the physical characteristics of the proposed location. Simi-

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[13] *Commonwealth of Virginia* v. *Camp*, 333 F. Supp. 847 (E.D. Va. 1971).
[14] M.C.L.A. § 487.471; M.S.A. 23.710 (171).
[15] *Bank of Dearborn* v. *Banking Comm'r*, 365 Mich. 567, 114 N.W. 2d 210 (1962); *Wyandotte Savings Bank* v. *Eveland*, 347 Mich. 33, 78 N.W. 2d 612 (1956); see also *Nat'l Bank of Wyandotte* v. *Detroit Bank & Trust Co.*, 19 Mich. App. 439, 172 N.W. 2d 883 (Ct. App. 1969).

lar cases involving branches in unincorporated areas, have arisen in Indiana, Oregon, Mississippi and New York. Among the cases in this group:

State Bank of Coloma v. *Smith*, 404 F. Supp. 1306 (W.D. Mich. 1975).

Community Bank of Washtenaw v. *Smith*, 378 F. Supp. 235 (E.D. Mich. 1974).

First Nat'l Bank of Southaven v. *Camp*, 471 F. 2d 1322 (5th Cir. 1973).

Old Kent Bank & Trust Co. v. *Watson*, Civ. No. G 67–73 C.A. (6) (W.D. Mich. 1973) (unreported decision).

First Nat'l Bank in Crown Point v. *Camp*, 342 F. Supp. 871 (N.D. Ind), *aff'd*, 463 F. 2d 595 (7th Cir. 1972).

The Community Bank v. *Camp*, Civ. No. 72–703 (D. Ore. 1972).

Nat'l Lumberman's Bank & Trust Co. v. *Camp*, Civ. No. 6179 (W.D. Mich. 1969) (unreported decision cited in *State Bank of Coloma, supra*).

Security Bank v. *Saxon*, 298 F. Supp. 991 (E.D. Mich. 1968).

Peoples Bank of Trenton v. *Saxon*, 373 F. 2d 185 (6th Cir. 1967).

American Bank & Trust Co. v. *Saxon*, 373 F. 2d 283 (6th Cir. 1967).

Valley Nat'l Bank of Long Island v. *Camp*, 377 F. 2d 173 (D.C. Cir. 1967).

Southern Michigan Nat'l Bank of Coldwater v. *Saxon*, Civ. No. 4948 (W.D. Mich. 1965) (unreported decision cited in *State Bank of Coloma, supra*).

Union Savings Bank of Patchogue v. *Saxon*, 335 F. 2d 718 (D.C. Cir. 1964).

Community Nat'l Bank of Pontiac v. *Saxon*, 310 F. 2d 224 (6th Cir. 1962).

Commercial State Bank of Roseville v. *Gidney*, 174 F. Supp. 770 (D. D.C. 1959).

Other McFadden Act decisions exploring miscellaneous questions about the location requirements of state branching laws are:

Seattle Trust & Savings Bank v. *Bank of California, N.A.*, 492 F. 2d 48 (9th Cir. 1974).

Fidelity Trust Co. v. *Camp*, 337 F. Supp. 1396 (D. Conn. 1972).

The Ohio Bank & Savings Co. v. *Tri-County Nat'l Bank*, 411 F. 2d 801 (6th Cir. 1969).

Hoosier State Bank of Indiana v. *Saxon*, 248 F. Supp. 233 (N.D. Ind. 1965).

Suburban Trust Co. v. *Nat'l Bank of Westfield*, 211 F. Supp. 694 (D. N.J. 1962).

Nat'l Bank of Detroit v. *Wayne Oakland Bank*, 252 F. 2d 537 (6th Cir. 1968).

CONCLUSION

It is safe to say that the McFadden Act has generated a substantial amount of litigation.[16] All of it has been spawned by the Act's incorporation of state law. Whether Congress should enact or permit the continued existence of such legislation is a serious question in view of the staggering case load confronting our federal courts.[17] Equally important is the question whether the efficiency of the banking system is impaired when a banker must gird himself for a court battle upon filing every branch application. A banking system that runs as much on litigation as on a desire to serve customers and expand services is a strange banking system indeed. The best remedy would appear to be an amendment to the McFadden Act establishing a simple, uniform standard for branching by national banks independent of state law.

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[16] The cases listed in this paper represent only about three-quarters of all suits filed under the McFadden Act. Approximately 30 other cases were filed or decided without a reported opinion.

[17] Some frightening statistics on this point can be found in a statement by Chief Justice Burger dated January 3, 1976, and reprinted in 62 A.B.A. Journal 189–190 (February 1976). Noting that new laws have a tendency to generate vast amounts of new litigation, the Chief Justice has called on congressional committees to file an impact statement, similar to an environmental impact statement, describing the anticipated burden on the Nation's courts of each new piece of Federal legislation. See remarks of Warren E. Burger at the opening session of the American Law Institute, May 18, 1976; State of the Federal Judiciary, remarks of Warren E. Burger before the American Bar Association, Aug. 10, 1970.

THE IMPACT OF HOLDING COMPANY ACQUISITIONS ON AGGREGATE CONCENTRATION IN BANKING

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The research staffs of the Board of Governors of the Federal Reserve System and of the Federal Reserve Banks undertake studies that cover a wide range of economic and financial subjects. From time to time the results of studies that are of general interest to the economics profession and to others are summarized in the Federal Reserve Bulletin.

The following paper, which was summarized in the Bulletin for February 1974, was prepared as a staff paper in early 1974.

The analyses and conclusions set forth are those of the author and do not necessarily indicate concurrence by other members of the research staffs, by the Board of Governors, or by the Federal Reserve Banks.

SUMMARY

Acquisitions of banks by bank holding companies have accelerated sharply since about 1968, with most of the deposits having been acquired by the 100 largest banking organizations in the Nation. This development has revived a longstanding public concern over the possible emergence in banking of excessive aggregate concentration--generally defined as the percentage of total deposits held by a given number of the largest banking organizations in the Nation or in a State. The public's basic concern is that high levels of concentration will place excessive economic power in the hands of a relatively small number of banking organizations.

For purposes of the study, aggregate concentration in banking on the nationwide level was measured by the percentage of total domestic deposits held by the 100 largest banking organizations; and on the statewide level by the percentage of total domestic deposits held by the 5 largest banking organizations in the State. The aim of the study was twofold: (1) to determine the changes in aggregate concentration on the nationwide and statewide levels between 1968 and 1973; and (2) to measure the impact of bank holding company acquisitions during the period on these concentration measures.

The study found that nationwide aggregate concentration fell from 49.0 to 47.0 per cent between 1968 and 1973. This decline resulted from the relatively slow internal growth of the 100 largest banking organizations in the Nation and occurred even though these organizations acquired banks during the period that held an aggregate of almost $17 billion of deposits in 1973. If these holding company acquisitions had not taken place, nationwide concentration would have declined another 2.3 percentage points over the period.

Between 1968 and 1973, statewide concentration increased in 28 States, declined in 22, and remained constant in 1. Both the mean and the median changes in statewide concentration for the 50 States and the District of Columbia were slightly less than 1 percentage point. Acquisitions by holding companies increased concentration in 24 States, with increases in excess of 10 percentage points occurring in 6 States. In States that permitted multibank expansion, the effects of holding company acquisitions varied with the type of branching allowed. Holding company acquisitions increased concentration in almost all unit banking and limited branching States, but in only about a third of the statewide branching States. Holding company acquisitions that increased statewide concentration occurred almost entirely in States with low or moderate concentration and had almost no impact in States with a high degree of concentration.

THE IMPACT OF HOLDING COMPANY ACQUISITIONS ON AGGREGATE CONCENTRATION IN BANKING

Samuel H. Talley*

Throughout most of American history, Congress, state legislatures and the general public have evidenced concern over the development of excessive aggregate concentration in banking.[1/] This concern was reflected as early as the first half of the nineteenth century in the so-called "free banking" controversy. Later in that century and throughout much of the twentieth century, fear of excessive concentration figured in the bitter debates over state branching laws. In the post World War II period, numerous bank acquisitions, both through merger and the holding company device, again raised the spector of excessive concentration in banking and lead to Congressional passage of the Bank Holding Company Act in 1956 and the Bank Merger Act in 1960.[2/]

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* The author wishes to express his gratitude to numerous colleagues at the Board of Governors for reading a draft of this study and making many helpful comments. He also wishes to thank Mrs. Lucille Nelson for collecting the data used in the study.

1/ Aggregate concentration in banking is usually defined as the percent of total deposits that are held by a given number of the largest banking organizations in the nation or a state. Because banking markets are generally considered to be local in geographic scope, aggregate concentration should not be confused with market concentration, and it should not be used in a market context for analyzing competition. Aggregate concentration in banking may change over time without any change in concentration in individual banking markets.

2/ It is generally recognized that the widespread expansion of Transamerica Corporation in five Western states was a major catalyst in the passage of the Bank Holding Company Act in 1956. This act, along with the later Bank Merger Act, was designed to control bank expansion in order to preserve competition in individual markets and to prevent an undue concentration of banking resources.

Probably the primary reason for public concern over high concentration in banking is that it gives considerable economic power, particularly over resource allocation, to a relatively small number of bankers. In addition, those with substantial economic power may be able to exercise significant control over the political process. This political power might then be used to protect or augment existing economic power.

A second concern is that high concentration at the state level may have adverse implications for competition in local banking markets within the state. This view has been espoused recently by both the Department of Justice and the Federal Deposit Insurance Corporation.[3/] According to this view, the largest banking organizations in highly concentrated states tend to be represented in many or most of the state's major markets. Facing each other in these markets, these dominant organizations recognize their mutual interdependence and adopt pricing and other competitive practices that benefit themselves at the expense of the public.[4/]

In the last several years, concern over aggregate concentration in banking has again mounted, this time primarily as a result of the sharp acceleration in bank holding company acquisitions that began about 1968.

3/ For example, see "Potential Competition in Banking: After Greeley, What?", a speech given by Donald I. Baker, Director of Policy Planning, Antitrust Division of the Department of Justice, on March 19, 1973; and the brief filed by the Federal Deposit Insurance Corporation in Washington Mutual Savings Bank and Grays Harbor Savings & Loan Association v. Federal Deposit Insurance Corporation.

4/ For a detailed theoretical discussion of this subject, see Elinor Harris Solomon, "Bank Merger Policy and Problems: A Linkage Theory of Oligopoly", Journal of Money, Credit and Banking, August, 1970. It should be noted that this linked theory of oligopoly in banking has not yet been subjected to empirical testing.

In 1971 alone, holding companies acquired 117 banks with aggregate deposits of $ 4.6 billion, while in 1972 they acquired 251 banks with aggregate deposits of $ 9.9 billion.[5/] Most of these deposits were acquired by the nation's major banking organizations. In response to this accelerating holding company movement, the Department of Justice has brought several major antitrust suits, stressing the elimination of potential competition and an undue increase in statewide concentration.[6/] In addition, in mid 1973, a House Banking and Currency subcommittee issued a staff study calling attention to the significant increase in banking concentration in various states and suggesting that Congress might want to set guidelines on future holding company expansion.[7/]

Paradoxically, while concern has mounted over the recent holding company acquisition movement, no evidence exists concerning its quantitative impact on aggregate concentration. Evidence of this type is clearly necessary to assess the effect of the movement and formulate public policy. The primary objectives of this study, therefore, are: (1) to determine what has happened to aggregate concentration in banking nationwide and statewide between 1968-73 (the period of the accelerated holding company movement); and (2) to determine what impact holding company acquisitions have had on these concentration measures.

5/ Board of Governors of the Federal Reserve System.

6/ To date, the Department of Justice has lost eight consecutive potential competition cases in banking, including the famous Greeley case.

7/ Financial Institutions: Reform and the Public Interest, Domestic Finance Subcommittee, House Banking and Currency Committee, August, 1973.

METHODOLOGY

In order to determine trends in aggregate concentration in banking, it is first necessary to specify a measure of concentration. For purposes of this study, nationwide concentration in banking for a given year is defined as the percent of total domestic deposits held by the 100 largest banking organizations in the nation. Statewide concentration for a given year is defined as the percent of total domestic deposits held by the 5 largest banking organizations in that state.

Two features of these definitions need elaboration. First, the concentration measures are based on domestic deposits. The exclusion of foreign deposits of American banks seems appropriate, because the study is concerned with aggregate concentration in banking in the United States.[8/] Second, the choice of 100 and 5 as the number of banking organizations to be included in the nationwide and statewide concentration measures is judgmental and necessarily somewhat arbitrary. However, the same or similar types of measures have been used in other studies of banking structure in the United States.[9/]

The impact of holding company acquisitions between 1968-73 on nationwide concentration in 1973 is determined by first calculating the actual nationwide concentration ratio for 1973 (the percent of total domestic deposits held by the 100 largest banking organizations in the

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8/ Moreover, the assets that are held by foreign branches of American banks are largely loans to borrowers located abroad and deposits held in other banks.

9/ For example, see Recent Changes in Banking Structure in the United States, Select Committee on Small Business, United States Senate, 1970.

nation in 1973). Next, an adjusted nationwide concentration ratio for 1973 is determined. This adjusted ratio is the percent of total domestic deposits that would have been held by the 100 largest banking organizations in the nation in 1973 if no holding company acquisitions had been made between 1968-73.[10/] Finally, the adjusted ratio for 1973 is subtracted from the actual ratio for that year.

The impact of holding company acquisitions between 1968-73 on statewide concentration in 1973 (the percent of total domestic deposits held by the 5 largest banking organizations in the state) is determined for each state by employing the procedures described above; i.e., both an actual and an adjusted statewide concentration ratio is calculated, and the latter is then subtracted from the former.

Deposit data used in the study are from the June Reports of Condition (Call Reports) for selected years.

NATIONWIDE CONCENTRATION

Trends in Nationwide Concentration

Nationwide concentration in banking remained relatively steady throughout the period from 1957 to 1968. From a level of 48.2 percent in 1957, concentration rose slightly to 49.4 percent in 1961, and then gradually drifted lower, reaching 49.0 percent in 1968. (See Table 1.) For the entire 1957-68 period, concentration increased only 0.8 percentage point.

10/ The list of 100 largest banking organizations used in computing the actual ratio was slightly different from the list of 100 organizations used for the adjusted nationwide concentration ratio. The reason for this is that several holding companies on the list for the actual ratio calculation did not make the list for the adjusted ratio calculation when the 1973 deposits of their acquired banks were subtracted from their total deposits.

TABLE 1

Trends In Nationwide Concentration, 1957-73

Percent of Total Domestic Deposits Held by the 100 Largest Banking Organizations					Percentage Point Change 1957-68	Percentage Point Change 1968-73
1957	1961	1966	1968	1973		
48.2	49.4	49.3	49.0	47.0	+0.8	-2.0

Source: Board of Governors of the Federal Reserve System

Because holding company acquisitions of banks accelerated sharply starting in 1968, and many of these acquisitions were made by the 100 largest banking organizations, it would seem likely that nationwide concentration would have risen between 1968 and 1973. In fact, the opposite was the case. Between 1968 and 1973, nationwide concentration fell 2.0 percentage points from 49.0 percent to 47.0 percent. The apparent reason for this decline is that the internal growth of large banking organizations was significantly slower during this period than that of smaller organizations. 11/

Impact of Holding Company Acquisitions on Nationwide Concentration

Almost half of the 100 largest banking organizations in 1973 acquired banks through the holding company device between 1968-73. These acquisitions had the effect of raising nationwide concentration in 1973 above the level that otherwise would have prevailed. As previously discussed, the quantitative impact of these acquisitions on nationwide concentration in 1973 is calculated by subtracting the adjusted nationwide concentration for 1973 from the actual ratio for that year.

The adjusted nationwide concentration ratio for 1973 was 44.7 percent. Since the actual ratio was 47.0 percent, we can conclude that

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11/ In a study by Rhoades and Yeats, the authors found that a sample of large banks with deposits over $500 million grew more slowly internally between 1960 and 1971 than any of five other smaller size classes of banks. Even when merger growth was added to internal growth, the largest size class of banks grew more slowly than any other size class except the very smallest class (banks with deposits under $5 million). The fastest internal growth was experienced by banks in the $10-25 million and $25-100 million deposit size classes. See S.A. Rhoades and A.J. Yeats, "Growth, Consolidation and Mergers in Banking", Journal of Finance (forthcoming).

holding company acquisitions between 1968-73 increased nationwide concentration 2.3 percentage points above the level that would have existed in the absence of such acquisitions. Further, we can also conclude that actual nationwide concentration would have fallen 4.3 percentage points between 1968-73 (from 49.0 to 44.7 percent) in the absence of holding company acquisitions, compared with the 2.0 percentage point decline actually recorded.

Reliance of the 100 Largest Organizations on Acquisitions for Growth

Between 1968 and 1973, the deposits of the 100 largest banking organization in 1973 increased $108.1 billion. Of this growth, $16.8 billion, or 15.5 percent, was accounted for by holding company acquisitions. 12/

Among the 100 largest organizations, there was a marked difference in the extent to which the "top 20" and the "next 80" organizations relied on holding company acquisitions for growth. 13/ Between 1968-73, the "top 20" organizations acquired banks that had 1973 aggregate deposits of only $1.6 billion. As shown in Table 2, these acquisitions contributed only 2.8 percent to their $57.4 billion growth during the five year period. In contrast, the the "next 80" organizations acquired banks that had 1973 aggregate deposits of $15.2 billion. These acquisitions contributed a surprisingly large 30.0 percent to the deposit growth of the "next 80". One likely reason for the substantial difference between the "top 20" and the "next 80" in their reliance on

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12/ Excluded from these acquisition totals are the deposits of banks acquired in one-bank holding company formations and the deposits of so-called "lead" banks acquired in multi-bank holding company formations.

13/ The 1973 deposits of banking organizations included in the "top 20" ranged from $3.1 to $24.0 billion, while the deposits of organizations included in the "next 80" ranged from $0.9 to $2.8 billion.

Table 2

Reliance of the 100 Largest Banking Organizations
on Holding Company Acquisitions for Deposits Growth, 1968-73
(Deposits in $billions)

	(1) 1968 Deposits	(2) 1973 Deposits	(3) Absolute Increase in Deposits, 1968-73 (2)-(1)	(4) Percentage Increase in Deposits, 1968-73 (3)/(1)	(5) 1973 Deposits of Banks Acquired 1968-73	(6) Deposits of Banks Acquired as a Percent of Increase in Deposits (5)/(3)
Top 100	$189.8	$297.9	$108.1	57.0%	$16.8	15.5%
Top 20	$116.9	$174.3	$ 57.4	49.1%	$ 1.6	2.8%
Next 80	$ 72.9	$123.6	$ 50.7	69.5%	$15.2	30.0%

Source: Board of Governors of the Federal Reserve System

acquisitions for growth is that the "top 20" may have been more fearful of adverse reactions by both bank regulatory and antitrust authorities. Another reason is that the "top 20" banking organizations were devoting far more attention to banking abroad during the 1968-73 period than were the "next 80".

Finally, among the 100 largest individual banking organizations there was substantial variation in their reliance on holding company acquisitions for growth. Fifty-four organizations made no acquisitions during the 1968-73 period, in many cases because such acquisitions were forbidden by state law. At the other extreme, 23 organizations relied on holding company acquisitions for more than half of their deposit growth during the period.

STATEWIDE CONCENTRATION

Trends in Statewide Concentration

Between 1957-68, there was no significant trend in statewide concentration throughout the nation. During this period, statewide concentration increased in 25 states and decreased in 26.[14/] The mean change in statewide concentration for the 51 states was +1.0 percentage point, while the median change was -0.1 percentage point.

While there was no major trend throughout the nation, there were major changes in statewide concentration in individual states. At one extreme, concentration increased 24.1 percentage points in North Carolina, while at the other extreme concentration declined 10.4 percentage points in Wyoming. (See Table 3.)

14/ In this discussion of statewide concentration, the District of Columbia will be treated as a state.

TABLE 3

Trends in Statewide Concentration, 1957-73

State	Percent of Statewide Deposits Held by Five Largest Banking Organizations				Percentage Point Change, 1957-68	Percentage Point Change, 1968-73
	1957	1961	1968	1973		
Alabama (L)	41.5	39.2	33.5	45.1	- 8.0	11.6
Alaska (S)	81.5	85.2	84.1	87.9	2.6	3.8
Arizona (S)	98.6	98.1	95.4	94.7	- 3.2	- 0.7
Arkansas (U)	24.2	23.9	21.1	21.0	- 3.1	- 0.1
California (S)	76.5	81.9	77.9	75.6	1.4	2.3
Colorado (U)	41.0	48.0	45.6	47.6	4.6	2.0
Connecticut (S)	49.3	56.4	56.6	61.3	7.3	4.7
Delaware (S)	86.6	91.7	92.0	92.0	5.4	--
District of Columbia (S)	73.4	88.7	91.4	88.8	18.0	- 2.6
Florida (U)	21.0	21.7	25.2	31.7	4.2	6.5
Georgia (L)	50.7	56.9	52.4	47.7	1.7	- 4.7
Hawaii (S)	N.A.	96.6	91.0	89.2	- 5.6	- 1.8
Idaho (S)	85.2	84.5	86.5	87.9	1.3	1.4
Illinois (U)	42.5	42.5	40.6	41.3	- 1.9	0.7
Indiana (L)	27.4	29.8	28.1	25.1	0.7	- 3.0
Iowa (U)	20.8	19.2	17.4	18.5	- 3.4	1.1
Kansas (U)	19.8	19.3	16.7	13.2	- 3.1	- 3.5
Kentucky (L)	32.3	33.9	33.5	29.7	1.2	- 3.8
Louisiana (L)	40.3	40.1	31.1	28.1	- 9.2	- 3.0
Maine (S)	38.8	47.7	48.4	69.9	9.6	21.5
Maryland (S)	51.9	57.6	62.7	61.3	10.8	- 1.4
Massachusetts (L)	57.3	64.2	65.4	62.9	8.1	- 2.5
Michigan (L)	52.9	50.0	48.4	46.9	- 4.5	- 1.5
Minnesota (U)	63.7	63.1	59.9	57.4	- 3.8	- 2.5
Mississippi (L)	25.7	28.4	32.4	33.4	6.7	1.0
Missouri (U)	38.8	35.4	29.4	32.8	- 8.9	3.4
Montana (U)	58.4	57.3	58.5	52.8	0.1	- 5.7
Nebraska (U)	40.3	41.2	37.7	31.8	- 2.6	- 5.9
Nevada (S)	100.0	98.6	95.6	97.0	- 4.4	1.4

State	Percent of Statewide Deposits Held by Five Largest Banking Organizations				Percentage Point Change, 1957-68	Percentage Point Change, 1968-73
	1957	1961	1968	1973		
New Hampshire (L)	34.7	34.9	37.8	40.1	3.1	2.3
New Jersey (L)	22.5	22.9	22.4	29.3	- 0.1	6.9
New Mexico (L)	56.6	55.7	50.3	63.6	- 6.3	13.3
New York (L)	52.3	54.9	58.5	55.4	6.2	- 3.1
North Carolina (S)	42.4	57.3	66.5	68.1	24.1	1.6
North Dakota (U)	53.1	54.3	49.2	49.8	- 3.9	0.6
Ohio (L)	35.3	33.4	32.5	33.3	- 2.8	0.8
Oklahoma (U)	41.1	37.4	34.5	28.7	- 6.6	- 5.8
Oregon (S)	91.4	89.2	87.4	83.1	- 4.0	- 4.3
Pennsylvania (L)	36.3	38.7	37.8	33.4	1.5	- 4.4
Rhode Island (S)	98.2	98.2	96.5	92.7	- 1.7	- 3.8
South Carolina (S)	50.6	53.0	55.4	56.1	4.8	0.7
South Dakota (S)	42.9	43.4	45.5	49.3	2.6	3.8
Tennessee (L)	40.1	40.9	39.9	42.1	- 0.2	2.2
Texas (U)	26.4	27.0	23.5	25.3	- 2.9	1.8
Utah (S)	78.8	76.6	72.2	72.0	- 6.6	- 0.2
Vermont (S)	29.1	36.0	47.4	54.9	18.3	7.5
Virginia (S)	28.0	27.1	46.4	50.7	18.4	4.3
Washington (S)	74.4	73.5	72.9	76.2	- 1.5	3.3
West Virginia (U)	24.6	22.1	19.3	17.5	- 5.3	- 1.8
Wisconsin (L)	31.5	33.3	31.9	32.9	0.4	1.0
Wyoming (U)	48.1	46.0	37.7	45.0	-10.4	7.3

U = Unit banking state
L = Limited branching state
S = Statewide branching state

Source: Board of Governors of the Federal Reserve System.

Statewide concentration trends between 1957-68 were markedly different for states with different branching laws. In unit banking states, concentration increased in only 3 of 15 states. On the other hand, concentration rose in 9 of 16 limited branching states and 13 of 20 statewide branching states.

Between 1968-73, holding company acquisitions accelerated sharply. Even with this acceleration, however, statewide concentration increased in only 28 states while falling in 22 and remaining constant in 1. The mean change in statewide concentration during this period for the 51 states was +0.9 percentage point, while the median change was +0.7 percentage point. In the 38 states in which multi-bank holding company expansion was permitted during the period, statewide concentration increased in 23 states, fell in 14 and remained constant in 1. In the 13 states in which multi-bank holding company expansion was prohibited, concentration increased in 5 states and declined in 8.[15/]

As in the 1957-68 period, there were major changes in statewide concentration in individual states during 1968-73. These ranged from a 21.5 percentage point increase in Maine to a 5.9 percentage point decline in Nebraska. (See Table 3.) Unlike the earlier period, there was much more uniformity in concentration trends for states with different branching provisions. In unit banking states, concentration

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15/ These 13 states prohibiting multi-bank holding company expansion between 1968-73 were Georgia, Illinois, Indiana, Kansas, Kentucky, Louisiana, Mississippi, Nebraska, North Dakota, Oklahoma, Pennsylvania, Vermont and Washington.

rose in 8 of 15 states (as opposed to only 3 of 15 states in the earlier period).[16/] In limited branching states, concentration increased in 8 of 16 states, while in statewide branching states, concentration rose in 12 states, declined in 7 and remained constant in 1.

Impact of Holding Company Acquisitions on Statewide Concentration

Actual and adjusted statewide concentration ratios for 1973 are shown for each state in Table 4. In order to measure the impact of holding company acquisitions between 1968-73 on statewide concentration in 1973, the adjusted statewide concentration figure for 1973 is subtracted from the actual statewide concentration figure for that year.

In 24 states, holding company acquisitions between 1968-73 increased statewide concentration. These increases ranged up to 5 percentage points in 15 states, between 5 and 10 percentage points in 3 states, and between 10 and 15 percentage points in 6 states. The 6 states with increases in excess of 10 percentage points were Florida (14.8), Alabama (14.6), Maine (13.2), New Mexico (11.9), Wyoming (10.6) and Missouri (10.5). In 27 states, holding company acquisitions had no impact on statewide concentration. In 13 of these 27 states, multi-bank holding company expansion was prohibited during the period.

In the 38 states that permitted multi-bank expansion, holding company acquisitions had a markedly different impact on concentration depending on state branching laws. (See Table 5.) Of the 10

16/ As will be shown shortly, this difference is explained in part by substantial holding company activity in unit banking states during the more recent period.

TABLE 4

Impact of Holding Company Acquisitions
on Statewide Concentration, 1968-73

State	Actual Statewide Concentration in 1973	Adjusted Statewide Concentration in 1973	Impact of Holding Company Acquisitions on Statewide Concentration, 1968-73
Alabama (L)	45.1	30.5	14.6
Alaska (S)	87.9	87.9	--
Arizona (S)	94.7	94.7	--
Arkansas (U)	21.0	19.3	1.7
California (S)	75.6	75.6	--
Colordao (U)	47.6	39.9	7.7
Connecticut (S)	61.3	61.1	0.2
Delaware (S)	92.0	92.0	--
District of Columbia (S)	88.8	88.8	--
Florida (U)	31.7	16.9	14.8
Georgia (L)	47.7	47.7	--
Hawaii (S)	89.2	89.2	--
Idaho (s)	87.9	87.9	--
Illinois (U)	41.3	41.3	--
Indiana (L)	25.1	25.1	--
Iowa (U)	18.5	15.4	3.1
Kansas (U)	13.2	13.2	--
Kentucky (L)	29.7	29.7	--
Louisiana (L)	28.1	28.1	--
Maine (S)	69.9	56.7	13.2
Maryland (S)	61.3	59.4	1.9
Massachusetts (L)	62.9	61.2	1.7
Michigan (L)	46.9	42.6	4.3
Minnesota (U)	57.4	56.1	1.3
Mississippi (L)	33.4	33.4	--
Missouri (U)	32.8	22.3	10.5
Montana (U)	52.8	51.9	0.9
Nebraska (U)	31.8	31.8	--
Nevada (S)	97.0	97.0	--

State	Actual Statewide Concentration in 1973	Adjusted Statewide Concentration in 1973	Impact of Holding Company Acquisitions on Statewide Concentration, 1968-73
New Hampshire (L)	40.1	40.1	--
New Jersey (L)	29.3	20.5	8.8
New Mexico (L)	63.6	51.7	11.9
New York (L)	55.4	54.9	0.5
North Carolina (S)	68.1	68.1	--
North Dakota (U)	49.8	49.8	--
Ohio (L)	33.3	28.7	4.6
Oklahoma (U)	28.7	28.7	--
Oregon (S)	83.1	83.1	--
Pennsylvania (L)	33.4	33.4	--
Rhode Island (S)	92.7	92.7	--
South Carolina (S)	56.1	56.1	--
South Dakota (S)	4913	47.9	1.4
Tennessee (L)	42.1	38.5	3.6
Texas (U)	25.3	20.8	4.5
Utah (S)	72.0	71.8	0.2
Vermont (S)	54.9	54.9	--
Virginia (S)	50.7	45.7	5.0
Washington (S)	76.2	76.2	--
West Virginia (U)	17.5	17.5	--
Wisconsin (L)	32.9	29.2	3.7
Wyoming (U)	45.0	34.4	10.6

U = Unit banking state
L = Limited branching state
S = Statewide branching state

Source: Board of Governors of the Federal Reserve System.

Table 5

Impact of Holding Company Acquisitions on Concentration
in States with Different Branching Laws 1/

States	Impact of Holding Company Acquisitions on Statewide Concentration, 1968-73
Unit Banking States	
Arkansas	1.7
Colorado	7.7
Florida	14.8
Iowa	3.1
Minnesota	1.3
Missouri	10.5
Montana	0.9
Texas	4.5
West Virginia	--
Wyoming	10.6
Limited Branching States	
Alabama	14.6
Massachusetts	1.7
Michigan	4.3
New Hampshire	--
New Jersey	8.8
New Mexico	11.9
New York	0.5
Ohio	4.6
Tennessee	3.6
Wisconsin	3.7
Statewide Branching States	
Alaska	--
Arizona	--
California	--
Connecticut	0.2
Delaware	--
District of Columbia	--
Hawaii	--
Idaho	--

	Impact of Holding Company Acquisitions on Statewide Concentration, 1968-73
Statewide Branching States (con't)	
Maine	13.2
Maryland	1.9
Nevada	--
North Carolina	--
Oregon	--
Rhode Island	--
South Carolina	--
South Dakota	1.4
Utah	0.2
Virginia	5.0

1/ Includes only the 38 states in which multi-bank holding company expansion was allowed between 1968-73.

Source: Board of Governors of the Federal Reserve System.

unit banking states permitting expansion, holding company acquisitions increased concentration in 9 states. In limited branching states allowing expansion, acquisitions also increased concentration in 9 of the 10 states. At the other extreme, holding company acquisitions boosted concentration in only 6 of the 18 statewide branching states permitting multi-bank expansion. The basic reason for this difference in impact is that banking organizations in unit banking states must rely entirely on holding company acquisitions for expansion, and organizations in limited branching states must use the holding company device to expand outside the limited area where they can branch. In statewide branching states, on the other hand, organizations can expand anywhere in the state through branching. Consequently, there is far less need for holding company acquisitions in statewide branching states.[17/]

The impact of holding company acquisitions on statewide concentration in the 38 states permitting multi-bank expansion was limited almost entirely to states with low or moderate concentration. Acquisitions had virtually no impact on concentration in highly concentrated states. (See Table 6.) There are probably two reasons for this. First, the lowly and moderately concentrated states are mostly unit banking and limited branching states. These are the states where banking organizations desire to expand through holding company acquisi-

17/ When banking organizations have a choice, they usually prefer to acquire another bank through merger rather than by holding company acquisition.

Table 6

Impact of Holding Company Acquisitions on Concentration
in States with Different Levels of Concentration

States	Statewide Concentration in 1968	Impact of Holding Company Acquisitions on Statewide Concentration, 1968-73
Highly Concentrated States		
Rhode Island (S)	96.5	--
Nevada (S)	95.6	--
Arizona (S)	95.4	--
Delaware (S)	92.0	--
District of Columbia (S)	91.4	--
Hawaii (S)	91.0	--
Oregon (S)	87.4	--
Idaho (S)	86.5	--
Alaska (S)	84.1	--
California (S)	77.9	--
Washington (S) 1/	72.9	--
Utah (S)	72.2	0.2
Moderately Concentration States		
North Carolina (S)	66.5	--
Massachusetts (L)	65.4	1.7
Maryland (S)	62.7	1.9
Minnesota (U)	59.9	1.3
Montana (U)	58.5	0.9
New York (L)	58.5	0.5
Connecticut (S)	56.6	0.2
South Carolina (S)	55.4	--
Georgia (L) 1/	52.4	--
New Mexico (L)	50.3	11.9
North Dakota (U) 1/	49.2	--
Maine (S)	48.4	13.2
Michigan (L)	48.4	4.3
Vermont (S) 1/	47.4	--
Virginia (S)	46.4	5.0
Colorado (U)	45.6	7.7
South Dakota (S)	45.5	1.4
Illinois (U) 1/	40.6	--

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States	Statewide Concentration in 1968	Impact of Holding Company Acquisitions on Statewide Concentration, 1968-73
Lowly Concentrated States		
Tennessee (L)	39.9	3.6
New Hampshire (L)	37.8	--
Pennsylvania (L) 1/	37.8	--
Nebraska (U) 1/	37.7	--
Wyoming (U)	37.7	10.6
Oklahoma (U) 1/	34.5	--
Alabama (L)	33.5	14.6
Kentucky (L) 1/	33.5	--
Ohio (L)	32.5	4.6
Mississippi (L) 1/	32.4	--
Wisconsin (L)	31.9	3.7
Louisiana (L) 1/	31.1	--
Missouri (U)	29.4	10.5
Indiana (L) 1/	28.1	--
Florida (U)	25.2	14.8
Texas (U)	23.5	4.5
New Jersey (L)	22.4	8.8
Arkansas (U)	21.0	1.7
West Virginia (U)	19.3	--
Iowa (U)	17.4	3.1
Kansas (U) 1/	16.7	--

1/ States that prohibited multi-bank expansion between 1968-73.

U = Unit banking state
L = Limited branching state
S = Statewide branching state

Source: Board of Governors of the Federal Reserve System.

tions. The highly concentrated states, on the other hand, are entirely statewide branching states, where there is little pressure to expand through the holding company device. The second reason is that regulatory resistance to acquisitions by the state's largest banking organizations is undoubtedly greater in more highly concentrated states.

SUMMARY AND CONCLUSION

Holding company acquisitions of banks have accelerated sharply since about 1968 and most of the deposits were picked up by the 100 largest banking organizations in the nation. This development has revived a long standing public concern over the emergence of an excessive concentration of resources in banking. The purpose of this study has been to determine what has happened to aggregate concentration in banking both nationwide and in the various states since 1968, and what impact holding company acquisitions have had on these concentration measures.

One major finding of the study is that nationwide concentration declined by 2.0 percentage points between 1968-73, even though the 100 largest banking organizations acquired almost $17 billion of deposits through holding company acquisitions. Without these acquisitions, nationwide concentration would have fallen another 2.3 percentage points. Holding company acquisitions, therefore, approximately halved the decline that the 100 largest organizations would have sustained in the absence of these acquisitions.

A second finding is that the "top 20" banking organizations relied very little on holding company acquisitions for their deposit

growth between 1968-73. On the other hand, the "next 80" largest banking organizations relied heavily on such acquisitions for growth. Regarding individual banking organizations among the largest 100, about a quarter of them relied on holding company acquisitions for more than half of their growth, while about half made no acquisitions.

A third finding is that statewide concentration between 1968-73 increased in slightly over half of the states, while both the mean and median increases in statewide concentration for the 51 states were slightly less than 1 percentage point. Acquisitions by holding companies increased concentration in 24 states, with increases in excess of 10 percentage points occurring in 6 states. In states permitting multi-bank expansion, holding company acquisitions increased concentration in almost all unit banking and limited branching states but in only a third of the statewide branching states. Finally, acquisitions that increased concentration were limited almost entirely to states with low or moderate concentration. Acquisitions had almost no impact on concentration in highly concentrated states.

In conclusion, this study indicates that, however serious the banking concentration problem may be, the problem generally did not worsen between 1968-73.[18/] The study also indicates that while

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18/ The notable exception was the sharp increase in concentration in about half a dozen states. Also, it should be remembered that the size measure used in this study was total domestic deposits. In recent years, many of the largest banks have experienced rapid foreign deposit growth.

the bank holding company movement boosted concentration, the effect of this movement was offset nationwide and in some states by the relatively slow internal growth of large banking organizations. Whether this relatively slow internal growth will continue to offset the impact of the holding company movement in the future is not clear. Consequently, given the public's concern over concentration in banking, future trends should be closely monitored.

► JEROME C. DARNELL

The NATIONAL BANKING REVIEW

Chain Banking

Although the bank structure has been widely discussed and studied in recent years, one of its aspects, chain banking, has been neglected. Not since the Federal Reserve Board study that presented data for 1945 has information been made available concerning the number and location of chain banks in the United States. At that time there were 115 bank chains consisting of 3 or more banks each, or 522 chain banks representing slightly less than 4 percent of the commercial banks then in existence. These banks held about 3 percent of all commercial bank deposits.[1]

In 1962, Wright Patman, Chairman of the House Committee on Banking and Currency, urged the Federal Reserve Board to obtain from member banks lists of the 20 largest stockholders of record, together with the number of shares held by each, and any loans made by member banks secured by 10 percent or more of the stock of any other bank. Stockholder lists of the 200 largest member banks, along with loans secured by 10 percent or more of the stock in other banks, were published in 1963.[2] In 1964, lists of the

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[1] *Federal Reserve Bulletin*, April 1947, p. 463.

[2] U. S. Congress, House Committee on Banking and Currency, *Chain Banking: Stockholder*

top 20 stockholders of all member banks were made available.[3] The primary purpose of this article is to present a summary analysis of the stockholder lists with the chain banking relationships that prevailed among member banks at mid-1962.[4]

I. Chain Banking Defined

There is no requirement for formal, consistent reporting of chain relationships to any Federal banking authority, and without knowledge of ownership ties it is difficult to ascertain the existence of bank chains or to determine which banks operate in particular chain systems at a given time.[5] There is also the question of a "proper" definition of chain banking. The Federal Reserve Board study applied a definition of "three or more independently incorporated banks" controlled by an individual or group of individuals.[6] Others, however, believe that ". . . concentration in control is indicated quite as much by the joining of two banks as three . . ."[7] or have referred to chain banking in terms of "two or more banks" controlled by the common ownership interests of an individual or group of individuals.[8] Representative Patman suggests that chain banking should encompass all common ownership ties (both corporate and individual) that do not fall under the definition of holding-company banking, or group banking.

A broad definition of chain banking was adopted for this study. A chain system was deemed to exist when two or more banks have one or more stockholders in common (excluding banks controlled by registered bank holding companies) provided that: (1) the stockholder(s) in common is among the 20 largest stockholders in each bank, (2) the stockholder(s) in common is a director or an officer in each bank, and (3) if the stockholder(s) in common is not a director or an officer, he owns 5 percent or more of the stock in the bank in which he is not a director or officer. This definition does not specify that two or more banks must be "controlled" by an individual or group of individuals. It would be virtually impossible to determine from stockholder lists alone when control is being exercised, in view of the hazards of establishing a definitive statement of "control" with general applicability, and of the impossibility of designating any particular percentage that would always insure control. Instead, the basic assumption underlying the definition is that banks with common owners satisfying the three stated conditions have the potential capability of coordinating operating policies and are therefore considered chain banks. Furthermore, by this definition, chain systems may result from the common ownership of corporate entities that are not registered bank holding com-

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and Loan Links of 200 Largest Member Banks, 88th Cong., 1st Sess., Washington, D.C.: Government Printing Office, 1963.

[3] U. S. Congress, House Committee on Banking and Currency, Subcommittee on Domestic Finance, *Twenty Largest Stockholders of Record in Member Banks of the Federal Reserve System*, 88th Cong., 2d Sess., Washington, D.C.: Government Printing Office, 1964.

[4] The analysis cannot be extended to all commercial banks because stockholder lists are not available for the nonmember banks.

[5] Board of Governors of the Federal Reserve System, "Recent Developments in the Structure of Banking," report submitted to the Select Committee on Small Business, U. S. Senate, Washington, D.C.: Government Printing Office, 1962, p. 10.

[6] Board of Governors of the Federal Reserve System, *Banking and Monetary Statistics*, Washington, D.C.: National Capital Press, 1943, p. 295.

[7] R. G. Thomas, "Concentration in Banking Control Through Interlocking Directorates as Typified by Chicago Banks," *Journal of Business*, January 1933, p. 3.

[8] Gaines T. Cartinhour, *Branch, Group and Chain Banking*, New York: The MacMillan Company, 1931, p. 58; John M. Chapman, *Concentration of Banking*, New York: Columbia University Press, 1934, p. 322; and Thomas, *op. cit.*, p. 2.

panies. Thus, all instances of common ownership that would not fall into the category of group banking are covered.[9]

Even this definition of chain banking is not entirely satisfactory. The same individuals do not always appear by the same designations in other banks, obscure family ties are not revealed by stockholder lists, and stock may be held in trust accounts or in the name of a bank nominee that does not reveal the identity of the beneficial owner.[10] Despite the use of a broad definition, chain banking is no doubt much more prevalent than is revealed by the data presented in the following pages.

II. *Descriptive Measures of Chain Banking*

A. Number of Chain Banks and Assets Held, by Federal Reserve Districts

Table 1 shows the number of chain banks by Federal Reserve District location, (see Data Appendix.) In 1962, chain banking systems encompassed 1,146 member banks, having about $45 billion in assets. About one-fifth of all member banks and member banks assets exhibited such a community of interest among stockholders. Three districts, the Seventh, Tenth, and Eleventh, account for nearly one-half of all chain banks. The remaining chain banks are divided about evenly among eight of the Districts, only the Twelfth District showing a small number. Chain banks represent from 14 to 16.6 percent of the member banks in seven Districts. Four Districts have 20 percent or more of their member banks operating in chains; the greatest proportion, almost 30 percent, is found in the Eleventh District. The Twelfth District has less than 10 percent of its member banks in chain organizations.

There were 526 member banks with one individual owning 5 percent or more of the stock in each of two or more banks. An additional 30 banks were discovered in which a group of the same individuals had combined holdings of at least 5 percent of the outstanding stock in each of two or more banks.[11] Banks joined by 5 percent holdings represent slightly more than 9 percent of all member banks. The largest number of banks linked by 5 percent ownership ties of individuals are found in the Tenth and Eleventh Districts. These two Districts include states that were almost exclusively unit banking states in 1962.[12] The Sixth and Ninth Districts, in addition to the Tenth and Eleventh Districts, had over 10 percent of their member banks joined by common ownership ties of 5 percent or more. The Seventh District had a larger number of banks, 70 compared with 47 and 46 for the Ninth and Sixth Districts, respectively, joined in this manner, but the proportion of member banks was only 7 percent.

In general, a similar pattern exists for 10, 15, 20, and 25 percent ownership positions. The Sixth, Ninth, Tenth, and Eleventh Districts have the largest num-

[9] Group banks are considered in this article to be only those banks controlled by a registered bank holding company. The Bank Holding Company Act of 1956 defined a bank holding company as a company that (1) directly or indirectly controls 25 percent or more of the voting stock of two or more banks, or (2) controls in any manner the election of the majority of the directors of two or more banks. Holding companies that fit this category are required to register with the Federal Reserve Board.

[10] *Twenty Largest Stockholders of Record in Member Banks of the Federal Reserve System*, p. 3.

[11] The holdings of corporate stockholders were not included in the columns showing various percentages linking banks together. The data refer strictly to "individuals."

[12] A small number of Louisiana and Arizona counties plus about one-half of the state of New Mexico are included in the Eleventh District, these being the only states in the two districts that allowed branch banking.

ber of banks linked by the various percentage holdings, as well as the largest proportions of member banks linked by these percentages. Each of these four Districts has 4.9 percent or more of its member banks joined by the holdings of individuals who own 25 percent or more of the stock in each of two or more banks.

Examination of the assets held by chain banks reveals a heavy concentration in four Districts (Table 2). Nearly 65 percent of the total assets of the chain banks are found in the Fourth, Seventh, Tenth, and Eleventh Districts; chain banks located in the Seventh District account for almost one-fourth of the assets. Chain banks account for over 30 percent of the total member bank assets in four Districts. Over 50 percent of member bank assets in the Eleventh District are held by chain banks, and over 40 percent in the Tenth District. Five Districts have chain banks controlling from 20 to 30 percent of member bank assets. Only three districts—the Second, Ninth, and Twelfth—have less than 10 percent of member bank assets held by chain banks.

The magnitude of assets controlled by chain banks that are linked by 5 percent ownership shares of individuals is slightly over $8 billion, or 3.5 percent of all member bank assets. Three Districts—Six, Ten, and Eleven—have from 10 to 21 percent of their member bank assets held by banks having common ownership ties of at least 5 percent.

At the other end of the scale, banks joined by individuals holding 25 percent or more of the stock in two or more banks represent about $1.7 billion in assets, roughly 0.7 percent of the member bank assets (Table 3). The chain banks in the Sixth, Tenth, and Eleventh Districts hold the largest amounts of assets in those instances of 25 percent ownership. Banks joined by 10, 15, and 20 percent ownership shares of individuals in each of two or more banks account for $5.2, $4.4, and $3.3 billion in assets, respectively. Interestingly enough, Districts One through Five and District Twelve, where statewide or limited branching is predominant,[13] have a small number of banks and small amounts of assets connected by the larger percentage holdings of individuals in two or more banks.

B. Number of Chain Banks and Assets Held, by Regions and States

The data used to construct Tables 1, 2, and 3 have been rearranged by geographic region and state and presented in Tables 4-7. Tables 4-7 also present member bank chains in relation to all insured commercial banks as well as member banks.

Only four states, all located in the Pacific region, have no member banks linked in a chain organization (Table 4). In fact, only one chain bank shows up in the entire region, that bank having a common ownership connection with a bank in the West North Central region. The East South Central region has the next smallest number of chain banks, with 37. The largest number are found in the West South Central and East North Central regions, these regions having 264 and 250 chain banks, respectively. There are 164 chain banks located in Texas, and Illinois has 111. Oklahoma and Pennsylvania rank third and fourth with 82 and 78, respectively.

Four regions—New England, South Atlantic, West South Central, and Mountain—have more than one out of every five member banks connected by common ownership ties. There are six states in which chain banks represent over 30 percent of the member banks in the state, Rhode Island being the leader with 60 percent. Twelve other states, located mainly in the Midwest, have over 20 percent of their member banks connected in chains.

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[13] *Federal Reserve Bulletin*, September 1963, p. 1195.

CHAIN BANKING

Chain banks account for 8.7 percent of all insured commercial banks in the country. The largest proportion is found in the Mountain states where one out of every six insured commercial banks has owners in common. The West North Central, East South Central, and Pacific regions have less than 5 percent of all their insured commercial banks connected in chains. Over 30 percent of the insured commercial banks in two states, Rhode Island and Idaho, are operating in chain systems; both states allow statewide branch banking. From 20 to 30 percent of the insured banks in New Hampshire, Oklahoma, and Colorado have common ownership links, and unit banking is prevalent in all three states. Fifteen states and the District of Columbia have between 10 and 20 percent of their insured banks in chain systems. In 2 of the 15 states, statewide branching is permitted, 7 permit limited branching, and 6 have unit banking. Thus, of the 20 states where chain banks represent over 10 percent of the insured commercial banks, unit banking prevails in 9, and either statewide or limited branching is found in the other 11.

Investigation of the number of banks in which one individual or a group of the same individuals owns 5 percent or more of the outstanding stock in two or more banks shows that Texas, Oklahoma and Illinois rank first, second, and third, having 98, 64, and 59 such banks, respectively. However, in terms of proportion of member banks in the state linked by 5 percent holdings of individuals, Idaho has 47 percent and Florida has 30 percent of its banks linked in this manner. Fourteen states—all having unit banking systems with the exception of Idaho, New Mexico, Arizona, and Nevada—have in excess of 10 percent of their member banks connected by individuals owning 5 percent or more of the stock in each of two or more banks. Only seven states—five in the Mountain region plus Florida and Oklahoma—have more than 10 percent of their insured commercial banks joined by at least 5 percent holdings of individuals in each of two or more banks.

Table 5 indicates the number of member banks that are joined by various ownership percentages ranging from 10 to 25 percent—344 banks are connected by at least 10 percent ownership positions; 15 percent ownership links 267 banks; 20 percent ownership joins 227 banks; and 175 are connected by at least 25 percent ownership positions in each of two or more banks. The East North Central, West North Central, West South Central, and Mountain regions consistently have the largest number of banks joined by the various percentage shares of ownership. These regions are composed of states that typically have unit banking; the average-sized banks may be small; and the states tend to be less industrialized.

Turning attention to the regional and state distributions of assets controlled by chain banks, we find that chain banks controlled about 19.3 percent of the member banks assets (Table 2), and about 16.3 percent of the assets of insured commercial banks (Table 6) in mid-1962. Slightly over 46 percent of the member bank resources in the West South Central region were held by chain banks, and all other regions, with the exception of the Pacific region, had from 10 to 30 percent of their member bank resources accounted for by chain banks. Six states—Rhode Island, Delaware, Maryland, Florida, Texas, and Colorado—had in excess of 50 percent of their member bank assets held by chain banks. The assets of chain banks represented from 30 to 50 percent of member bank assets in nine other states and the District of Columbia.

A comparison of chain bank assets with the assets of insured commercial banks shows that about one out of every $6 of insured bank assets is held by a member bank of the Federal Reserve System that has the potential ability to coordinate its

operating policies with at least one other member bank, and in many cases, several banks. In the West South Central states about $3 out of every $8 of the assets of insured commercial banks belong to chain banks. The East North Central, South Atlantic, and Mountain regions have slightly more than one out of every $5 of the assets of insured commercial banks held by chain systems.

Rhode Island has 90 percent of its insured commercial bank assets held by chain banks, the highest proportion among all states. Over 40 percent of the insured commercial bank assets in Delaware, Maryland, Florida, Texas, Idaho, and Colorado are represented by chain banks; Delaware, Maryland, and Idaho permit statewide branching, unit banking is the rule in the other three. From 20 to 40 percent of insured bank assets are held by chain banks in 12 other states and the District of Columbia—6 of the 12 have unit banking; the other 6 allow limited branch banking.

As previously noted, member banks that are joined by 5 percent holdings of one individual or a group of individuals in each of two or more banks represent about 3.5 percent of member bank assets. They also account for about 3 percent of all insured commercial bank assets (Table 6). The member banks with common ownership shares of 5 percent or more held by individuals account for about 12 and 14 percent of the member bank assets in the West North Central and West South Central regions, respectively. On an individual state basis, there are nine in which these chain banks hold more than 10 percent of the state's member bank assets—Florida is the leader with 30 percent, followed by Oklahoma with 26 percent. Seven of the states have unit banking; Indiana and New Mexico have limited branching.

Table 7 presents a further breakdown of the assets of member banks by ownership shares, i.e., banks linked by the ownership shares of individuals consisting of 10, 15, 20, and 25 percent of the outstanding stock. The regions in which chain banks hold the largest amounts of assets are the East North Central, West North Central, South Atlantic, and West South Central.

C. Holdings of Corporate Stockholders

Three hundred and thirteen member banks have stockholders in common that are corporate entities holding 5 percent or more of the stock in each of two or more banks.[14] Of these, 85 also have common ownership links formed by the holdings of individuals.

A summary of the holdings of corporate entities is given in Table 8 by type of corporate stockholder and Federal Reserve District location of the banks. (Table 8 includes only the member banks that are linked exclusively by corporate stockholders.) Because of the influence of mutual savings banks in the Eastern States, the First Federal Reserve District has the largest number of chain banks that have a connection through corporate holdings. Sixty-two chain banks were found in the First District (Table 1), and the holdings of mutual savings banks account for 30 of these. To the extent that state laws regulating mutual savings banks allow them to invest in corporate equities, commercial bank stocks have been one of the more attractive types of equity investments. At the end of 1962, commercial bank stocks accounted for one-third of the equity port-

[14] Eight banks are included in the total of 313 in which a corporate entity owned less than 5 percent of the stock in one of the banks. The basis for determining which member banks are chain banks depended on the stockholder's being a director, officer, or owner of 5 percent or more of the stock. In these eight cases, corporate entities owned less than 5 percent of the stock but nevertheless were designated as "directors or officers."

folios of mutual savings banks but represented less than 1 percent of the total assets of mutual savings banks.[15]

A comparison of Table 8 with Table 1 will show that the First District has by far the largest proportion of chain banks joined exclusively by corporate stockholders. The Fourth and Second Districts rank second and third in this respect.

Investigation by type of corporate stockholder indicates that the largest number of banks are linked by the holdings of bank nominees.[16] Ordinarily, nominees are found as stockholders in the larger banks rather than in the smaller ones. As a result, the Second and Seventh Districts, which include the New York and Chicago financial centers, are heavily represented by nominee holdings. In addition, a large number of banks in the Fourth District are linked in the same manner. One report has found that 18 percent of the top 20 stockholders of the 200 largest member banks are bank nominees.[17] The same report suggested that nominees are popular as a means of holding stock for the beneficial owners of (1) estates, (2) various types of individual, pension, and corporate trust accounts, and (3) investment management accounts. In addition to the 94 banks represented in Table 8 that are joined by nominee holdings, 19 other banks are linked by a combination of nominee and individual ownership shares.

Commercial banks frequently hold the stock of other commercial banks in some type of fiduciary capacity. There are 38 member banks in which another commercial bank appears as a stockholder linking two or more other member banks together by 5 percent ownership in each bank. In 27 other instances, commercial banks are 5 percent owners in two or more banks, but these banks are also connected by the holdings of individuals.

Although insurance companies find commercial bank stocks to be appealing investments in many cases, they generally do not invest heavily in any one bank. However, there are 11 member banks in which insurance companies own 5 percent of more of the stock in each of two or more banks. Twelve other member banks are joined by a combination of insurance company and individual holdings.

Eight instances were found in which the corporate entity linking member banks appears to be a bank holding company, according to the firm name. But in these cases the ownership shares of the holding company in each of the banks are not large enough to require registration with the Federal Reserve Board.

Twenty-two member banks were found in which a corporate stockholder owned 25 percent or more of the stock in each of two or more banks and yet was not a registered bank holding company. Thirteen of these banks were joined by the holdings of the Florida National Bank (plus the stockholdings of other individuals), a system of banks specifically exempted from the Bank Holding Company Act because the ownership arises via holdings of the Du Pont Testamentary Trust that was established in the 1930's. Of the other nine banks, five are joined by the holdings of another commercial

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[15] National Association of Mutual Savings Banks, *Mutual Savings Banks: Facts and Figures*, May 1963, p. 21.

[16] Bank nominees are corporate entities that hold the stock of a bank in some type of fiduciary capacity for the beneficial owners. In some cases the nominee has full power to buy, sell, and vote the stock. At the other extreme, nominee holdings may be purely nominal, and the beneficial owner exercises all prerogatives of ownership. Stocks are held in the name of nominees for various reasons, the most important being that this method avoids delays in the transferring of stock. The endorsement of the nominee is usually sufficient to put the stock in good delivery form. See *Chain Banking: Stockholder and Loan Links of 200 Largest Member Banks*, pp. 15-17.

[17] *Chain Banking: Stockholder and Loan Links of 200 Largest Member Banks*, p. 14.

bank, two are linked by the ownership shares of an insurance company, and two are connected by a nominee holding.

The assets controlled by the 228 member banks that are linked exclusively by corporate holdings of 5 percent or more in each of two or more banks are presented in Table 9. Included in the final column are the proportions of District member bank assets held by these chain banks. These chain banks were holding about $19.9 billion in assets compared with about $20.2 billion in assets held by the 434 banks controlled by registered bank holding companies in June, 1962.[18] Thus, the member banks of the Federal Reserve System that were linked exclusively by corporate entities controlled 7.2 percent of the assets of insured commercial banks (8.6 percent of the assets of member banks) compared with about 8 percent controlled by registered bank holding companies in 1962.

The magnitude of assets of banks joined by nominee holdings represents over one-half of the total assets, as shown in Table 9. Such a finding substantiates the point made earlier that nominee holdings are more likely in the larger banks. Table 9, in conjunction with Table 8, reveals that corporate holdings are much more prevalent among banks located in the Eastern half of the United States, and in turn, that these banks tend to be larger in terms of assets.

The Fourth and Seventh Districts have 27 and 22 percent, respectively, of their member bank assets held by banks that are joined by corporate stockholdings of 5 percent or more. Next in order are the Third District with 15 percent and the Fifth District with 12 percent.

D. Number and Size of Chain Systems

Table 10 presents the number of chain systems that were discovered, the size of these systems in terms of number of banks affiliated with a given system, and the Federal Reserve District where the systems were located.[19]

In some cases an arbitrary decision was required in assigning chain systems to a particular Federal Reserve District because the banks in several systems cover two or more Districts. In such cases, the following general rule was used. When three or more banks were connected, the system was assigned to the District where the majority of the banks were located. When there were only two affiliated banks located in two Districts, the system was assigned to the District containing the bank with the larger amount of assets. If three or more banks were connected with each bank located in a different District, the system was assigned to the District of the bank with the largest amount of assets.[20]

Table 10 shows that 431 chain systems were identified among the member banks

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[18] U. S. Congress, House Committee on Banking and Currency, *Bank Holding Companies: Scope of Operations and Stock Ownership*, 88th Cong., 1st Sess., Washington: Government Printing Office, 1963, pp. 131-132. The deposits of group banks in June, 1962 were $19.5 billion, representing 8 percent of all insured commercial bank deposits and about the same proportion of all commercial bank deposits. Assuming group banks also held about 8 percent of the assets of insured commercial banks, then we can estimate that group banks would have accounted for about $20.2 billion in assets, or 8 percent of $274.3 billion.

[19] Location by Federal Reserve District is given as a matter of convenience, the reason being that the lists of member bank stockholders were published according to District location of the banks as the primary classification method. State location within a particular District was used as a secondary classification method. As a result, stockholder lists that came from states having banks located in two Federal Reserve Districts were separated according to District location of the banks. Therefore, the bank identification number assigned to each bank in the initial procedure of matching stockholder names identified the banks by Federal Reserve District instead of by state.

[20] No instances were found of an even number of banks in a system with exactly one-half of the banks located in different Districts.

of the Federal Reserve System.[21] Nearly one-half of these systems are evenly distributed among the Seventh, Tenth, and Eleventh Districts. The number of chains range from 22 to 31 in the remaining Districts, with the exception of the Twelfth District, where there are only five. Around 95 percent of all chain systems have five or fewer affiliated banks; systems having five or fewer banks comprise 85 percent of all chain banks. Nearly 70 percent of all chain systems are made up of only two banks. Of the 67 systems composed of 4 or more banks each, 35 of them are located in the Seventh, Tenth, and Eleventh Districts. Furthermore, one-half of the 74 systems consisting of 3 banks each are found in those 3 Districts. Thus, both in terms of number of banks involved and number of systems, the Seventh, Tenth, and Eleventh Districts comprise the most important regional areas of chain banking.

E. Percentage of Stock Ownership Linking Banks

A distribution of chain banks by Federal Reserve District and by percentage of stock held by the same owner, or owners, of two or more banks is given in Table 11. Numerous cases were discovered in which a group of the same stockholders had common ownership in each of two or more banks. When multiple ownership ties of this nature were found, the percentages of ownership were aggregated to provide the percentage ownership for the group.

Five hundred and twenty-nine chain banks, representing 46 percent of all chain banks that are Federal Reserve System members, are connected by ownership interests of less than 10 percent with the other banks in their respective chain systems. Banks having common ownership ties of 25 percent or more account for about 28 percent of the total. About 14 percent of all chain banks are linked with the constituent banks in their respective chain systems by ownership interests of 50 percent or more, the majority of these banks being located in Districts Six, Nine, Ten, and Eleven.

F. Magnitude of Assets

A distribution of chain banks classified by asset size is provided in Table 12. The largest number of chain banks fall in the $2 to $5 million category. Only about 8 percent of the chain banks have less than $2 million in assets; at the other extreme, 11 percent have over $50 million in assets. The three categories covering asset sizes between $2 million and $25 million account for nearly 75 percent of the chain banks.

Viewed in terms of the asset size of banks, the population of chain banks is similar to the population of all member banks. Chain banks with assets of $500 thousand up to $10 million represent 59.1 percent of the total; member banks falling into these four size intervals comprise 63.9 percent of all member banks. Chain banks with less than $100 million in assets account for 92.7 percent of the population. Member banks with less than $100 million in assets represent 94.9 percent of the population of member banks.

In comparing the distribution of chain banks with all member banks, it is instructive to observe that the proportions of chain banks in the smaller asset ranges, i.e., below $10 million, are not as great as the proportions of member banks. However, beyond the $10 million asset size, the proportions of chain banks are greater in each category than the corresponding proportions for member banks. Two conclusions can be drawn: First, the typical chain bank tends to be slightly larger in

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[21] Table 10 shows 1,169 banks as opposed to 1,146 in Tables 1 and 4. In 23 cases it was impossible to determine in which of two chain systems the particular chain bank belonged; therefore, in these 23 instances the banks in question were included in each of two systems.

terms of assets than the typical member bank; second, chain banking should not be considered an exclusively small-bank phenomenon. Although it is difficult to define "small" and "large" banks, nearly 20 percent of all chain banks have assets in excess of $25 million.

G. Population of Location

A distribution of chain banks according to the population of their location is presented in Table 13. Almost 75 percent of all chain banks are located in the first five categories representing population centers of 25,000 or less, each of the five having about the same proportion.

The extent to which chain banks can be assumed to offer the only banking alternative in various population centers can be inferred from a recent study.[22] In June, 1962, population centers of less than 1,000 were found to have only one bank in almost 99 percent of the cases. In population centers of 1,000 to 5,000, the proportion having only one bank varied from about 82 percent in states allowing statewide branching to 75 percent in states with unit banking. In cities with populations between 5,000 and 10,000, the probability of having only two or fewer banks was nearly 90 percent in all states, regardless of branching provisions. The population of a city must be about 25,000 before the probability of having three or more banking institutions would be as high as 60 percent regardless of state branching provisions. On the basis of this study, one can infer that about three out of four chain banks face local competition from only one other banking institution. That is, 75 percent of the chain banks are located in population centers so small that the probability of facing competition from more than one other local bank is considerably less than 50 percent in most cases.[23] Perhaps even more significant is the fact that two-fifths of the chain banks are located in areas where the proportion of population centers having more than one banking alternative is small—usually less than 25 percent. By contrast, about 20 percent of the chain banks are located in standard metropolitan statistical areas with populations greater than 50,000—areas which usually have four or more banking alternatives.

H. Chain Systems Located in One County

Table 14 provides a summary of the spatial characteristics of bank chains and the relative importance of individual chains within their local market areas. Over one-half of the chain systems, or 242 of 431, are composed of banks located in the same county. These 242 systems account for 537 of the 1,146 chain banks.

One might expect chain systems with all members located in the same county to be more popular in states that prohibit branching. To a certain extent this expectation is borne out; Illinois and Texas have unit banking and rank first and second in number of chain systems, with 34 and 27, respectively. But contrary to this pattern, Pennsylvania allows branching within the home-office county and contiguous counties and ranks third with 23 systems. Florida, Michigan, New York, Oklahoma, and Virginia are the only other states with more than ten systems, and only two of these states, Florida and Oklahoma, have unit banking.

In 81 instances, chain systems were found to hold no more than 20 percent of county deposits. In 69 cases, the pro-

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[22] See, *Federal Reserve Bulletin*, September 1963, p. 1197.

[23] The only exception to this conclusion occurs in centers with populations between 10,000 and 25,000 that are located where statewide branching is permitted. In such centers, 56.3 percent have three or more banks.

portion was 21 to 40 percent; in 55 cases, 41 to 60 percent; and in 21 cases, 61 to 80 percent. Finally, 16 systems account for 81 to 100 percent of county deposits, several of them individually accounting for all of the deposits in the county.

Briefly summarized, about two out of five chain systems with all of the affiliated members located in the same county hold over 40 percent of the total bank deposits of the county. In some counties, the concentration of deposits in bank chains is very high, and in others the degree of concentration achieved by the largest bank in the area may be several times greater than that of a bank chain.

I. Chain Banking Among Nonmember Banks

The discussion up to this point has been concerned only with chain banking among member banks of the Federal Reserve System. One would naturally be inclined to ask the question: To what extent is chain banking pervasive among nonmember banks? In an attempt to provide an estimate of the extent of nonmember chain banking, data published by the Federal Reserve Board between 1939 and 1945 has been utilized. A basic assumption made was that the ratio of member banks operating in chain systems to all chain banks has remained fairly stable since the last data were collected in 1945.

Table 15 furnishes a summary of data on number and deposits of all chain banks from 1939 to 1945. During this period, member banks accounted for a fairly constant share of all chain banks, ranging from 46.7 percent in 1939 to a high of 52.0 percent in 1943. Assuming that member banks still account for about one-half of all chain banks, we can estimate that around 1,150 nonmember banks were operating in chain systems in mid-1962, so that about 2,300 banks were members of chain organizations. This estimated total of banks operating in chain systems in 1962 would represent 17.5 percent of all insured commercial banks.

The ratio of deposits of member banks engaged in chain activities to deposits of all chain banks did not remain as stable between 1939 and 1945 as the ratio of number of member banks operating in chain systems to the total number of chain banks. Member banks held 77.5 percent of all chain deposits in 1939, and reached a high of 88.1 percent in 1943. By 1945, the ratio had declined to 84.6 percent. Since member banks have controlled about 85 percent of all commercial bank assets for several years, member banks operating in chains were assumed to account for 85 percent of all chain bank assets. On this basis, the estimated assets of nonmember banks operating in chains would be $7.9 billion. The estimated total assets of all chain banks would be almost $53 billion, representing 19.2 percent of the assets of all insured commercial banks in 1962.

III. Summary and Conclusions

The publication of the stockholder lists of member banks has furnished an excellent opportunity to examine the common ownership ties among member banks. The findings presented here reveal that the practice persists on a wide scale. We found that 19 percent of all member banks are chain banks and that these banks control 19.3 percent of the member bank assets. Chain banks that are members of the Federal Reserve System represent nearly 9 percent of all insured commercial banks, and they control about 16 percent of the assets of insured commercial banks.

The number of member banks joined by at least 5 percent ownership positions of the same individual or group of individuals in each of two or more banks account for about 9 percent of all member banks and hold slightly over 3 percent of all member bank assets. Examina-

tion of banks joined by larger ownership percentages of the same individual or group of individuals shows that less than 3 percent of the member banks are linked by ownership positions as large as 25 percent in each of two or more banks; these banks hold $1.7 billion in assets.

Around 4 percent of the member banks are chain banks in which the only common ownership tie is that of a corporate entity such as a mutual savings bank, another commercial bank, an insurance company, or a bank nominee—owning 5 percent or more of the stock in each of two or more banks. The banks linked together exclusively by coporate entities hold $20 billion in assets, or 8.6 percent of member bank assets.

The typical bank chain is small in terms of number of banks affiliated in each system. A large majority of the systems have only two or three banks. Ordinarily, the larger chain systems are located in states that have unit banking systems. Nearly one-half of all chain systems identified are linked by ownership shares of less than 10 percent.

Almost 20 percent of the chain banks that are members of the Federal Reserve System have in excess of $25 million in assets. It seems reasonable to conclude that the average chain bank tends to be slightly larger than the average member bank, since about 40 percent of the chain banks have more than $10 million in assets as opposed to around 35 percent in the case of all member banks.

On the basis of a study concerning the number of banking institutions per population center, one can conclude that about three out of four chain banks are located in areas where the probability of facing competition from more than one other local bank is ordinarily less than one-half. About two out of five chain banks are located in areas where the likelihood of having more than one bank is small.

The concentration of bank deposits that arises from chain banking is indicated by an analysis of the county location of banks affiliated in given chain systems. Over one-half of the chain systems comprised of member banks of the Federal Reserve System were found to have all affiliated banks domiciled within the boundaries of one county. Systems consisting of as many as five banks were found in which all of the banks are located in the same county. About two out of five chain systems having all the affiliated banks in the chain located in the same county held over 40 percent of the total bank deposits of the county.

Assuming the ratio of member chain banks to all chain banks (as revealed by Federal Reserve Board studies of chain banking between 1939 and 1945) has remained stable, one can estimate that around 17 percent of all insured commercial banks have shareholders in common meeting the criteria of chain banking adopted for this study. These banks would hold about 19 percent of the assets of insured commercial banks.

One of the more obvious conclusions to be drawn from the investigation of common ownership ties presented here is that chain banking is much more widespread than the current lists of member-bank stockholders reveal. For instance, it is practically impossible to identify family holdings, as contrasted with individual holdings, simply from stockholder names and addresses, especially in cases of different family names. And, of course, we have no access to nonmember-bank stockholder lists. Based on the fact that nonmember banks are usually smaller, one would expect chain banking to be equally prevalent, if not more so, among banks not having membership in the Federal Reserve System.

It would be hazardous to assert that chain banking relationships have developed as an alternative to branch banking. Certainly most of the states that allow some form of branching also have chain banks. Yet, there seems to be a discernible pattern in the first six tables

of our data which shows that chain banking does exist on a larger scale in the states and regions that have unit banking. Thus, states having prohibitions against branching may only invite some other form of multiple-office banking to emerge.

One might question the policy that requires only corporate entities controlling 25 percent or more of the stock in each of two or more banks to submit to Federal supervision. Many instances can be found of a single individual, or a group of the same individuals, having a similar ownership position of 25 percent or more in each of two or more banks. Yet, in these cases, Federal supervision is not required. The proper criterion for supervision should be the potential for harmful effects to the banking public from common control, instead of the source of that control.

Data Appendix

TABLE 1

Chain Banking, By Federal Reserve District
June 30, 1962

Federal Reserve District	Number of Chain Banks	Percentage of Member Banks	Number of Banks Linked by Individuals Owning—*											
			5% or More			10% or More		15% or More		20% or More		25% or More		
			One Ind.	Group of Inds.	% of Member Banks	One Ind.	Group of Inds.	One Ind.	Group of Inds.	One Ind.	Group of Inds.	One Ind.	Group of Inds.	% of Member Banks
1	62	24.4	13	0	5.1	9	2	4	2	4	2	4	0	1.6
2	74	16.4	18	0	4.0	10	0	10	0	4	4	4	2	1.3
3	69	15.1	20	2	4.8	0	0	0	0	0	0	0	0	0.0
4	74	14.0	18	0	3.4	7	4	3	2	3	0	1	0	0.2
5	69	16.4	27	0	6.4	7	0	2	0	0	0	0	0	0.0
6	86	20.0	47	3	11.6	29	9	17	11	17	9	13	8	4.9
7	167	16.6	70	0	7.0	29	14	18	10	14	6	12	6	1.8
8	71	15.0	25	6	6.5	13	2	11	2	4	6	2	4	1.3
9	73	15.5	46	2	10.2	29	3	27	3	23	5	19	7	5.5
10	201	26.3	126	6	17.3	84	21	60	34	40	40	27	30	7.5
11	185	29.3	105	11	18.4	57	9	40	9	34	10	24	10	5.4
12	15	9.3	11	0	6.8	4	2	2	0	0	2	0	2	1.2
Total	1,146	19.0	526	30	9.2	278	66	194	73	143	84	106	69	2.9

* Number of member banks in which one individual or a group of the same individuals own at least 5, 10, 15, 20, and 25 percent or more of the outstanding stock in each of two or more banks.

Sources: U. S. Congress, House Committee on Banking and Currency, Subcommittee on Domestic Finance, **Twenty Largest Stockholders of Record in Member Banks of the Federal Reserve System**, hereafter referred to as **Twenty Largest Stockholders**, 88th Cong., 2d Sess., Washington, D. C.: Government Printing Office, 1964; **Federal Reserve Bulletin**, May 1963, p. 711.

TABLE 2

Assets of Chain Banks, By Federal Reserve District
June 30, 1962

Federal Reserve District	Assets of Chain Banks (Thousands of dollars)	Percentage of Member Bank Assets*	Assets of Banks Linked by 5 Percent Ownership of† (Thousands of dollars)		Percentage of Member Bank Assets*
			One Individual	Group of Individuals	
1	2,249,214	23.3	66,477	0	0.7
2	3,518,841	5.9	247,497	0	0.4
3	2,328,440	20.0	103,957	3,915	0.9
4	5,801,269	32.3	139,920	0	0.8
5	2,109,928	20.0	190,600	0	1.8
6	3,232,380	25.2	1,103,920	169,298	9.9
7	10,590,319	30.6	1,381,356	0	4.0
8	2,055,075	25.7	241,158	58,883	3.8
9	531,162	9.1	293,569	14,097	5.3
10	4,503,119	43.3	2,158,674	54,104	21.3
11	7,102,965	54.6	1,435,272	294,019	13.3
12	748,943	2.0	183,988	0	0.5
Total	44,771,655	19.3	7,546,388	594,316	3.5

* Based on member bank assets at the end of 1962.

† Column figures represent assets of all member banks in which one individual or a group of individuals own at least 5 percent or more of the outstanding stock in each of two or more banks.

Source: **Twenty Largest Stockholders; Rand McNally International Bankers Directory**, 1962 ed.; **Federal Reserve Bulletin**; loc. cit.

TABLE 3

Assets of Chain Banks, By Federal Reserve District
June 30, 1962
(Thousands of dollars)

Federal Reserve District	Assets of Banks Linked by Individuals Owning—*							
	10% or More		15% or More		20% or More		25% or More	
	One Individual	Group of Individuals	One Individual	Group of Individuals	One Individual	Group of Individuals	One Individual	Group of Individuals
1	54,374	8,227	22,579	16,637	22,579	16,637	22,579	0
2	75,993	0	75,993	0	41,704	21,060	41,704	7,028
3	0	0	0	0	0	0	0	0
4	77,888	18,050	10,960	5,862	10,960	0	4,793	0
5	34,314	0	7,481	0	0	0	0	0
6	678,978	212,834	424,561	334,256	424,561	250,551	251,459	228,806
7	666,986	157,331	527,820	138,599	131,100	73,244	63,433	118,550
8	175,151	30,804	167,037	8,114	131,015	32,292	103,899	23,272
9	192,037	11,926	185,621	8,643	156,125	25,636	123,258	31,784
10	1,485,742	272,576	787,493	823,881	157,324	1,133,614	132,349	188,459
11	833,223	111,740	734,460	65,820	574,506	72,055	242,645	75,323
12	59,602	4,780	12,261	0	0	12,261	0	12,261
Total	4,334,288	828,268	2,956,266	1,401,812	1,649,874	1,637,350	986,119	685,483

* Column figures represent assets of all member banks in which one individual or a group of the same individuals own at least 10, 15, 20, and 25 percent of more of the outstanding stock in each of two or more banks.

Sources: **Twenty Largest Stockholders; Rand McNally International Bankers Directory,** 1962.

TABLE 4

Chain Banking, By Region and State
June 30, 1962

Geographic Region And State	Number of Chain Banks	Percentage of Member Banks	Percentage of Ins. Com. Banks	Number of Banks Linked by 5% Ownership of*		Percentage of Member Banks	Percentage of Ins. Com. Banks
				One Individual	Group of Individuals		
United States	**1,146**	**19.0**	**8.7**	**526**	**30**	**9.2**	**4.2**
New England	**62**	**23.8**	**15.9**	**13**	**0**	**5.0**	**3.3**
Maine	2	7.1	4.9	2	0	7.1	4.9
New Hampshire	17	32.7	23.9	2	0	3.8	2.8
Vermont	5	16.7	9.6	2	0	6.7	3.8
Massachusetts	30	26.1	18.6	5	0	4.3	3.1
Rhode Island	3	60.0	37.5	0	0	0.0	0.0
Connecticut	5	16.7	8.3	2	0	6.7	3.3
Middle Atlantic	**161**	**15.6**	**12.9**	**44**	**2**	**6.4**	**5.3**
New York	51	15.6	14.0	16	0	4.9	4.4
New Jersey	32	15.7	13.4	2	0	1.0	0.8
Pennsylvania	78	15.6	12.0	26	2	5.6	4.3
East North Central	**250**	**16.8**	**8.6**	**100**	**2**	**6.9**	**3.5**
Ohio	44	12.2	7.7	11	0	3.0	1.9
Indiana	31	13.7	7.1	15	0	6.6	3.4
Illinois	111	21.2	11.3	57	2	11.3	6.0
Michigan	42	19.6	11.4	9	0	4.2	2.4
Wisconsin	22	13.8	3.9	8	0	5.0	1.4

TABLE 4 (Continued)

Geographic Region And State	Number of Chain Banks	Percentage of Member Banks	Percentage of Ins. Com. Banks	Number of Banks Linked by 5% Ownership of*		Percentage of Member Banks	Percentage of Ins. Com. Banks
				One Individual	Group of Individuals		
West North Central	**148**	**14.9**	**4.5**	**83**	**7**	**7.1**	**2.1**
Minnesota	19	9.1	2.8	14	0	6.7	2.0
Iowa	13	8.0	2.0	6	0	3.7	0.9
Missouri	28	16.5	4.6	12	0	7.1	2.0
North Dakota	8	20.0	5.2	5	2	17.5	4.6
South Dakota	10	17.2	5.7	8	0	13.8	4.6
Nebraska	29	21.0	7.2	18	2	14.5	5.0
Kansas	41	19.3	7.0	20	3	10.8	3.9
South Atlantic	**140**	**21.7**	**8.6**	**64**	**3**	**10.4**	**4.1**
Delaware	1	20.0	5.3	0	0	0.0	0.0
Maryland	8	13.3	6.2	0	0	0.0	0.0
Dist. of Col.	2	25.0	18.2	0	0	0.0	0.0
Virginia	38	19.4	12.8	15	0	7.7	5.1
West Virginia	22	20.2	12.3	9	0	8.3	5.0
North Carolina	1	2.9	0.6	1	0	2.9	0.6
South Carolina	2	6.3	1.4	2	0	6.3	1.4
Georgia	4	5.9	1.1	0	0	0.0	0.0
Florida	62	46.6	19.1	37	3	30.1	12.3
East South Central	**37**	**12.1**	**3.5**	**11**	**2**	**4.2**	**1.2**
Kentucky	15	15.2	4.4	1	2	3.0	0.9
Tennessee	9	11.1	3.1	2	0	2.5	0.7
Alabama	11	11.8	4.6	8	0	8.6	3.4
Mississippi	2	5.9	1.1	0	0	0.0	0.0
West South Central	**264**	**28.4**	**14.5**	**157**	**13**	**18.3**	**9.3**
Arkansas	12	15.4	5.1	4	2	7.7	2.6
Louisiana	6	11.3	3.1	2	0	3.8	1.0
Oklahoma	82	36.3	21.2	64	0	28.3	16.5
Texas	164	28.7	16.2	87	11	17.2	9.7
Mountain	**83**	**26.5**	**16.7**	**54**	**1**	**17.6**	**11.0**
Montana	15	17.0	12.3	11	0	12.5	9.0
Idaho	10	58.8	32.3	8	0	47.1	25.8
Wyoming	9	22.0	16.1	4	0	9.8	7.1
Colorado	34	34.7	20.2	17	1	18.4	10.7
New Mexico	11	28.9	18.6	11	0	28.9	18.6
Arizona	1	25.0	10.0	1	0	25.0	10.0
Utah	2	9.5	4.4	1	0	4.8	2.2
Nevada	1	20.0	14.3	1	0	20.0	14.3
Pacific	**1**	**0.9**	**0.4**	**0**	**0**	**0.0**	**0.0**
Washington	0	0.0	0.0	0	0	0.0	0.0
Oregon	0	0.0	0.0	0	0	0.0	0.0
California	1	1.8	0.8	0	0	0.0	0.0
Alaska	0	0.0	0.0	0	0	0.0	0.0
Hawaii	0	0.0	0.0	0	0	0.0	0.0

* Number of member banks in which one individual or a group of the same individuals own at least 5 percent or more of the outstanding stock in each of two or more banks.

Sources: **Twenty Largest Stockholders;** Federal Deposit Insurance Corporation, **Assets, Liabilities, and Capital Accounts of Commercial and Mutual Savings Banks,** Report of Call No. 60, June 30, 1962.

TABLE 5

Chain Banking, By Region and State
June 30, 1962

Geographic Region and State	Number of Banks Linked by Individuals Owning—*							
	10% or More		15% or More		20% or More		25% or More	
	One Individual	Group of Individuals	One Individual	Group of Individuals	One Individual	Group of Individuals	One Individual	Group of Individuals
United States	**278**	**66**	**194**	**73**	**143**	**84**	**106**	**69**
New England	**9**	**2**	**4**	**2**	**4**	**2**	**4**	**0**
Maine	0	2	0	0	0	0	0	0
New Hampshire	0	0	0	0	0	0	0	0
Vermont	2	0	2	0	2	0	2	0
Massachusetts	5	0	0	2	0	2	0	0
Rhode Island	0	0	0	0	0	0	0	0
Connecticut	2	0	2	0	2	0	2	0
Middle Atlantic	**12**	**0**	**10**	**0**	**4**	**4**	**4**	**2**
New York	8	0	8	0	2	4	2	0
New Jersey	2	0	2	0	2	0	2	2
Pennsylvania	2	0	0	0	0	0	0	0
East North Central	**42**	**16**	**29**	**10**	**19**	**12**	**13**	**10**
Ohio	4	4	2	2	2	0	0	0
Indiana	7	2	3	0	2	0	2	0
Illinois	24	6	21	4	12	10	10	8
Michigan	4	2	2	2	2	2	0	2
Wisconsin	3	2	1	2	1	0	1	0
West North Central	**53**	**13**	**41**	**20**	**26**	**23**	**22**	**18**
Minnesota	11	2	11	0	9	0	9	0
Iowa	0	2	0	2	0	0	0	0
Missouri	8	1	4	5	0	5	0	1
North Dakota	5	0	3	2	2	3	2	3
South Dakota	4	1	4	1	3	2	3	2
Nebraska	15	2	13	2	6	7	4	5
Kansas	10	5	6	8	6	6	4	7
South Atlantic	**30**	**7**	**15**	**11**	**13**	**9**	**9**	**8**
Delaware	0	0	0	0	0	0	0	0
Maryland	0	0	0	0	0	0	0	0
District of Col.	0	0	0	0	0	0	0	0
Virginia	2	0	0	0	0	0	0	0
West Virginia	3	0	0	0	0	0	0	0
North Carolina	0	0	0	0	0	0	0	0
South Carolina	2	0	2	0	0	0	0	0
Georgia	0	0	0	0	0	0	0	0
Florida	23	7	13	11	13	9	9	8
East South Central	**7**	**2**	**5**	**0**	**5**	**0**	**5**	**0**
Kentucky	1	0	1	0	1	0	1	0
Tennessee	0	2	0	0	0	0	0	0
Alabama	6	0	4	0	4	0	4	0
Mississippi	0	0	0	0	0	0	0	0
West South Central	**94**	**20**	**66**	**24**	**54**	**24**	**35**	**23**
Arkansas	4	2	4	0	4	0	2	0
Louisiana	0	0	0	0	0	0	0	0
Oklahoma	42	10	31	15	25	15	17	14
Texas	48	8	31	9	25	9	16	9

TABLE 5 (Continued)

Geographic Region and State	Number of Banks Linked by Individuals Owning—*							
	10% or More		15% or More		20% or More		25% or More	
	One Individual	Group of Individuals	One Individual	Group of Individuals	One Individual	Group of Individuals	One Individual	Group of Individuals
Mountain	**31**	**6**	**24**	**6**	**18**	**10**	**14**	**8**
Montana	6	0	6	0	6	0	4	2
Idaho	3	2	2	0	0	2	0	2
Wyoming	4	0	4	0	2	2	0	2
Colorado	12	4	7	6	5	6	5	2
New Mexico	5	0	5	0	5	0	5	0
Arizona	0	0	0	0	0	0	0	0
Utah	0	0	0	0	0	0	0	0
Nevada	1	0	0	0	0	0	0	0
Pacific	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Washington	0	0	0	0	0	0	0	0
Oregon	0	0	0	0	0	0	0	0
California	0	0	0	0	0	0	0	0
Alaska	0	0	0	0	0	0	0	0
Hawaii	0	0	0	0	0	0	0	0

* Number of member banks in which one individual or a group of the same individuals own at least 10, 15, 20, and 25 percent or more of the outstanding stock in each of two or more banks.

Sources: **Twenty Largest Stockholders;** F.D.I.C., **Assets, Liabilities, and Capital Accounts of Commercial and Mutual Savings Banks,** loc. cit.

TABLE 6

Assets of Chain Banking, By Region and State
June 30, 1962

Geographic Region and State	Assets of Chain Banks (Thousands of dollars)	Percentage of Member Bank Assets	Percentage of Ins. Com. Bank Assets	Assets of Banks Linked by 5% Ownership of* (Thousands of dollars)		Percentage of Member Bank Assets	Percentage of Ins. Com. Bank Assets
				One Individual	Group of Individuals		
United States	**44,771,655**	**19.3**	**16.3**	**7,546,388**	**594,316**	**3.5**	**3.0**
New England	**2,249,214**	**22.0**	**18.7**	**66,477**	**0**	**0.7**	**0.6**
Maine	8,227	1.4	1.0	8,227	0	1.4	1.1
New Hampshire	138,309	38.7	28.0	3,876	0	1.1	0.8
Vermont	37,977	16.2	8.0	4,559	0	1.9	1.0
Massachusetts	865,988	14.9	13.5	31,795	0	0.5	0.5
Rhode Island	921,260	96.3	90.0	0	0	0.0	0.0
Connecticut	277,453	12.2	9.7	18,020	0	0.8	0.6
Middle Atlantic	**8,105,545**	**10.6**	**10.0**	**426,619**	**3,915**	**0.6**	**0.5**
New York	2,003,517	3.7	3.6	215,900	0	0.4	0.4
New Jersey	1,845,158	23.8	21.4	31,597	0	0.4	0.4
Pennsylvania	4,256,870	28.3	24.7	179,122	3,915	1.2	1.1
East North Central	**13,982,286**	**29.9**	**25.2**	**1,504,822**	**7,051**	**3.2**	**2.7**
Ohio	3,119,074	26.5	23.7	59,962	0	0.5	0.5
Indiana	1,240,439	29.4	22.5	452,420	0	10.7	8.2
Illinois	6,271,476	34.7	30.0	850,863	7,051	4.7	4.1
Michigan	3,109,453	32.8	28.9	88,115	0	0.9	0.8
Wisconsin	241,844	7.4	4.6	53,462	0	1.6	1.0

TABLE 6 (Continued)

Geographic Region and State	Assets of Chain Banks (Thousands of dollars)	Percentage of Member Bank Assets	Percentage of Ins. Com. Bank Assets	Assets of Banks Linked by 5% Ownership of* (Thousands of dollars)		Percentage of Member Bank Assets	Percentage of Ins. Com. Bank Assets
				One Individual	Group of Individuals		
West North Central	**3,759,022**	**26.2**	**17.2**	**1,643,108**	**42,413**	**11.8**	**7.7**
Minnesota	148,956	4.3	3.0	71,450	0	2.0	1.4
Iowa	147,861	7.9	4.1	90,273	0	4.9	2.5
Missouri	2,328,971	48.2	33.5	880,999	0	18.2	12.7
North Dakota	63,420	15.5	8.8	24,576	14,097	9.5	5.3
South Dakota	85,642	14.8	9.8	72,772	0	12.5	8.3
Nebraska	262,830	19.0	13.7	76,597	5,285	5.9	4.3
Kansas	721,342	40.7	25.0	426,441	23,031	25.4	15.6
South Atlantic	**5,238,959**	**29.7**	**21.2**	**1,246,582**	**169,298**	**8.0**	**5.7**
Delaware	334.831	64.7	41.0	0	0	0.0	0.0
Maryland	1,138,867	60.3	40.5	0	0	0.0	0.0
District of Col.	498,857	30.1	26.9	0	0	0.0	0.0
Virginia	333,852	10.4	8.6	132,916	0	4.1	3.4
West Virginia	184,794	16.0	12.1	40,285	0	3.5	2.6
North Carolina	9,918	0.5	0.3	9,918	0	0.5	0.3
South Carolina	7,481	1.0	0.6	7,481	0	1.0	0.6
Georgia	33,349	1.4	1.4	0	0	0.0	0.0
Florida	2,697,010	66.7	46.2	1,055,982	169,298	30.3	21.0
East South Central	**844,753**	**11.7**	**8.0**	**52,731**	**21,028**	**1.0**	**0.7**
Kentucky	554,616	33.3	20.9	4,793	21,028	1.5	1.0
Tennessee	192,924	6.6	5.0	14,141	0	0.5	0.4
Alabama	78,013	4.1	3.2	33,797	0	1.8	1.4
Mississippi	19,200	2.6	1.2	0	0	0.0	0.0
West South Central	**8,317,370**	**46.2**	**37.0**	**2,135,797**	**324,823**	**13.7**	**11.0**
Arkansas	232,208	22.7	15.3	131,015	30,804	15.8	10.6
Louisiana	339,676	14.1	10.1	94,246	0	3.9	2.8
Oklahoma	865,428	32.7	27.4	687,873	0	26.0	21.8
Texas	6,880,058	57.6	47.8	1,222,663	294,019	12.7	10.5
Mountain	**1,988,119**	**27.2**	**22.8**	**470,252**	**25,788**	**6.8**	**5.7**
Montana	80,977	10.4	8.9	66,665	0	8.5	7.3
Idaho	316,347	48.5	42.2	47,667	0	7.3	6.4
Wyoming	151,284	37.8	32.2	16,838	0	4.2	3.6
Colorado	1,182,826	59.7	49.4	92,285	25,788	6.0	4.9
New Mexico	110,476	17.6	13.3	110,476	0	17.6	13.3
Arizona	13,324	1.0	0.8	13,324	0	1.0	0.8
Utah	89,080	8.9	7.8	79,192	0	7.9	6.9
Nevada	43,805	8.9	7.7	43,805	0	8.9	7.7
Pacific	**286,387**	**0.8**	**0.8**	**0**	**0**	**0.0**	**0.0**
Washington	0	0.0	0.0	0	0	0.0	0.0
Oregon	0	0.0	0.0	0	0	0.0	0.0
California	286,387	1.0	1.0	0	0	0.0	0.0
Alaska	0	0.0	0.0	0	0	0.0	0.0
Hawaii	0	0.0	0.0	0	0	0.0	0.0

* Assets of all member banks in which one individual or a group of the same individuals own at least 5 percent or more of the outstanding stock in each of two or more banks.

Sources: **Twenty Largest Stockholders; Rand McNally International Bankers Directory, 1962; F.D.I.C. Assets, Liabilities, and Capital Accounts of Commercial and Mutual Savings Banks,** loc. cit.

TABLE 7

Assets of Chain Banking, By Region and State
June 30, 1962
(Thousands of dollars)

Geographic Region and State	Assets of Banks Linked by Individuals Owning—*							
	10% or More		15% or More		20% or More		25% or More	
	One Individual	Group of Individuals	One Individual	Group of Individuals	One Individual	Group of Individuals	One Individual	Group of Individuals
United States	**4,334,288**	**828,268**	**2,956,266**	**1,401,812**	**1,649,874**	**1,637,350**	**986,119**	**685,483**
New England	**54,374**	**8,277**	**22,579**	**16,637**	**22,579**	**16,637**	**22,579**	**0**
Maine	0	8,227	0	0	0	0	0	0
New Hampshire	0	0	0	0	0	0	0	0
Vermont	4,559	0	4,559	0	4,559	0	4,559	0
Massachusetts	31,795	0	0	16,637	0	16,637	0	0
Rhode Island	0	0	0	0	0	0	0	0
Connecticut	18,020	0	18,020	0	18,020	0	18,020	0
Middle Atlantic	**107,691**	**0**	**75,993**	**0**	**41,704**	**21,060**	**41,704**	**7,028**
New York	44,396	0	44,396	0	10,107	21,060	10,107	7,028
New Jersey	31,597	0	31,597	0	31,597	0	31,597	0
Pennsylvania	31,698	0	0	0	0	0	0	0
East North Central	**769,597**	**161,328**	**595,201**	**130,408**	**166,189**	**105,536**	**65,636**	**141,822**
Ohio	41,397	18,050	6,167	5,862	6,167	0	0	0
Indiana	247,159	14,375	154,516	0	4,982	0	4,982	0
Illinois	411,102	93,600	405,596	89,243	126,118	87,080	58,451	123,366
Michigan	46,705	18,456	26,719	18,456	26,719	18,456	0	18,456
Wisconsin	23,234	16,847	2,203	16,847	2,203	0	2,203	0
West North Central	**1,286,569**	**197,398**	**739,010**	**532,072**	**147,447**	**937,374**	**137,187**	**125,194**
Minnesota	57,371	9,699	57,371	0	44,868	0	44,868	0
Iowa	0	14,053	0	14,053	0	0	0	0
Missouri	841,577	6,439	535,191	312,825	0	833,655	0	28,267
North Dakota	24,576	0	18,160	6,416	8,752	15,824	8,752	15,824
South Dakota	58,640	2,227	58,640	2,227	51,055	9,812	51,055	9,812
Nebraska	59,606	13,588	52,585	13,588	25,709	33,704	21,656	20,116
Kansas	244,799	151,392	17,063	182,963	17,063	44,379	10,856	51,175
South Atlantic	**688,142**	**198,693**	**413,742**	**334,256**	**406,261**	**250,551**	**233,159**	**228,806**
Delaware	0	0	0	0	0	0	0	0
Maryland	0	0	0	0	0	0	0	0
District of Col.	0	0	0	0	0	0	0	0
Virginia	9,596	0	0	0	0	0	0	0
West Virginia	17,237	0	0	0	0	0	0	0
North Carolina	0	0	0	0	0	0	0	0
South Carolina	7,481	0	7,481	0	0	0	0	0
Georgia	0	0	0	0	0	0	0	0
Florida	653,828	198,693	406,261	334,256	406,261	250,551	233,159	228,806
East South Central	**29,943**	**14,141**	**23,093**	**0**	**23,093**	**0**	**23,093**	**0**
Kentucky	4,793	0	4,793	0	4,793	0	4,793	0
Tennessee	0	14,141	0	0	0	0	0	0
Alabama	25,150	0	18,300	0	18,300	0	18,300	0
Mississippi	0	0	0	0	0	0	0	0

TABLE 7 (Continued)

Geographic Region and State	Assets of Banks Linked by Individuals Owning—*							
	10% or More		15% or More		20% or More		25% or More	
	One Individual	Group of Individuals	One Individual	Group of Individuals	One Individual	Group of Individuals	One Individual	Group of Individuals
West South Central	**1,188,187**	**200,153**	**954,903**	**321,972**	**739,535**	**236,234**	**366,263**	**144,894**
Arkansas	131,015	30,804	131,015	0	131,015	0	103,899	0
Louisiana	0	0	0	0	0	0	0	0
Oklahoma	273,485	59,857	138,964	256,152	83,550	164,179	64,693	74,133
Texas	783,687	109,492	684,924	65,820	524,970	72,055	197,671	70,761
Mountain	**209,785**	**48,328**	**131,745**	**66,467**	**103,066**	**69,958**	**96,498**	**37,739**
Montana	22,528	0	22,528	0	22,528	0	16,380	6,148
Idaho	15,797	4,780	12,261	0	0	12,261	0	12,261
Wyoming	16,838	0	16,838	0	10,087	6,751	0	6,751
Colorado	66,920	43,548	36,221	66,467	26,554	50,946	36,221	12,579
New Mexico	43,897	0	43,897	0	43,897	0	43,897	0
Arizona	0	0	0	0	0	0	0	0
Utah	0	0	0	0	0	0	0	0
Nevada	43,805	0	0	0	0	0	0	0
Pacific	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Washington	0	0	0	0	0	0	0	0
Oregon	0	0	0	0	0	0	0	0
California	0	0	0	0	0	0	0	0
Alaska	0	0	0	0	0	0	0	0
Hawaii	0	0	0	0	0	0	0	0

* Assets of all member banks in which one individual or a group of the same individuals own at least 10, 15, 20, and 25 percent or more of the outstanding stock in each of two or more banks.

Sources: **Twenty Largest Stockholders; Rand McNally International Bankers Directory,** 1962.

TABLE 8

Number and Location of Chain Banks Linked Exclusively By Type of Corporate Stockholder

June 30, 1962

Federal Reserve District	Type of Corporate Stockholder						Number of Banks
	Mutual Savings Banks	Commercial Banks	Insurance Companies	Holding Companies	Nominees	Other	
1	30	0	5	0	2	2	39
2	1	1	2	0	16	5	25
3	0	4	0	0	8	6	18
4	0	6	2	0	15	8	31
5	0	6	0	0	8	2	16
6	0	2	0	3	4	2	11
7	1	7	0	0	21	7	36
8	0	5	2	0	2	2	11
9	0	1	0	0	10	3	14
10	0	2	0	0	5	2	9
11	0	4	0	5	2	6	17
12	0	0	0	0	1	0	1
Total	32	38	11	8	94	45	228

Source: **Twenty Largest Stockholders.**

TABLE 9

Assets of Chain Banks Linked Exclusively
By Corporate Stockholders
June 30, 1962
(Thousands of dollars)

Federal Reserve District	Type of Corporate Stockholder						Assets of Banks	Percentage of Member Bank Assets
	Mutual Savings Banks	Commercial Banks	Insurance Companies	Holding Companies	Nominees	Other		
1	891,890	0	54,380	0	15,740	26,210	988,220	10.2
2	23,148	21,406	737,263	0	679,764	375,996	1,837,577	3.1
3	0	115,330	0	0	1,232,106	380,615	1,728,051	14.9
4	0	48,387	19,097	0	2,237,853	2,519,506	4,824,843	26.9
5	0	116,226	0	0	1,150,458	20,266	1,286,950	12.2
6	0	33,815	0	25,176	211,277	153,111	423,379	3.3
7	1,073,207	73,066	0	0	5,476,317	935,681	7,558,271	21.9
8	0	72,493	292,762	0	10,905	41,127	417,287	5.2
9	0	2,548	0	0	135,132	13,651	151.331	2.6
10	0	28,221	0	0	101,356	141,666	271,243	2.6
11	0	16,960	0	39,131	17,442	71,514	145,047	1.1
12	0	0	0	0	262.505	0	262,505	0.7
Total	1,988,245	528,452	1,103,502	64,307	11,530.855	4,679,343	19,894,704	8.6

Sources: **Twenty Largest Stockholders; Rand McNally International Bankers Directory, 1962; F.D.I.C., Assets, Liabilities, and Capital Accounts of Commercial and Mutual Savings Banks,** loc. cit.

TABLE 10

Location, Number, and Size of Chain Systems
June 30, 1962

Federal Reserve District	Number of Banks Affiliated in a Given Chain System											Number of Chain Systems	Number of Chain Banks
	2	3	4	5	6	7	8	9	11	15	21		
1	12	6	1	0	0	2	1	0	0	0	0	22	68
2	23	4	4	1	0	0	0	0	0	0	0	32	79
3	26	3	1	1	0	0	0	0	0	0	0	31	70
4	16	6	2	2	1	0	0	0	0	0	0	27	74
5	25	4	2	0	0	0	0	0	0	0	0	31	70
6	13	4	5	1	0	0	0	0	0	0	1	24	84
7	47	9	7	1	1	0	2	0	0	0	0	67	176
8	22	8	0	0	0	0	0	0	0	0	0	30	68
9	22	1	4	1	0	0	0	0	0	0	0	28	68
10	43	12	6	1	0	0	3	1	1	1	0	68	210
11	39	16	5	2	2	0	1	1	0	0	0	66	185
12	2	1	1	0	1	0	0	0	0	0	0	5	17
Total Chains	290	74	38	10	5	2	7	2	1	1	1	431	
Banks	580	222	152	50	30	14	56	18	11	15	21		1,169

Source: **Twenty Largest Stockholders.**

TABLE 11

Distribution of Chain Banks By Federal Reserve District and By Percentage of Stock Ownership Linking Banks

June 30, 1962

Percentage of Stock Ownership	Number of Chain Banks in Federal Reserve District												Number of Chain Banks	Percentage
	1	2	3	4	5	6	7	8	9	10	11	12		
0.0- 4.9	5	20	21	11	20	15	33	18	7	36	38	2	226	19.7
5.0- 9.9	23	26	29	26	30	12	46	23	18	29	37	4	303	26.4
10.0-14.9	14	5	7	12	10	10	25	10	8	13	27	3	144	12.6
15.0-19.9	0	7	6	4	3	3	13	4	3	14	15	0	72	6.3
20.0-24.9	6	4	1	5	4	9	10	4	4	17	15	3	82	7.2
25.0-34.9	4	3	1	7	0	4	12	8	2	24	16	0	81	7.1
35.0-49.9	6	3	1	2	0	4	13	2	9	22	14	1	77	6.7
50.0-74.9	4	3	1	7	2	12	8	2	18	30	19	2	108	9.4
75.0 or more	0	3	2	0	0	17	7	0	4	16	4	0	53	4.6
Total	62	74	69	74	69	86	167	71	73	201	185	15	1,146	100.0

Source: **Twenty Largest Stockholders.**

TABLE 12

Number and Percentage Distribution of Chain Banks, By Asset Size, and Percentage Distribution of All Member Banks

June 30, 1962

Amount of Assets (Thousands of dollars)	Number of Chain Banks	Percentage of all Chain Banks	Percentage of all Member Banks
500-999	18	1.6	1.4
1,000-1,999	77	6.7	8.3
2,000-4,999	336	29.3	30.1
5,000-9,999	247	21.5	24.1
10,000-24,999	256	22.4	20.3
25,000-49,999	83	7.2	7.0
50,000-99,999	46	4.0	3.7
100,000-499,999	66	5.8	3.9
500,000 and over	17	1.5	1.2
Total	1,146	100.0	100.0

Sources: **Twenty Largest Stockholders; Rand McNally International Bankers Directory,** 1962; U. S. Congress, House Committee on Banking and Currency, Subcommittee on Domestic Finance, **The Structure of Ownership of Member Banks and the Pattern of Loans Made on Hypothecated Bank Stock,** 88th. Cong., 2d Sess., Washington, D.C.: Government Printing Office, 1964, p. 8.

TABLE 13

Number and Percentage Distribution of Chain Banks, By Size of Population Center

June 30, 1962

Size of Population Center	Number of Chain Banks	Percentage of Chain Banks
1,000 and under	148	12.9
1,000-2,500	175	15.3
2,500-5,000	170	14.8
5,000-10,000	172	15.0
10,000-25,000	172	15.0
25,000-50,000	85	7.4
50,000-100,000	72	6.3
100,000-250,000	46	4.0
250,000-500,000	32	2.8
500,000 and over	74	6.5
Total	1,146	100.0

Sources: **Twenty Largest Stockholders; Rand McNally International Bankers Directory,** 1962.

TABLE 14

Location, Number, Size of Systems, and Percentage of County Deposits Held
By Chain Systems With All Affiliated Banks Located In One County
June 30, 1962

State	Number of Chain Systems	Number of Banks in Systems				Number of Chain Banks	Number of Systems and Percentage of County Deposits Held*				
		2	3	4	5		0-20	21-40	41-60	61-80	81-100
Alabama	2	2	0	0	0	4	0	1	0	1	0
Alaska	0	0	0	0	0	0	0	0	0	0	0
Arizona	0	0	0	0	0	0	0	0	0	0	0
Arkansas	2	2	0	0	0	4	0	1	1	0	0
California	0	0	0	0	0	0	0	0	0	0	0
Colorado	5	4	1	0	0	11	1	2	0	1	1
Connecticut	2	1	1	0	0	5	2	0	0	0	0
Delaware	0	0	0	0	0	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0	0	0	0	0	0
Florida	16	9	5	2	0	41	6	10	0	0	0
Georgia	0	0	0	0	0	0	0	0	0	0	0
Hawaii	0	0	0	0	0	0	0	0	0	0	0
Idaho	1	1	0	0	0	2	0	0	0	0	1
Illinois	34	27	6	1	0	76	18	8	7	0	1
Indiana	8	7	1	0	0	17	2	0	4	2	0
Iowa	2	2	0	0	0	4	1	0	0	1	0
Kansas	3	3	0	0	0	6	0	0	3	0	0
Kentucky	1	1	0	0	0	2	0	0	1	0	0
Louisiana	1	1	0	0	0	2	0	0	0	0	1
Maine	1	1	0	0	0	2	0	1	0	0	0
Maryland	1	1	0	0	0	2	0	1	0	0	0
Massachusetts	9	6	2	1	0	22	9	0	0	0	0
Michigan	10	10	0	0	0	20	3	2	3	1	1
Minnesota	4	4	0	0	0	8	2	0	2	0	0
Mississippi	0	0	0	0	0	0	0	0	0	0	0
Missouri	5	4	0	0	1	13	2	1	1	1	0
Montana	3	3	0	0	0	6	0	2	1	0	0
Nebraska	6	5	1	0	0	13	1	0	4	1	0
Nevada	0	0	0	0	0	0	0	0	0	0	0
New Hampshire	5	5	0	0	0	10	5	0	0	0	0
New Jersey	6	6	0	0	0	12	3	2	1	0	0
New Mexico	3	3	0	0	0	6	0	0	1	1	1
New York	12	10	1	1	0	27	5	5	1	0	1
North Carolina	0	0	0	0	0	0	0	0	0	0	0
North Dakota	1	1	0	0	0	2	0	0	1	0	0
Ohio	9	8	0	1	0	20	0	2	4	3	0
Oklahoma	12	9	2	1	0	28	2	4	4	1	1
Oregon	0	0	0	0	0	0	0	0	0	0	0
Pennsylvania	23	21	1	1	0	49	10	12	1	0	0
Rhode Island	1	1	0	0	0	2	0	0	0	1	0
South Carolina	1	1	0	0	0	2	0	0	1	0	0
South Dakota	1	0	1	0	0	3	0	0	0	1	0
Tennessee	2	2	0	0	0	4	0	0	0	1	1
Texas	27	19	6	1	1	65	7	9	7	0	4
Utah	0	0	0	0	0	0	0	0	0	0	0
Vermont	0	0	0	0	0	0	0	0	0	0	0

TABLE 14 (Continued)

State	Number of Chain Systems	Number of Banks in Systems				Number of Chain Banks	Number of Systems and Percentage of County Deposits Held*				
		2	3	4	5		0-20	21-40	41-60	61-80	81-100
Virginia	13	12	1	0	0	27	0	4	4	3	2
Washington	0	0	0	0	0	0	0	0	0	0	0
West Virginia	5	5	0	0	0	10	0	2	3	0	0
Wisconsin	3	3	0	0	0	6	2	0	0	1	0
Wyoming	2	2	0	0	0	4	0	0	0	1	1
Total	242	202	29	9	2	537	81	69	55	21	16

* "County Deposits" include deposits of commercial banks and mutual savings banks in states where mutual savings banks are located.

Sources: **Twenty Largest Stockholders; Rand McNally International Bankers Directory,** 1962; Board of Governors of the Federal Reserve System, **Distribution of Bank Deposits by Counties and Standard Metropolitan Areas,** June 30, 1962.

TABLE 15

Number and Deposits of Member and Nonmember Banks Operating In Chain Systems At Selected Times

Year	All Chain Banks				Member Banks				Nonmember Banks			
	Number	Percentage of all Com. Banks	Deposits (Millions of dollars)	Percentage of all Com. Banks	Number	Percentage of all Chain Banks	Deposits (Millions of dollars)	Percentage of all Chain Banks	Number	Percentage of all Chain Banks	Deposits (Millions of dollars)	Percentage of all Chain Banks
Dec. 1939*	424	2.9	883	1.6	198	46.7	684	77.5	226	53.3	199	22.5
1941*	455	3.2	1,501	2.1	222	48.8	1,316	87.7	233	51.2	185	12.3
1943*	454	3.4	2,859	2.7	236	52.0	2,518	88.1	218	48.0	341	11.9
1945*	522	3.9	4,628	3.1	255	48.9	3,916	84.6	267	51.1	712	15.4
June 1962	2,296†	17.5‡	52,672†	19.2‡	1,146	50.0	44,772	85.0	1,150†	50.0	7,900†	15.0

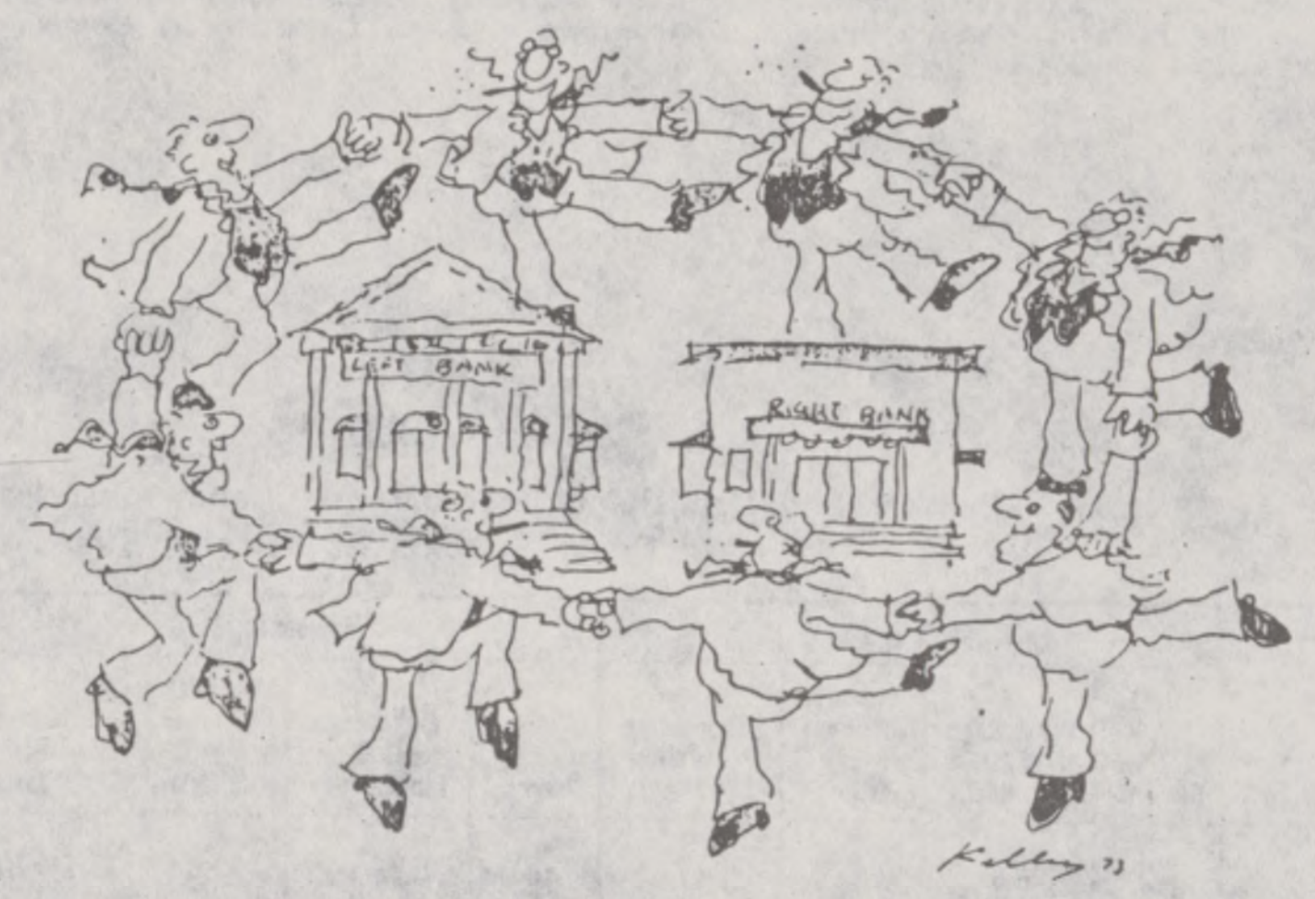
* Data refer to chain systems composed of three or more banks.
† Estimated from data derived for member banks.
‡ Percentage of all insured commercial banks.

Sources: Board of Governors of the Federal Reserve System, **Banking and Monetary Statistics,** Washington, D. C.: National Capital Press, 1943, pp. 318, 322; **Federal Reserve Bulletin,** June 1944, p. 615, and April 1947, p. 463; and Tables 1 and 2.

(from the Bankers Magazine, Spring 1973)

Do management interlocks stifle competition? Would it help to bar the practice through legislation?

Management Interlocks Between Mutual Savings Banks and Commercial Banks



JEROME C. DARNELL

MANAGEMENT INTERLOCKS between mutual savings banks and commercial banks survived a second attack in the 92nd Congress, but their longevity prospects are waning. As the competitive consequences of this common practice come into sharper focus, the tolerance level of regulatory agencies charged with preserving competition, of the banking public, and of economists is diminishing.

Several years ago when commercial banks were neither actively soliciting savings deposits nor making real estate loans—the more traditional domains of savings banks—interlocking managements between savings and commercial banks serving the same geographical market posed no readily apparent threat to competition. Times have changed. These financial institutions now compete directly in several important banking lines.

While interlocking directorates may yield certain benefits, this practice does not seem particularly conducive to healthy competition for banks with management interlocks serving the same market area. It would be rare indeed to find another in-

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The discussion and opinions are those of the author and do not necessarily reflect the views of the Federal Reserve Bank of Philadelphia or its staff.

dustry that follows such a commonly accepted custom of including acknowledged competitors in policy deliberations aimed at gaining a competitive edge over those very rivals. Sharing common officers and directors/trustees by banks that are presumably rivals seems a strange way for the public to benefit from competition.

THE RESEARCH AVAILABLE

Little research has been conducted of the competitive impact arising from management interlocks between savings and commercial banks. One recent study, however, casts some light on the matter.[1] Investigating the relationship between affiliated savings and commercial banks in New Hampshire, it found that commercial banks affiliated with savings banks via stock ownership and interlocking managements registered significantly lower savings deposit ratios and significantly lower holdings of real estate mortgages than comparable unaffiliated commercial banks. The study concluded that affiliated savings and commercial banks had divided the market so that the savings banks took the savings deposit business, and in turn concentrated on residential mortgages. Affiliated commercial banks tended to avoid savings deposits and mortgage lending.

In his study of the competitive effects resulting from interlocks between savings and loans associations and commercial banks, Professor Edward S. Herman found that management interlocks between S&Ls and other financial institutions were commonplace. A sample of 808 associations revealed that 56 percent had at least one interlock with a commercial bank, and nearly 10 percent had at least one interlock with another S&L.[2]

Herman discussed situations where management interlocks may prove injurious. Too often the top management group is interested primarily in the commercial bank, and the association suffers from neglect and inattention. Particularly important is the possibility that the association may be used as a depository for poor assets or doubtful mortgage loans the controlling bank no longer wants in its portfolio. Other actual and potential abuses were noted in the study, which were attributable to the interlocking management practice. Professor Herman concluded:

> . . . the anticompetitive implications of savings and loan interlocks and common control with commercial banks are so clear that a sizeable number of such linkages would appear vulnerable to antitrust attack on structural grounds alone. Regulation has been seriously inadequate in the area and is in need of a drastic overhauling.

To better understand the pervasiveness of management interlocks between savings banks and commercial banks and to investigate their possible impact on the competitive environment, a study was conducted by the author. Before reporting the findings, it might be advisable to review the legislative posture concerning management interlocks.[3]

LEGISLATIVE CONCERN OVER MANAGEMENT INTERLOCKS

In recent years some states, notably Massachusetts, Vermont, and Maryland, have recognized the competitive harm arising from management interlocks, and they have taken steps to ban such practices. Most of the immediate value of the legislation was wasted, however, because existing interlocks were given a "grandfather" exemption. Connecticut's legislature passed a similar prohibition in 1971, but it was vetoed by the governor.

At the other extreme, Rhode Island has gone in the opposite direction by giving savings banks legal sanction to own commercial banks. Each of the seven savings banks in that state owns a commercial bank. The commercial bank marriage partner concentrates on the demand deposit and commercial loan functions, while the savings bank performs the savings deposit and consumer-oriented functions. Moreover, these affiliations are well known to the banking public. In 1970, state-chartered savings and loan associations in Rhode Island were extended the same privilege of acquiring a commercial bank subsidiary. This legislative sanction of thrift institution and commercial bank marriages in Rhode Island is unique. Apparently other states believe that public benefits flow more readily when institutions compete rather than cooperate.

To summarize existing state laws on investments in bank stock, 12 of the 18 states allowing mutual savings banks permit them to invest in commercial bank stocks. Some states are fairly restrictive in the proportion of a savings bank's portfolio devoted to

[1] Alan S. McCall and Robert A. Eisenbeis, "Some Effects of Affiliation Among Mutual Savings and Commercial Banks," *Journal of Finance*, September, 1972, pp. 865-877.

[2] Edward S. Herman, "Conflict of Interest in the Savings and Loan Industry," in *Study of the Savings and Loan Industry* (Washington: Federal Home Loan Bank Board, 1966), pp. 771-969.

[3] This study was completed while the author was a faculty member at the University of Colorado. For a more complete discussion of the problem of interlocking managements, see the author's testimony in *Hearings on the Banking Reform Act of 1971*, U.S. House of Representatives, Committee on Banking and Currency, 92nd Congress (Washington: Government Printing Office, 1971), pp. 396-417, hereinafter cited as *Hearings*

this type of investment (e.g., Minnesota law specifies that no more than 3 percent of savings bank's assets may be invested in bank stocks), while others, such as Delaware and Maryland, place no restrictions on this type of investment. Several states have geographical requirements, which channel the investment into commercial banks located in the same state as the savings bank. On the other hand, Washington's law specifies that purchases of commercial bank stocks must be in banks located outside the state of Washington; Minnesota requires that the issuing bank cannot be located in the Ninth Federal Reserve District.

In addition to concern in the state legislatures, Federal legislators have been paying more attention to the question of interlocking managements. For example, "The Banking Reform Act of 1971" introduced in the House Banking and Currency Committee in 1971, would have barred interlocks between savings and commercial banks, as well as between various other financial institutions. Another provision of this bill would have forbidden savings banks from investing in commercial bank stocks.

The bill was never reported out of Committee because it contained so many sweeping changes distasteful to the banking industry. But despite the bill's alleged shortcomings, its two provisions aimed at eliminating interlocking managements and savings bank ownership of commercial bank equities received near-unanimous backing from regulatory agencies, the Department of Justice, and academic economists. Even spokesmen for the savings bank industry acknowledged that the time had come when management interlocks between institutions in the same competitive market could no longer be justified.[4] With such a consensus on the need for legislation, it seems only a matter of time before the custom of interlocking managements between savings and commercial banks operating in the same market will be proscribed. Bankers would be well advised to prepare for the inevitable.

HOW EXTENSIVE ARE MANAGEMENT INTERLOCKS?

Savings bank officials have estimated that about three-fifths of all mutual savings banks have trustees who are connected with a commercial bank. Furthermore, it appears that about one out of every eight savings bank trustees is affiliated with a commercial bank.[5]

[4] *Hearings*, p. 666.
[5] *Hearings*, p. 712.

Our study was not primarily concerned with the total number of interlocks detectible in the industry. Instead, it focused only on interlocks between banks serving the same trade area, since these are the situations most likely to result in diminished competition. Interlocks between banks operating in different markets and located at some distance from each other would not be as vulnerable to competitive harm.

The study was also confined to mutual savings banks located in the six New England states. Although New York is the dominant savings bank state, it was not included because savings banks there are prohibited from investing in commercial bank stock, and management interlocks are not as widespread. Likewise, interlocking managements are not very common in the other five states that prohibit savings banks from investing in commercial bank stock.[6]

An analysis of the *Twenty Largest Stockholders of Record* showed that nearly four out of five savings banks in the New England area owned stock in at least one commercial bank.[7] Next, attention centered on those cases where the savings bank owned stock in one or more commercial banks headquartered in the same county as the savings bank.

[6] Investment by a savings bank in a commercial bank is not necessarily a prerequisite to forging interlocking managements. However, examination of the bankers directory, along with stockholder lists, leads to the conclusion that interlocking management is much more likely to be the rule when accompanied by an investment than when there is none.

[7] *Twenty Largest Stockholders of Record in Member Banks of the Federal Reserve System*, U.S. House of Representatives, Committee on Banking and Currency, 88th Congress (Washington: Government Printing Office, 1964), 5 volumes. These figures underestimate the true extent of ownership since the stockholder lists only included member banks of the Federal Reserve System. If lists had been available for nonmember banks, it would probably show that every savings bank in these states owned stock in at least one commercial bank.

Table 1 gives a distribution of the number of these affiliations. Over 40 percent of the savings banks

TABLE 1

OWNERSHIP IN COMMERCIAL BANKS BY MUTUAL SAVINGS BANKS

State	Number of MSBs	Number of MSB-CB Affiliations*	Percentage of MSBs Affiliated with CBs
Connecticut	69	21	30.4
Maine	32	12	37.5
Massachusetts	172	66	38.4
New Hampshire	30	24	80.0
Rhode Island	7	4	57.1
Vermont	6	2	33.3
Total	316	129	40.8

* Affiliations in which the mutual savings bank and the commercial bank(s) are both headquartered in the same county.

SOURCES: *Twenty Largest Stockholders of Record*, and *Polk's Bank Directory*.

were found to be investors in local commercial banks (member banks only). Some states had a much higher ratio. For example, 24 of the 30 New Hampshire savings banks owned stock in at least one commercial bank located in the same county. About a third of the 129 cases represent situations where a savings bank owned stock in two or more local commercial banks. In 113 of the 129 ownership cases, savings banks owned 5 percent or more of the outstanding stock of a nearby commercial bank. In 53 cases the savings bank owned 10 percent or more. It seems clear from such a large number of situations included in Table 1 that the incidence of ownership in competing commercial banks is widespread and justifies concern about the effects on competition.

The number of management interlocks is given in Table 2. Interlocks may appear in various ways. A savings bank officer may be a commercial bank director; an individual may be a director or an officer of both institutions; or a commercial bank officer may be a savings bank trustee. Multiple interlocks consisting of two or more individuals serving the savings bank and one or more commercial banks in some officer or director capacity were uncovered in about half the cases surveyed (61 out of 129).

Table 2 shows that in about three out of ten cases, where a savings bank owned stock in a commercial bank located in the same county, no management interlock was found. At the other extreme, roughly a sixth had five or more interlocks. One case in Connecticut had 12 common officers and director/trustees. Another in New Hampshire had 10.

TABLE 2

NUMBER OF MANAGEMENT INTERLOCKS IN MUTUAL SAVINGS BANK-COMMERCIAL BANK AFFILIATIONS

State	Number of MSB-CB Affiliations	Number of Management Interlocks* 0	1	2	3	4	5+
Connecticut	21	7	2	3	2	3	4
Maine	12	7	3	0	2	0	0
Massachusetts	66	14	20	7	8	6	11
New Hampshire	24	7	3	5	4	1	4
Rhode Island	4	3	0	0	0	0	1
Vermont	2	2	0	0	0	0	0
Total	129	40	28	15	16	10	20

* A management interlock consists of an individual serving as either an officer or director/trustee in a mutual savings bank and a commercial bank at the same time.

SOURCES: *Twenty Largest Stockholders of Record*, and *Polk's Bank Directory*.

Geographic Markets

It is readily acknowledged that county boundaries rarely coincide with banking market boundaries. But because a particular market's precise boundaries are transitory and difficult to pinpoint, and because county data are more readily available, we shall consider the county as an acceptable proxy for the market. Furthermore, following the "most-damaged market" principle, it is reasonable to assume that the most direct and immediate competitive effects of management interlocks will be felt at the local county level.

With this market qualification in mind, let us consider the deposits controlled by savings bank-commercial bank "marriages." Table 3 gives a distribution of the percentage of total bank deposits in the county (savings bank deposits plus commercial bank deposits) controlled by a particular affiliation.

TABLE 3

PERCENTAGE OF TOTAL COUNTY DEPOSITS HELD BY MUTUAL SAVINGS BANK-COMMERCIAL BANK AFFILIATIONS

State	Number of MSB-CB Affiliations	Percentage of Total County Deposits Held* 0 - 20	21 - 40	41 - 60	61+
Connecticut	21	8	9	3	1
Maine	12	6	1	4	1
Massachusetts	66	53	10	1	2
New Hampshire	24	9	11	4	0
Rhode Island	4	0	2	0	2
Vermont	2	0	0	1	1
Total	129	76	33	13	7

* Total county deposits consist of total mutual savings bank deposits plus total commercial bank deposits.

SOURCES: *Twenty Largest Stockholders of Record*; *Polk's Bank Directory*; *Summary of Accounts and Deposits in All Commercial Banks*; and *Summary of Accounts and Deposits in All Mutual Savings Banks*, Federal Deposit Insurance Corporation.

In 53 out of 129 cases, the savings bank-commercial bank combination controlled over a fifth of the county deposits. One out of six marriages controlled over 40 percent of the county deposits.

A market share of 20 percent is not some arbitrary figure pulled from the thin air. It has significance because in a recent antitrust merger case [*U.S. v. Phillipsburg National Bank and Trust Company*, 339 U.S. 350 (1970)], the Supreme Court reaffirmed its belief that a merger between two commercial banks which produces a firm controlling "an undue percentage share of the market" is presumed to be anticompetitive unless there is a clear showing to the contrary. A merger of this nature is presumed to lessen competition substantially without elaborate proof of the merger's anticompetitive effects. The merger in the *Phillipsburg* case would have created a bank with 19.3 percent of the relevant geographic market. Thus, we can infer that a market share of 20 percent is probably sufficiently large to reach a threshold that is presumed to produce anticompetitive effects. A marriage between nominally independent savings banks and commercial banks controlling 20 percent or more of the market should fall within this principle, and according to the Supreme Court's standard, would adversely affect competition.

COMPETITIVE IMPLICATIONS OF MANAGEMENT INTERLOCKS

Do these situations of ownership and management interlocks between competing institutions actually result in any loss of competitive vigor? Several sources might be consulted to provide a more comprehensive answer to this question. One would be bank customers, both depositors and borrowers. Another might be supervisory agencies. Savings bankers themselves would be another.

The research effort concentrated on the last of these sources—the savings bankers. A questionnaire was sent to the group of 129 savings bankers, who were identified as having investments in commercial banks headquartered in the same county as the savings bank, and also noted in the bankers directory to have common officers, directors, and trustees. Detailed, illuminating responses were received despite the piercing nature of the questions. Only a few cases gave the impression that the respondent was answering in a self-serving manner. Here is a brief summary of the returns:

- The typical savings bank owned stock in 13 commercial banks, about one-half of them being in-state commercial banks. Three out of ten are located in the same city or county as the savings bank, the proportion being much higher in New Hampshire. Each savings-commercial bank marriage averages about 2½ management interlocks; two of these interlocks were with a commercial bank located in the same city/county as the savings bank.

  On the average, stock in each commercial bank has been owned about 16 years. The average deposit size of the commercial banks was $150 million, primarily due to the fact that a number of savings banks own stock in some of the nation's large, billion-dollar banks. Median deposit size of the commercial banks owned was only $20 million.

- Two-thirds of the respondents cited profitable return compared with alternative investments as the major reason for the commercial bank investment. A few mentioned the desire to "help" a local bank and the local community. A small number cited "competitive advantage," and as a source of new directors as their primary reason for investing in local commercial banks. About one-half indicated a different set of criteria were used when they considered investing in a nonlocal bank. Perhaps we could infer that a desire to "help" the local community would make them willing to accept a lower return on an investment.

- One-fourth said the banking public is aware of their "affiliation" with a local bank(s) because of advertising, published statements, and common lobbies (especially true in New Hampshire). Three-fourths said public awareness was not present. One-third then replied that they did not believe the public should be informed of the marriage. Generally, it was suggested that the reason for having the investment might be misunderstood if known by the public. In other words, these statements imply that a number of respondents are apprehensive that the banking public might be suspicious of harmful competitive effects if the marriage were publicized.

- Apparently many savings and commercial banks do *cooperate* in establishing and carrying out a number of operating policies when they have interlocking managements. Below is a list of those cited most frequently and the percentage of respondents indicating they cooperate in these activities:

Operating Policy/Activity	*Percentage of Respondents**
Exchanging credit information	48
Providing common personnel fringe benefits	33
Sharing bank facilities*	30
Engaging in common promotional activities	24
Sharing specialized personnel or equipment	21
Recruitment of personnel	21
Purchasing supplies in economical quantities	15
Coordinating and pursuing common loan and investment policies	12
No common operating policies	42

* (more than one item could be included)

The establishment of common operating policies in a number of the activities listed above would not necessarily produce harmful competitive effects. For example, exchanging credit information is a traditional practice among all financial institutions and should not threaten competitive vigor. Furthermore, some of the activities may be ones that result in economies of scale so that costs can be lowered and, in turn, savings passed on to the consumer. In particular, the provision of common personnel fringe benefits, sharing specialized equipment and personnel, and purchasing supplies in economical quantities are likely to result in some economies of scale. Certainly these could be classified as the benign benefits of interlocking managements.

Conversely, the malignant activities that raise suspicions about adverse competitive effects are such things as sharing bank facilities, recruitment of personnel, engaging in common promotional activities, and pursuing common loan and investment policies. The last two of these may prove to be especially harmful to the competitive environment. Moreover, given that an effective line of communication does exist via interlocking managements and the first step already taken whereby a "cooperative atmosphere" prevails in carrying out certain activities, it is only logical that the next step to some form of collusion is a short, easy one. The temptation must be great to adopt a comprehensive competitive strategy that will bring rewards to the "marriage," rather than squandering resources on individual efforts to carve out a market niche.

Despite the fact that some common policies are being pursued by a majority of the respondents, at least two out of five savings banks with ownership in commercial banks (42 percent) indicated they have not established any common operating policies between the banks. Invariably these answers came from respondents who indicated they had no officer or director/trustee interlocks with a commercial bank.

• The respondents were asked to indicate the degree or intensity of competition between their savings bank and the commercial banks located in the same trade area in which the savings bank owned stock. Below is a summary of those responses.

	Percentage of Usable Replies			
	No Competition	*Very Little Competition*	*Moderately Competitive*	*Very Competitive*
Real Estate Mortgages	37	36	15	12
Savings Deposits	30	12	9	49
Consumer Loans*	30	12	12	42
Overall Operations*	30	9	27	15

(*Less than 100 percent because not all replies gave a response)

These responses would seem to confirm that commercial bank stock ownership and interlocking managements have indeed caused a reduction in competition in some of the most important competitive areas. Three out of four savings bankers replied there is little or no competition for real estate mortgages between their bank and the commercial bank in which the stock is owned. Little or no competition is said to exist for savings deposits, consumer loans, and overall operations by four out of ten respondents. Half of them did report that the institutions are very competitive (meaning they pay the same interest rates) in attracting savings deposits. However, because of regulatory ceilings on rates paid for deposits, the competition will necessarily be of the "soft" variety, i.e., nonprice competition. Efforts to attract deposits are likely to be aimed at the mutual benefit of the banks rather than acquiring a competitive edge.

The competitive environment surrounding a large number of savings bank-commercial bank marriages was summarized well by one respondent: "We respect the traditional areas of each other."

• How would savings banks be affected in general if they were prevented from owning commercial bank stock? About half believe such a prohibition would be harmful because earnings of the savings bank would be hurt. Two out of ten felt an increase in competition would likely result; the others suggested the impact would not be noticeable.

- How would a ban on interlocking managements affect the savings banks? Three out of ten were concerned that earnings of the savings banks would deteriorate because the quality of trustees would suffer. Roughly the same proportion felt competition would be enhanced; the others forecasted no observable impact.

Summing up, the respondents felt savings banks could be adversely affected because they would be denied a profitable investment opportunity, and legislation barring interlocking managements would impose a hardship in finding competent people to serve as trustees and officers. Generally, the respondents were of the opinion that there would be little direct impact on the banking public if all commercial bank stock investments and interlocking managements were outlawed.

The Matter of Talent

Thus, it seems that the savings bankers' strongest argument for the practice of management interlocks between savings and commercial banks is the short supply of capable director and officer talent in small communities. Consequently, prohibiting interlocks would impose a burden on these institutions in finding qualified management. But even presuming this argument to be valid, does this kind of community benefit clearly outweigh the loss in actual or potential competition that will no doubt result from the practice when the banks operate in the same market area?

In the *Phillipsburg* case, the Supreme Court has acknowledged the need for maintaining independent alternatives in smaller communities because of the limited number of choices. Banning interlocks is probably even more critical in smaller communities than larger ones because of the greater likelihood bank customers in smaller communities will not have as many banking alternatives from which to choose. Also banking concentration might be higher in the smaller communities. As I have stated before:

> When banks and other financial institutions are operating in the same market, there should be no interlocking management whatsoever. I do believe the "short supply of capable talent" argument in a small town is valid. I cannot believe a town large enough to support two financial institutions is so deficient on management talent that it would not be able to come up with ten people, say five on each board, in order to operate the institutions independently and in a profitable manner.[8]

In his Congressional testimony on the Banking Reform Act of 1971, Assistant Attorney General Richard W. McLaren stressed the same point:

> Some have suggested that interlocks between financial institutions in small communities should be exempt. Our feeling is quite the opposite. The alternative sources of financial services available to persons in small towns are already quite limited, and in such cases any further coordination of bank policies and management would be very undesirable.

Later in his testimony, Mr. McLaren stated: "I cannot help but feel that with the breadth of our educational programs and the basic good sense of our American businessmen, that we do not have to have the same people on bank boards."

A study commissioned by the Savings Banks Association of New York State, prepared by Professor George J. Benston, also criticizes the practice of interlocking managements and observes that "this situation is indefensible."

> In few, if any, other industries is there a commonly accepted practice of admitting avowed competitors into broad room deliberations. Clearly this practice is not in the public interest. Few persons are sufficiently objective or capable of not using information they learn on one job for the benefit of another. The potential areas of competitive conflict are large; vying for branch location, interpreting trends in deposit performance, evaluation of potential merger partners, innovations in services, and so on.[9]

Professor Benston believes that the dangers to competition and the public interest are so great ". . . the practice should be ended forthwith." He does not see any need for a "grandfather clause" because such a policy is valid only in cases of irreparable harm. In these situations, aside from income loss suffered by savings bank trustees, the only possible harm would lie in the replacement of trustees choosing to maintain their commercial bank affiliation. Benston goes on to state:

> Replacement would be made considerably easier if the present trustees and senior management of the MSB's would broaden their horizons in terms of searching for new board members. If mutuality is to have real meaning, the board of trustees should include people of much more diverse backgrounds than business and industry.

CONCLUSION

This survey's results are not offered to prove that all investments by savings banks in commercial banks lead to interlocking managements and, in turn, that management interlocks stifle all forms of competition. However, there seems little doubt that the practice is inimical to the principle of providing for

[8] *Hearings*, p. 451.

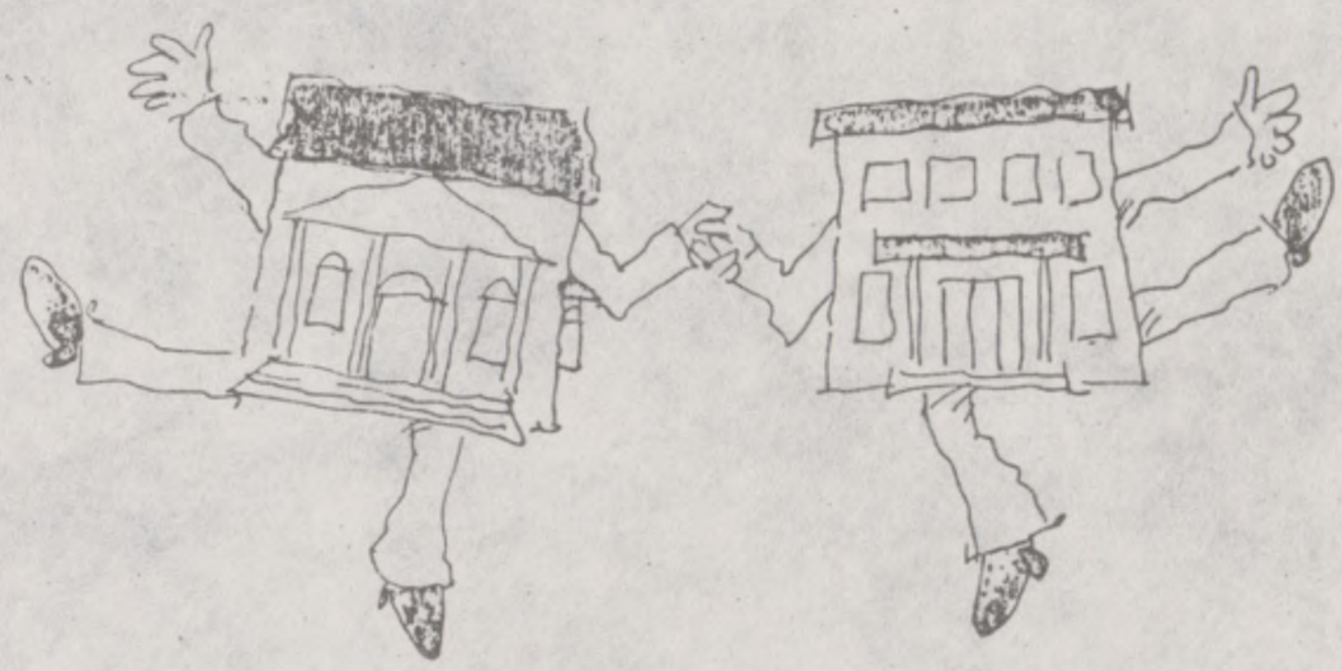
[9] George J. Benston, *Savings Banking and the Public Interest* (New York: Savings Banks Association of New York State, 1971), pp. V-37, 38.

nsumer welfare via competition in the market-ace. The findings of actual reduction in competi-n in a number of instances lead to the conclusion at the practice should be barred by some form of deral or state legislation, especially when the nks compete in a common market area. Conflicts interest generated by this practice are too great be tolerated any longer. These institutions are pposed to be competing for the public's savings llar and various types of loans. Yet, they have en allowed to operate with common management rsonnel who work in many cases to deny the fruits competition.

Our concern should not be centered as much on e practice of savings banks investing in commer-l bank stocks as on the management interlocks stered by the practice. But given that the stock nership position appears to be but a preliminary p to the development of interlocking manage-nts, it makes economic sense to bar savings banks m taking the preliminary step. It is no mere co-idence that savings bank investment in commer-l banks is so often accompanied by interlocking nagements, especially when the banks are serving same trade area.

At a minimum, a prohibition on savings banks owning commercial bank stocks should cover institutions operating in the same trade area. Moreover, since there is always room for competitive harm to arise in ways and manners completely unforeseen today, the ban should probably be extended to investments in all commercial banks, regardless of location. Such prohibition is not as restrictive as it might at first seem. Few banks could make a legitimate case that they can find no acceptable investment substitutes for commercial bank equities. Six of the 18 states that charter savings banks have such a prohibition, including New York, the leading savings bank state. Savings banks in New York have apparently prospered without having to own stock in their competitors. Less than 1 percent of all savings bank assets are now invested in this form of security. Surely there must be other worthy securities that can be substituted for the small amount now invested, especially when such a small investment has such a large potential for lessening competition and fostering conflicts of interest.

Savings bankers and commercial bankers affiliated via interlocking officers and directors should prepare to *compete* rather than *cooperate* and *coordinate*. The tolerance level, by both government and the public, is bound to fall.



THE CRUNCH OF A CRUNCH

"In a crunch, the country runs very dry of money. It is hard to understand that a country can run out of money because, after all, countries by definition can print money. But they can also be overtaken by events, after which the printing power does not alleviate the pain."

Adam Smith in
"Supermoney" (Random House)

[From "Business Conditions," Federal Reserve Bank of Chicago, February 1974]

The Perennial Issue: Branch Banking

By Larry R. Mote

In recent years, bankers in every state of the Seventh Federal Reserve District have been involved, on one side or the other, in the controversy surrounding branch banking. Pressures for permitting branch banking in states where it is now prohibited and for relaxing restrictions in states where it is already a fact are likely to increase in the future. Through historical background material and by identifying and discussing the findings of research on specific issues, this article aims to provide a better understanding of branch banking.

One aspect of the American banking system that quickly impresses itself on the mind of a foreign observer is its fragmented structure. Whereas virtually every other industrial country has a banking structure dominated by a handful of large banks with extensive nationwide branching networks, the banking structure of the United States remains segmented geographically and relatively unconcentrated.[1] With negligible exceptions, even the largest banks in the United States have full service branches in no more than one state. Multibank holding companies, which are an alternative to branching, also generally have banking subsidiaries in no more than one state. In 19 states and the District of Columbia branching is permitted anywhere within the boundaries of the state, although only by merger in some cases and subject to varying control requirements. In 15 states, branch banking is prohibited by statute or regulation, and in the remaining 16 states banks may branch only within a restricted geographical area.

These restrictions can be understood only in the context of this country's unique "dual banking system" under which banks may be chartered and regulated by state or federal banking agencies. In branching, as in several other areas, federal law defers to state law, and within any given state, national banks and state banks are subject to the same geographical restrictions on branching. In recent years, however—and this clearly has been true in the Seventh Federal Reserve District—many states have experienced bitter controversy over efforts to liberalize state branching laws.

The purpose of this article is to help interested readers better understand both how the existing array of state branching restrictions came into existence, why they have come under increasing pressure in recent years, and what existing evidence suggests regarding the merits of the economic case for branching.

(Note.—Bracketed numbers [21] refer to the numerically listed bibliography on pages 452 and 454. Citations are either to studies whose results are described in this article or to scholarly elaborations of topics discussed.)

A historical overview [2]

It is striking that, despite all the criticism of banks and bankers, and all the distrust of monied interests and the concentration of economic power that is almost an American tradition, and despite the disastrous losses suffered by depositors as a consequence of banking abuses, there was virtually no criticism of branch banking as such prior to the second half of the nineteenth century. Among the few exceptions was Alexander Hamilton's expression of concern that too many weak branches might affect the solvency of the First Bank of the United States—both the First Bank of the United States (1791–1811) and the Second Bank of the United States (1816–36) operated branches, as did the state-owned Bank of the State of South Carolina (1812–68) and the State Bank of Indiana (1834–57).

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[1] Even in the United States, the 100 largest banking organizations hold almost half of total commercial bank deposits, and the 20 largest banks hold nearly one-third.

[2] This section draws heavily on studies 9, 10, 17, 22, 52, and 57.

The quiet controversy

Opposition to branch banking is a relatively recent development whose origins go back to an 1865 interpretation of the National Bank Act of 1863. The stated purposes of the National Bank Act were to provide for the establishment and supervision of a system of federally-chartered banks, to provide a uniform national currency, and to assist in financing the Civil War. The act contained many provisions borrowed directly from the free banking acts of the individual states, including the incorporation of national banks under general regulation and bank note issues secured by a deposit of government bonds with the Treasury. It also included a requirement that the organizers of a national bank specify:

> The place where its operations of discount and deposits were to be carried on, designating the state, territory, or district, and also the particular county and city, town, or village.

Although branch banking was not even mentioned in the debate preceding the passage of the National Bank Act, a strict interpretation of the singular noun "place" in the act precluded the operation of banking offices at more than one location. Beginning with Freeman Clarke in 1865, every Comptroller of the Currency up until D. R. Crissinger in 1922 interpreted the act in this fashion, although there was no broad-based opposition to branch banking. The consequence was that the national banking system consisted entirely of unit banks, except that state banks that converted to national charters were allowed to keep their branches under an amendment to the act in 1865.

At conventions of the American Bankers Association in the 1870s and 1880s, speakers argued strongly for the adoption of branch banking in the United States, usually citing the Canadian experience with such a system. The response was more one of indifference than active opposition. J. H. Eckels was the first Comptroller of the Currency to take a strong position in favor of branch banking. In the Comptroller's annual report for 1896, he urged that national banks be permitted to "establish branch banks in towns and villages where no national bank is established and where the population does not exceed 1,000 inhabitants." In support of his proposal, he cited the adoption of branch banking in 23 foreign countries and the need for banks in small towns.

In 1898, the Indianapolis Monetary Commission, a privately-sponsored study group comprised of businessmen, drew up a plan for the reform of the banking system that included a recommendation that national banks be permitted to branch. The introduction of the plan into the House of Representatives appears to have been the high watermark of the movement to grant branching privileges to national banks. Thereafter, the pro-branching movement receded as branching came to be associated with a number of other controversial proposals, such as that to replace the bond-secured National Bank Notes with a currency secured by short-term commercial paper and other assets. In 1900, the need for banking facilities in small towns lost some of its significance as an argument for branch banking when Congress lowered the capital requirement for new national banks in towns with populations of 3,000 or less to $25,000.

Pros and cons after 1900

After the turn of the century, the branch banking issue at the federal level was eclipsed for two decades by the controversy over reform of the currency. The report of the National Monetary Commission, established by an act of Congress in 1908 to investigate the causes of the Panic of 1907 and to recommend means of preventing such liquidity crises in the future, made no mention of branch banking in its report issued in 1911. The Federal Reserve Act, which took shape in the wake of public discussion of the Commission's report, was also silent on the question.

Although the movement for branching by national banks failed to make any headway between 1900 and 1920, branch banking made important advances in those states whose laws either expressly permitted state banks to branch or were silent on the issue. Most of the branches established during this period were within the home-office city of the bank. The rapid multiplication of city branches reflected the growing importance of so-called "retail" banking—primarily the deposit accounts of households—and the need for conveniently located offices to attract this type of business. Prior to widespread use of automobiles, the difficulty of supervising branches located at great distances from the head office all but eliminated the development of branches in other cities, even in those states that permitted unrestricted branching. A prominent exception was California

where, following the enactment of a statute authorizing statewide branch banking in 1909, several banks in San Francisco and Los Angeles established banking systems extending throughout major portions of the state. One of these, the Bank of Italy, eventually developed into the Bank of America, the largest bank in the United States with more than 1,000 domestic branches and over $49 billion in total resources as of December 31, 1973.

In many of the states that did not permit branch banking, other forms of multiple-office banking developed. Group or holding company banking, a corporate device which enabled unit banks to achieve at least some of the advantages of branching, experienced rapid growth in response to the economic forces underlying retail banking. Largely as a consequence of the expansion of both branch and group banking in the early years of the century, organized opposition to multiple-office banking in all its forms began to develop, led by unit bankers opposed to multiple-office banking on principle or fearful of its possible effects on the future of their own institutions. In contrast to the equanimity and wholly academic interest with which speeches advocating or opposing branch banking were greeted at conventions of the American Bankers Association in the 1890s, the 1916 convention erupted in bitter controversy over the branching issue. Following an acrimonious debate that sharply divided the bankers in attendance, the association adopted a resolution opposing "branch banking in any form."[3]

In retrospect, the 1916 convention represented both the pinnacle and the onset of the decline of the anti-branching movement. From that year to the present, it has fought a holding action, winning occasional victories but generally retreating. An important event occurred in 1922 when Comptroller of the Currency Daniel R. Grissinger, concerned by the competitive disadvantage suffered by national banks in states where state banks were permitted to branch, reversed the policy of previous Comptrollers and ruled that national banks might open limited service offices in their home office city in states permitting branching. This action, together with all forms of branch banking, whether by state or national banks, was condemned in a resolution adopted at the 1922 meeting of the American Bankers Association. According to the resolution, "branch banking is contrary to public policy, violates the basic principles of our Government and concentrates the credit of the nation and the power of money in the hands of a few."

The McFadden Act of 1927 appeared to reflect a standoff between pro- and anti-branching forces. Although it gave national banks explicit legislative sanction to establish full service branches in states where state banks were permitted to branch, the act limited these branches to the home office city. Indeed, its sponsor in the House referred to it as "an anti-branch-banking measure severely restricting the further spread of branch banking in the United States." In the years immediately following passage of the McFadden Act, six states enacted laws prohibiting branching.

Bad times for banks

An important force working in favor of the branching movement throughout the 1920s was the large number of rural bank failures. Between 1921 and 1929, 5,712 banks failed in the United States, an average of more than 600 per year (and most were in agricultural areas). Others were prevented from failure by merger into other banks. By the late 1920s, this experience gave rise to a call for more liberal branching laws in order to bring banking facilities to small towns left bankless by the failure of local institutions. The arguments set forth at the time were (1) that a branch can operate economically on a smaller scale than a unit bank, and (2) that, because of the greater geographical diversity of their lending, branch banks are less susceptible to local economic vicissitudes [10, 41, 52]. These assertions, which were not then and are not now universally accepted, formed only part of a broader set of questions concerning the relative efficiency and soundness of branch and unit banking. Nevertheless, they weighed heavily in the thinking of many at the time, and led to a number of proposals to enlarge the branching powers of national banks.

After the enormous wave of bank failures between the beginning of 1930 and the bottom of the Depression in 1932 (5,096 banks closed their doors during this period), it appeared that greatly expanded branching would be an integral part

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[3] In every year from 1916 through 1919, the Federal Reserve Board recommended that national banks be permitted to operate branches within the head office city or county. Similar proposals were made by Comptroller of the Currency J. S. Williams each year from 1916 to 1920.

of any reform measures designed to strengthen the banking system. As it turned out, the only liberalization of national bank branching powers to be undertaken in the 1930s was a provision of the Banking Act of 1933 that allowed national banks to establish branches outside the home office city "subject to the restrictions as to location imposed by the law of the State on state banks."

That the federal banking legislation adopted in the 1930s went no further than this in enlarging branching powers appears to be due to the fact that Congress found alternative means of improving the safety of the banking system [10]. Most important by far was the adoption of federal deposit insurance, which eliminated the incentive for depositor "runs" on banks by effectively restricting the effects of an isolated bank failure to the stockholders and large depositors of the failed institution. Since the Depression, the controversy over branching has shifted from the federal to the state level. Although few states have liberalized their branching laws in the past four decades, branching has made spectacular gains in those states where it has been permitted. Between 1933 and 1973, the number of branches in the United States increased from 2,780 to 26,251.

ISSUES AND EVIDENCE

As the political struggle between pro-and anti-branching forces has settled into a continuing trench warfare, with attrition on both sides but no victory in sight for either, the issues have been refined and crystallized into a few well-defined categories. There has been almost no change in the statement of the issues over the past 30 years, and but little over the past 50. In spite of their longevity, some issues continue to be presented in a misleading or confused manner. In only a tiny minority of cases has sufficient evidence accumulated to allow issues to be resolved. In the remainder of this article, an attempt is made to state the principal issues in the controversy over branching as clearly as possible and to assess them in the light of both logic and available evidence.

Branch banking and operating efficiency

It is frequently asserted in arguments favoring the liberalizing of branching laws that branching would enable banks to achieve greater operating efficiency. Opponents of branching either deny this or, if they concede it, argue that other adverse consequences of branching more than outweigh this advantage.

Before launching into a review of existing evidence on the relationship between branching and efficiency, it is necessary to clarify just what question it is that needs to be answered. Failure to do so can lead to confusion in both the design of research studies and the interpretation of them, and often has done so in the past. For example, a finding common to the earliest studies of the costs of branching [1, 46] has been that for banks producing the same output as measured by total assets, operating revenue, number of accounts, etc.—it is cheaper to operate a unit bank than a branch bank. However, because of the importance banking customers attach to convenience, a single large unit bank is a poor substitute for another bank of the same size that operates a number of branches. To the customer, the total costs of doing banking business consist of the costs of banking services at the office where the services are available plus the costs of time, trouble, and transportation expense involved in obtaining them.

In principle, one could measure these "inconvenience costs," add them to the internal operating costs of both branch and unit banks, and compare their efficiency directly. However, it is difficult to measure the dollar value of nonpecuniary costs incurred by a great number of customers residing in various locations. A more manageable approach is to compare a branch bank, not with a unit bank of the same size, but with a collection of unit banks of the same size and producing the same mix of services as the individual offices of the branch bank [18, 20, 22, 39]. Because the convenience costs associated with the two organizational forms would then be identical, their relative efficiency could be determined on the basis of internal operating costs alone, for which data are more readily available. Moreover, this comparison corresponds more closely to the public policy question that is most often encountered: given a determination that a specified location can support a new banking facility, should that facility be a new unit bank or a branch bank of a larger institution?[4]

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[4] Strictly speaking, even this comparison is not completely valid. Even if unit banking could provide the same total number of banking offices in a given area, it could not provide bank customers the convenience of being able to do business at two or more offices of the same bank.

A conceptual difficulty that plagues even this comparison is that certain mixes of output that are feasible for a branch are not possible for a unit bank. If, for example, a branch is to be established in a rapidly growing residential area where the demand for consumer installment loans and residential mortgage loans greatly exceeds the supply of deposits, it may be possible for the loans of that office to greatly exceed its deposits if the shortfall in funds can be made up by surpluses at other branches of the same bank. In contrast, a unit bank would be bound by its balance sheet either to limit its lending to the available supply of deposited funds or to borrow outside its immediate area.

On its face, the argument that branch banks should enjoy some advantage in operating efficiency appears quite plausible. There are a number of banking operations—personnel management, purchasing, investment portfolio management, and general administration, among others—that could well be centralized at the bank's head office [1, 10, 22]. Assuming there are any economies of scale in these functions, the result should be lower costs for a branch system than for a unit bank. It may also be possible to use lower level management personnel to manage branch offices, inasmuch as key policy decisions, including credit decisions on loans exceeding a specified amount, are typically reserved to senior loan officers at the bank's main office. Assuming that the resulting cost savings are not completely eaten up by the additional costs of maintaining adequate supervision over the branches, this arrangement may reduce management costs.

The existence of these alleged economies of the branch form of organization is disputed by some opponents of branching [36]. They emphasize the difficulties inherent in overseeing a large branch network, and question the extent to which authority and responsibility can safely be delegated to branch managers. Clearly, the issue is not a purely logical one that can be answered by abstract reasoning and argumentation, but an empirical question that can be answered only by hard evidence. However, repeated attempts over the past two decades to collect and analyze data in order to resolve the question once and for all have yielded conflicting results. Only through a critical analysis of the methodology and data used in each study can one reach a reasoned conclusion as to the validity of the results. Even then, doubts remain.

Measurement of efficiency involves relating production or output either to the resources used to produce it or to the cost of those resources. The measures of output used in the earliest studies of branch and unit bank costs—the amount of specified "stocks" of assets as of a given point in time—are not appropriate measures of output. Banking output is a flow of services over time. To be sure, there is likely to be some relationship between the size of the bank's stocks of assets at the end of the year and the size of the flow of services the bank provides during the year. But the correspondence is likely to be loose and. more importantly, use of the stock measure of output involves a systematic bias.

The bias results from the fact that the average size of loan and deposit accounts tends to be larger at large banks than at small ones. In an output measure such as total loans and investments or total assets, a $1 million commercial loan will count the same as one thousand $1,000 consumer instalment loans. However, the actual service output of the bank—in terms of credit investigation, decision-making, physical processing of the loan application, collection, recordkeeping, and risk-bearing—will be much greater for the 1,000 small consumer loans than for the single large commercial loan. Hence, relating costs to unweighted stocks of assets as measures of output will overstate the efficiency of large banks and wholesale-oriented banks relative to small or retail-oriented banks.

One approach that overcomes this problem is to weight each category of earning assets by its gross yield. Thus, a dollar of consumer loans would be weighted more heavily in the index of output than would a dollar of commercial loans. Where the yields used as weights are the actual yields of the individual bank, the resulting measure of output is simply the total revenue or gross income derived by the bank from its lending and investing functions. Though solving the weighting problem implicit in using stocks of earning assets as a measure of output, most of the revenue measures suffer from their assumption that all banking output is associated with the asset side of the balance sheet. Actually, the safe-keeping, accounting liquidity and payments services rendered in conjunction with the administration of deposit accounts are as much a part of a bank's output as are its lending services.

At least three studies have related banking costs to one or another of the revenue measures of output in order to determine the relationship between total or average costs and size of bank (as measured by output and type of organiza-

tion (unit bank, branch bank, or member of bank holding company). The first of these [18] reported on the basis of statistically estimated cost functions for member branch and unit banks in the Fifth and Tenth Federal Reserve Districts, that branch banks operate at lower average cost, at most comparable levels of output, than collections of unit banks having the same output and number of offices. A later study [44], which compared the costs of unit and branch banks of similar size and with similar product mixes, used data on member banks in the Seventh Federal Reserve District. Its findings on the unit-branch cost question are inconclusive. The most recent such study [39], based on data for all insured commercial banks in the First, Second, and Third Federal Reserve Districts, reported that only branch banks with $5 to $24.99 million in assets, fewer than four offices, and whose output was in the upper part of the range for banks in this asset size class were more efficient than an equivalent collection of unit banks. Branch banks in the $25 to $99.99 million asset size class are less efficient, and results for the $100 million and over class were inconclusive.

A somewhat different approach to measuring banking output was taken in several other studies [5, 6, 37, 39]. Rather than attempting to find a single index of output for the whole bank, these studies disaggregated banks into their component functions or services—demand deposits, time deposits, capital and industrial lending, installment lending, real estate lending, and safe deposit—and related the costs of providing each service to a physical measure of output for each function, usually the number of accounts serviced. This was made possible by use of data from the Federal Reserve Functional Cost Analysis Program, a standardized cost accounting program, for small banks. The total costs for a bank with any given mix of output could then be found by substituting the output could then be found substituting the output of each service into the cost equation for the corresponding bank function, calculating its cost, and then adding the costs for all the functions.

Again, the results were mixed. Although the studies using the functional cost approach reported the usual finding that branch banks have higher costs than unit banks producing the same output, the results of comparisons of branch bank costs with those of a collection of unit banks were found to depend on the particular sizes of the branches being compared and their output mix. This is primarily a consequence of the fact that the existence and extent of economies of scale (declines in unit costs as output increases) differ greatly among the functions. For example, the most recent and sophisticated of these studies [37]—which, however, dealt only with the demand deposit function—concluded that "branch banks which have large offices which cater to customers with small accounts are more efficient than similar unit banks.

BRANCH BANKING IN THE SEVENTH DISTRICT

Illinois

The only concessions Illinois law has made to branch banking have been a 1967 amendment that permitted the establishment of a single drive-in facility not more than 1500 feet from the main premises of the bank, and the 1973 Foreign Banking Office Act that permits foreign banks to open one office in the downtown business district of Chicago. On December 31, 1973, there were 175 drive-in facilities in the state and applications had been received for seven branches of foreign banks. Illinois law prohibits multibank holding companies.

In 1973, the Illinois Bankers Association split over a resolution reaffirming the association's continued opposition to branch banking. Some members, primarily large banks in Chicago and in larger cities downstate, withdrew from the association and supported a bill that would have permitted branching in the home office county.

Indiana

In Indiana, branches may be established within the home office county but not within one-quarter mile of an existing bank or trust company. Home office protection is conditioned on the population of the county and the number of cities of a given size in the county. For each branch opened, a bank must have at least $200,000 in capital and surplus. At year-end 1973, there were 777 branches in the state. Several bills to permit branching in contiguous counties have been defeated in recent years, as has a proposal to permit multibank holding companies.

Iowa

Banks in Iowa may open offices that provide all banking services, but records must be maintained at the home office. Offices may be established only in the home office county and in the counties contiguous to it, but only in unincorporated areas in which no bank or banking office is already located. The number of offices that may be established within the municipal corporation or urban complex in which the home office is located varies with the population of the area. At year-end 1973, there were 369 such offices.

Iowa permits multibank holding companies. However, under a 1972 law, the maximum proportion of state commercial bank deposits that any holding company may control is 8 percent. At year-end 1973, there were eight multibank holding companies that controlled 52 banks in the state.

Michigan

With the exception of Michigan National Bank, which was permitted to retain one office in each of several cities when the branching law was revised in 1945, banks may establish branches only within the home office county, within a 25-mile radius of the home office, or in a contiguous county at a distance greater than 25 miles if that county has no bank. A home office protection clause specifies that branches may be established only in the home office city or village or in a city or village in which no bank or branch is in operation. At year-end 1973, there were 1,400 branches in the state.

Michigan's banking law was revised in 1960 to permit corporate ownership of bank stock. By year-end 1973, ten holding companies controlling 48 banks had been established.

Wisconsin

Prior to 1968, the only full service branches permitted in Wisconsin were those allowed to continue to operate under a grandfather clause in a 1947 act that prohibited branching. Limited service offices were permitted in towns having no other banking facilities. Since 1968, banks have been permitted to establish branches in the home office county, or in municipalities with no bank or branch that are located in contiguous counties within 25 miles from the home office. Branches may not be closer than three miles from an existing bank or branch. At year-end 1973, there were 309 branches in the state.

Wisconsin has permitted multibank holding companies for many years and at year-end 1973, 24 holding companies controlled 128 banks in the state.

While unit banks which have small offices and cater to customers with large accounts are more efficient than similar branch banks." This is valuable information, but it does not settle the branch-unit cost question once and for all.

Availability of banking facilities

An indirect measure of the relative operating efficiency of branch and unit banks, as well as an important dimension of their service to the public, is the accessibility of banking facilities that each form of organization provides. Other things being equal, it would clearly be desirable to have more banking offices than fewer and to have them so located as to provide the greatest convenience to the largest number of bank customers. In the absence of legal restraints on entry, the availability of banking offices under unit and branch banking gives an indication of their relative efficiency in the following sense: if the minimum size banking office consistent with profitable operation is smaller under one form of banking organization than another, this should be reflected in a larger number of offices under that form of organization.

It has often been argued that because branches need not provide all the services of a unit bank or perform such overhead-generating functions as personnel administration, accounting, investment portfolio management, and commercial lending, they can operate profitably in locations where the character and volume of business could not support a unit bank. As a consequence, branching has often been proposed as the solution to the problem of inadequate banking facilities in rural areas and small towns [41, 52].

A common procedure of studies attempting to determine the relative availability of banking facilities in unit and branch banking states is to classify the states by their branching status—according to either their current laws or prevalent form of organization—and then to compare the population per banking

office of the states in each classification [3, 10]. A fundamental shortcoming of this approach is that it does not isolate the effect of branching laws from that of other factors, such as income, the level of economic activity, and the liberality of state bank chartering policy.

Several studies have used the state as the unit of observation but have used multiple regression analysis to isolate the effects of these other variables [27, 33, 34]. They have yielded mixed results, partly because they have not adequately accounted for the most important variables other than branching status that affect population per banking office—the geographical distribution and density of population. The denser the population, the fewer offices needed to provide any given level of convenience in terms of the average distance traveled by customers.

Indeed, the fact that distance traveled may reasonably be accepted as the primary convenience cost in the mind of the customer calls into questions the use of population per banking office (or its reciprocal, the ratio of banking offices to population) as a measure of banking convenience. In and of itself, population per banking office affects customer convenience only insofar as it is related to congestion or impersonal treatment. It is a poor proxy even for these aspects of convenience, because congestion and courtesy depend not simply on population per office, but also on the physical size of the banking facility and the quality and quantity of personnel employed to serve customers.

Area per banking office, which gives some indication of the average distance customers must travel for banking services, is a better measure [15]. However, it is also affected by population distribution and density. In general, the greater the proportion of a state's population that is concentrated in a few urban centers and the smaller the area outside such centers, the greater the population per banking office and the smaller the area per banking office. In order to separate the effects of branching laws from population dispersion, several studies have disaggregated states into smaller units—either towns, countries, or other political subdivisions that are more homogeneous in terms of population density—and compared the number of banking offices in units of similar population in branch and unit states [22, 24, 46, 58].

These studies tend to support the contention that branch banking provides a greater number of banking offices than unit banking. Surprisingly, however, the advantage appears to be limited to towns and metropolitan areas with populations of more than 7,500. In cities with populations of more than 25,000, the advantage is pronounced, with the area per banking office in branching states only about half that in unit banking states [15]. In smaller towns and villages—those usually expected to benefit most from expanded branching—the average number of banking offices differs little between branch and unit banking states [24].

Thus, the weight of the evidence suggests that branching does result in greater convenience to bank customers, as measured by the number of banking offices. This fact suggests, although it does not prove conclusively, the existence of operating economies related to branching.

Competition

One of the most commonly offered justifications for statutory restrictions on branch banking is that the restrictions provide protection against the effects of branch banking on the "concentration of banking resources" and promote healthy competition between banks. Before examining the validity of this contention, it is necessary to clarify a number of concepts that have not always been used with precision in discussions of branch banking.

Concentration is a term used by economists to describe a situation where the ownership of a large proportion of an industry's assets—of total sales or some other measure of output or capacity—resides with relatively few sellers. For a given number of sellers, an increase in concentration implies a more unequal distribution of assets or sales. In most cases, however, increases in concentration are accompanied by a reduction in the number of sellers.

When concentration occurs in a well-defined market—i.e., an area encompassing all those sellers whose actions have a significant direct or indirect effect on the sales of each other but excluding sellers whose actions have little or no effect—it is reasonable to expect, and considerable evidence suggests, that competition may be less intense than it would be in a less concentrated market. The reason: because each of the large sellers controls a significant share of the market, a price change or other action by any one of them produces a per-

ceptible effect on the sales and profits of its major rivals. A change by one seller that produces adverse effects on the sales and profits of others is likely to be followed by retaliation; e.g., the other sellers may match a price cut initiated by the first seller. Knowing this, perhaps through past experience, the first seller is less inclined to undertake such a change than he would be if he were certain no retaliation would be forthcoming. The mutual recognition of this interdependence by the largest sellers is the essence of the market situation known as oligopoly—and most local banking markets could be characterized as oligopolies. At the extreme, it is conceivable that the sellers in the market could behave in such a fashion that prices, quality of product, etc. would be the same as under a simple monopoly—i.e., they would behave so as to maximize their joint profits.

Several important qualifications should be noted regarding the hypothesized relationship between concentration and competition. For one thing, the outcome in individual cases cannot be predicted with certainty. The attainment of maximum joint profits requires that all sellers practice restraint in their competitive behavior. If some sellers believe they have more to gain by lowering prices to win a larger share of total industry profits—even if the total is thereby reduced—they will do so. Second, there is no presumption that the relationship between concentration and competitive behavior is continuous over all levels of concentration. It is possible that concentration must exceed some critical level before pricing behavior ceases to be competitive and approaches that of a monopoly. Evidence on this point, though less than conclusive, suggests that this is true.

Finally, the degree of concentration in the market will have little or no effect on competitive behavior if entry into the market is easy. Under such conditions, any increase in prices will attract new sellers, whose additional output will reduce the price to a competitive level. However, because entry into banking is restricted by statute and regulation, concentration would be expected to affect competitive behavior. This conclusion is partially vitiated by the fact that various types of nonbank financial institutions can perform many bank services and enjoy relatively free entry.

Opponents of liberalized branching say that branch banking almost invariably leads to increased concentration, and they conclude from this that branching results in a reduction in competition leading to higher prices and poorer service for the public. The assertion that branching leads to higher concentration usually is based on observations at the statewide or national level [25]. Indeed, it is clear that the share of total state banking assets or deposits held by the five largest banking institutions is greatest in statewide branching states, followed in turn by limited branching states and unit banking states, New Jersey and Virginia experienced rapid increases in concentration at the statewide level following liberalization of their branching laws[49]. Similarly, it is true that concentration in countries having nationwide branching is vastly greater than in the United States.

It is not clear, however, that the state constitutes a distinct geographical market for any class of customers or type of banking service. It is widely acknowledged that most individuals and many small businesses are restricted in their banking alternatives, particularly for borrowing, to institutions in their immediate vicinity. Their market, as small as a village or as large as a standard metropolitan statistical area (SMSA), will seldom be as large as the entire state. On the other hand, larger firms are not restricted by state boundaries and may be able to borrow anywhere within a broad region or even throughout the country.

Given the larger number of alternatives that are always open to borowers whose size and reputation enable them to borrow anywhere in the country, it is most important that the closest scrutiny of the concentration/competition issue be directed to local markets. Here the relationship between branching and concentration is much more difficult to discern. Many past studies have shown that banking concentration at the SMSA level closely reflects the degree of concentration at the statewide level. Among the findings were these: SMSAs in branching states have higher deposit concentrations that SMSAs in unit banking states [20]; in recent years, concentration increased in SMSAs in branching states and declined in SMSAs in unit banking states, and the number of banks in SMSAs in branching states declined while the number of banks in SMSAs in unit banking states showed more increases than declines [15]. If SMSAs are reasonable approximations of local banking markets, then there are grounds for concluding that branching is conducive to anticompetitive changes in bank market structure.

Some doubt has been cast on this conclusion by the results of a study of changes in local banking markets in New York and Virginia after those two states liberalized their branch and holding company laws in 1960 and 1962 [49]. Both states revised their laws to permit statewide holding companies and to enlarge the area within which banks could branch. New York's six SMSAs experienced a net decline of ten banking organizations. However, four of the six SMSAs experienced declines in deposit concentration. Four of Virginia's five SMSAs experienced either an increase or no change in the number of banking organizations, while the direction and magnitude of the change in concentration is measured. While the deposit share of the largest banking organization in four of the five Virginia SMSAs declined, the deposit share of the four largest banking organizations increased in three SMSAs and declined in two.

Thus, there is some ambiguity concerning the effect of branching and holding company laws on the structure of local banking markets. In all likelihood, the relatively minor changes in concentration in SMSAs in New York and Virginia reflect the increasingly procompetitive stance of the Federal Reserve System and other banking agencies since the Bank Merger Act was enacted in 1960. The Federal Reserve generally has denied applications for mergers that would result in large increases in concentration in local markets.

However, even in those states where liberal branching laws have led to levels of concentration in SMSAs that are substantially higher than the levels in unit banking states, there is reason to question whether the resulting market structures are less conducive to competition. They may not be if the markets for specific banking services are smaller than the entire SMSA. Some bank customers, particularly those who commute to the central business district of an SMSA, may have a wide choice of banks. But others may be more restricted. To the extent this is true, the number of banks in the SMSA can greatly overstate the number of alternatives available to any given individual or small business customer.

Little research has been done on the number of banking alternatives available in smaller areas within the SMSAs. One of the few exceptions is a 1967 study of the Philadelphia SMSA [21]. Between 1946 and 1966, the four-county core of the Philadelphia SMSA underwent a dramatic change in its banking structure, with the total number of commercial banks declining from 115 to 38. The proportion of deposits controlled by the largest four banks increased from 23 percent in 1947 to 69 percent in 1962. According to the most commonly used structural criteria, the market should have become less competitive.

However, if one looks at what occurred in each of 38 districts into which the four-county area had been divided for purposes of a survey of local retail trading areas, the picture is quite different. In addition to a great deal of merger activity, the Philadelphia area experienced an enormous expansion of branch facilities during the 1946–66 period. The net result was that the number of banks represented in 26 of the 38 districts increased. In nine districts, the number declined and in three it was unchanged. For all districts taken together, the average number of banks per district increased from 3.8 in 1946 to 5.1 in 1966. Thus, even in an SMSA undergoing a massive consolidation process, the number of banks conveniently available to the customers with the most restricted number of banking alternatives increased under a permissive branching law.

Still another reservation that must be appended to the conclusion that branching increases concentration arises from evidence that SMSAs in branching states are more closely integrated markets than those in unit banking states. That is to say, the effects of competitive actions by one bank in a branching SMSA are more evenly distributed throughout the SMSA. There are two reasons for this. First, as has been mentioned, banks are represented by physical facilities throughout the SMSA. Second, the threat of new entry via branching makes it more difficult for a bank located in one area of the SMSA to pursue policies, without regard for what other banks are doing, irrespective of the number of competitors in its immediate locality.

The evidence that branching tends to integrate SMSAs into homogeneous banking markets consists primarily of data indicating that the interbank variation in prices of banking services is less in SMSAs in branching states than in SMSAs of similar size in unit banking states. Moreover, in SMSAs in which branching is permitted, the prices of banking services in the suburbs are not significantly different from those in the central city, while in the largest unit banking SMSAs there are significant differences [14, 46]. It appears that in large unit banking

SMSAs, in contrast to SMSAs in states permitting branching, the intensity of banking competition within areas smaller than the entire SMSA can vary from area to area. Consequently, traditional measures of banking structure for the entire SMSA—e.g., total number of banks or concentration ratios—may overstate the degree of competition in unit banking SMSAs.

Because the expressed rationale for much of the opposition to branching is the fear that it will lead to a reduction in competition [25, 36], it is interesting to evaluate the efficacy of existing branching restrictions in maintaining a banking structure conducive to competition. Most state restrictions on branching take the form either of outright prohibition or a limitation on the aera within which a bank may establish branches. Other branching restrictions include "home office protection," which requires new branches to be established outside the limits of cities in which the home office of an existing bank is located, or at a certain distance from offices of existing branches; restrictions on the activities in which branches may engage, often including a prohibition on making loans; and requirements that branching beyond certain boundaries be by merger rather than de novo.

Although such measures obviously constrain the growth of banks in terms of absolute size, their effect on local banking markets is less clear. Limiting a bank's expansion to a county or to an area defined in terms of distance from the home office gives it an incentive to saturate that area with banking offices to preempt additional entry. Such restrictions assure that whatever expansion banks do undertake will add to concentration in the local market.

For SMSAs in the same population size class, concentration tends to be higher in SMSAs in statewide branching states than in SMSAs in limited branching states, but recent data indicate that this relationship is being altered over time. Not only are differences in concentration in statewide and limited branching states becoming smaller, but in the two smallest population size classes (up to 499,999) used in the comparison, concentration in SMSAs in statewide branching states is now insignificantly different from that in limited branching states. Computer simulation studies used to predict the evolution of state banking structures in the future under different legal and regulatory assumptions also suggest that statewide branching may reduce concentration in local markets [29, 40].

The explanation for the declining concentration in statewide branching states relative to limited branching states is obvious. Although banks in statewide branching states tend to be larger than those in limited branching states, much of their growth occurs through entry into new local markets. Clearly, the direct effect of such entry by outside banks is to lower local concentration. Moreover, local banks desiring to open additional offices are not confined to their local market. For reasons of risk diversification or simply because they see more profitable opportunities elsewhere, local banks too will be likely to channel some of their growth into other markets. This is precisely what occurred in Virginia after it adopted statewide branching in 1962, although the deconcentration of local markets was limited by the restriction that branching outside the home office county be through merger only [49].

Prices of banking services

The aspects of the banking business that are of concern to the public are the availability, the quality, and the prices of the banking services they use. Although the relationship between bank market structure and the prices of banking services has been investigated in a number of studies, some have not adequately separated the influence of branching from those of concentration or other measures of market structure, and of other factors, such as risk, regional differences in growth rates, etc. Of course, to the extent that differences in market concentration are themselves functionally related to differences in branching restrictions, it would lead to faulty policy conclusions to treat the effects of branching and concentration as though they were wholly independent influences on bank performance. On the other hand, much of the effect of branching on concentration is due to the particular features of existing branching laws, and is not inherent in branching per se.

The conclusion that often results from failure to make this distinction suggests the necessity of identifying the precise channels—and the directional flows of the influence within each channel—through which branching might affect the prices of banking services. There are at least five distinguishable channels through which branching might affect the prices of banking services.

The first of these channels is the effect of branch banking on the concentration of resources. Its importance depends to a great extent on the nature of existing branching restrictions and the regulatory criteria by which applications for branching permits are judged.

Second, branching might affect the pricing policies of banks desiring to exclude new competition from their markets by facilitating potential entry into those markets. In a state without geographical branching restrictions or home office protection, the possibility that a branch bank can enter any market de novo can have a powerful effect on the pricing of banking services—even in one-bank towns.

Third, branching may affect the prices of banking services through its effect on the internal operating efficiency of banks. It is clear that any significant differences in operating costs between branch and unit banks could have a profound effect on the pricing of banking services, whatever the competitive environment they face.

Fourth, branching may affect the prices of banking services by reducing the costs of information, transaction costs, and other impediments to the allocation of funds to their most profitable uses among geographically separated banking offices.

Finally, by reducing the risks associated with lending through geographical diversification and by reducing the amount of liquid assets a bank must keep on hand to meet deposit withdrawals, branching may affect the interest rates on loans. Branching enables a bank to make loans to a wide variety of borrowers in widely separate locations and reduces the bank's vulnerability to loan losses resulting from local economic difficulties. Similarly, branching permits shifting vault cash to any office in the system, and reduces variability in deposits because of a greater number of depositors. In combination, these factors may reduce the amount of assets a branch bank needs to keep in liquid form and thereby enable it to make more loans.

The relative importance of each of these influences on the pricing behavior of banks is difficult to determine—and their net effect is correspondingly difficult to predict. Nevertheless, keeping them in mind may help one better understand the mixed or contradictory results of many studies of the effects of branching on pricing behavior.

Interest rates on commercial loans

One of the earliest systematic studies of pricing policies of branch and unit banks compared data on unsecured commercial loans in several loan-size and borrower-size categories from 34 banks in several New England cities in which a unit bank competed with a branch of a large bank [22]. In more than three-fourths of the comparisons, the unit bank charged a lower rate; in three comparisons, the rates were equal. Because the interest rate data for each branch bank were averages of rates charged by the bank at all offices, the validity of the study depends heavily on the assumption—usually found to be true—that each branch of the same bank charges identical rates. Nevertheless, the one-sidedness of the results is striking. The problem of distinguishing a separate effect due to concentration was circumvented by comparing branch and unit banks in the same city and presumably subject to the same market forces.

However, the findings of the New England study were contradicted by a study of banks in New York state [30]. In New York City, it was found that large branch banks charged the lowest rates on unsecured small business loans. Outside New York City, branch banks generally charged lower rates than unit banks. Although the relatively low rates charged in New York City probably reflect the highly competitive nature of the market—a condition only tenuously related to the extent of branching there—the differences between branch and unit rates outside New York City cannot be explained in terms of different degrees of competition. The finding that branch banks charge lower rates on unsecured small business loans was corroborated by the results of two studies of changes in rates following the acquisition of unit banks by branch systems [24, 30]. In each study, it was found that although rates were unchanged following most mergers, the number of reductions greatly exceeded the number of increases.

Taken at face value, the reported findings suggest that branch banks tend to charge lower rates on unsecured small business loans. However, two severe qualifications of this conclusion should be noted. First, branch banks tend to require higher compensating balances and to enforce them more strictly. Indeed, it was reported in the New York study that in almost all cases in which compensating

balance requirements were changed after the absorption of a unit bank by a branching system, they were increased [30]. To some extent, at least, this would offset the lower nominal rates. Secondly, it has been found that branch banks typically charge similar rates at each of their offices, partly as a matter of administrative convenience, partly to avoid customer charges of discrimination [22]. Inasmuch as many of the mergers in the two studies were acquisitions of rural or suburban banks by banks in metropolitan areas, the reductions in rates simply may have reflected an extension of the lower rates prevailing in highly competitive metropolitan markets to banks in more isolated and less competitive markets, rather than any inherent advantage of branch banks.

Much of the decline in business loan rates in Nassau County, following the opening of that county to branches of New York City banks in 1961, can be explained by the "ripple effect" of the opening of new branches by banks maintaining uniform rates at all their branches. The reduction in local market concentration brought about by the establishment of de novo branches by banks previously unrepresented in the market probably also played a part.

Interest rates on mortgage loans

Such evidence as exists indicates that branch banks tend to charge lower interest rates on mortgage loans than unit banks in the same states [24, 30]. As in the case of unsecured business loan rates, it also has been found that mortgage rates were lowered in most cases after a unit bank was acquired and converted into a branch of a larger bank. This was the case following entry of New York City banks into Nassau County by branching [38]. Other terms on mortgage loans, including maturities and maximum amounts, also were generally liberalized following conversion of a unit bank to a branch.

Rates on consumer instalment loans

It is often asserted that branch banks are better suited than unit banks for rendering "retail" banking services. Able to establish numerous, conveniently located offices to provide the basic lending and deposit services, while retaining such specialized "wholesale" banking services as corporate trusts, commercial lending, and the issuance of large certificates of deposit as home office functions, branch banks are believed to compete more aggressively for consumer loans. The evidence generally supports this view, although it is less clear-cut than one might suppose. According to the studies already cited, branch banks tended to charge lower interest rates on unsecured instalment loans than unit banks, and the rates on such loans were usually reduced after a unit bank was converted into a branch. However, in the case of new car loans, great variations in rates were reported, with unit banks most frequently reporting lower rates [30].

Interest rates on time deposits

Evidence available on the interest rates paid on time and savings deposits by branch and unit banks is not definitive. The findings suggest that unit banks in branch banking SMSAs pay higher rates than branch banks of the same size, and it has been suggested that the higher rates paid by these unit banks are a means of overcoming the convenience disadvantage of having only one office [20]. This is plausible and is consistent with the finding in a study of deposit interest rate ceilings that banks constrained from raising interest rates on deposits will try to compete by establishing additional branches [27]. It should be pointed out, however, that unit banks pay higher rates than branch banks only within the same deposit-size classes. But there is a pronounced relationship between interest rates on time deposits and size of bank, and branch banks tend to be considerably larger [20]. On the other hand, the time deposit rates used in these studies are average effective rates calculated by dividing total interest on time deposits by total time deposits. They therefore reflect not only differences in rates paid on similar accounts, but also the difference in account sizes of banks of different sizes.

Differing results are the product of studies seeking to determine whether unit banks in unit-banking SMSAs generally pay higher rates than unit banks in branch banking SMSAs. It appears that the time deposit rates paid by unit banks in branch-banking SMSAs more closely resemble the rates paid by unit banks in unit-banking areas than the rates paid by the branch banks against which they are competing [14, 24]. Particularly in view of the functional relationship between branching and bank size, existing evidence does not provide a firm basis for evaluating the effects of branching on time deposit rates.

Service charges on demand deposits

The most firmly established generalization that has emerged from recent empirical studies is that branch banks tend to have higher service charges on demand deposits than do unit banks. Branch banks impose higher service charges than unit banks competing in the same market [24, 30]; conversion of a unit bank to a branch bank is usually followed by an increase in service charges; the entry of New York City banks into Nassau County by de novo branching induced most local unit banks to increase their service charges [38].

Less intense competition attributable to the higher concentration associated with branch banking is one explanation that has been offered for the higher service charges imposed by branch banks. If this were true, however, it should show up in the other prices charged by branch banks and this does not appear to be the case. Another possible explanation is that branch banks have a better knowledge of their costs than unit banks, and branch banks, therefore, price demand deposit services to cover their full costs. This is a possibility, but it is not clear why it should be true. An explanation that was offered some years ago argued that processing checking accounts was a largely manual operation and that economies of large output were difficult to achieve in this operation [20]. But subsequent studies using data from the Federal Reserve Functional Cost Analysis Program have shown this to be false.

An alternative explanation that, though consistent with most of the evidence, needs further testing is that branching generally produces a *more* competitive environment in which banking services are priced at or near their marginal costs. That being the case, branch banks are unable to maintain service charges that cover only a small portion of checking account processing costs, as many unit banks in isolated markets are wont to do. The question warrants further research.

Lending policies and mobility of funds

One of the most emotional controversies surrounding branch banking has to do with how branch banks allocate their funds. At issue are both a question of fact and a value judgment. The question of fact has to do with whether branch banks shift funds from one branch to another, or from branches to the home office, in order to increase profits. The value judgment has to do with whether branch banks should do this.

For years, opponents of branch banking have argued that branch banks established branches simply for the purpose of gathering deposits—that they "siphoned" funds from residential areas and rural towns for the purpose of providing credit to the bank's large corporate customers [25, 27, 36]. Moreover, even to the extent that they lend through their branches, branch banks are alleged to apply impersonal credit standards that give little weight to the applicant's character or to any consideraiton other than collateral. The result is that depositors' funds, instead of being made available to aid the development of their own communities, are funneled to the large cities. One alleged result is chronically depressed economic conditions in rural areas. Though originally argued by some farm organizations and independent bankers, this complaint has been taken up in recent years by consumer groups.

First, the question of fact. It has been established that branch banks operate some branches as net deposit-gathering offices, while other offices are primarily lending outlets. Two separate studies confirm this by showing great variations in loan-to-deposit ratios among the branches of a large California bank [28] and among branch banks in New York state [32]. Some branches were found to have much lower loan-to-deposit ratios than any unit bank in the studies, while others had ratios much higher than any unit bank. Moreover, earlier studies in New England and New York state [22, 30] both reported that branch banks were less active than unit banks in making unsecured business loans.

On the other hand, virtually every study of branch bank lending has shown that, overall, branch banks have considerably higher loan-to-deposit ratios than unit banks [2, 14, 22, 24, 28, 30, 46, 56]. In the California study, this was found to be true of the branches alone, even without taking into account the ratio for the home office [28]. The New York state study found that out-of-town branches tended to have lower loan-to-deposit ratios than unit banks in the same area, but that the differences were not significant [32]. An earlier New York state study indicated that the out-of-town branches of larger banks had higher loan-to-deposit ratios than the bank as a whole [30]. Moreover, after most acquisitions of unit

banks by branch banks, both the dollar volume of loans and the loan-to-deposit ratio of the acquired office increased. In short, while there is evidence that the deposits of some communities are used to make loans in other communities under branch banking, there is no evidence that communities other than the home office city of the branch bank experience "siphoning" in the aggregate.

Less can be said of the value judgment regarding the desirability of siphoning. However, it should be remembered that the interests of borrowers and depositors in a community need not coincide. The depositor may be interested in the highest possible yield on his deposits, the borrower in getting loans at a favorable rate. Clearly, economic efficiency, in the sense of maximizing society's total production of goods and services, would be served by allocating funds to where they earn the highest return. Nevertheless, it may be legitimate to object to siphoning on the grounds of distributing equity or—if this could be shown to be the case—because siphoning contributes to an undesirable concentration of resources in particular markets or in the economy as a whole.

CONCLUSIONS

On the basis of the broad range of evidence surveyed in this article, it would appear that branch banking is associated with a number of positive results in terms of availability of banking facilities and prices of banking services. Although the evidence on relative operating efficiency of branch and unit banks is not conclusive, inefficiency, of itself, is not a sufficient reason to prohibit one form of banking or the other. The discipline of the marketplace should be relied upon to eliminate inefficient firms.

Unless accompanied by safeguards against excessive concentration in local markets, however, the adoption of branch banking could prove to be a costly mistake from the standpoint of the public. Aside from the need for vigilance on the part of state and federal banking agencies in approving mergers and branching permits, there is a need for care in designing geographical restrictions on branching.

Ironically, the major criticism of existing geographical restrictions on branching has not been that they lead to concentration in local markets but rather that the county boundaries specified in most state branching statutes do not corespond with the realities of local banking markets. Such markets may cut across county, or even state, boundaries. They may or may not coincide with branching areas defined by a specified radius from the home office. The large discrepancies between political and economic boundaries have led to a number of proposals to make the areas within which banks are free to branch correspond more closely to local banking markets either by dividing the state into a number of banking districts approximating trade areas or simply by relaxing present restrictions to allow branching within a large area [4, 13].

Despite the near universality of the approach, it is based on the apparently unquestioned assumption that the area within which branching is permissible should coincide with the local banking market. An alternative aproach to branching regulation that would appear to better serve the ends of preserving competition in banking and in limiting the dominance of one or a few institutions would be to restrict the number of branches a bank might have within a given area—say, a township, county, or other political subdivision, or an area of a given number of square miles—but not to restrict the aeras within which banks might establish branches. The number of offices that a bank could open within each such given area might be related to the population of the area or some measure of its economic activity, or might be limited to some percentage of total banking offices in the area.

Such an approach would effectively preclude a bank from achieving a monopoly position by anticipating areas of growth and preempting profitable locations for banking offices in a local market. It would encourage banks, instead, to expand by branching outside the immediate vicinity of their home office, thereby tending to reduce local market concentration elsewhere. Finally, because it would not put an arbitrary upper limit on the overall growth of the bank, it would not stifle initiative or frustrate the desire to expand. Thus, it should be compatible with the achievement of all important economies of scale in banking.

That such an approach to branching regulation has rarely been suggested [43] and never adopted suggests that maintaining competition is not the real goal underlying branching restrictions. Other goals served by existing branching restrictions that, in whole or in part, may conflict with the encouragement of competi-

tion are the desire to restrict the absolute size of banks in order to limit their political influence, and the desire to protect existing institutions from direct rivalry with competitors that are either more efficient or that are in a position to employ what are felt to be "unfair" methods of competition. These are difficult questions that are not dealt with in this article but which must be faced by any state contemplating change in its branching laws.

It has recently been suggested that prospective developments in the payments mechanism—electronic transfers of funds, direct deposit of payrolls, and wider use of pre-authorized credit—will reduce the need for customers to visit their banks frequently and, though not resolving the branching controversy, will make it academic. Over a period of decades, this may turn out to be true. For the immediate future, however, pressures for permitting branch banking in states where it is now prohibited and relaxing restrictions in states where it is already a fact, probably will increase. Not only bankers and legislators, but citizens in every walk of life should begin now to consider what configuration of the banking system they would like to see come to pass.

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THE OPTIMAL BANKING STRUCTURE: THEORY AND EVIDENCE

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THE OPTIMAL BANKING STRUCTURE AND THE PUBLIC INTEREST

The consuming public, in contrast to producers and the government, is served best by organizations that determine, meet and anticipate the public's demands at the least cost for a given level of quality. For consumers, the banking structure is optimal where financial institutions have the desire and ability to serve them and are rewarded accordingly. In general, this situation prevails when firms are wealth maximizing competitors that are neither subsidized, penalized or regulated by the government and where entry into and exit from the market is not constrained. Firms in such a market seek to produce goods and services according to the demands of consumers as expressed by the consumers' willingness to exchange their resources (money) for services.[1] The level of output is that which, at the margin, balances the cost of resources used by the firm with the amount of resources consumers are willing to exchange for the output.[2]

In producing goods and services, firms try to combine resources optimally, so that a given level and mix of outputs is produced with the most efficient combination and amounts of inputs. This optimal use of resources occurs not because producers wish to conserve society's wealth but because they wish to maximize their own wealth and/or position in the industry. Thus the labor services of tellers, bookkeepers, managers and others are combined with computers, adding machines and other equipment, supplies, buildings, etc., to produce at the least cost the services demanded by businessmen, housewives and others.

In contrast to competitive markets, however, consider the situation where there is only one bank (or a cartel). The bank's owners could gain a higher return by charging consumers higher prices and/or providing fewer services, even

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1 Specific consumer demand depends on the distribution of wealth among individuals. Fiscal measures are preferable to the control of market prices and institutions to correct (according to some ethical standard) a mal-distribution of wealth.

2 A rigorous description of resource allocation in competitive markets is available in most price theory textbooks.

though less output was purchased, than in a competitive market. While government regulation might be invoked to reduce the prices charged (as is done in public utility regulation), it is unlikely that the regulated prices would be set at the optimal level, as they are by competition.

Government regulation, even when imposed for the benefit of the consumer, is not as effective as competition because regulators generally cannot know as much as the banks' managers about the demands of consumers and the ways in which resources can be combined to fulfill these demands. Nor are government regulations always designed and enforced solely to benefit the consuming public. Regulations often are imposed to create cartels, reduce competitive pressures or benefit a particular supplier or group of firms. Regulators, in direct contact with those whom they regulate rather than with consumers, tend to identify more with suppliers and their problems than with the general public and its problems. In contrast, competition among suppliers regulates more effectively the prices charged and quality of service rendered.

Also, competitive markets provide suppliers with the motivation to serve the public and use resources efficiently. If one bank does not provide services to meet the needs of customers another bank can prosper by doing so. If a bank operates inefficiently, its owners and managers forfeit the resources wasted.

For competitive banking markets to operate optimally, four important conditions must exist. First, entry into the market must be unrestricted. If such is not the case, a poorly run bank or one that finds itself in a monopoly position can continue to offer higher priced and/or inadequate services to the public to the extent that people lack alternatives. Obviously, it would be preferable for suppliers to find those people whose demands are poorly met. Second, exit, either by merger or failure must be possible. If such is not the case, the structure of the industry may not change to meet changing circumstances (which may be internal or external to the bank). Both of these conditions are under the control of governmental authorities who often (incorrectly) do not apply them to the banking industry.

Third, banks must not collude to form a cartel or monopoly. The possibility of monopoly is meaningful because the owners of banks can increase their wealth if they can create a cartel. However, where entry into the market is not restricted, a monopoly would be subverted by the same desire of people to increase their wealth since sharing, at least in part, the extraordinary profits of monopolies is a lure for new entrants. But since such entry may take time, during which period the public is ill served, and since new entrants may join the cartel, thus re-instating the monopoly, governmental authorities cannot rely entirely on market forces to cure monopolies.

Fourth, economies of scale that result in "natural" monopolies must not exist. If the most efficient bank size is the largest bank possible, then a competitive market will result in the survival of

one bank. Although its ability to take advantage of its monopoly position would be limited by the possibility that new competitors could enter the market (even if for a limited time), it still would be the sole seller of banking services.

To summarize, then, the operation of market forces that would allocate resources and serve the public optimally depends on 1) unrestricted entry and exit from the industry and 2) the absence of collusive or natural monopolies. Evidence from the United States on the extent to which these considerations presently apply to the banking industry or are likely to apply in the future is discussed next. The possibility of natural monopoly and the presence of economies of scale are considered first because the policies adopted by the banking authorities cannot change the situation but rather must adapt to it.

ECONOMIES OF SCALE IN BANKING

The Effects of Economies, Diseconomies and No Economies of Scale

If the banking industry is characterized by significant and continuous economies of large scale operations, eventually only one bank would survive under free competition. Then the banking authorities would be faced with a dilemma. An efficient banking industry is desirable because the public (customers and bank owners) benefits from bank services being produced at the least cost. However, the resulting monopoly is undesirable to consumers because they will not participate fully in the economies of scale and, perhaps more important, they will have few alternatives to the services provided by the monopoly bank. Should new competitors be unable to enter the market, the authorities might have to restrict the size to which a bank can grow or regulate the prices it charges the public.

If banking is characterized by diseconomies of scale, a large number of smaller banks could operate side by side. In this event, the authorities might view attempts of banks to merge as organizational changes motivated more by a desire to eliminate competition than by a desire to achieve operating economies.

If banks are not subject to important economies or diseconomies of scale, the optimal size and number of banks will be determined by the market that is created by the particular talents of bank managers and anti-competitive mergers. The considerable demands for bank services by the large number of customers in cities, for example, would result in many more banks, both in number and kind, than would exist in rural areas. Also the particular talents of banking managers play an important role in the form the bank may take; e.g., some may specialize in retail services and others in wholesale services. Changes in the talents of managers (and their ability to adapt to changing markets and technology) also can affect the way in which the bank is run, and the rate of growth experienced. Were it not for the final factor, anti-competitive mergers, the optimal policy of government authorities in this situation would be to allow changes in the number of banks via new entrants and mergers (assuming for the moment that free entry and exit do not create other problems).

Evidence on Economies of Scale

Let us consider, then, the existing evidence on economies of scale. Several studies have been published that provide a fairly good, though not sufficiently complete, picture of the cost structure of commercial banks. The most useful of these studies are by Benston [June 1965] and Bell and Murphy [1968], which use data gathered by the Federal Reserve in its functional cost analysis program.[3] These researchers defined the output of banks as the average number of deposit accounts and loans processed per year, holding constant variations in the size and activity of accounts and loans. Number of deposit and loan accounts is preferable to dollars as a measure of output because banks process these accounts and they generate operating costs. In addition, comparing costs per dollar of deposits of banks that deal with both large and small balance customers is like comparing costs per dollar of sales of a wholesaler to those of a retailer. Such a comparison might lead to the erroneous conclusion that wholesalers (or large banks with fewer but larger accounts) are more efficient than retailers (or small banks with relatively more customers), *cet. par.*

Separate analyses were made of the direct costs

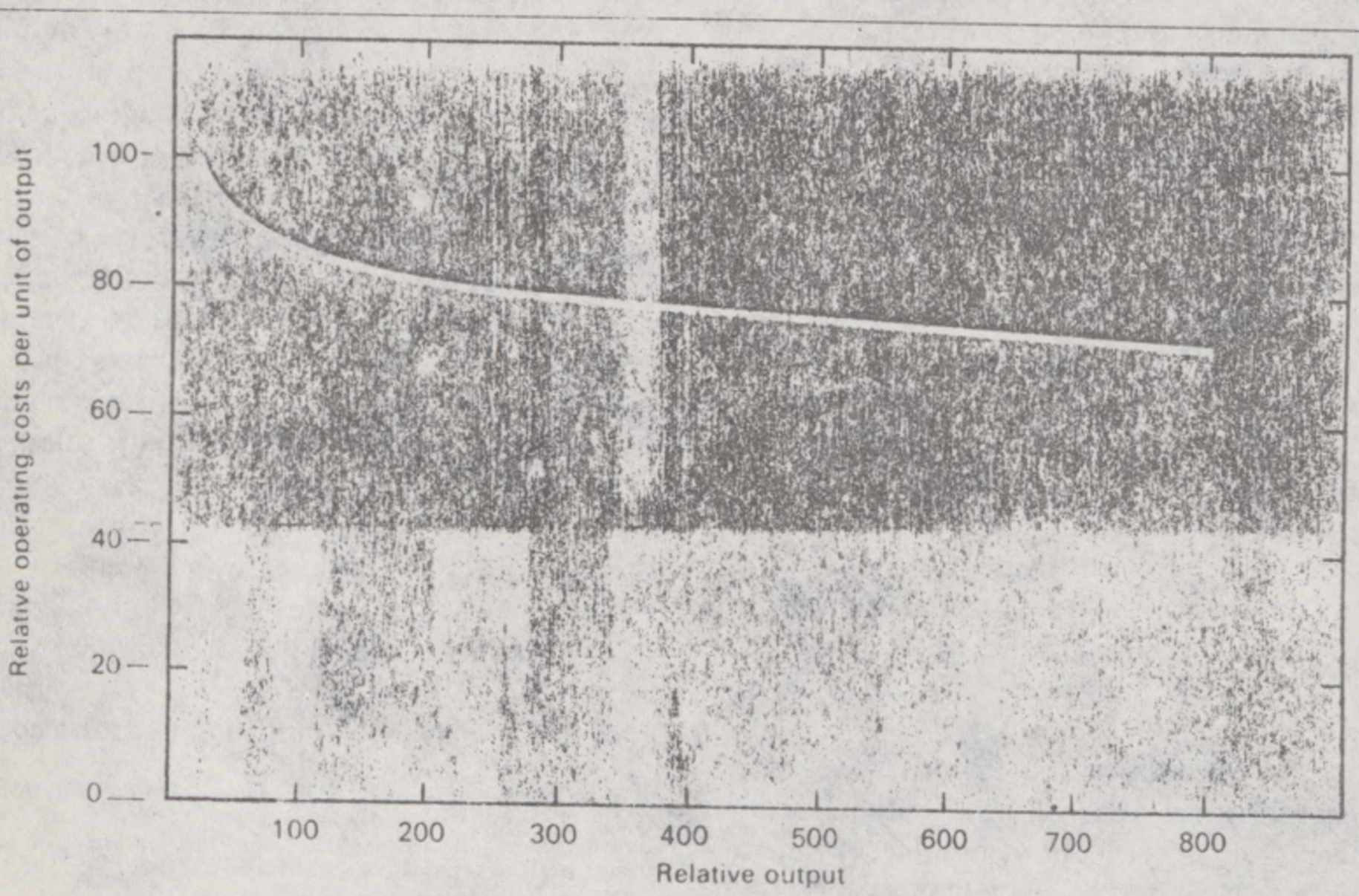
[3] Other published studies include Alhadeff [1954], Gramley [1962], Greenbaum [1967], Horvitz [1965], Powers [1969] and Schweiger and McGee [1961]. These studies are critically reviewed and rejected because of the methodology used. See Benston [May 1972] for this analysis.

of processing demand deposits, time deposits, instalment loans, mortgage loans, business and other loans, securities and collateral services (trust and safe deposit). In addition to output, the studies accounted for effects of type, average balances and activity of accounts, wage levels in the area, number of branches operated and other factors, by including these as independent variables in multiple regressions. Overhead (administration, business development and occupancy) was analysed separately.

Benston analysed data for 1959, 1960 and 1961 from 80 to 83 banks, of which the largest had $55 million in assets. Bell and Murphy analysed data for 1963, 1964 and 1965 from 210 to 283 banks, of which the largest had $800 million in assets. For most banking services, the elasticities—average percentage change in operating costs associated with a unit percentage change in output (the number of accounts served)—are less than one, indicating economies of scale. However, the economies due to large scale operations are not great (none is less than .85) and, for all except demand deposit and real estate loan services, are not significantly less than 1.00 on a consistent basis.

Although the differing elasticities for different banking services indicate that a bank cannot be represented completely by a single cost function, an overall average elasticity can be constructed by calculating the effect on costs of a 10% increase in each banking service measured at the average level of activity for the banks sampled (which, in effect, provides a weighted average). Bell and Murphy [1968, pp. 68-9] determined that total operating costs increase by 9.3% when weighted overall output increases by 10% (holding all other variables constant at their geometric mean values). Figure 1 was constructed using this overall measure of economies of scale. The "base" bank charted has an output of 10 and average operating (unit) costs of 100. A bank with an output of 50 has unit costs of 89.4 and one ten times larger than the base bank, with an output of 100, has unit costs of 85.1. Higher output banks have less than proportionately lower unit costs: A bank with output of 500 has unit costs equal to 76.1 and a 1000 unit output bank's costs are 72.5 compared to 100.0 for the base bank, although they are 50 and 100 times larger. Thus, as Figure 1 shows, the operating cost advantage of larger size diminish rather quickly.

Figure 1. Relationship Between Cost and Output Based on an Overall Elasticity of .93



Two additional aspects of the relationship between the size of banks (as measured by output in terms of numbers of accounts and loans) and costs should be considered. Figure 1 was constructed by assuming that larger banks have the same types of output (demand deposits, instalment loans, etc.) and organization as do smaller banks. This assumption is useful with respect to types of output, because the type of output (measured by the number of deposit and loan accounts) need not be a function of bank size measured by total deposits or assets. But usually a bank cannot grow large (in terms of the number of customers it serves) unless it establishes branch offices. Therefore the costs of branching must be considered explicitly.

The studies reported above show that operating costs of banks with branches are higher than those of unit banks with the same rate of output, *cet. par.* The relationship between additional branching cost and savings from larger scale operations was examined by Benston [May 1965] and Bell and Murphy [1968], who found that one offset the other. In their sample, Bell and Murphy found that the average (large) branch bank had the same costs per unit of output as the average (small) unit bank, even though the branch bank operated multiple outlets [p. 67, table IV-6]. Thus branch banks can offer customers the convenience of many offices without incurring greater net operating costs.

A similar study of the costs of savings and loan associations (which are only authorized to service savings deposits and mortgage loans) was made by Benston [1969]. Data from most U.S. associations [3,159] for each of five years (1962 through 1966) were analysed. Consistent elasticities that average .92 over the entire range of the data were found—virtually the same as those found in the other studies for comparable outputs of commercial banks. The major difference was considerably higher branching costs for the specialized savings and loan associations.

Limitations of the Evidence

Before the implications of the data on regulation are explored, four limitations of the commercial bank studies should be mentioned. First, the latest year of the data is 1965. Since that date, changes in computer technology may have altered

services examined. Second, the studies do not specify well the effect of branch banking. Third, the "giant" banks are not represented; the largest bank included has 57,000 demand deposit accounts (assets of $801 million).

These three shortcomings are alleviated somewhat by a recent, as yet unpublished, study of demand deposit costs by Daniel, Longbrake and Murphy [1971]. They used 1968 functional cost data that included 956 banks, the largest of which had more than 100,000 demand deposits accounts, about twice the number of accounts of the largest bank in the Bell and Murphy [1968] studies. For the 610 banks which had computers for more than a year, their analysis shows slightly lower economies of scale (.929 with a standard error of .014) than those previously measured; insignificant economies of scale for the 78 banks which had computers less than a year (.987 with a standard error of .046); and small but significant diseconomies of scale for the 268 banks with no computers (1.043 with a standard error of .021). This further research thus indicates that once computer technology is adopted, banks with a higher level of output have a somewhat smaller operating advantage over small banks than previously measured, but banks without computers (which generally are small) have a considerably greater operating disadvantage, at least with respect to demand deposits.

The fourth limitation of the cost studies is that they exclude some possibly important aspects of economies of scale. A bank that receives deposits and makes loans over a heterogeneous geographical economic area can reduce its discretionary assets (lower yielding reserves and investments) because offsets from different areas reduce the variability of its cash flows. A large bank also can more readily capture gains from innovations than can a small bank, especially considering that innovations in service industries, such as banking, are readily copied and expropriated by others. On the other hand, small banks have the advantage of direct motivation and control of employees and the ability to innovate and change without going through a bureaucratic structure. Nor are differences in the quality of output, which might be associated with size, measured completely. To the extent that these advantages and disadvantages of size are reflected in earnings rather than in costs, they will not be included in cost studies of econo-

Figure 2. Percentage of Total Commercial Bank Deposits Held by California Banks

	(as of December 31)			
	1940	1950	1960	1970
Largest Bank	34.4%	43.6%	42.3%	37.8%
Next Largest Three	24.6	23.1	32.7	31.8
Largest Four	59.0	66.7	75.0	69.6
Next Largest Four			13.4	16.1
Largest Eight	41.0	33.3	89.6	85.7
All Other Banks			10.4	14.3
	100.0	100.0	100.0	100.0

Sources: 1940 and 1950, Alhadeff [1954], Table 8, p. 42.
1960 and 1970, FDIC.

Policy Implications of the Evidence

Given the limitations of the data (particularly the absence of very large banks from the samples), the primary policy implication that may be drawn from the studies reviewed above is that the authorities need not be overly concerned about the existence of a natural monopoly in banking were banks allowed to grow in size (*de novo* or by merger). Very small banks, however, may not be economically viable in the absence of regulatory protection. But this fact, by itself, does not justify such protection.

However, the conclusion about small banks must be tempered by a caveat and by the findings of other studies. Advances in computer technology, particularly off-premises computers and, to some extent, time sharing, are making the newer methods available to small banks.[4] The belief that well-run small banks probably can adopt this new technology and otherwise compete successfully with large banks is supported by studies by Kohn [1966], Kohn and Carlo [1969] and Chandross [1971], which are reviewed below. The experience of state wide branching in California also reinforces the belief that small banks can exist side-by-side with large, branch banks. As Figure 2 shows, the largest bank, Bank of America, does not seem to have had an overwhelming advantage over smaller banks.

Hence, the conclusion of this section is that the banking authorities should have few fears that unrestricted competition would result in one or a few surviving banks as a result of natural monopoly. Rather, while large branch banks have some operational cost advantages over small banks, on average, it appears that these advantages are not great enough to overcome specific managerial or other advantages that individual banks may have. Therefore, it is concluded that a wide range of medium sized and large banks can exist, although very small banks would have to be extremely well run or in protected positions to survive were the market for bank services free from restraints.

COMPETITIVE BEHAVIOR AND THE NUMBER AND CONCENTRATION OF BANKS IN A MARKET

The data on economies of scale indicate that, were it not for the possibility of anti-competitive collusion, the banking authorities could allow all except perhaps the largest banks to merge and otherwise change their form of organization without fear that a natural monopoly would exist. The data also indicate that the operating costs of a large bank (one with, say, 60,000 demand deposit accounts or $800 million in assets) are 7% (or less) lower than those of a bank half as large. Consequently, unless a merger reduces meaningful competition, it should not be prevented. Otherwise, operating and other inefficiencies may be continued, desirable change stifled and owners of resources prevented from using their property as they wish. A possible additional exception is the merger of very small banks in rural areas. The data indicate that considerable economies of scale

[4] Daniel, et. al. [1971] found that banks who used off-premises computers had lower operating costs per demand deposit account than banks who used in-house computers. The value of time sharing for small banks, however, is questioned in an article by Bower and Downes [1971] that reports on studies made for the FDIC.

might result, but competition also would be reduced and possibly eliminated. Therefore, in order to determine the relative advantage to the public of mergers, the authorities should have evidence that mergers which reduce the number of competitors actually measurably reduce the benefits the public derives from banking services. This evidence is examined next.

In general, it would appear that the greater the number of competing firms, the more likely it is that effective competition will occur, and the less likely it is that collusive arrangements will be entered into, or, if agreed to, maintained, *cet. par.* However, it is not obvious how many banks are required for active competition or what is the optimal size or spatial distribution of banks in a market. Four banks may seem preferable to three, but three actively competing may in fact be preferable to two well run banks and two poorly run banks. Similarly, four banks with assets of $100 million each may be preferable to one bank with assets of $300 million and ten with assets of $10 million. It may also be true that for some customers the former is preferable and for others the latter distribution is better. To further complicate matters, banks produce many different products for which the market varies, even assuming that one can measure the market for demand deposits, time deposits, the various types of loans, etc.

Evidence on Concentration and Prices

Despite the difficulties involved, a number of researchers have attempted to measure the relationship between the number or concentration of banks in a market and their competitive behavior. Most of these studies have serious conceptual and statistical shortcomings that result in findings of limited, if any, value. Few of the studies included many of the obviously important variables (such as type, risk and cost of handling loans) that might explain differences in interest rates charged. Concentration and definition of markets is crudely measured; generally the percentage of deposits or assets held by the largest two or three banks in a county or SMSA (standard metropolitan statistical area) is used. The effect on prices of having more than two or three competitors in an area is rarely measured. Nevertheless, the brief review of the studies that follows can provide some insight and conclusions for policy making.[5]

[5] Also see the historical survey and review of studies on the banking structure given in Fischer [1968] and Guttentag and [illegible]

The effect on gross interest rates on business loans of the number and/or concentration of banks in a market, generally defined as a city or standard metropolitan statistical area (SMSA), was studied by Edwards [1965], Kaufman [1966], Meyer [1967], Holland [1964], Brucker [1971], Schweiger and McGee [1961], Edwards [1964], Flechsig [1965], Phillips [1967] and Jacobs [1971]. These studies are summarized very briefly in Figure 3. All of these studies (except Flechsig's and a Federal Reserve study reported by Holland) indicate that the greater the concentration ratio (the percentage of assets or deposits held by the largest two or three banks) in a market and/or the smaller the number of banks, the higher the average rate charged on loans. However, this finding, while it may be correct, is limited by the measurement problems encountered by most of the researchers.

In several of the studies [Edwards 1965, Kaufman and Meyer], interest rates on loans were measured as the gross rate received on all loans at a bank without accounting for even major differences in risk and types of loans held by the banks (such as instalment, mortgage and commercial). Brucker accounted for these differences very crudely by including in his regressions the percentage of various types of loans to total loans. However, like the others, he did not account for the reduction in interest rates charged businesses for their non-interest bearing deposits or other services purchased.[6]

Holland simply reports the findings of a Federal Reserve study but does not give the actual estimates made. Schweiger and McGee used data gathered by comparative shoppers for standard automobile loans; however, they did not provide adequate statistics to determine whether differences detected are other than random.

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[6] Many other criticisms of these studies could be made. See Boyston [June 1972] and Murphy and Weiss [1969]

Figure 3. Summary of Studies on the Effect of Concentrations of Bank Performance

A. Interest Rates on Business Loans

Study	Data and Measure of Performance	Method	Measure of Concentration	Shortcomings	Findings
Brucker (1970)	Balance sheets and income statements of banks by state economic areas: ratios of gross income to total loans.	Regression	Percentage of total assets held by largest three banks.	Same as Edwards (1965): also variables used are poorly out of date.	Somewhat higher rates, but findings are not meaningful.
Edwards (1964)	FRB loan surveys; total business interest paid divided by total loans.	Regression	Percentage of deposits held by three largest banks in SMSA.	Not clear yet whether difference in yields is due to differences in risk and regional supply and demand.	Slightly higher rates, but findings are not meaningful.
Edwards (1965)	Balance sheets and income statements of 1400 banks in 36 areas; ratio of gross income to total loans.	Tables and regressions	Percentage of deposits held by three largest banks in SMSA.	Interest rates measured as total earnings on all loans—risk and type.	Slightly higher rates, but findings are not meaningful.
Flechsig (1965)	Same as Edwards (1964)	Regression	Same as Edwards (1964) but excludes MSB deposits.	"Corrects" Edwards' work by using regional variables.	No significant differences.
Holland (1964)	Balance sheet, income statement ratios.	Regression	One, two and three bank towns.	Only short summary of findings given; no data.	No difference.
Jacobs (1971)	Survey of loans made to 8500 customers by 160 banks who returned [illegible]	Regression	Percentage of deposits held by offices of the largest three banks in SMSA.	Few; only study that includes considerations of deposits held by borrowers.	Slightly higher rates due to concentration; somewhat higher for small businesses due to branching restrictions.
Kaufman (1966)	Balance sheet and income statements of Iowa banks: ratios of gross income to total loans.	Regression	Number of banks or market share of largest bank in country.	Same as Edwards (1965). In addition, differences in costs were not even crudely measured.	Higher rates, but findings are not meaningful.
Meyer (1967)	Same as Edwards (1964) excluding state-wide branching areas.	Regression	Same as Edwards (1964)	Same as Edwards (1964) and Edwards (1965)	Slightly higher rates, but findings are not meaningful.
Phillips (1967)	Four FRB surveys of short-term business loans in 19 cities; rates weighted by size of loans.	Regression	Percentage of deposits held by largest three banks in city.	Other services received by borrowers and implicit payment for deposits not accounted for.	Slightly higher rates.
Schweiger and McGee (1961)	Comparative shopping for standardized consumer loans.	Tables and averages	3 unit vs. 8 multiple office cities and number of banks in towns in 6 Illinois counties.	Limited coverage; no statistics given to determine significance of differences.	Somewhat higher rates.

B. Interest Rates on Mortgage Loans

Aspinwell (1970)	Interest rates on conventional single residence mortgages by SMSA, size of bank, loan value ratio.	Regression	Percentage of time deposits held by largest three institutions and number of institutions.	Risk and regional differences not fully accounted for; lending by mortgage and insurance companies ignored.	Slightly higher rates where fewer institutions.

C. Deposit Services

Bell and Murphy (1969)	Functional cost and savings data for 14 cities.	Regression	Percentages of eight classifications of deposits held by three largest banks.	None	Hihger service charge.
Edwards (1965)	As above: average rates on time and savings deposits.	As above	As above	Only percentage change in population used to specify demand.	Lower rates.
Kaufman (1966)	As above	As above	As above	As above	Lower rates paid.
Weiss (1969)	Survey of all commercial banks in New England on adoption of no charge checking accounts.	Tables	Percentage of demand deposits under $10,000 held by largest three banks in SMSA and Herfindahl index.	Concentration only factor accounted for.	No charge checking accounts introduced where concentration lower.

might result, but competition also would be reduced and possibly eliminated. Therefore, in order to determine the relative advantage to the public of mergers, the authorities should have evidence that mergers which reduce the number of competitors actually measurably reduce the benefits the public derives from banking services. This evidence is examined next.

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[6] Many other criticisms of these studies could be made. See Benston [June 1972] and Murphy and Weiss [1969].

larger loans generally have lower gross interest rates than smaller loans, a correlation between their average size in more or less concentrated areas would confound the results. Phillips corrected this error by computing separate regressions for interest rates on each of four sizes of loans granted by banks in 19 cities in each of four periods. Thus he presents replicated, disaggregated data. Phillips found a statistically significant (but economically slight)[7] positive relationship between loan rates and concentration.

Jacob's study is the best of this group. He studied the determinants of the rates charged on loans for 8,000 customers at 160 banks, accounting for the deposits held by the borrowers, the size of their loans, collateral, length of borrowing relationship, other demand variables, concentration measured by the deposits held by the offices of the three largest banks in the SMSA and the extent of branching regulations. He found a statistically significant (but economically slight)[8] positive relationship between loan rates and concentration. Jacobs also found a statistically significant negative relationship that was economically more important[9] between loan rates and restrictions on branching for small companies (assets under $5 million) only.

Aspinwall [1970] studied the relationship between rates charged on conventional mortgages on single family dwellings and the number or concentration of commercial banks, savings and loan associations and mutual savings banks in SMSAs. He adjusted for the effects of differences among the SMSAs in loan-to-value ratios, deposit size of commercial banks, change in the number of households and median family income. The regressions computed reveal that the greater the number of banking institutions the lower are average interest rates. However, as found in the other studies reviewed above, the magnitude of the relationship is small.[10] Moreover, Aspinwall did not include such important mortgage lenders as mortgage, finance and insurance companies. Their absence may account for his findings.

[7] A 10% increase in concentration was associated with a 6 basis point increase in loan rates.

[8] A 10% increase in concentration is associated with an increase in loan rates of 5 basis points.

[9] A movement from unit banking to restricted branching might lower loan rates by 18 basis points and from restricted branching to state wide branching another 18 basis points.

[10] An area with 20 instead of 10 institutions has interest rates on mortgages that are 3 basis points lower; for an area with four instead of three institutions, the average rate is 1 basis point

Researchers also have studied the effect of concentration on interest rates paid on time and savings deposits [Kaufman 1965 and Edwards 1965] and the fees charged for checking accounts [Bell and Murphy 1969 and Weiss 1969]. These studies also are summarized in Figure 3. The former studies found that time and savings account interest rates were lower in areas with high concentration ratios. Since savings accounts are more homogeneous than commercial loans, this finding is less subject to the criticisms mentioned above relating to gross interest on commercial loans.

The papers on demand deposit service fees are well done. Bell and Murphy adjusted for the effects of differences in the cost of servicing regular checking accounts in 14 New England market areas, and used as measures of concentration the share of deposit accounts (measured in eight alternative ways) held by the largest three banks. Whether measured by dollars or numbers, all revealed that service charges, net of operating costs, were significantly higher in areas that were characterized by greater concentration of deposit accounts of all sizes. Weiss studied the offering of "no service charge" (NSC) checking accounts by New England banks and found that " . . . where NSC checking was introduced early, there is gen-

petitors and the retail banking markets are relatively less concentrated." [Weiss, pp. 17-18].

Thus, it appears that banks are somewhat more competitive and serve the public better where there are a greater number of institutions. However, there is little available evidence that shows how many more than two or three banks are desirable for the existence of meaningful competition that benefits the public. Nor do the studies on business loan interest rates reveal more than the slightest relationship between rates charged and concentration. Nevertheless, it seems reasonable to conclude that regulatory authorities should be wary of approving mergers between banks (particularly large ones) that serve the same market. And they should consider Jacob's finding that unrestricted branching is more beneficial for small businesses than is decreased concentration.

REGULATORY POLICY TOWARDS MERGERS AND ACQUISITIONS

It is now established in U.S. law that mergers that significantly lessen competition should be approved only when one or more banks may fail because the market cannot support as many banks as presently exist. In deciding whether a merger "may 'substantially' lessen competition, or tend towards monopoly,"[11] the banking authorities face two problems: 1) Whether the larger, post-merger bank provides net competitive benefits to the public through greater competition in some banking markets and reduced competition in others; and 2) whether the merger will foreclose future potential competition. To provide a context in which these problems can be discussed, and perhaps solved, let us consider first the reasons for which banks wish to merge with or acquire other banks.

Motivations for Mergers and Acquisitions

Three possible motivations for bank mergers may be delineated: 1) Bankers believe that normal and perhaps extraordinary profits can be made by entering new markets, but they are prevented by state laws from establishing branches *de novo*; 2) bank managers believe that stockholders' wealth will be maximized;[12] or 3) top management wants the bank to grow to increase their power, prestige and/or salary.[13] Let us examine these three points in greater detail.

1) Mergers because De Novo *Branching is Prohibited:* Where state laws restrict branching, banks wishing to expand into a given area must acquire existing banks by merger or through purchase by a holding company. In these states, regulations may actually cause increased concentration.

2) Wealth Maximization, Cost Economies and Capital Flow Facilitation: A merger might increase the wealth of the owners of an acquired bank through operating and cash management economies from joint operations, profits from increased and/or improved services (such as a larger branch network), solution of management succession and estate tax problems, increased marketability of shares of a closely held bank, etc. The acquiring bank's owners may benefit for many of the same reasons and also may find it preferable (in the capital budgeting sense) to buy an operating bank than to start a branch *de novo*; in effect, the "premium" (amount over book value) paid for an acquired bank represents the present value of the expenses of establishing a new branch, expenses that are not capitalized in the accounting records of the acquired bank. If the acquiring and acquired banks are not substantial competitors and if there are no restrictions on entry into the market, the possibility of monopoly profits cannot be part of these calculations.

But what evidence is there that mergers result in operating or other economies? The data presented above on economies of scale indicate that operating economies would result from mergers of small banks into branch systems but that mergers of large banks probably would not give rise to important savings in operating costs (especially when one considers the cost of merging). Studies have been made of post-merger operations of merged and purchased banks that provide additional data on this question.

The post-acquisition performance of banks acquired by holding companies was examined in several studies. Lawrence [1967] studied the per-

11 Brown Shoe Company vs. The United States, 370 U.S. 294, 321 [1962].

12 This hypothesis is argued strongly by Federal Revenue Board Governor George W. Mitchell [1965].

13 This hypothesis is presented by Colbert and Reed [1967] and, the authors believe, demonstrated. While they may be correct, their data cannot support this conclusion.

formance of 43 banks acquired by holding companies during the period 1954-63 and compared their pre- and post-acquisition data with data from 55 independent but similar banks. He found that the acquired banks increased their loans (especially instalment loans) and increased service charges on demand deposit accounts, but otherwise, " . . . differences in performance between acquired banks and other banks were minimal." [Lawrence, p. 24]. Talley [1971] replicated Lawrence's study with data from 82 banks acquired by holding companies between 1966 and 1969. His results paralleled those reported by Lawrence, with the exception that the banks in Talley's study did not increase their demand deposit service charges. A comparable study of holding company acquisition in three northern states by McLeary [1968] presented similar findings, as did an analysis of post-acquisition operations of New England banks by Weiss [1971] and of Ohio banks by Ware [1971]. Finally, Piper and Weiss [1971] summarize a further analysis of data derived from Piper's [1971] study of 102 holding company acquisitions and conclude that the "operating revenues of the acquired banks generally increased significantly after acquisition, often largely as a result of expansion in consumer lending (reflecting a change in product mix rather than higher prices). However, revenue increases were typically matched by correspondingly large increases in operating costs." [Piper and Weiss, p. 5].

With respect to holding company acquisitions, then, the published studies do not indicate that operating economies or significantly improved services to the public, other than expanded consumer lending, resulted, or that poor banks were prevented from failing. But as Weiss [1971] concludes, "The available evidence suggests that holding company acquisitions have not led to . . . anti-competitive results and that post-acquisition price changes [to consumers] are relatively minor." [p. 10].

No studies are available on whether true mergers (an acquired bank being integrated into the whole as a branch) resulted in reduced operating costs. However, Cohen and Reid's [1967] comparison of stock prices of banks that merged with those that didn't indicates little net advantage to stockholders. In addition, Rotwein's [1965] study of bank mergers in California between 1947 was little possibility of improvement in operating costs since the banks acquired were well run and were probably acquired for this reason. Smith [1969] studied 139 mergers between 1960-1967 in the Fourth Federal Reserve District. He compared the profitability, asset and liability distribution of acquiring and acquired banks with a matched sample of non-merging banks and reached conclusions similar to Rotwein's. (Neither of these studies considered the effect of mergers on performance.) Thus there is reason to believe that mergers were not undertaken for and did not result in operating cost savings.

However, there is not sufficient data available for acceptable conclusions to be reached. In particular, it is important to emphasize that savings in operating costs are not the only (or most important) economy that may be derived from mergers. An important operating factor (particularly relevant to banking) is facilitation of capital flows from one part of a state to another. Investors' wealth can be increased by shifting capital from a declining to an expanding area, as population and business shift or are expected to shift, throwing expected rates of return from banking out of equilibrium.[14] Because stockholders pay income taxes on dividends but not on earnings retained by corporations, it is preferable for stockholders that their bank invests directly in areas with higher rates of return. Therefore, such investments can best be made by mergers with banks in expanding areas. The opportunity to invest in other banks is especially important for U.S. banks because they cannot make equity investments in other businesses (unless they form bank holding companies) or in banks outside of their own states. In addition, investment in banks is usually preferable for stockholders because bank managements have a natural advantage in evaluating and operating in their own area rather than nonbanking activities. Thus, while it is true that capital can (and does) flow directly to banks in higher rate of return areas in the form of direct equity and debt investments (until the expected risk adjusted marginal rate of return is equalized in all investments), the flow is increased and the total social value of resources within a state is maximized if mergers are possible.

In addition, studies on the post-merger performance of banks acquired as branches by Kohn [1964], Horvitz and Shull [1964], Bacon [1967], and Kaufman [1969] indicate that the

public has benefited from mergers. Kohn's is the most careful study of those reviewed. He compared the pre-merger loan ratio, services charges, rates paid on savings deposits, lending activity, etc., of the banks acquired with their post-merger behavior as branches. New York State bank mergers between 1951 and 1961 inclusive were studied by means of a questionnaire (80% replies were received). He concludes that the merged banks generally increased lending to their communities and, with respect to prices and services, "the great majority of bank mergers in New York State during the period 1951 through 1961 have been, on balance, beneficial to the interests of the public both in terms of their immediate and longer-range effects . . ." [Kohn, p. 187]. Horvitz and Shull replicated Kohn's study for all 1962 mergers nationwide. Except for increases in service charges on checking accounts, their results parallel Kohn's findings.[13]

Bacon studied the merger of 15 of the 21 banks in Marion County, Indiana. He reports that most of the banks merged were small, poorly managed institutions, ill-equipped to serve their customers. Kaufman reports the results of surveys of customers before and after a merger of two of the three banks in Elkhart, Indiana. He found that, "Only a small proportion of the customers viewed the decline in the number of banks as having an unfavorable effect on either the quality of banking services or the number of competitors." [Kaufman, p. 7]. Thus, a merger that results in a branch does appear to benefit or at least not damage the public.

3) *Bank Size or Growth Maximization:* There is evidence that this motivation for merger is of some importance. Piper's [1971] study of holding company acquisitions and Smith's [1969] study of mergers reveal that the acquiring banks more often than not paid premiums to the stockholders of the acquired bank that do not seem economically justified. The premium paid may be a function of state laws that prohibit *de novo* branching. However, there is reason to believe that the desire of bank management for growth as such is a motivating factor for many mergers. Nevertheless top managements' desire for growth need not be contrary to the stockholders' interest. For one thing, growth may be a good proxy for expected profits. For another, allowing top management to pursue their desire for growth may be an excellent way of motivating and compensating those managers.

If we assume, for argument's sake, that the management of a given bank consumates a merger that does not benefit the bank's stockholders, it follows that the merged bank will not be as profitable as other banks, stockholders will lose and, eventually, management will be replaced. But even if one assumes that stockholders are unable to get rid of inept or unsuccessful management, still the public will not be harmed. Management may attempt to offset the adverse effects of its diseconomic merger by raising prices or reducing services. But the public can always switch to other banks and, assuming that entry is not restricted, other financial institutions, lured by the new profit potential, might step into the ill served market, thus forcing the offending institution to serve the public better or leave the market. Finally, while it is true that investors may be harmed, it is not the banking authorities' function to protect stockholders from inept management except in situations of fraud.

In conclusion, reason and evidence support the policy of not restricting mergers regardless of the motivations involved, except in situations where collusion among banks results in monopoly practices. This also assumes that entry into banking is unrestricted. But before the question of entry is considered (in Section V), the two regulatory problems raised in the first part of this section are discussed.

Effects of Mergers on Competition in Different Markets

The first problem faced by the banking authorities is whether or not a merger will reduce competition more than it is increased. In this regard, the greatest consideration must be given to that portion of the public for whom there are relatively few alternative sources of banking services. Specifically, the demands of local customers —small businessmen and individuals—generally should be favored over the demands of large businesses which can borrow in many cities. Arguments that a merger is necessary to increase the loan limits of a bank usually are without basis

14 I am indebted to William Meckling for insights into this question.

15 This finding may be related to the greater proportion of time to total deposits and rate of interest paid on time deposits by branch banks. Lower charges on demand deposits are implicit interest payments on these deposits. Branch banks may prefer explicit interest payments and charges for service.

since banks can, and do, participate with other banks in making large loans.

But to apply this criterion the authorities must measure, among those banks that wish to merge, the specific business of specific groups of customers. This requires operational definitions of the relevant markets. As the controversy over the 1963 Philadelphia-Girard merger decision illustrated, the relevant market is difficult to define because banks produce many products that may be purchased by customers in widely differing areas.[16] Some recent research on the problem by Gelder and Budzeika [1970], and Eisenbeis [1971] shows that the market for banking services may be quite wide and is not coextensive with standard legal or geographic boundaries. While it may be easy to measure the effect on competition of the merger of two of the three banks in an isolated town, it is difficult in a town served by, say, six medium sized banks to assess the impact of the merger of two of them. It appears, then, that unless a merger will "substantially lessen competition," a liberal policy on mergers together with a less restrictive policy on entry will provide the best protection to the public against possible collusion.

Potential Competition

The second problem faced by banking authorities is whether or not to prevent mergers of banks that do not presently compete on the theory that such mergers will foreclose future competition between them. This doctrine of potential competition has been followed in New York State (and is being emphasized by the FDIC). According to a study by Kohn and Carlo [1970], it appears to have been successful in increasing the number of competitors in some markets. Between 1961 and 1963, the New York State Banking Department denied 10 of 13 cases in the belief that major institutions would otherwise enter the market of the mergee. As a result, potential competition became actual competition. Still, it is difficult, as Kohn and Carlo point out, to determine whether potential competition actually will occur. And there is a further problem, where entry has occurred, in determining whether the new competitors did in fact provide better service than a merged institution would have provided.[17] Finally, by denying mergers in instances other than those where competition clearly will benefit a significant part of the public, the authorities may stifle needed change in the banking structure and certainly are denying the owners of banks the right to dispose of their property as they see fit.

Aside from these limitations, it should be noted that validity of the potential competition doctrine is based on two assumptions: 1) That the market in which entrance is desired is monopolized; and 2) that the supply of potential competitors is limited.

With respect to the first assumption, if the market does not offer an opportunity for at least ordinary returns, (net of the cost of entry), new entrants will not appear, monopoly or no. In a market characterized by monopoly profits, the immediate question is, "Why have other banks not entered the market?" One answer may be that entry was restricted by banking laws, in which event concern with the elimination of potential competition is misplaced. Another is that profit potential might be less than the cost of establishing a new bank or branches. As a result, *de novo* entry would not be economical. In this event, infusion of additional capital via merger may be the only way to increase the resources available to consumers in such a market as discussed above.

The assumption that there is a limited supply of entrants in turn assumes that: 1) The market for banking services within the state cannot support many banks; 2) the resources available from existing banks or new entrants are insufficient for expansion into the market; and/or 3) bankers lack the desire to enter new markets even though there are potential net profits to be gained. Under the first limitation, the merger of two banks will eliminate one of them as a possible competitor and, if there are few competitors operating in the state, this reduction may "substantially lessen competition and tend towards monopoly." For small states, this possibility requires the authorities to decide whether possible improvements (and, for small banks, economies of larger scale) outweigh the possible anticompetitive effects of merger.

An assumption that existing banks lack re-

16 See the papers originally published in the *National Banking Review*, reprinted in *Studies in Banking Competition and the*

17 Often, the fact that a city of SMSA is served by four or fewer commercial banks is believed to be evidence of oligopoly practices. However, the evidence on concentration and performance [illegible] provides no support for this belief.

sources for expansion into new markets and/or that there are an insufficient number of effective competitors within a state depends on the exclusion of banks from other states, because there are few, if any, non-legal barriers. The limitation is an artificial and arbitrary one imposed by the bank regulatory authorities (as discussed in Section V). Were inter-state banking permitted, the resource limitation could be eliminated by entrance of "foreign" banks, and branch offices and/or out-of-state holding companies could offer their services to the public.[18]

It is possible that where bankers lack the motivation or ability to enter a new market *de novo*, it is because they learned their banking in a period when such possibilities were prevented by restrictive regulations. Consequently, when such bankers do attempt to expand into new markets by merger, they may do so without first carefully considering the alternative costs and benefits of establishing *de novo* branches. Adequate evidence that this situation exists might prompt banking authorities to educate bankers and/or delay approval of merger applications until the applicants show that they have fully considered *de novo* alternatives. However, since it is doubtful that many bankers would fail to adapt to new regulations within a few years, a delay/education policy should be temporary, automatically terminating after a set period of time.

The conclusion, then, is that continuing restriction of mergers based on the potential competition doctrine is not well founded in theory for any but small states, if those. Even where the number of potential instate entrants is limited, it would be preferable to allow out-of-state banks to establish offices. The potential competition doctrine is justified, if at all, by the behavioral assumption that banks previously restricted need to be forced to consider *de novo* entry. Thus the doctrine has only short-run, temporary value for large states and is not an optimal policy even for small states.

Conclusion

In summary, the evidence reviewed on bankers' motivations for mergers indicates that savings in operating costs do not appear to have been a strong motivation for or result of holding company acquisitions, although such savings may have been obtained in "true" mergers, where the acquired bank became a branch of the acquiring bank. More important motivations may have been avoidance of state restrictions on *de novo* branching and facilitation of capital flows between declining and expanding areas of a state. Management's desire for growth and large size also may have been important in merger decisions. Whatever the motivation, the data show that mergers result in better services, lower prices and higher rates on savings for the consuming public.

Thus, it appears that when mergers do not substantially eliminate competition they are in the public interest. True, in some markets mergers will eliminate competition for some customers and in others enhance it. But, considering the difficulty of defining those markets in which banks actually compete, it is preferable to control possible monopoly practices by following a liberal merger policy together with relatively unrestricted entry (by new banks, branches and extended powers of other financial institutions). An analysis of the potential competition doctrine reveals that it is based on the belief that the supply of potential competitors is limited and/or that bankers desire to expand via merger without first adequately considering the benefits of *de novo* expansion. To the extent that they hold true, both of these conditions are the result of laws that restrict entry. Therefore, the rationale for restricting entry into banking markets is considered next.

ENTRY

As discussed in Section I, unrestricted entry of firms into markets is sufficient for competitive behavior that benefits the public. But entry into U.S. banking markets is restricted. Only institutions chartered as commercial banks can offer some of the most essential banking services (particularly demand deposits). Commercial bank charters must be applied for and often are denied. The establishment of branches frequently is prohibited or restricted by state law. Given the (to economists) obvious value of unrestricted entry for eliminating or reducing the anti-social effects of monopolies and poor management, why is it difficult to enter the banking business?

[18] Federal law prohibits national and Federal Reserve member banks from establishing branches outside of the states in which they are chartered. Most states have similar restrictions on the banks they charter and on out-of-state banks. The Federal Reserve may permit holding companies to purchase or establish banks in states other than the one in which they are chartered only if this is expressly permitted by state law.

Barriers to Entry

Two types of barriers to entry may be distinguished: 1) Economic barriers and 2) regulatory barriers. Each is considered in turn.

In his comprehensive study, *Barriers to New Competition* [1956], Bain groups economic barriers to entry into four classifications: Economies of scale, product differentiation, absolute-cost and capital requirements. None of these is an important barrier to entry into banking.

To begin with, economies of scale (discussed previously) are not great above a quite low level of output. And, although economies of scale for giant banks have not been studied rigorously, the fact that Bank of America and other very large banks in New York City and Chicago have not overwhelmed other banks argues against great scale as a barrier to competition (see Figure 2). Furthermore, Kohn [1966] has shown that small banks can compete effectively with large banks.

Product differentiation is difficult to achieve in banking because money is one of the most standard of goods. Quality and innovative packaging of services are used to compete for greater share of market, but these can be copied easily. In addition, bank examination and FDIC insurance have reduced if not eliminated most differences in the risk characteristics of banks.

Absolute-cost advantage refers to control over raw materials, patents, etc., by established firms, which bars new entrants from efficient production processes or forces them to incur higher costs. There are few such situations in banking. Labor, materials, equipment and money are available from competitive markets and do not give one bank or another an advantage in acquisition (except where government rules intervene, such as Regulation Q, which limits the rate of interest banks can pay on deposits).

The last possible economic barrier, capital requirements, is lower for banking than for most other industries.[19] Thus, there are few, if any, economic barriers to entry into banking.

Government regulations, on the other hand, are an important barrier restricting entry and competition. Banks are chartered by the Comptroller of the Currency or by the individual states. Branching is controlled by state laws. Before passage of the Banking Act of 1935, entry into commercial banking essentially was unrestricted. In most states it usually was not difficult to get the state banking commission to grant a state charter if a national bank charter was denied by the Comptroller, and vice versa.[20] But the Banking Act of 1935 required that the Federal agencies (Comptroller of the Currency, Federal Reserve and FDIC) consider "the financial history and condition of the bank, the adequacy of its capital structure, its future earnings prospects, the needs of the community to be served by the bank . . ."[21] before deposit insurance is granted. Pelzman [1965] analysed the effect of the Act on new bank formation and estimated that "the net result of these restrictions has been the loss of competition from about 2,200 new banks which would have formed in the absence of entry controls. There appears to be no noticeable offsetting gain to this loss." [p. 174].

Rationale for Government Restrictions

Restrictive control over entry was established because legislators and the public believed that "over-banking" and destructive competition were responsible for the U.S. bank failures of the 1920s and, in large part, for the collapse of the banking system in the 1930s. There is some evidence to support the belief that bank failures in the 1920s were a function of "over-banking." In a study of the causes of bank failures in this period, Benston [1971] finds that the data suggest, though do not demonstrate, a positive relationship between increased chartering and subsequent increased failures [pp. 17-20]. However, there is also reason to believe that the economic gains from expansion in banking facilities were greater than the losses due to bank failures. The great wave of failures in the 1930s, in any event was due primarily to the restrictive monetary policy followed by the Federal Reserve that reduced the liquidity available to banks and resulted in great capital losses, particularly in bond holdings. For this period, prior chartering of banks bore little relationship to failures.

[19] National bank and state Federal Reserve member charters require a minimum capital and surplus of $120,000 to $240,000 (depending on the size of the community). New York State (as an example) requires capital of from $50,000 to $100,000. However, the chartering authorities usually require more than the minimum amount. If the requirements are greater than the amount that is optimal for an investment, they can be an eco-

[20] See Federal Reserve System Committee on Branch, Group and Chain Banking Vol. 10 [1932].

[21] Section 101 (12 U.S.C. 1814(b), 1815, 1816)

There have been relatively few bank suspensions in the post-depression period. Only 131 banks were suspended from 1943 through 1969, an average per year of .03 per 100 banks operating. Most of these failures were due to embezzlement and financial irregularities by officers and employees; very few were due to poor management and none to "destructive competition" [Benston, 1971]. Thus, it appears that fears of over-banking are not revelant today.

In any event, prevention of bank failures should be given much less attention. Many of the original reasons for preventing such failures are no longer relevant.[22] Among these no longer valid reasons are maintenance of the currency, prevention of bank runs, protection of small depositors, and disruption of communities and the economy in general. The first reason is obsolete since commercial banks no longer issue currency. Federal deposit insurance has prevented bank runs and completely protects most depositors. So long as there is more than one bank in a community or permissible branch banking, the failure of a bank causes most people only an inconvenience and is less disruptive than the failure of most large businesses. Generally, research on the great depression (and on depressions in general) has shown that bank failures were not a primary causal factor and, in any event, resulted in a decline in the money supply and credit that could have been readily offset by the Federal Reserve [Warburton 1966, particularly p. 2].

Nor should there be concern over "destructive competition" generally. Aside from absence of any theory that supports this concept, there is no evidence that the phenomenon ever occurred,[23] particularly in banking markets. The findings of several studies support this conclusion. Benston [1964] and Cox [1966] independently examined the hypothesis that banks payment of interest on demand deposits (which was prohibited by the Banking Act of 1933) resulted in their taking greater risks than they otherwise would have and failing. The evidence shows conclusively that such was not the case. Motter and Carson [1964] very carefully studied the effects of removal of restrictions against New York City banks from opening branches in adjoining Nassau County in 1960. They report that the existing banks were not made unprofitable or unsafe; rather, "there can be no doubt that Nassau consumers benefited from the expansion of banking facilities" [Motter and Carson, p. 152] in the form of added convenience, lower rates on loans and higher rates on savings deposits. In an analysis of the effects of the some 100 *de novo* branches opened in New York State between July 1, 1960 and December 31, 1964, Kohn [1969] also found that the profitability of competing banks was not significantly adversely affected, although their deposit growth rate did slow down. He concludes that " . . . the evidence does not support the view that most unit banks are unable to adjust successfully to a new competitive force in the community" [Kohn, p. 22].

The effect of new bank entry was studied by Chandross [1971] and Fraser and Rose [1972]. Chandross analysed the effect of new bank entry into 98 formerly one-bank towns during 1950-61. He compared the ratios of net operating income to assets, net profits to capital and capital to risk assets. While there is evidence that the banks took greater risks, these risks were no greater than those accepted by comparable, non-monopoly banks. Fraser and Rose conducted a similar study of the effects of a new bank on existing banks in isolated one-, two- and three-bank towns in the Eleventh Federal Reserve District (southwest) during 1962-64. They found the new banks " . . . brought about significant changes in the nature of the banking services offered to the local communities by the established banks. Loan-asset ratios increased, greater emphasis was placed on business and consumer loans, while the prices for key banking services . . . did not appear to rise relative to the norm. Also, established banks in the new entry communities were spurred into entering the competition for time deposits. These benefits to the public occurred without an adverse impact upon bank profitability or growth." [Fraser and Rose, pp. 76-7].

Restrictions on branching stem from concerns that are almost contrary to the fear of bank failures. From 1921 through 1931, only seven of the 8,816 U.S. banks suspended were branch banks with more than 10 branches, of which only three operated branches outside their main office city. This record reflects the fact that unit banks,

[22] See Benston [1971] for a more complete discussion.

[23] The Standard Oil case is the standard example of destructive competition. While folklore has it that Rockefeller forced out his competition by undercutting their prices in order to create the Standard Oil monopoly, an excellent study by John S. McGee shows that this did not happen. Rockefeller, being very smart, did not engage in destructive competition. Rather he bought out his competitors, sharing with them the monopoly profits he expected to gain. (See John S. McGee, 1958).

especially small ones, cannot diversify their portfolios or personnel and so suffer greatly when a local economic depression or errors in judgment occur. [Federal Reserve Committee, Vol. 10, 1932, p. 60]. California, with statewide branching had relatively few failures even among unit banks and Canada, which permits country-wide branching, had only one failure (in 1923).

Fear of concentration of resources in a few large banks is a major reason for opposition to branch banking. However, Shull and Horvitz [1964], who researched this question very carefully, compared unit banking states with states that permit branch banking and found that, after taking account of population and geographic region, the number of competing banks is greater in towns not a part of metropolitan areas, about the same in smaller standard metropolitan statistical areas (SMSAs), though fewer in larger SMSAs. Thus, for consumers in smaller communities, who have fewer alternatives, branch banking results in a greater choice as well as greater convenience. Similarly, Jacobs [1971] found that small businesses were charged lower commercial loan rates in branch banking than in restricted branching and unit branching SMSAs.

The benefits to the public of new entrants into a market has been fairly well documented. Studies by Kohn [1964] and Horvitz and Shull [1964] comparing the pre- with the post-merger behavior of unit banks merged with branch banks show no reduction in loans to the local community and a general increase in interest rates paid on savings deposits. Weiss [1969] reports that new banks were pioneers and early adopters of "no service charge checking." Motter [1965], who studied the performance of banks chartered in 1962, concludes that " . . . the operating results to date have been favorable for most of the 1962 class. Bank customers have enjoyed substantial benefits from this class" [p. 369]. The effect of new banks in reducing monopoly profits is shown in the study by Chandross [1971], reviewed above.

The conclusion of the reasoning and evidence must be that greatly reduced governmental restrictions on entry would be in the public interest. Possible bank failures can be controlled by requiring new banks to have adequate capital and to be managed by responsible and experienced bankers. But, these considerations should not be overemphasized, as they have been since 1935. Given [illegible] bank examination by the FDIC, state and federal banking authorities can be much more liberal in granting new charters than they have been. This liberality also will allow them similar liberality in permitting mergers.

It is important to note that entry can take several forms, in addition to new charters. The authorities can be much less fearful of managerial errors by banks which establish branches, since a branch can be unprofitable generally without seriously affecting the parent bank. Another important source of new entrants is expansion of the powers of other financial institutions. Were U.S. thrift institutions, in particular, given the power to make unsecured consumer instalment and business loans and to provide checking account services, they would constitute actual or potential entrants in many banking markets. Thus, for most states, the supply of new entrants probably would be sufficient to present existing banks with actual and potential competition. There are almost no economic barriers to entry. Only regulatory barriers are important. These should be reduced almost to the point of removal. □

A similar paper by Prof. Benston is being published in *Kredit und Kapital*, Vol. 5.

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The Effects of Branching by Financial Institutions on Competition, Productive Efficiency and Stability: An Examination of the Evidence

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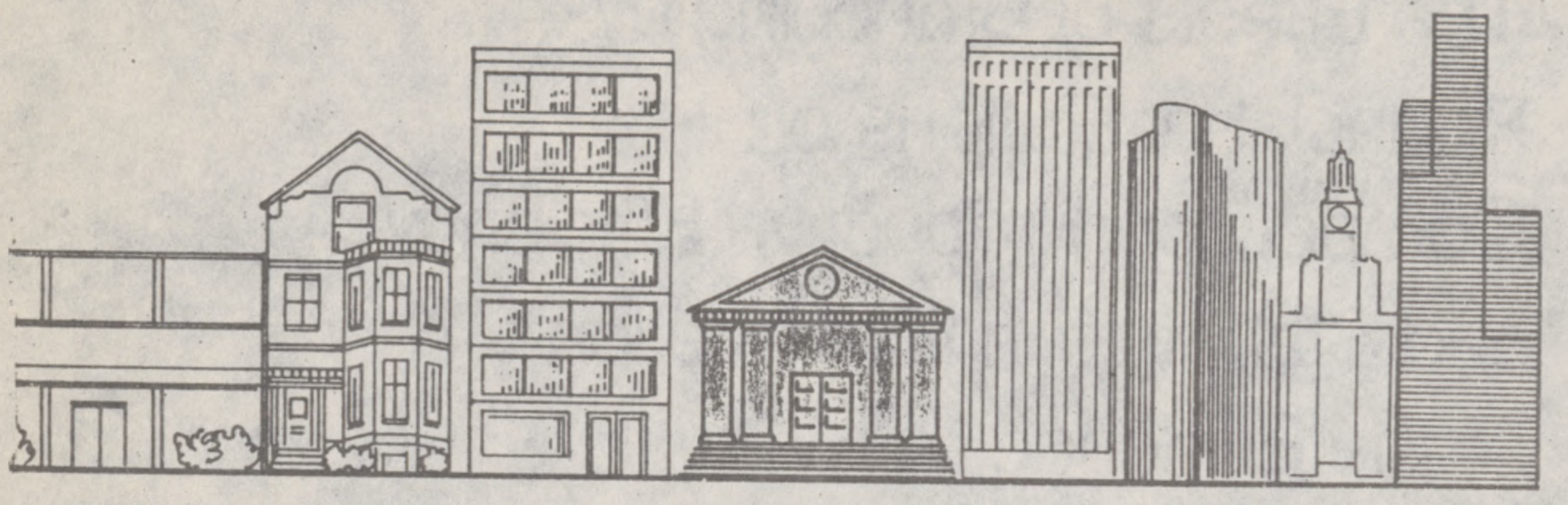
The analyses and conclusions are those of the authors and do not necessarily reflect the views of the Corporation. This is Part I of a two-part review article. Part II will appear in the Winter issue (Vol. 4, No. 4) of Journal of Bank Research.

The effects of branching by commercial banks market structure and performance have long b the subject of considerable debate. In the last t decades, numerous studies have discussed analyzed the impact of branching on vari aspects of market structure, competition banking operations. The focus of most of th studies has been directed toward a few individ issues. However, in the wake of recent devel ments and proposed changes in the financial s tem, it becomes especially important to evalu the effects of branching, not merely in terms individual issues, but rather in terms of the bro er, interrelated impact branching has on com tition, productive efficiency and stability.

Wide-spread branching is no longer confi primarily to commercial banks. Mutual savi banks (mutuals) and, more recently, savings loan associations (S&Ls) have engaged actively branching. The purpose of this review article is analyze and assess the effects of branching these three types of financial institutions upon co petition, productive efficiency and stability.

The degree of competition prevailing within market is reflected by the concentration of fin



cial resources in financial institutions and the availability of financial facilities. Concentration of resources in a market area in a limited number of financial institutions—unit or branch—may encourage monopoly practices and may result in the provision of an insufficient number of financial facilities. However, it is possible that branching may encourage deconcentration of resources if the size of branch organizations enables more institutions to be represented in a given market than would otherwise be possible were branching prohibited. Concentration of resources and barriers to entry may enable financial institutions to diffuse the impact of both existing and potential competition within a market and, thereby, exert market (monopoly) power. Such a situation could result in a below-capacity provision of credit and other financial services. When financial institutions possess market power, the prices of financial services may exceed their competitive levels. Discrimination in the pricing and allocation of financial services may also exist in institutions with market power.

When economies of scale exist, a financial institution can lower its operating costs and, thereby, improve its productive efficiency by expanding its output of financial services. If economies of scale occur in the production of financial services, maximization of productive efficiency, by encouraging the growth of a few relatively large institutions, may not be consistent with the objective of competition within the financial system. Moreover, if unit and branch institutions of various sizes satisfy the conditions for a competitive market, but their size and organizational structure affect the cost of producing financial services, some institutions may not be able to earn sufficient profits to make them viable competitors. Such a situation would tend to have an adverse effect on the stability of the financial system. The stability of the system also depends upon the ability of financial institutions to maintain sufficient liquidity. Therefore, some balance may need to be struck among the objectives of competition, efficiency and stability to assure adequate profitability and liquidity in institutions of various sizes and organizational structures.

Branching may have an important impact on this balance and, as a consequence, it is essential to investigate the effects of various types of

branching structure on competition, efficiency and stability. Because of differences in state laws regulating financial institutions, a variety of branching structures exists which affords a basis for such an investigation. For example, some states prohibit branching altogether while other states allow branching statewide. Still other states permit branching, but limit it to the county of the home office, counties contiguous to the home-office county or regional districts including several counties.

In Part I of this two part review article, the arguments and evidence pertaining to the effects of various types of branching structure on competition are discussed. The effects of branching structure on productive efficiency and stability will be considered in Part II, which will appear in the Winter issue (Vol. IV, No. 4) of the *Journal of Bank Research*. Concentration of resources, availability of facilities, market power of financial institutions, allocation of services and prices of services are discussed and evaluated in Sections I to V, respectively. A discussion of the limitations of the existing evidence concerning the effect of branching on competition and suggestions for further research conclude Part I.

I. CONCENTRATION OF FINANCIAL RESOURCES

It is usually presumed that the smaller the number of financial institutions in a particular market or the higher the concentration of financial resources is, the higher the prices of financial services and the lower the quality is likely to be. Proponents of statutes restricting branching argue that such restrictions are essential to prevent statewide dominance (concentration of financial resources) by a few large institutions, to maintain and protect the viability of small local institutions which are presumed to be more responsive to community needs and to prevent aggressive institutions from ruinous overextension. Proponents of less restrictive branching statutes argue that branching tends to increase the intensity of competition by accommodating the growth of large institutions that can take advantage of economies of scale, offer more services and establish more facilities.

A. Statewide Evidence

Concentration of commercial bank deposits is greater and the number of commercial banks smaller in states permitting branching than in states prohibiting branching. Furthermore, statewide branch banking has resulted in fewer banks and greater deposit concentration than limited area branch banking. Between 1961 and 1969 the average proportion of deposits held by the five largest banking organizations increased from 72.1% to 74.2% in statewide branching states, decreased from 41.6% to 39.0% in limited branching states and decreased from 37.2% to 33.8% in unit banking states. Deposit concentration decreased in 13 of the 15 unit banking states and in 13 of the 16 limited branching states, while during the same period concentration decreased in only 5 of the 20 statewide branching states.

Case studies of commercial banking structure in New York, Virginia and New Jersey have provided more direct evidence of the relationship betweeen branching law and concentration than the cross-sectional findings presented above. By focusing on changes in market structure pursuant to changes in branching law, rather than on differences in broad cross-sectional patterns among state groups over an arbitrary time period these case studies are better able to reveal the dynamic effects of branching. Moreover, case studies reduce the problems associated with cross-sectional comparisons among states having heterogeneous economic and demographic characteristics.

In a study by Shull [1971], an analysis was made of the effects branching law liberalization in New York (district-wide *de novo* branching and statewide holding company acquisitions after 1959) and Virginia (statewide branching through merger and holding company acquisitions after 1961) has had on several measures reflecting statewide concentration of banking resources, e.g. the number of commercial banking organizations and the per cent of total deposits held by the largest, three largest, five largest and ten largest banking organizations. Shull found that the number of banking organizations declined substantially, while deposit concentration in the largest organization(s) increased between 1961 and 1969 (in some cases considerably). By comparison, states with branching laws and economic-demographic characteristics similar to those of New York and Virginia experienced much smaller declines in the number of banking organizations. In fact, deposit concentration in the largest organiz-

Figure 1. Average Number of Financial Institutions in Metropolitan Areas

Population of Standard Metropolitan Statistical Area	Statewide Branching States	Limited Branching States	Unit Banking States
		Banking Organizations (1968)	
50,000-100,000	6	5	7
100,000-500,000	8	11	18
500,000-1,000,000	15	18	38
1,000,000 and over	35	46	120
All SMSAs	13	16	29
		Savings and Loan Associations (1970)	
All SMSAs	10.5	12.9	11.1
		Mutual Savings Banks (1970)	
All SMSAs	4.1	8.1	1.0

*Based upon only 3 SMSAs.

Sources: [FDIC, 1970], [Federal Home Loan Bank Board, 1971], ["Recent Changes . . .," 1970, p. 206].

tion(s) in these states actually declined over the 1961-1969 period.

Although the dynamic findings of Shull as well as the cross-sectional evidence reported previously indicate that less restrictive branching laws lead to increased statewide concentration of banking resources, Juncker and Oldfield [1972], in their study simulating changes in market structure which would result from the 1969 liberalization of New Jersey's branching laws, concluded that an appropriate regulatory policy governing bank mergers could prevent excessive deposit concentration. Based upon probability distributions concerning merger initiation, partner selection and regulatory approval, the simulation indicated that under a restrictive regulatory policy, New Jersey's 10-bank concentration ratio would increase from 35% in 1969 to less than 45% three to four years later.

B. Metropolitan Area Evidence

The evidence in Figure 1 shows that the average number of commercial banks per metropolitan area is significantly larger in unit banking states than branch banking states. SMSAs within limited branching states have, on the average, the most S&Ls, while SMSAs in statewide branching states have the least. The same situation is true for mutual savings banks. In general, there are fewer financial institutions in SMSAs in statewide branching than in limited branching or unit banking states.

A study conducted by Vernon [1971] examined the effect of regulatory barriers to branching on deposit concentration in local banking markets. Of the 70 SMSAs containing home offices of the largest U.S. banks (total deposits of $100 million or more), 13 were selected as having relatively low concentration of deposits in the largest banks and relatively permissive branching laws. Over the period 1956-1966, deposit concentration in the largest, two largest and three largest banks in these 13 SMSAs increased in almost all instances. However, these results are of questionable value because of the way in which SMSAs were selected for the analysis and the failure to compare these SMSAs with SMSAs having restrictive branching laws.

In contrast to the metropolitan area cross-sectional patterns exhibited in Figure 1 and the findings of Vernon, the evidence reported by Shull [1971] revealed no discernible causal relationship between liberalization of branching laws and concentration of banking resources in local, metropolitan areas of New York and Virginia. The study's analysis of 11 SMSAs (six in New York and five in Virginia) employed seven measures of banking resource concentration: 1) The number of banking institutions; 2) the number of "large"

banking organizations; 3) the number of small banking organizations; 4) the proportion of total deposits held by the largest banking organization; 5) the proportion of total deposits held by the four largest banking organizations; 6) the Herfindahl Index, a measure of deposit concentration using all banks in the market; and 7) the Gini coefficient measuring the distribution of deposits for the four largest banking organizations.

Over the seven-year and nine-year periods after changes in the Virginia and New York branching laws, respectively, little or no net change occurred in the number of banking organizations in most of the SMSAs. In general, there was an increase in the number of large organizations and a decrease in the number of small institutions. No systematic increase in deposit concentration was evident. Deposit distribution among the four largest banks, as measured by the Gini coefficient, moved toward greater equality in eight of the 11 SMSAs. Simple correlation coefficients suggested an insignificant relationship between liberalization of branching law (as measured by a dichotomous dummy variable) and the number of institutions and deposit concentration in 63 SMSA counties in New York, Virginia and five similar states.

Further support for adopting less restrictive branching laws comes from the New Jersey simulation findings of Juncker and Oldfield [1972]. The simulation revealed that regulatory policy governing bank mergers can have a statistically significant impact on the number of significant competitors in five of six metropolitan markets in the state. The more restrictive is regulatory policy, the greater will be the simulated mean number of significant competitors represented in individual markets three to four years after New Jersey's 1969 liberalization of its branching laws.

In most of the research studies which have investigated the effects of concentration on interest rates for loans and deposits, the question of branching has not received explicit attention. A study by Meyer [1967] sheds some light on the relationship between concentration, branching and pricing of banking services. He separated commercial banks into two groups: Those in unit and limited branch banking states and those in statewide branching states. Using regression analysis, he found that concentration of deposits in the three largest commercial banks in an SMSA had a much greater positive effect on business loan interest rates in statewide branching states than in other states in 1955 and 1957. Howev he admitted that the regressions for statew branching states resulted in poor fits. Thus, findings must be viewed with reservation.

C. Non-metropolitan Area Evidence

Horvitz and Shull [1964] conducted regio comparisons showing that in 1960 the aver number of commercial banks in non-metropolit areas was largest in statewide branching stat next largest in unit banking states and smallest limited branching states. In a 1968 study of N England commercial banks, Horvitz [1958, 136] concluded that "the evidence seems to in cate quite strongly that states which allow sta wide branch banking have a larger proportion their small towns served by commercial banki offices than states which do not allow, or oth wise restrict, branch banking." It appears t branching may result not only in the presence more financial institutions in non-metropoli areas but also in the existence of financial insti tions in a greater proportion of small commu ties.

To summarize, financial resources are gener more concentrated in branching states than in u states. With respect to deposits in commer banks, concentration is greatest in statew branching states. Concentration in limited bran ing states is only slightly greater than concent tion in unit banking states. Branch banking sta are considerably more concentrated than u banking states as far as the number of commer banks is concerned. Moreover, liberalization branching laws tends to increase statewide c centration of banking resources. Cross-sectio comparisons show that metropolitan areas more concentrated in branching states, while n metropolitan areas are more concentrated in u banking states. However, there is some indicat that liberalization of branching laws *per se* c not necessarily increase concentration in me politan areas. The metropolitan area cross-sectional evidence for S&Ls and mutual sav banks shows that concentration is greatest statewide branching states and least in lim branching states.

II. AVAILABILITY OF FINANCIAL FACILIT

Although branching may result in fewer fi cial institutions statewide, thereby increasing

concentration of financial resources, proponents of branching argue that branching may cause deconcentration of resources in local markets by permitting more institutions to be represented. Implicit in this claim is the presumption that it is easier to establish and less risky to operate branch offices than it is to establish and operate independent institutions because the size of branch organizations makes it easier to raise needed capital. It is further claimed that more financial facilities are provided when branching is permitted because branch organizations are able to exploit the opportunities provided by specialized locations, i.e. locations that provide demand for a limited range of financial services. Proponents of branching argue also that branching through merger may increase competition by replacing small weak institutions with large strong institutions that are able to offer a greater variety of services.

A. Statewide Evidence

In 1970 there were 6,910 persons per commercial bank office in unit banking states, 5,273 persons per office in limited branching states and 5,439 persons per office in statewide branching states. This evidence indicates that unit banking states are underbanked relative to other states. However, unit banking states can be separated into two groups—those which allow limited-service facilities in addition to the main office and those which prohibit auxiliary facilities of any kind. Unit banking states in the first group have 4,772 persons per office while states in the second group have 9,457 persons per office. Thus, based on the criterion of population per office, only the states with the most stringent restrictions on branching appear to be relatively underbanked. According to Brigham and Pettit [1969, p. 1035], population per S&L and mutual savings bank office declined considerably between 1955 and 1965 in states permitting branching, but not in states prohibiting branching. In spite of this trend, population per office in 1965 for S&Ls and mutuals in selected states did not appear to depend upon the degree to which branching was restricted.

It has been pointed out that population per office is not an ideal measure of the availability of commercial bank facilities because it fails to take into account the effects of differences in population density, per capita income and the presence of other nonbanking facilities on the need for banking offices. Paul Anderson [1964, p. 3], after adjusting for differences in nonbanking facilities in Vermont (branch banking) and New Hampshire (unit banking), concluded that Vermont supplied 50% more banking facilities than New Hampshire. Furthermore, small Vermont communities were more likely to have commercial bank offices than small New Hampshire communities. Horvitz [1958, p. 135] divided New England states into agricultural and industrial categories and found that statewide branching states in both groups provided more facilities than states which limited branching.

More rigorous analyses of the availability of banking facilities were conducted by Jacobs [1965] and Lanzillotti and Saving [1969]. Using regression analysis, Jacobs [1965, p. 339] controlled for differences in income growth, population growth and the per cent of population living in urban areas, and concluded that the increase in commercial bank offices from 1946 to 1963 was significantly greater in branch banking states than in unit banking states. However, he was unable to find any relationship between the number of offices and branching restrictions in 1963. After controlling for income per capita, population and population concentration, the cross-sectional and time-series regression results of Lanzillotti and Saving also proved to be inconsistent. The dummy-variable findings for the selected years 1947, 1950, 1954, 1958 and 1960 indicated that prohibition of branching resulted in the most banking offices while statewide branching produced the least. On the other hand, time-series results for the period 1947-60 indicated that statewide branching states were increasing banking offices more rapidly in response to changes in per capita income, population and population concentration than were unit banking and limited branching states.

More recent statewide evidence, presented in Figure 2, shows that the number of offices operated by commercial banks is affected more by branching restrictions than is the number of offices operated by S&Ls and mutuals. In terms of the percentage of institutions having branch offices, home-office county and contiguous-county branching laws have had about an equally restrictive effect upon commercial bank branching. Only contiguous-county laws seem to have had a seriously restrictive effect upon the branching activities of mutuals and S&Ls. The district-branching

Figure 2. Effect of Branching Restrictions Upon Office Provisions (December 1969)*

Average Number of Offices per Institution	Statewide Branching States	Limited Branching States: Home-Office County Restrictions	Limited Branching States: Contiguous County Restrictions	Limited Branching States: District Branching Restrictions (New York)
Commercial Banks	6.33	2.91	3.94	8.18
Mutual Savings Banks	3.46	2.23	3.55	3.55
Savings & Loan Associations	1.66	1.48	1.31	2.04
Percentage of Institutions Having Branches				
Commercial Banks	62%	47%	49%	58%
Mutual Savings Banks	60%	51%	39%	75%
Savings & Loan Associations	25%	23%	17%	44%

* Calculations are for the states in which all three types of institutions operate.

Source: [McCall, Voesar and Watson, 1971].

system of New York outperforms the statewide branching and other limited branching systems both in terms of the number of offices per institution and the percentage of institutions operating branch offices. It should be pointed out that when statewide branching is permitted, the average number of offices per branch institution is still surprisingly small.

B. Metropolitan Area Evidence

Evidence presented in Figure 3 indicates that branch banking states provide more commercial bank offices than unit banking states. It is worth noting that statewide branching states display only a slight advantage over limited branching states in the provision of banking offices in metropolitan areas. However, this advantage disappears in SMSAs with a population of over one million. The same pattern exists for S&L offices.

Horton [1972, 1969] in a study of the adequacy of commercial banks in Florida, a unit banking state, proposed a method for evaluating the adequacy of the existing commercial banking facilities in metropolitan and non-metropolitan areas. Although Horton did not address himself to the question of unit versus branch financial organizations, the analytical method he proposed has merit for evaluating the adequacy of financial facilities under different types of branching restrictions. The basis of the method is to select geographical regions (SMSAs for metropolitan areas and Census Bureau nonmetropolitan economic areas for non-metropolitan areas) with similar economic characteristics—population size, population density, per capita income, rate of growth in population and income, economic activity and socio-economic characteristics—for evaluating the adequacy of financial institutions. Horton suggested that population per office in one area relative to another similar area can be used as a general indicator of how well the convenience and needs of the population of an area are being served by existing facilities. However, he maintained that personal income per office is a more reliable indicator of the ability of an area to support an office of a financial institution. Finally, Horton suggested that the joint effects of population, income and population density on the number of offices of financial institutions in similar SMSAs or similar non-metropolitan areas can be determined by using regression analysis. If the actual number of financial facilities in an area is lower than the number estimated by the regression, then it can be concluded that this area is inadequately served by existing facilities.

C. Nonmetropolitan Area Evidence

Horvitz and Shull [1964] found that the average number of commercial bank offices per nonmetropolitan area community in 1960 was greater for nine out of ten population size groups in statewide branching states than in unit banking

Figure 3. Average Number of Financial Offices in Metropolitan Areas

Population of Standard Metropolitan Statistical Area	Statewide Branching States	Limited Branching States	Unit Banking States
	Banking Offices (1968)		
50,000-100,000	19	10	9
100,000-500,000	40	35	23
500,000-1,000,000	112	89	48
1,000,000 and over	353	368	142
All SMSAs	93	86	36
	Savings and Loan Offices (1970)		
All SMSAs	25.4	24.8	19.0

Sources: [Federal Home Loan Bank Board, 1971] and ["Recent Changes . . . ," 1970, p. 206].

states. Limited branching states fared better than unit banking states in seven out of ten population size groups. Evidence presented by Paul Anderson [1964] also showed that branch relative to unit banking results in a greater number of commercial bank offices in non-metropolitan areas.

In summary, the provision of office facilities by commercial banks and S&Ls in metropolitan areas in highest in branching states. Non-metropolitan areas provide the largest number of commercial bank offices in branching states. Limited branching laws appear to restrict the establishment of commercial bank facilities more than mutual savings bank or S&L facilities.

III. MARKET POWER OF FINANCIAL INSTITUTIONS

Opponents of branching argue that branching leads to large institutions which, in turn, tend to promote market or monopoly power. Proponents of branching argue that unit institutions may enjoy considerable market power if they operate in protected markets which cannot be penetrated by new institutions. They contend that branching may actually lead to a lessening of market power by increasing the number of competitors in a local market.

Little evidence exists which considers the effect of branching on market power. Emery and Wert [1972, p. 1] suggested that a measure of monopoly returns, and hence market power, could be constructed by comparing estimates of the rate of return on capital a commercial bank could be expected to earn under perfect competition with the observed *ex post* rates of return adjusted for differences in risk. Commercial banks with a higher rate of return for a given level of risk were presumed to exercise greater market power. The authors computed market power indices for 943 banks for the period 1962 to 1968. They found that the average market power indices for commercial banks were statistically different among statewide, limited and unit banking states. Market power was greatest in limited branching states, followed closely by statewide branching states; however, market power was considerably lower in unit banking states. Furthermore, Emery and Wert [1972, p. 8] observed that market power was an increasing function of commercial bank size. There is some question whether Emery and Wert really measured market power or whether they measured an institution's ability to diversify its asset and deposit portfolios sufficiently to minimize the variability of the rate of return. Therefore, the Emery and Wert results must be viewed with reservation.

IV. ALLOCATION OF FINANCIAL SERVICES

Efficiency in the allocation of financial services is concerned with the question of how well alternative types of financial structure meet customer demands for financial services. Concern about

allocation is focused primarily on the availability of credit and the provision of a wide range of other financial services. Convenience, as well as availability, is also a relevant consideration.

A. Ability of Financial Institutions to Extend Credit

Proponents of branching argue that branching reduces risk. Because a branch organization tends to operate in several local markets, it is able to offset the effect of adverse deposit fluctuations in any one market by an intermarket transfer of funds. Thereby, a branch institution is able to place a greater proportion of its resources into loans than is a unit institution. The ability of financial institutions to extend credit is usually measured by the loan-to-deposit ratios. Higher loan ratios indicate that more of a financial institution's available funds are placed with borrowers. It is presumed that this primarily benefits local borrowers. It is also maintained that non-loan assets, such as securities, provide no direct benefit to the local community. An important exception to this is the policy followed by many banks of purchasing state and local bonds issued to finance projects which benefit the local community.

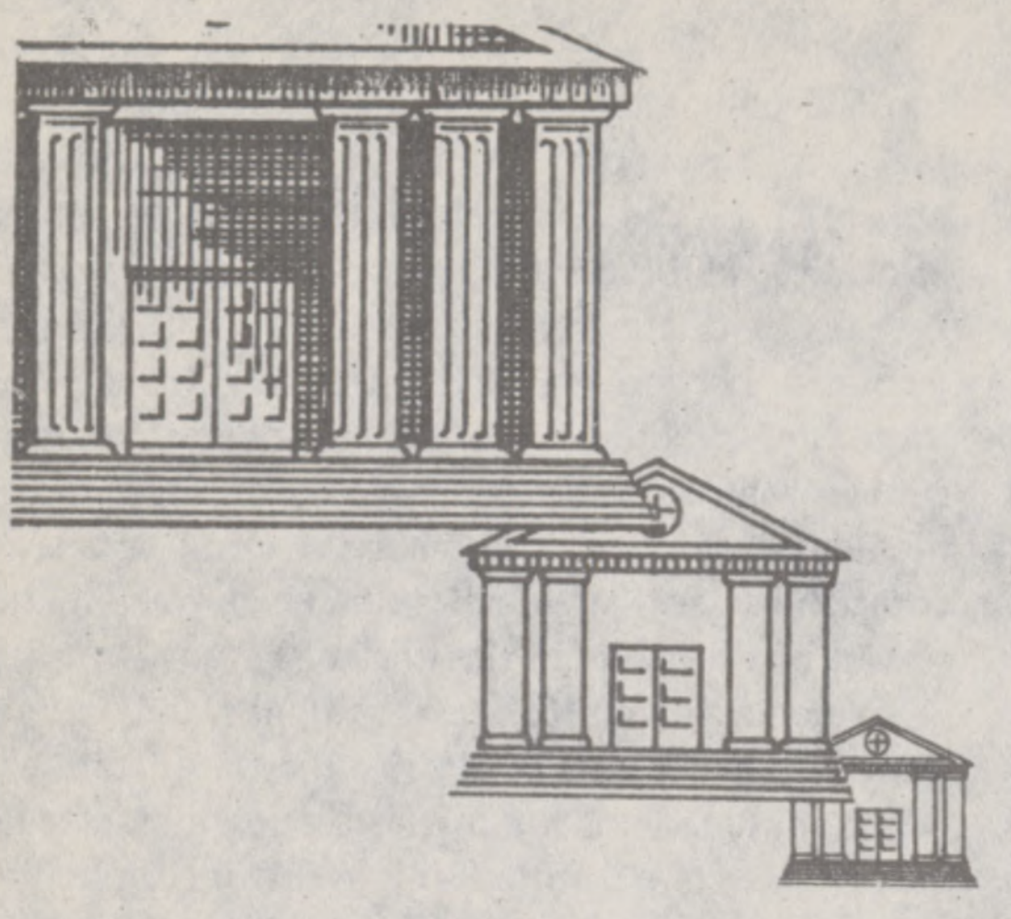
Regression analysis conducted by Schweiger and McGee [1961, p. 227], which controlled for the effects of commercial bank size, type of community, population growth rate and ratio of time to total deposits, showed that branch banks had higher ratios of instalment-, business-, mortgage- and total loans-to-assets than unit banks in 1959. B. Anderson [1964, pp. 289-93], in a 1962 study of banking in California (statewide branching), Ohio (limited branching) and Illinois (unit banking), concluded that statewide branch banks had the highest ratios of instalment-, business-, mortgage- and total loans-to-assets; limited branch banks had the lowest ratio of business loans-to-assets; and unit banks had the lowest ratios of instalment-, mortgage- and total loans-to-assets. Anderson found, however, that Ohio unit banks behaved more like Ohio limited branch banks than like Illinois unit banks. He suggested that this behavior could be the result of inter-structure competition. If this is true, it suggests that it would be desirable to have both unit and branch banks competing in the same local markets. Fraser and Rose [1972, p. 74], in a study of the Eleventh Federal Reserve District, concluded that the entry of new unit commercial banks appeared to cause a substantial increase in the allocation of bank credit toward local customers by existing commercial banks. Most of the change occurred in business and consumer loans. Furthermore, profitability of new and existing institutions was not affected adversely. Apparently, the entry of a new commercial bank increased competition so that local credit needs were better served by all banks in the market.

Evidence for mutual savings banks and S&Ls is limited. In December 1969, the five states in which mutuals had the highest ratios of mortgage loans-to-assets permitted either district branching or statewide branching. The weight of the evidence indicates clearly that branch institutions place more of their assets in loans than unit institutions. However, in states where unit banks compete with branch banks, there is some indication that unit banks place more of their assets in loans than do unit banks in states which prohibit branching.

B. Allocation of Credit

Proponents of branching argue that branching facilitates the transfer of funds from capital surplus to capital deficient local markets; whereas, unit institutions may have to leave demand unsatisfied, arrange participation loans with correspondent banks or sell loans to other institutions. Opponents of branching claim that branch institutions tend to be insensitive to local needs and may divert funds from local markets, where they may be needed by small borrowers, to large borrowers in other markets.

Evidence from a 1932 study of California commercial banks [Federal Reserve Committee . . . , 1932] did not support the contention that branch banks neglect rural areas in favor of the city where the head office is located. In Kohn's study of branch banking in New York State during the early sixties [Kohn, 1964], more than one-third of the out-of-town branches of the major branch banks outside New York City had higher loan-deposit ratios than did the entire bank. Most of these had a loan-deposit ratio which exceeded that of the entire bank by more than ten percentage points. Based upon surveys which examined bank loan portfolios, Jacobs [1965] voiced the criticism leveled by opponents



of branching that large branch banks neglect small borrowers in favor of large business loan customers. However, in an evaluation of Jacobs' criticism, Guttentag and Herman [1967, pp. 144, 145] pointed out that although large banks can lend more easily than small banks to large borrowers and, as a consequence, have a lower percentage of loans to small borrowers, it does not necessarily follow that the growth of a branch system as an alternative to a system of small unit banks would result in a smaller volume of loans to small business. The rising importance of business loans in branch bank loan portfolios may more than offset the declining proportion of loans that goes to small business. Guttentag and Herman believe this does occur in banks up to $100 million to $250 million in deposits. Thus, it is not clear to what extent branching actually results in discrimination against small business loan customers. Moreover, there is no concrete evidence that branching *per se* discriminates against rural markets or small borrowers.

It has been argued that the correspondent system is an adequate substitute for a system of branch banks. Evidence accumulated by Scott [1964] showed that only 6% of a sample of unit banks borrowed from their correspondents, less than 2% raised funds by selling assets to correspondents and a majority of small unit banks had no participation loan arrangements with correspondents. This evidence indicates that the correspondent system does not result in the free flow of funds among unit banks, especially when the unit banks are small.

C. Availability of a Wide Range of Services

Proponents of branching point out that branch institutions, because of their greater overall size, are able to offer a wider range of services than small unit institutions. On the other hand, opponents of branching argue that unit institutions are more likely to be responsive to local needs. They also point out that in many instances special financial services, which are ordinarily provided only by large institutions, have a limited or a nonexistent demand in many local markets so that their availability results in no significant benefit to a local community. Furthermore, it is pointed out that many of these same services can be provided by small local institutions through correspondent banks. Critics, however, observe that by custom small institutions make no explicit payment for the services they receive from correspondents, but instead maintain non-interest bearing deposits with these institutions. This results in a flow of funds from small rural to large city institutions which impedes, rather than accommodates, the efficient allocation of funds to meet local credit needs.

Results of a survey conducted by Weintraub and Jessup [1964] revealed that branch banks offer a much wider range and variety of financial services, such as special checking accounts in commercial banks, trust services, revolving credit, payroll services to business, drive-in windows, etc. They found that a branch office can offer more services than a unit bank of comparable size. In addition, branch banks with less than $25 million in deposits offered a wider range of services than unit banks of the same size. Larger branch banks provided a much wider range of services than small unit banks. In Kohn's study of commercial bank mergers in New York State [Kohn, 1964, p. 180], 80% of the mergers resulted in the addition of at least one new service. Horvitz and Shull [1964, p. 161] investigated acquisitions by national banks and found that an average of 5.1 new services had been added in the absorbed bank since the merger.

Guttentag and Herman [1967, pp. 165, 166] argue that the responses of absorbing banks about what new services are available in their newly acquired offices may be biased because of the tendency to list only services offered at the head offices, which may or may not be available at branch offices. Moreover, it was pointed out in the *Survey of Branch Banking in the Philadelphia*

Area [Joint Branch Bank Survey, 1957, p. IV-14] that "the services added . . . appear to have been mostly of convenience type, and there is no indication of the extent to which they have actually been used." While the weight of the evidence indicates that branching does result in the availability of a wider range of services, there appears to be some question about the need and real worth of these services to the community.

Little evidence is available to evaluate the charges that branch managers know less about local affairs, tend to be less flexible in their approach to loan applicants and tend to lack the discretionary authority to make decisions quickly. Kohn [1964, p. 76] found that branch banks tend to make fewer unsecured loans than unit banks. This limited evidence could be interpreted to support the charges stated above, although it is hardly conclusive. Horvitz [1958, pp. 104, 105] found that branch managers in New England had discretionary authority to grant loans and to set loan rates and service charges. This implies that a branch manager who is well acquainted with the local community may be able to meet its needs as well as a manager of a unit institution. In addition, a branch office can, when necessary, draw on expert help from the main office. This option is not available to managers of unit institutions, except through correspondent banks. On the whole, the argument that branch institutions are less responsive to local needs is not supported by the available evidence.

V. PRICES CHARGED FOR FINANCIAL SERVICES AND RATES PAID ON DEPOSITS

If competition among financial institutions is completely effective, all institutions will charge the same prices for the same services. Several factors mitigate against uniform pricing policies among financial institutions. For example, if convenient location of facilities is more important than prices to a customer, a financial institution may be able to charge higher prices than other institutions for some services. Prices may differ when an institution offers "non-price" services along with the priced service, or when it is able to develop a perceived rather than an actual difference in a service through advertising. Differentiation of basic services can also lead to differences in prices.

Regulations prohibiting or restricting entry of *de novo* institutions or *de novo* branches of existing institutions may result in too few institutions being represented in a local market to assure effective price competition. Moreover, lenient merger policies which lead to concentration of financial resources in a few firms may also result in noncompetitive pricing in a local market. If economies of scale exist, larger firms may be able to charge lower prices for services and offer higher rates on deposits. Accordingly, offices of large branch organizations may be able to charge lower prices than single office firms.

A. Service Charges on Demand Deposits

Studies concerning service charges on demand deposits relate only to commercial banks. With the exception of Anderson's finding for New Hampshire and Vermont [Paul Anderson, 1964], several studies indicated that branch banks levy higher service charges than unit banks.[1] The evidence, however, is clearly limited because of failure to control for factors other than organizational structure which could influence the service charge rate.

B. Interest Rates Paid on Time and Savings Deposits

Edwards [1965] discovered that, in general, rates paid by unit banks in metropolitan areas with only unit commercial banks were higher than rates paid by branch banks in metropolitan areas where both types of institutions operated. However, the very smallest and the very largest branch banks paid higher rates than unit institutions. Unit banks also tended to pay higher rates than branch banks in branch SMSAs. Based on survey information, Weintraub and Jessup [1964, p. 29] reached conclusions similar to those of Edwards for both metropolitan and non-metropolitan areas. However, in a study based only on New York State, Kohn [1964] found that branch commercial banks paid higher interest than unit commercial banks. In the same New York State study, unit and branch banks located in the same community paid identical rates in 1962. In a regression study conducted by Horvitz and Shull [1964], in which savings deposits per capita, the presence of nonbank savings institutions, bank

[1] See [Horvitz and Shull, 1964]; [Kohn, 1964]; [Longbrake 1972]; and [Weintraub and Jessup, 1964].

asset size and the number of banks in the community were held constant, unit banks paid higher rates if branching was permitted, and still higher rates if there was a branch office in the community. Although this result differs from Kohn's finding, the Horvitz and Shull study is statistically more rigorous and geographically more comprehensive than Kohn's investigation.

C. Interest Rates Charged for Loan Services

Evidence on consumer instalment loan rates exhibit no distinct pattern. While Kohn's 1964 New York State study [1964] showed that city unit banks outside New York City charged lower auto loan rates than branch banks, results reported by Schweiger and McGee [1961], which were obtained from "shopping" surveys of banks during 1960, revealed that instalment loan rates were lower in cities with branch banking than in unit banking cities. Additional findings of the Kohn study indicated that unit banks located in communities with large branch banks charged lower rates on new car loans than their large branch banking competitors; whereas, these rate differentials were not significant in communities with offices of only small branch banks.

Results of business loan rate studies are mixed. Kohn [1964] found no difference in 1962 rates between unit and branch banks in New York State. However, prior to 1962 unit banks charged higher rates. This is counter to the finding of Horvitz [1958] for New England banks. Jacobs [1971, p. 57], using regression analysis to control for the effects of population growth, region of the country, loan size, customer size, commercial bank size, deposit balance, deposit variability, deposit activity and other variables, concluded that business loan rates rise as branching regulations become stricter and as concentration of commercial bank deposits becomes greater. However, business loan rates for firms with more than one-half million dollars in assets are not affected significantly by branching restrictions. Of business loan rate studies, Jacobs' study is more creditable because factors other than just branch structure were controlled for statistically.

In his study of New York banks, Kohn [1964] found that rates on conventional home mortgages over the 1950-1962 period were higher in unit banks than in branch banks, although the difference narrowed when the rate approached

branch banking outside the metropolitan core areas tends to cause lower mortgage loan interest rates.

In general, the evidence supports the view that competition fosters lower prices for financial services and higher savings rates. Although the evidence is not conclusive, a mixed financial structure with both unit and branch organizations appears to enhance price competition.

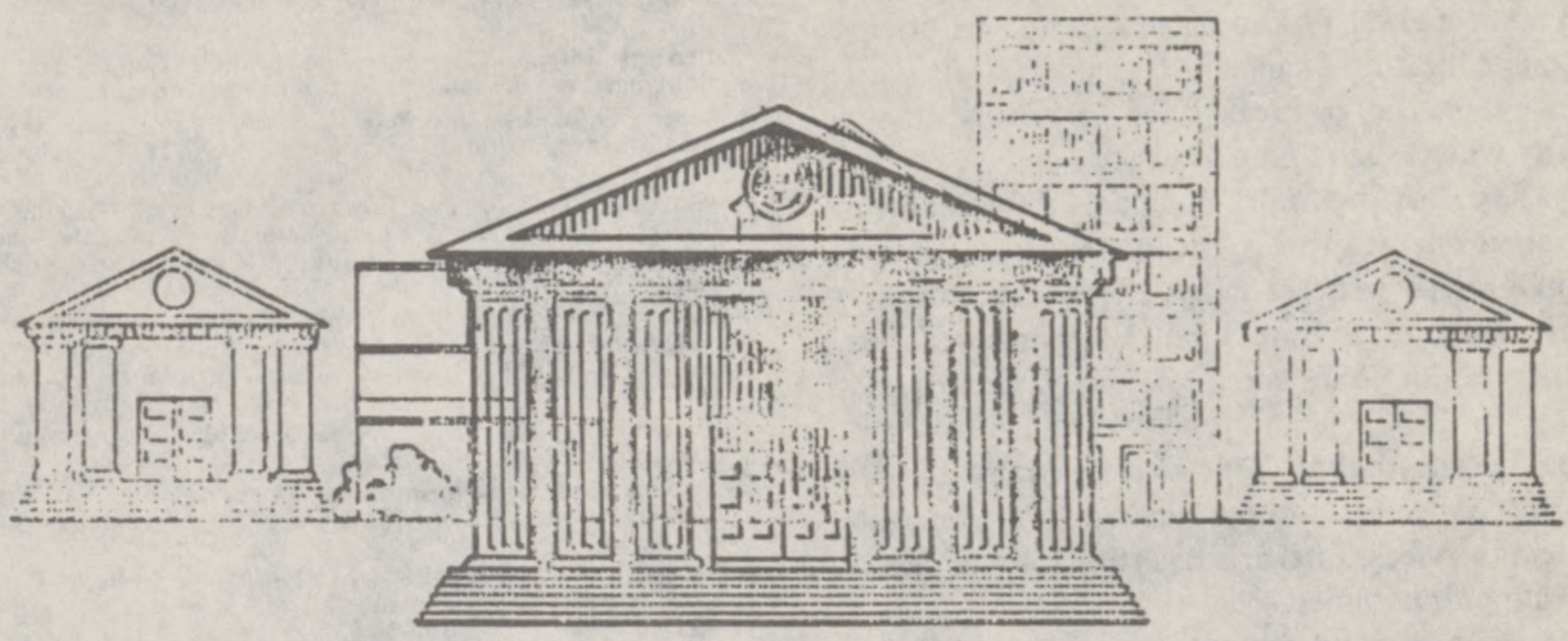
VI. ASSESSMENT OF THE EVIDENCE

A. Summary and Limitations of the Evidence

Concentration of financial resources in a few institutions does not necessarily reduce the degree of competition. However, high concentration and limited availability of financial facilities does increase the potential for exerting market power through higher prices, lower rates paid, and the provision of a limited range of services. Concentration is mainly a function of the number and relative size of institutions in the market. As such, it is possible for a small unit institution in a predominantly local market to wield as much market power in its market as a large branch institution can in a broader geographic market.

Due to diversities in the types and sizes of markets studied, variations in the periods of analysis and inconsistencies in the types of institutions under comparison, the available evidence precludes any definitive judgments concerning the relative merits of statewide versus limited branching. Branching generally results in greater concentration of deposits and fewer institutions statewide. The evidence of the effects of branching on concentration in metropolitan areas is inconclusive. Non-metropolitan areas, however, are served by more institutions in branching states than in unit states.

Based upon tabular analysis, branching states appear to provide more office facilities in metropolitan and non-metropolitan areas, alike. More rigorous studies have been conducted on statewide availability of facilities. Unlike tabular findings, which favor branching in the provision of offices throughout the state, results of regression studies using cross-section data are conflicting. However, studies based on time-series data reveal that the increase in commercial banking offices is



the supply of financial facilities, a general assertion of branching superiority is not completely justified, since no account has been taken of the demand for the services provided. Sufficient availability of facilities to achieve an equilibrium between supply and demand for financial services is required.

In order to determine directly the impact of branching on market power, a causal link must be established between branching, concentration and office availability, on the one hand, and their joint effects upon allocation and pricing of financial services on the other. This link has not been established in previous studies. Short of such evidence, it has been shown, nevertheless, that branch institutions extend a greater amount of credit and other services than unit institutions. The credit availability of existing institutions appears to be enhanced by entry of new competitors into the market. At the same time, unit institutions have been shown to provide more credit in mixed markets, where they compete with branch institutions, than in strictly unit banking markets. There is no concrete evidence, moreover, to support the claim that branching discriminates against rural markets, nor is it clear whether and to what extent branching discriminates against small business loan customers and is less responsive to local needs.

Most of the studies comparing prices in branch and unit institutions control for the effect of only a few, or none, of the many factors other than legal form of organization which may influence prices. Some of these other factors include region of the country, account size, customer size, size of the financial institution, number of alternative institutions offering a similar service, concentration of resources in the local market, size and character of local community, heterogeneity of services to which an average price is attached and population growth or density. It is not surprising that the results of these studies are frequently inconsistent and are sometimes in conflict with each other in light of the serious limitations in research design and sample selection. In general, the evidence indicates that unit institutions have lower service charges for demand deposits and pay higher savings rates than branch institutions. With the exception of one study, the evidence for loan prices does not lend itself to generalization. This one study controlled for many important factors influencing business loan prices and concluded that branch institutions charge small businesses lower prices, but there is no difference in the prices unit and branch institutions charge large businesses. Although the pricing evidence is far from conclusive, it implies that a mixed financial structure containing both unit and branch organizations may result in a greater degree of price competition than when branching is prohibited or is the predominant form of organization in the market.

B. Areas for Further Research

Considerable improvement over existing studies is required if substantive conclusions are to be reached regarding the effect of branching restrictions on competition. An integrated analysis of competitive factors in relation to branching structure is needed. This approach involves relat-

ing branching structure to the factors that influence market power, namely concentration and office availability, and ascertaining the interactive effects of these two factors and branching structure upon market power, as manifested in pricing and allocation of financial services. Certain variables should be controlled for to ensure homogeneity within such an analysis:

1) **Type of market.** Regional differences in consumer characteristics, income levels and population growth patterns may affect concentration differently for separate financial services. Thus, distinct product lines should be analyzed separately.

2) **Size of market.** This variable may have a differing influence on the demand for separate financial services, further suggesting an analysis of separate product lines.

3) **Other demand factors.** Population distribution and wealth distribution should be taken into account, e.g. in evaluating the adequacy of office availability in terms of satisfying customer needs.

4) **Distribution of branch offices.** Office distribution may be an important determinant of concentration within local markets in a state. To the extent that this factor is a function of the number of offices, it may also reflect the interaction between concentration and office availability.

5) **Special characteristics of individual services.** An investigation of pricing and allocation of separate financial services may be improved by specifically considering the product mix within each service category, the average size of account, the average size of the customer and other special characteristics. □

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Part II

The Effects of Branching by Financial Institutions on Competition, Productive Efficiency and Stability: An Examination of the Evidence

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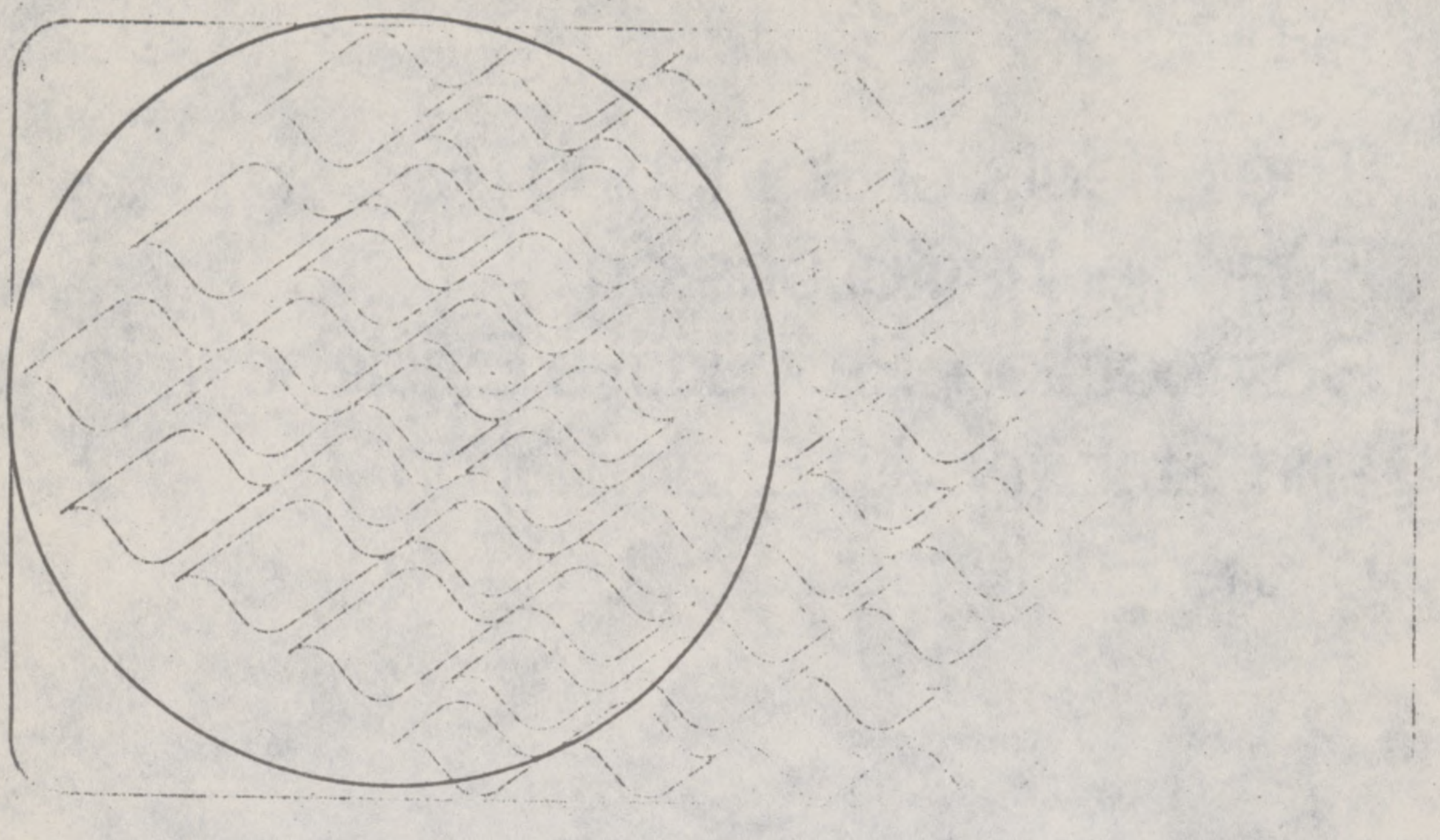
this issue in Sections I and II, respectively. A discussion of the limitations of the evidence reviewed in Sections I and II and suggestions for further research are contained in Section III. In the final section, Section IV, the implications of the evidence concerning the effects of branching on competition, productive efficiency and stability for the regulation of branching are presented.

There has been considerable interest in many states recently in the effects of branching on the performance of financial institutions—i.e., competition, operating efficiency and stability—within financial markets, because of actual and proposed changes in the statutes regulating branching. The purpose of this review article is to analyze and assess the effects of branching by commercial banks, mutual savings banks and savings and loan associations upon their performance within financial markets. In Part I of this review article, which appeared in the Autumn 1973 issue of the *Journal of Bank Research*, the arguments and evidence pertaining to the effects of various types of branching structure on competition were discussed. The effects of branching structure on

I. PRODUCTIVE EFFICIENCY: ISSUES AND EVIDENCE

According to theory, financial firms in a competitive environment will produce financial services at the lowest possible cost. If specialization and division of labor are possible, capital indivisibilities exist, or alternative production techniques can be used, larger firms may be able to achieve greater operating efficiency. When lower average operating costs occur in larger firms, economies of scale are said to exist. While the size of a unit financial organization is limited to a great extent by its inability to establish more than one office, branch financial organizations can grow large by adding branch offices. It is argued that branch organizations and large unit institutions can better



and capable administrators, and use advanced technology, all of which will result in greater operating efficiency.

Numerous studies of economies of scale have been conducted for commercial banks and savings and loan associations. Results of many of these studies are conflicting. Confusion has arisen due to a failure to distinguish between alternative means of expanding the output of financial services. The volume of services in a financial organization can grow naturally as the size of its existing office or offices increases. Alternatively, a financial organizati...

acquiring additional offices. There is no reason to assume that these alternative means of expansion should have the same effect on operating costs. In other words, there is no reason to suppose that operating costs in a unit organization are the same as those in a multi-office organization of the same size. On one hand, a multi-office organization must coordinate the operations of several offices while, on the other hand, a multi-office organization may be able to produce a given quantity of financial services more cheaply than a collection of small unit organizations by employing special

more, it is important to note that the physical size of an office may be limited by the characteristics of the local market so that a single large unit organization may not be a realistic alternative to several small unit organizations or a branch organization. That is, for many types of financial services, it may not be appropriate to compare unit and branch organizations on the basis of the total output of a particular financial service. It may be more appropriate to compare them on the basis of average office size and determine how the number of offices operated by a branch organization influences efficiency. Therefore, the effect on costs of expanding existing facilities should be distinguished from the effect on costs of operating different numbers of offices of the same average size.

Available evidence also indicates that it is important to distinguish between the number of customers, as reflected by the number of loan or deposit accounts, and the type of customer, as reflected by the size of an account, the activity of an account and the type of account, e.g. regular and special checking accounts. Some operations depend exclusively on the number of customers, while others depend on the type of customers. Most studies have not distinguished among number of customers, type of customer and number of offices and, as a consequence, their reported conclusions may be questionable.

Studies of Operating Costs in Commercial Banks

When economies of scale studies are analyzed on the basis of considerations mentioned above, it appears that economies of scale result as the average number of customers per office within an organization increases; however, economies do not necessarily occur as the number of offices increases. Economies of scale are nearly always greater for increases in average account size than for increases in the number of accounts per office and the number of offices. Thus, studies which use total deposits or total loans and securities as the measure of the output of financial services nearly always show greater economies of scale than studies which use the number of accounts as the measure of output.

Studies by Alhadeff [1954], Schweiger and McGee [1961] and Horvitz [1963] showed that expense-to-asset ratios decline as the size of both unit and branch banking organizations increase, but to a greater degree in unit banks. However, this ratio is consistently higher for branch banking organizations regardless of their size. This led Horvitz to conclude that economies of scale in banking do exist, but they are relatively small and the costs of branching more than offset these economies. A major bias of these studies is the failure to consider the number of banking offices operated by a banking organization.

Benston's study [1965] of the Boston Federal Reserve District and Bell and Murphy's study [1968] of the Northeast dealt with this bias to some extent. Both of these studies analyzed various banking services individually, using data from the Federal Reserve's Functional Cost Analysis Program. Benston found that consolidation of unit banks into a branch bank system does not reduce costs but raises them slightly. Bell and Murphy found that increases in the number of accounts serviced by a banking organization, when the effect of the number of offices on costs was controlled statistically, resulted in economies of scale for demand deposits, instalment loans, business loans, real estate loans and business development. No economies of scale existed for time deposits, safe deposit boxes, administration or bank occupancy. When the effect of the number of offices on costs was not considered, i.e. the effect of the number of offices was not controlled statistically, economies of scale disappeared for all banking functions except real estate loans and business development. Bell and Murphy also concluded that higher costs associated with branching operations tend to offset the cost savings from an increase in scale.

The weight of the published evidence indicates that as the size of a banking organization expands through the addition of branch offices, no appreciable economies of scale occur. The implication is that consolidation of unit banks into multi-office organizations would not result in economies of scale in operations. However, as the size of a banking office increases, it is probable that economies of scale will occur. Nevertheless, these scale economies may not be of sufficient magnitude to affect adversely the ability of small institutions to compete in a local banking market.

An unpublished study by Longbrake [1973] contains more detailed information about economies of scale and the relative operating efficiency of unit and branch banking organizations for

Figure 1. Economies of Office Size and Economies of Firm Structure Parameters for Unit and Branch Banks for Several Important Banking Activities

Banking Activity	Unit Banks	Branch Banks	
	Office Size	Office Size	Firm Structure
Demand Deposits	1.018	.933*	1.003
Time Deposits	1.061†	.996	1.028
Instalment Loans	1.001	1.000	1.037†
Business Loans	.892*	.817*	.947*
Real Estate Loans	.792*	.958	.930*
Securities	.823*	.822*	.813*
Safe Deposit Box	.981	1.009	.991
Administration	.970	.877*	1.028
Occupancy	.969	.858*	1.097†

* Statistically significant economies of office size or firm structure.
† Statistically significant diseconomies of office size or firm structure.
Source: [Longbrake, 1973].

specific types of banking services. Cost functions for specific services were estimated separately for the unit and branch banking organizational structures. This method precluded differences in organizational structure from causing biases in the estimates of the economies of scale parameters.

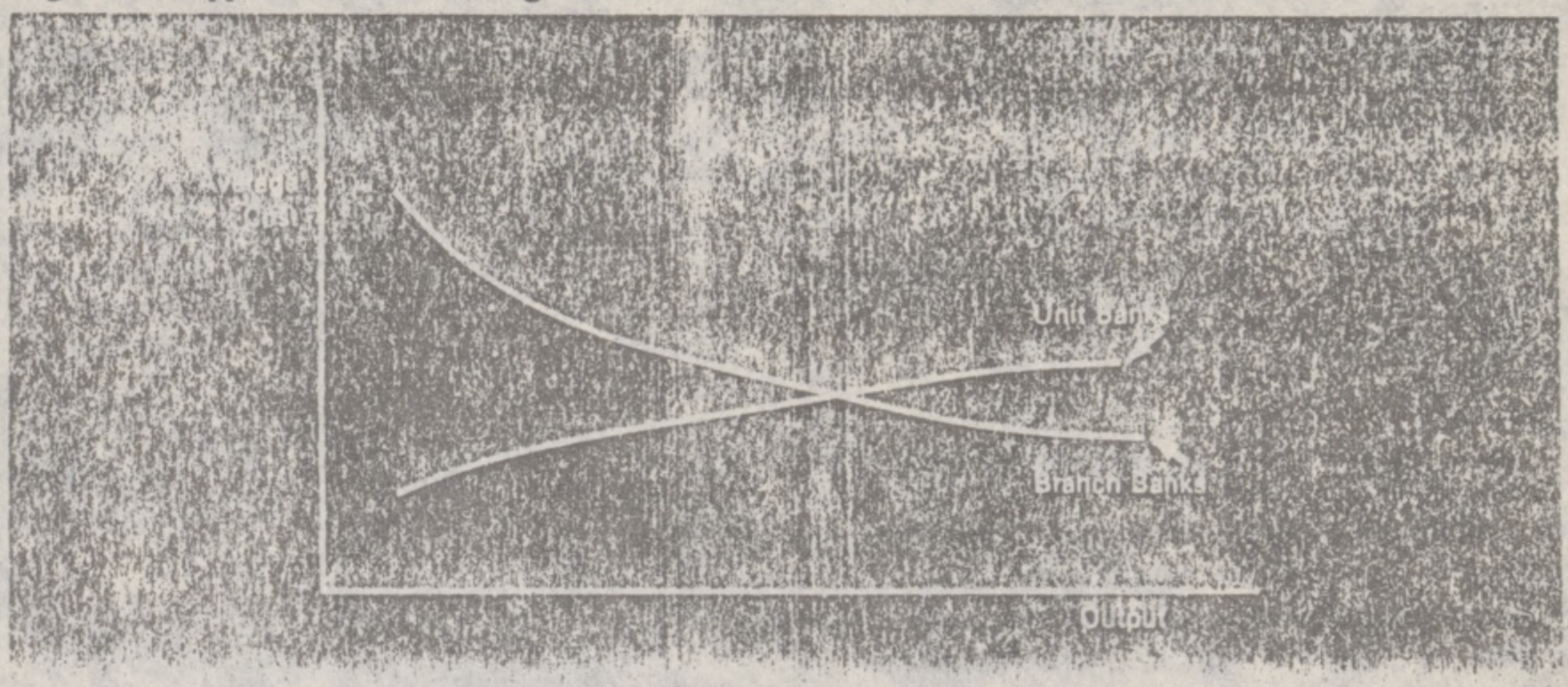
In Longbrake's investigation, there are two economies of scale parameters for the branch banking structure. One shows whether scale economies occur as the average number of accounts per office increases while the number of offices is fixed. This type of economies of scale can be referred to as *economies of office size*. The other shows whether economies of scale occur as the number of offices increases while the average number of accounts per office remains fixed. This can be referred to as *economies of firm structure*.

Each type of banking organization has its own scale parameter relating to office size (see Figure 1). For example, the demand deposit economies of scale parameter for office size for unit banks indicated that as the average number of accounts per office increases, slight diseconomies of office size occur. However, the branch bank economies of scale parameter for office size showed that statistically significant economies of office size occur. Therefore, differences in economies of office size do exist among different types of organizational structures. Scale para-

either about the same magnitude or larger than the scale parameters for office size. This means that costs increase as much, or more, when the output of services is expanded by adding branch offices as when output is increased in existing offices. These results, coupled with those for office size, strongly indicate that the type of organizational structure may have an important effect on costs.

Although branch banks experience significant economies of office size and unit banks experience diseconomies of office size for demand deposits, this does not mean that branch banks operate more efficiently. In fact, nearly all the sample unit banks had lower average costs for demand deposits. To visualize how this can occur consult Figure 2. At very small levels of output, i.e. a small average number of accounts per office, costs are considerably lower in unit banks. As the average number of accounts per office increases, branch banks are able to reduce average costs while unit banks experience slightly rising costs. As a result, at a very large average office size, branch banks become more efficient. Because the demand deposit scale parameter for branch bank firm structure is greater than one, the addition of more offices increases the average number of accounts per office a branch bank

Figure 2. Hypothetical Average Cost Curves of Unit and Branch Banks



issue of economies of scale is complex and does not lend itself to simple generalization as nearly all the existing studies imply.

Nevertheless, some generalizations can be made on the basis of the sample banks used in the Longbrake study. In general, production of financial services which are not easily centralized in the main office (demand deposits, time deposits, instalment loans and safe deposit boxes) is less costly in unit banks. However, production of services centralized in the main office (business loans, real estate loans and securities) is less costly in branch banks. The implication of these results is that bank organizational structure does make an important difference in the cost of producing various financial services and that no one particular type of organizational structure is superior to all others with respect to all banking services. The most efficient banking system could easily be one in which all alternative types of organizational structure should be encouraged and allowed to concentrate in those financial services in which they have a cost advantage.

Studies of Operating Costs in Savings and Loan Associations

S&Ls presently provide two major services—savings deposits and real estate loans. Benston [1969], using the number of real estate loans serviced as a measure of output and controlling statistically for the number of branches, found scale. Furthermore, branch associations had higher costs than unit associations of the same size. It should be noted that this type of comparison is not as relevant as a comparison of an association's branch office and a unit association of the same size. When Benston ignored the branching issue, significant economies of scale still occurred, although they were not as great as when the number of branches was controlled. This probably indicates that either increasing the number of loans serviced by existing offices or increasing the number of offices will result in scale economies. The same result occurs for real estate loans of commercial banks in Longbrake's study and is undoubtedly caused by the ability of financial institutions to centralize and specialize the management of real estate loans.

Brigham and Pettit [1969], using total assets as a measure of S&L size, found that when the number of offices was held constant, significant economies of scale occurred. In addition, branch associations had greater costs than unit associations of the same size. However, using average office size as the basis for comparison, they concluded that costs were lower in branch associations. In spite of the different measures used by Benston and Brigham and Pettit, the results of the two studies appear to be consistent with one another and they are also consistent with the results for real estate loans in commercial banks. Thus, as appears to be the case for commercial

other financial institutions to specialize in a few services.

In summary, prohibition of branching is not desirable with respect to the cost of producing certain financial services. However, unit institutions appear to be able to produce some services more efficiently than branch institutions. Therefore, it seems that unit and branch financial institutions ought to be allowed to compete in the same markets.

II. STABILITY: ISSUES AND EVIDENCE

It has long been a matter of public policy to promote stability in the financial system. The system is stable when adverse economic conditions do not result in excessive failures among financial institutions or severe curtailment of services. In the short run, financial institutions can survive adverse economic conditions by maintaining adequate liquidity. However, in the longer run, liquidity and solvency cannot be maintained indefinitely without adequate profits. Thus, the survival of financial institutions hinges on their ability to manage their asset and deposit portfolios so that they do not run short of cash and are able to earn sufficient profits to remain viable competitors.

Liquidity in Financial Institutions

Financial institutions are not always able to forecast precisely their cash inflows and outflows. In the event outflows exceed inflows, an institution may have to borrow to maintain liquidity unless it has held enough excess cash reserves to cover the deficit. An unexpected outflow of deposits or default in the repayment of a large loan may result in a cash deficit which a bank is unable to cover by ordinary means. It is generally believed that deposit insurance has greatly diminished the probability of a "run" on deposits. However, seasonal and random fluctuations in deposits still occur and must be accommodated. In addition, the recent appearance of new financial instruments has increased the possibility of unexpected and substantial deposit fluctuations.

Proponents of branching argue that the ability of a branch institution to operate in several local markets reduces its vulnerability to sudden reversals in economic conditions within a particular

deposit flows. Unit institutions do not have this advantage. As a result, unit institutions may be forced to maintain relatively greater cash reserves and greater amounts of short-term U.S. Government securities. This, in turn, limits the ability of unit institutions to make loans.

Little evidence concerning the effect of branching by financial institutions on liquidity exists. Evidence cited in Part I of this review article showed that branch institutions have higher loan-to-total-asset ratios which could result from their ability to reduce the degree of deposit variability and the risk of loan defaults. Lauch and Murphy [1970] studied the effect of branching on daily deposit variability in each branch of a large six-office thrift institution. Using the standard deviation of the expected value of the distribution of daily deposit balances, a measure of variability similar to that suggested by Wacht [1968], they found that fluctuations in daily deposit balances among the various branches never displayed perfect positive correlation and in a number of instances were either independent or negatively correlated. As a consequence, the standard deviation of the expected value of the distribution of daily deposit balances for the entire bank was considerably smaller than the sum of the standard deviations for individual branch offices. Thus, Lauch and Murphy concluded that branching tends to reduce deposit variability.

In a theoretical article, Wacht [1968] showed that diversification of deposits and loans, which could result from branching, will reduce the variability of liquidity reserves. As a consequence, the branch organization is able to reduce the amount of resources held in liquidity reserves below the amount which would be required if each branch operated independently of the others. The resources which are no longer required to maintain liquidity can be invested in loans, thereby increasing the availability of credit. In another theoretical article, Baltensperger [1972] demonstrated that institutions which have a large number of depositors do not need as much liquidity reserves as institutions with a small number of customers since the relative variability of net cash flows declines with the number of customers. In a similar fashion, he argued that the impact of loan defaults declines as the number of loans increases, which also reduces the variability of net cash

theoretical propositions reflect fact, then branch institutions, because of their greater potential for expansion, have the potential to make more loans and hold less cash than unit institutions. However, neither Wacht's proposition that deposit and loan diversification through branching reduces the amount of required liquidity reserves nor Baltensperger's proposition that a larger number of deposits and loans reduces the amount of required liquidity reserves has, as yet, been substantiated by empirical evidence.

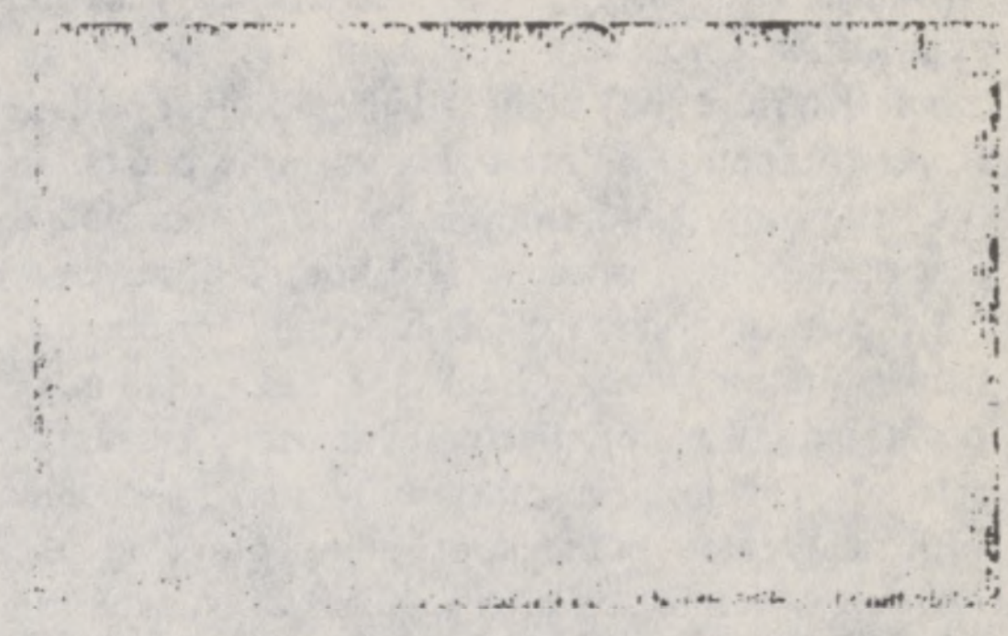
Profitability of Financial Institutions

To remain viable, a financial institution must be able to earn a reasonable rate of return on capital. If an institution has high costs, it must be able to offset these high costs by charging higher prices in order to maintain profits. However, if a high degree of competition prevails in a local market, an institution with high costs may be unable to survive. It is claimed by opponents of branching that unit institutions should be protected because they are more responsive to local needs, even though they may be unable to operate as efficiently as offices of large branch institutions. Proponents of branching argue that branch offices not only are responsive to local needs but can serve a local market better by charging lower prices or offering higher quality services at the same price. Of course, if small unit and large branch institutions can compete profitably in the same market, there is no reason to protect unit institutions or to permit their elimination.

Two general types of profitability measures exist which could lead to different conclusions. One measure is the return on capital. Presumably, this is the measure of greatest relevance to owners because it reflects the magnitude of return an owner can expect from his investment. However, the book value of capital which is always used to construct this measure may not be a good reflection of the true value of capital. The other measure is the return on total assets.

1. Alternative Organizational Structures and Profitability

To the extent that size of institution is related to branching, studies analyzing the effect of size on profitability may shed some light on the effect of branching on profitability. Schweiger and McGee [1961] found that the return on capital tends to increase with bank size. However, branch banks have a lower return on capital than unit banks of the same size. Haslem [1968] also concluded that return to capital tends to increase with bank size. But, in another study [1969] in which Haslem controlled statistically for asset mix, liability mix, interest rates paid on time and savings deposits, revenue on loans, wage rates and net losses on securities and loans, the return on capital decreased with increases in bank size. This evidence suggests that the return on capital measure is sensitive to local market conditions, at least to the extent that different types of local



markets tend to be associated with banks of specific size, e.g. rural banks are small and urban banks tend to be large. The reversal in the effect of size shown by Haslem when specific banking characteristics are controlled may apply also to Schweiger and McGee's results. These conflicting studies, however, do not shed much light on the effect of branching on profitability.

Anderson [1964, p. 296] found that net earnings on assets of commercial banks did not differ appreciably among statewide, limited and unit banking states. However, large statewide branch banks in California and large limited branch banks in Ohio tended to have higher rates of return on assets and on capital than large unit banks in Illinois. Emery and Wert [1972, p. 7] discovered that the average rate of return on capital was greatest in statewide branching states, followed closely by limited branching states. The average rate of return was lowest in unit banking states. Variability in the rate of return—a measure of risk—was highest in unit banking states and lowest in limited branching states. Neither entry nor concentration of commercial banks appeared to affect the rate of return, although Emery and Wert noted that the state may not be

the appropriate area in which to assess the effects of entry and concentration.

In a study of New York State, Kohn [1966] concluded that the evidence on profitability did not support the contention that small commercial banks are unable to compete with large commercial banks. In markets in which unit, small branch and large branch banks competed, unit and small branch banks were as profitable as large branch banks.

2. Effects of Changes in Market Structure on Profitability

The two most comprehensive studies of profitability in local markets have been conducted by the New York State Banking Department. One [Kohn and Carlo, 1969] was concerned with the competitive impact of new branches, while the other [Kohn, 1966] analyzed the ability of small banks to operate as profitably as large banks. In the first study, Kohn and Carlo [1969] concluded that opening new branches did not affect adversely the profitability of competing commercial banks, mutual savings banks or S&Ls. Although profitability was not affected by *de novo* entry, the rate of growth of institutions tended to decline with a greater number of competitors in the market. A before and after analysis of Nassau and Westchester counties revealed that the opening of 72 new out-of-town branches (controlled by commercial banks headquartered in other counties) between 1960 and 1964 did not affect the profitability of competing commercial banks, mutual savings banks and S&Ls. This conclusion applied equally to unit and branch institutions. Kohn and Carlo concluded that a substantial increase in branching activity did not result in competitively destructive effects on either small or large financial institutions.

In the other study of New York State, Kohn [1966] conducted a before and after analysis of 12 cases in which one of the unit banks in a two unit bank town was acquired by a large branch bank. Results of the analysis did not support the claim that unit banks are unable to compete successfully with large branch banks. Moreover, the results of this study imply that the number of competitors could be increased substantially without endangering profitability by permitting branch institutions to open *de novo* offices in local markets served by one or more unit institutions or offices of [illegible]

In summary, neither organizational structure, size of institution nor type of financial institution appear to have much influence on profitability. The evidence shows that the rate of return in small institutions can equal the rate in large institutions and unit institutions can do as well as branch institutions, even when they are in the same market. By the same token, changes in market structure do not appear to affect profitability adversely.

III. ASSESSMENT OF THE EVIDENCE

A. Summary and Limitations of the Evidence

1. Productive Efficiency

Efficient operation of financial institutions is an important objective of public policy and, as a consequence, it is important to assess the effect that the size and organizational structure of an institution have on its ability to operate efficiently. Many of the existing studies on productive efficiency have not been able to deal successfully with the relationship between production and operating costs in firms producing several non-homogeneous types of services in multi-office organizations. Studies using aggregate measures of output have not controlled adequately for differences in product mix, while studies analyzing individual types of services separately have not been able to combine the results of the separate analyses satisfactorily. Furthermore, there is considerable disagreement over whether the more appropriate basis for comparison is unit and branch institutions of the same size or unit institutions and offices of branch institutions of the same size. The method of comparison appears to have a considerable bearing upon whether branching institutions are found to be more or less efficient than unit institutions. When unit institutions and offices of branch institutions are compared, the weight of the evidence indicates that small economies occur as an institution increases number of customers it serves at a single office; however, no appreciable economies occur as the number of offices operated by a branch institution increases.

In general, production of services which are not easily centralized in the main office (demand deposits, time deposits, instalment loans and safe deposit boxes) is less costly in unit [illegible]

ties) is less costly in branch institutions. Thus, operating disadvantages in some activities may be offset by operating advantages in others. Moreover, there is no concrete evidence that small unit and branch institutions are at a competitive disadvantage relative to larger branch institutions with respect to operating costs. In fact, the evidence implies that a mixed system in which both unit and branch institutions compete may improve productive efficiency, especially if unit and branch institutions specialize in activities in which they hold cost advantages.

2. Stability

Maintenance of stable and profitable financial institutions is another important public policy objective. In the short run, institutions must be able to maintain sufficient liquidity to prevent failure or severe curtailment of services when adversity strikes. Over the longer run, an institution must be able to operate profitably in order to function as a viable and effective competitor in the market. Very little evidence concerning liquidity in financial institutions exists. That which does exist suggests that branching can reduce deposit variability, thereby reducing variations in cash flows and, hence, the risk of illiquidity. Although it is claimed that branching facilitates loan and deposit diversification and enables increases in the number of loans and deposits through the addition of new offices, all of which reduce the amount of required liquidity reserves, no empirical evidence is available to assess this claim. There are some studies dealing with the effect of branching on profitability, but they are subject to several limitations which reduce their credibility. The greatest limitation is a failure of these studies to control for differences in market demand and, thus, differences in product mix. Because most of the existing profitability studies are based only on selected regions of the country, single points in time and specific types of financial institutions, it is doubtful whether their conclusions lend themselves to generalization. With these limitations in mind, the evidence indicates that small unit and branch institutions are as profitable as large branch institutions and that unit and branch institutions can compete profitably in the same market. In addition, a sharp increase in branch activity in a market does not have an adverse effect on the profitability of the existing institutions. The weight of the evidence indicates that competition may be increased substantially without endangering profitability by permitting branch institutions to open *de novo* offices in local markets served by one or more unit institutions or offices of branch institutions.

B. Areas for Further Research

Considerable improvement over existing studies is required if substantive conclusions are to be reached regarding the effects of branching restrictions on productive efficiency and stability. Most notably, the following directions for future research remain to be explored:

1. Productive Efficiency

Research dealing with the effect of branching restrictions on productive efficiency has been extensive for commercial banks and S&Ls and has dealt with some issues effectively. However, other issues remain confused or have not been analyzed at all.

> Aggregate output indices have not been able to handle the complex relationship between output and costs in multi-plant, multi-product institutions. Separate analysis of individual products presents difficulties for evaluating the effect of branching restrictions on the efficient production of all services within an institution. There is a need to find a way of analyzing the entire institution without being constrained by the limitations inherent in aggregate output indices.

> There is need to determine whether certain services can be produced more efficiently by specialized institutions, such as S&Ls or mutual savings banks, than by a full-service institution, and to ascertain the impact of branching restrictions on specialization and efficiency.

> No existing cost studies distinguish between full service offices, limited service offices, and paying and receiving stations. Furthermore, the issue of centralization versus decentralization of various types of operations has not received much attention. Future cost studies should deal with these issues.

> Financial costs, in contrast to operating costs, have received virtually no consideration in cost studies. Financial costs include payments to attract capital and the costs of attracting deposits from alternative institutions. Financial costs for deposits, as distinguished from operating costs, involve interest payments, implicit or explicit, and

"free" services. The effect of branching restrictions on financial costs needs to be investigated.

2. Stability

There is very little research on the effect of branching restrictions on profitability (return) and practically none concerning liquidity (risk) in financial institutions. Future studies should analyze the effect of branching restrictions on return and risk.

> A great deal of concern exists about capital adequacy. However, adequacy depends on the ability of an institution to operate profitably. Furthermore, the profitability of an institution affects its ability to raise additional capital. Branching restrictions may have an important impact both on the ability of an institution to operate profitably and to raise capital. Research is needed to determine the nature of the impact.

> Liquidity depends on the ability of an institution to meet cash outflows without undue stress. As such, it depends on the soundness of asset, deposit and capital management policies. It can also depend on acquisition and expansion policies. Research dealing with the effect of branching restrictions on liquidity management would fill an important gap in the existing literature.

IV. CONCLUSIONS

This review of the evidence indicates that unit institutions can compete effectively with branch institutions in terms of production costs and profits. Therefore, it does not appear to be necessary to protect unit institutions by prohibiting branching. There is no evidence that unit institutions are more responsive to local needs. Furthermore, although branch institutions can offer a wider range of services, it has not been demonstrated that this constitutes a real added benefit to a local community. Branching does appear to result in more banking offices, especially in nonmetropolitan areas. Branching also seems to result in a greater flow of credit to customers. However, unchecked branching can lead to a high degree of concentration of financial resources and, thus, a high degree of potential market power.

It appears that some form of branching would result in greater competition among institutions and greater convenience and other benefits to customers provided that the potential abuses inherent in branching are controlled adequately. Potential abuses could be avoided by denying mergers that would result in a significant increase in concentration in a local market, by encouraging branch institutions located in another market to enter a local market by opening a *de novo* office or acquiring a relatively small institution, and by preventing an institution from attaining an overwhelming position of dominance relative to other institutions within a state. In conclusion, the preponderance of evidence implies that serious consideration should be given to liberalizing existing state statutes which restrict branching. □

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THE IMPACT OF DE NOVO COMMERCIAL BANK ENTRY

by

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The Impact of De Novo Commercial Bank Entry

I. Introduction

A major element of commercial bank regulation in this country is the restriction of entry into the industry. Entry restrictions are supported as being necessary for the prevention of "ruinous" competition, unsafe and unsound banking practices, and bank failures. According to this philosophy, new bank charters, for example, must be justified, to the satisfaction of the chartering authority, on the basis of community need, with particular regard given to possible adverse effects on existing commercial banks in the market.[1] The judgment of the chartering authority is substituted for (or given veto power over) the judgment of private entrepreneurs who desire to risk their capital in a banking venture.

Restrictions on entry in banking have been criticized on a number of grounds.[2] First, by limiting entry to less-than-competitive market levels, regulators have not only limited "ruinous" competition, but have also curtailed desirable actual and potential competition. Second, these policies have not been successful in preventing unsound banking practices and subsequent bank failures. Moreover, it is argued that these policies cannot accomplish their goals because there is no necessary link between competition (or market structure) and unsafe bank practices and bank failures. Third, freer entry would substitute market discipline for regulation in other areas of banking, thereby eliminating many regulatory distortions.

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[1] For a discussion of these criteria, see Alhadeff (1962).

[2] See Peltzman (1965), Benston (1973), Edwards and Edwards (1974), and Alhadeff (1962).

Restrictions on entry into commercial banking can be relaxed in one or more of the following ways: 1) freer chartering of new banks, by perhaps eliminating the needs test, 2) expanding current geographic markets through branching and automated banking facilities, or 3) by granting to thrift institutions powers and functions currently reserved exclusively for commercial banks. Proposals to reduce entry restrictions in these ways have received the attention of numerous study commissions in the recent past and will receive further attention by the Senate Subcommittee on Financial Institutions.[3] Such proposals presume, of course, that increased entry will produce public benefits and that these benefits will outweigh any costs.

Evidence on the benefits and costs of de novo entry is sparce and quite limited. The existing indirect evidence available from numerous cross-section studies of market performance-structure relationships, from which the likely effects of such structural changes as de novo market entry can be inferred, is not particularly helpful in assessing entry's benefits or costs because of the inconclusiveness of this evidence.[4] The available evidence from the few direct studies of the impact of de novo bank entry is also not helpful because of their conflicting and inconclusive results.[5,6]

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[3]The third method of reducing entry barriers to commercial banking has been advocated by numerous study commissions, most recently in the FINE study (1975), as well as legislatively in the Financial Institutions Act of 1975. The above Senate Subcommittee has instituted its own study of Federal branch banking policy which clearly focuses on the second method above.

[4]For a summary and review of this literature, see Benston (1973).

[5]Chandross (1971) and Fraser and Rose (1972) report on the impact of unit bank entry, Motter and Carson (1964) and Kohn and Carlo (1969) on the impact of branch bank entry.

The principal shortcoming in these studies is their inability to isolate the impact of entry from that of other factors on existing banks' performance. For example, Motter and Carson did not attempt to isolate de novo bank entry's impact from other factors capable of influencing performance. Kohn and Carlo and Chandross attempted to control for the influence of these other factors,

The present study examines the impact of de novo bank entry in isolated markets served by one, two or three banks, markets in which the potential benefits, as well as costs, of entry would appear to be greatest. In particular, and as frequently discussed,[7] the impact of entry is expected to be greater in such markets because entry represents a large percentage change in banking alternatives, and is expected to be more easily observable because fewer problems exist in defining product and geographic markets and rival banks. To be sure, however, if the regulatory agencies have been successful in administering the "needs" test, it would be surprising to find significant adverse effects of entry on existing banks. This makes clear the fact that this study is not one of the costs and benefits of <u>free</u> entry in banking, but rather one of entry under the restricted entry conditions currently imposed by the chartering and regulatory authorities.[8]

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but they were unsuccessful because of the noncomparability of the banks selected for control purposes and the sample banks in entry markets. Chandross employed all banks or all nonmember banks in the same state for control purposes. Kohn utilized all banks comparable in certain respects to the sample banks, but not comparable in terms of competitive market structure, market growth, and market or bank structural changes. Fraser and Rose failed to control for factors such as branch-unit mix of banks in the market and structural changes over time as well as for calendar time. Fraser and Rose, in addition, employed a statistical test that assumes independence of two samples when, in fact, the sample observations are paired. The appropriate test for paired differences, used in this study, is described in Freund (1962), p. 269.

In addition, the results and conclusions in these studies may be adversely affected by neglect of the possibility of short-term, transitory as well as intermediate- and long-term effects of entry and of the possibility of entry's impact varying systematically with the competitive structure of the entry market.

[6] Other studies, notably Peltzman (1965) and Edwards and Edwards (1974), presume some benefits from entry and attempt to estimate the extent to which entry has been restricted by existing regulations.

[7] See Alhadeff (1962), Kaufman (1966, p. 438), and Benston (1973).

[8] The historical evidence on free entry during the "wildcat" banking era must be interpreted with caution because of the significant changes since then in other aspects of regulation such as deposit insurance (Alhadeff, 1962).

Although the primary purpose of the study is to test for the impact of entry on bank performance, evidence is also presented on the pre-entry performance of banks in entry markets which perhaps may be cause for entry (Rose, forthcoming). In addition, some evidence is presented on differences in the impact of entry in one-, two- and three-bank markets[9] and on the immediacy and permanence of any impact.[10]

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[9] A priori, whether entry would have a differential impact across the one-, two- and three-bank markets is uncertain. On the one hand, it may be expected that entry's impact will be greatest in one-bank markets, since it is here that the largest percentage change in banking alternatives occurs. On the other hand, these markets are still characterized by only two rivals, and concentration may not have been reduced sufficiently to induce more competitive performance. If some critical number of rivals is necessary to achieve competitive performance, then entry that increases the number of rivals to that critical number would be expected to have the greatest impact. If the critical number of rivals were four banks, it would be possible to find that the impact of entry is greater in a three-bank market than in a one- or two-bank market. See Rhoades (1973) for a general exposition of threshold levels of concentration and the resulting policy implications.

[10] The concern that entry's impact may be transitory emanates principally from the fact that these markets are still highly concentrated after entry and that the recognition of interdependence and achievement of cooperation among rival firms may be a learning process, as suggested in the literature on the dynamics of oliogopoly behavior (Cyert and DeGroot (1973)). In this context, entry represents a shock that may cause temporary disruption of the market, with the recognition of interdependence and attainment of joint monopoly behavior occurring over time. A related but alternative explanation is that the entering and existing banks recognize their interdependence immediately, but the entry bank is unwilling to cooperate with the existing banks until it has achieved a satisfactory penetration of the market. Either explanation suggests that entry may have a transitory impact on performance, and that the benefits of entry to the public, if any, may be short-lived.

Section II presents the statistical method and describes the data. Section III presents the empirical results. Section IV contains the summary and conclusions and suggestions for further research.

II. Statistical Method and Data

For the purpose of determining the impact of de novo bank entry on existing banks' performance, a before-and-after entry analysis of the performance of the existing banks is performed. To control for the influence of economic and other factors and to isolate the impact of entry on individual existing banks, each existing bank, hereafter referred to as a sample bank, in entry markets is paired with a control bank alike in every respect feasible except that the control resides in a market which did not incur entry. Each control bank is similar to its paired sample bank in terms of size, charter, organizational structure, competitive environment including number of banks in the market, their unit-branch mix, the presence of such thrift institutions as savings banks and associations,[11] deposit market share, and rural nonmetropolitan markets growing at similar rates in the same state.[12,13] Additionally, only existing markets in which there is only the one structural change -- the entry of one de novo bank -- and no bank organizational changes during the period from two years prior to entry to five years after entry are included in the sample or control bank group.

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[11] The paired sample and control banks in this study incurred either local thrift competition or no such competition, except in nine instances where the sample bank faced thrift competition but the control did not.

[12] The influence of such factors on bank performance is made clear in the literature, see Gilbert and Longbrake (1973), Benston (1973) and any bank management text.

[13] Since it was impossible to match perfectly sample and control banks particularly in terms of deposit market shares and market growth, statistical tests were run for the significance of the mean differences between paired banks. The tests indicated that the paired banks were not significantly different in terms of individual market shares or market growth in population or income.

The initial sample of existing banks consisted of all banks in rural, isolated markets having fewer than four banks and incurring de novo unit or branch bank entry during the years 1966 through 1969. From this sample, controls were found for 31 of the 57 banks in unit bank entry markets and 11 of the 35 banks in branch entry markets. These sample banks are either unit banks or branch systems with all offices in one market. Among the 31 sample banks in unit entry markets, 15 are in one-bank markets, 11 in two-bank markets, and 5 in three-bank markets. Of the 11 other sample banks, 5 are in one-bank markets and 6 in two-bank markets. Twenty-nine of the 31 operate in unit or county-wide branching states, 10 of the 11 in contiguous county, district or statewide branch banking states. The greater threat of entry existing in the states having less restrictive branching regulations may effect differences in the bank samples' performance (Alhadeff (1962); Rhoades (1972)). Consequently, the unit and branch entry samples are kept separate throughout the study.

For each year from two years prior to entry through five years after entry, for each pair of banks, the following variables are computed for various performance measures:

$$d_{it} = (P^{s}_{it} - P^{c}_{it})$$

$i = 1, \ldots, n_j$ pairs of banks
$n_1 = 31$ for the unit entry sample
$n_2 = 11$ for the branch entry sample
$t = -2, -1, 0, 1, \ldots, 5$ where 0 is the year of entry.

P^{s}_{it} = a performance measure of the i^{th} sample bank in period t,

P^{c}_{it} = a performance measure of the i^{th} control bank in period t.

The performance measures used are listed in Table 1 and their components are defined in Appendix Table A1. These particular measures were chosen to reflect aspects of performance that are of interest to the banks, stockholders, managers and customers, and to permit replication of previous studies. Throughout the discussion of the empirical results, special attention is given

to variables thought to have welfare or public policy implications. For purposes of the tests that follow, the d_{it} comprise the data set.

To test for the impact of entry, the following "double difference" variables are computed:

$$dd_{it} = d_{it} - d_{i,-2} \qquad t = 1, \ldots, 5$$

Univariate t-tests are conducted on $\overline{dd}_t$, the mean of dd_{it}, to test for significant changes in performance, after controlling the other factors, over the time period from two years prior to entry to the t^{th} year after entry. For purposes of the discussion that follows the third year after entry will be considered the dividing point between the short-run or initial effects and the longer-run effects.

In addition to the above test, univariate t-tests are conducted on $\overline{d}_t$, the mean of d_{it}, for all banks in each sample to test for performance differences between the paired sample and control banks in each pre- and post-entry year.

Tests for the differential impact of entry across one-, two-, and three-bank markets are also conducted using the following dummy variable regression:

$$dd_{it} = \alpha_t + \beta_t D_{i1} + \gamma_t D_{i2} + \varepsilon_{it} \qquad t = 1, \ldots, 5 \qquad (3)$$

where $D_{i1} = 1$ if the i^{th} sample bank is located in a two-bank market
$= 0$ otherwise

$D_{i2} = 1$ if the i^{th} sample bank is located in a three-bank market
$= 0$ otherwise

ε_{it} = disturbance term.

The one-bank dummy variable is excluded to avoid perfect multicollinearity. An analogous equation to (3) with d_{it}, for $t = -2$ and -1, as the dependent variable is the test for pre-entry differences in performance between one-, two- and three-bank markets.

III. Empirical Results

Pre-Entry Performance Comparisons in Unit Bank Entry Markets

The mean performance differences between the paired banks, with superscripts indicating statistical significance, for each year for all markets are presented in Table 1.[14] The results indicate that the paired banks in entry and non-entry markets are distinguishable in their performance in the pre-entry years.[15]

The results in Table 1 indicate that, in the pre-entry period, the sample banks in the entry markets had greater earnings on assets and greater capitalization than their paired controls. It is of interest to stockholders that the higher earnings and higher capitalization of the sample banks offset one another, resulting in no significant differences in the net rate of return on capital. The greater earnings on assets occur in spite of sample banks' investment of a smaller proportion of assets in loans, a larger proportion in U. S. government securities and a similar proportion in earning assets. In addition, the sample banks paid relatively lower rates of interest on time and savings deposit accounts and had a smaller proportion of

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[14] This table contains mean differences for the entry and post-entry years as well as for the two years before entry. The post-entry results are included for purposes of comparison with previous studies and to provide descriptive evidence on the impact of entry. Test results for the impact of entry are presented in Table 2.

[15] Only the results for the combined markets are discussed in the remaining analysis of pre-entry performance. The regression results for an equation analogous to (3), with d_{it} as the dependent variable, indicate that the competitive structure of the sample markets does not have a substantial impact on the paired banks relative performance in both pre-entry years. Only three aspects of performance are significantly different in one or the other of the different bank markets, which is not particularly strong evidence for keeping the market samples separate. These regression results are available upon request from the authors.

Table 1

Performance Differences Between Sample Banks in Unit Bank Entry Markets and Control Banks

Bank Performance Measures	Year Relative to Entry Year 0							
	-2	-1	0	1	2	3	4	5
Profit								
1) net cur. op. earnings/assets	0.003*	0.004*	0.003#	0.002	0.001	0.001	-0.000	-0.001
2) net cur. op. earnings/capital	0.010	0.018	0.006	-0.002	-0.010	-0.006	-0.015	-0.027
3) net income/assets	0.002#	0.002#	0.002#	0.001	0.001	0.001	0.001	-0.001
4) net income/capital	0.008	0.013	0.007	-0.006	0.004	-0.007	0.002	-0.018
Revenue								
5) tot. op. income/assets	0.001	0.004	0.000	0.001	0.001	0.000	-0.002	-0.003
6) dem. dep. serv. charge/tot. op. income	0.009	0.012#	0.009	0.004	0.003	0.001	0.001	0.001
7) int. & fees on loans/tot. op. income	-0.058#	-0.060#	-0.029	-0.029	-0.031	-0.037	-0.034	-0.040
8) int. U.S. Gov. sec./tot. op. income	0.026	0.033	0.013	0.019	0.023	0.011	0.001	0.005
9) tot. op. income/tot. op. expense	0.157*	0.168*	0.107#	0.053	0.009	0.018	0.005	0.017
Service Prices								
10) int. & fees on loans/ tot. loans	0.000	-0.002	0.000	0.001	0.002	0.001	0.001	0.001
11) dem. dep. serv. charge/dem. dep.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Expenses								
12) tot. op. expense/assets	-0.004#	-0.004*	-0.002	-0.001	0.000	-0.001	-0.001	-0.002
13) officers & emp. exp./total. op. exp.	0.052#	0.061*	0.034	0.017	0.008	0.011	0.009	0.003
14) dep. interest/tot. op. exp.	-0.082*	-0.097*	-0.084*	-0.032	-0.034	-0.028	-0.015	-0.003
15) office exp./tot. op. exp.	0.002	0.001	0.006	0.000	0.006	0.005	0.002	0.001
16) officer & emp. exp./assets	0.000	0.001	0.00	0.000	0.001	0.000	0.000	0.000
17) office exp./assets	-0.002	-0.004	0.000	-0.003	0.004	0.004	0.002	0.002
18) dep. interest/ T&S dep.	-0.003	-0.004#	-0.004*	0.003	0.003	0.003	-0.003	0.002
Assets								
19) assets	74.39	147.7	-84.16	-78.42	-110.2	-151.2	-79.2	4.9
20) liquid assets/assets	0.002	0.002	-0.009	-0.008	-0.005	-0.015	0.006	0.001
21) earning assets/assets	-0.002	-0.004	0.000	0.006	0.003	-0.007	0.004	0.000
22) loans/assets	-0.043+	-0.032	-0.016	-0.014	-0.027	-0.039	-0.045	-0.045
23) cash & due/assets	0.003	0.003	-0.004	-0.009	-0.007	0.001	-0.010	-0.002
24) U.S. securities/assets	0.026#	0.016+	0.003	0.004	0.013	0.019	0.026	0.008
25) state & loc. sec./assets	0.034	0.031	0.021	0.016	0.018	0.011	0.022	0.032
Loans								
26) real estate/loans	-0.012	-0.010	-0.020	-0.011	-0.024	-0.018	-0.003	-0.002
27) farm loans/loans	-0.059	-0.062+	-0.054	-0.048	-0.047	-0.053	-0.060	-0.068
28) com'l. & ind. loans/loans	0.006	0.013	0.034	0.031	0.050	0.043	0.035	0.038
29) consumer loans/loans	0.041	0.052	0.029	0.013	0.002	0.018	0.002	0.013
30) gross loan losses/loans	-0.001	-0.001	-0.001+	0.000	0.006	0.008	0.010	-0.011
31) net loan losses/loans	0.000	0.001	0.001+	0.000	0.006	0.008	0.010	-0.011
Deposits								
32) total deposits	7.419	-9.806	-58.47	-1.44	-186.8	-267.2	-123.4	59.32
33) dem. deposits/tot. deposits	0.100*	0.089*	0.059#	0.030	0.034	0.032	0.010	0.013
Capital								
34) capital/assets	0.011#	0.012#	0.013*	0.012*	0.011#	0.009+	0.006	0.006
35) capital/risk assets	0.019	0.020+	0.017	0.014	0.016	0.015	0.013	0.015
36) loan loss reserves/loans	0.002	0.002	0.001	0.002	0.003	0.005	0.006	0.007
Annual Percentage Change								
37) net cur. op. earnings		0.042	-0.242	-0.223	3.943	0.061	0.005	-0.332
38) assets		-0.003	-0.026	-0.007	-0.003	0.023	0.016	-0.028+
39) deposits		-0.006	-0.026	-0.004	-0.004	0.025	0.021	-0.033+

*Significant at the 0.01 level, #significant at the 0.05 level, +significant at the 0.10 level.

deposit funds in such interest-bearing accounts and, perhaps consequently, a greater proportion of operating expenses due to officer and employee expense.[16]

The performance of the sample and paired control banks in the pre-entry years is significantly different in several areas of importance. The greater earnings and capitalization, the smaller risk exposure, the smaller loan output, and the lower deposit interest rates indicate an opportunity for new entrants to sample markets to earn at least ordinary returns net of entry costs, which may well explain why entry occurred in the sample markets and not in the control markets.

Unit Bank Entry's Impact on Performance

Average performance changes at the sample banks attributable to entry, after controlling for the influence of other factors, are summarized in Table 2.[17] To a great extent, only those aspects of performance are reported for which entry caused statistically significant changes.

The evidence in Table 2 indicates many changes in performance as a result of entry, reflecting changes principally in profitability, deposit interest rates and the loan portfolio. In the year immediately after entry, the sample

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16 These pre-entry performance characteristics distinguishing banks in the entry markets agree with the profit, loan volume and capital adequacy results reported by Chandross. Fraser and Rose report conflicting results for earnings, profits, and deposit interest rates but similar results for the other performance measures replicated.

17 Only the combined market sample results are presented and discussed because other statistical results indicate that entry's impact did not vary significantly with the entry market's initial competitive structure. These results, from estimating equation (3) for each of the five post-entry years, test for entry's differential impact across the structurally homogeneous one-, and three-bank market samples. The results are presented in Appendix Table A2.

Table 2

Impact of Unit Bank Entry on Performance of Sample Banks

Performance Measures	Year After Entry 1	2	3	4	5
Profit					
1) net cur. op. earnings/assets	-0.0012	-0.0021#	-0.0021+	-0.0031*	-0.0040*
2) net cur. op. earnings/capital	-0.0120	-0.0199	-0.0163	-0.0250	-0.0371+
3) net income/assets	-0.0013	-0.0007	-0.0014	-0.0012	-0.0027#
4) net income/capital	-0.0132	-0.0037	-0.0141	-0.0061	-0.0259+
Revenue					
5) tot. op. income/assets	0.0012	0.0017+	0.0007	-0.0009	-0.0028+
6) dem. dep. serv. charge/tot. op. income	-0.0053	-0.0065	-0.0084+	-0.0084+	-0.0085+
7) int. & fees on loans/tot. op. income	0.0289+	0.0264	0.0208	0.0232	0.0173
9) tot. op. income/tot. op. expense	-0.1043#	-0.1480*	-0.1395*	-0.1619*	-0.1743*
Service Prices					
10) int. & fees on loans/tot. loans	0.0007	0.0019	0.0013	0.0011	-0.0006
Expenses					
12) tot. op. expense/assets	0.0023#	0.0038*	0.0027#	0.0023+	0.0013
13) officers & emp. exp./total op. exp.	-0.0354#	-0.0442#	-0.0416#	-0.0436#	-0.0497*
14) dep. interest/tot. op. exp.	0.0503*	0.0478#	0.0536*	0.0671*	0.0793*
18) dep. interest/T&S dep.	0.0034#	0.0034#	0.0039#	0.0036+	0.0027+
Assets					
22) loans/assets	0.0294+	0.0166	0.0043	-0.0016	-0.0021
23) cash & due/assets	-0.0110	-0.0093	-0.0013	-0.0121	-0.0050
Loans					
28) com'l. & ind. loans/loans	0.0253#	0.0439*	0.0373#	0.0293	0.0321
29) consumer loans/loans	-0.0287+	-0.0397+	-0.0232	-0.0390+	-0.0282
Deposits					
33) dem. deposits/tot. deposits	-0.0706*	-0.0658*	-0.0678*	-0.0900*	-0.0871*
Capital					
35) capital/risk assets	-0.0047	-0.0027	-0.0040	-0.0058	-0.0040

*Significant at the 0.01 level

#Significant at the 0.05 level

+Significant at the 0.10 level

banks appear to raise the interest rates paid on time and savings deposits and to allocate a greater percentage of assets to loans, particularly to business loans at the expense of consumer loans.

Higher deposit interest rates apparently result in a realignment of funds deposited with the sample banks such that within the same year a statistically significant increase occurs in the proportion of deposits in time and savings accounts.[18] As would be expected, these changes effect significant increases in operating expenses per asset dollar and in the proportion of expenses resulting from deposit interest payments and a significant reduction in the proportion of expenses attributed to officer and employee costs.

These changes take place with no time lag and persist throughout the five year post-entry period with the exception of the changes in the banks' asset composition and loan portfolio. The evidence over the remaining four years indicates that the increased loan to asset and business loan to total loan ratios and reduced consumer loan to total loan ratio are short-run transitory phenomena. After the first year, there is no consistent effect of entry on sample bank loan to asset ratios. After the first few years, there are no consistently significant effects on consumer and business lending relative to total lending, although the direction of the changes remain the same.

The culmination of these immediate, first-year effects of entry on the sample banks' performance is an immediate reduction in income relative to expenses and a second-year diminution of the net return on assets. Both reductions, indirectly attributable to the impact of entry, are of at least

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[18] The sample banks did not incur significant change in individual, partnership or corporate deposits or total deposits, thus indicating that time and savings deposits funds increased, while demand deposit funds declined, to effect the above significant change.

a five year duration. Moreover, the magnitude of the reductions continues to increase. By the fifth year, entry has had a significant negative impact on the banks' net income on assets or capital.[19]

The magnitude of these changes attributable to entry is substantial. For example, interest on time and savings deposits increased by about 27 basis points, an amount in excess of the current differential between what commercials and thrifts may pay on savings deposit accounts. The ratio of demand deposits to total deposits decreased by nearly nine percentage points by the fourth year, and the rate of return on capital fell by two and one-half percentage points by the fifth post-entry year.

Of further interest is that entry's impact apparently did not, at least in the immediate five years following entry, have an adverse impact on the viability of the sample banks. While the banks' earnings on assets and return on capital declined as a result of entry, they did not fall to levels significantly lower than their control banks, as shown in Table 1. Moreover, neither did their assets or deposits decline to significantly lower levels. These results, in addition to the relative stability across the post-entry levels of performance by the sample banks, further suggest that transitory price wars and ruinous

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[19] Due to the serious shortcomings and conflicting results of the two prior studies of the impact of de novo unit bank entry, only a comparison of the present study's results on entry's impact which are either in general agreement or conflict with both earlier studies' results is worthwhile.

In general agreement is the impact of entry on banks' allocation of funds to lending activities and on the proportion of funds on deposit in time and savings accounts, as opposed to checking accounts, at the banks. However, the present study's results indicate that the increased lending is a short-term, transitory effect of entry. In the longer intermediate period following entry, bank lending does not increase as a result of entry.

In conflict with the finding in both earlier studies that entry had no apparent impact on deposit interest rates is the present result indicating that entry effects increases in the deposit interest rates paid by banks in entry markets. The banks increased the rates paid from levels below those of their control banks in non-entry markets in the pre-entry period to comparable levels following entry.

competition did not take place during the five year post-entry period.

Pre-Entry Performance in Branch Bank Entry Markets

The mean differences in performance between the paired sample banks in branch entry markets and control banks in non-entry markets, and their statistical significance, are presented in Table 3. The pre-entry results indicate that, with few significant exceptions, the sample banks do not perform all that differently from their paired control banks. However, even the existing performance disparities are quite different from those reported in unit entry markets.

The results in Table 3 indicate that, during the two-year pre-entry period, the sample banks had smaller proportions of their assets in liquid form and of their loans in the business category and a larger proportion in consumer loans than their paired controls. The only other significant difference of interest is the sample banks' higher service charges on demand deposit accounts. These performance disparities did not affect the paired banks' relative earnings. Apparently, the different revenues and expenses expected to be associated with the different asset and loan compositions of the paired banks offset one another.

These pre-entry distinctions between the sample and control banks indicate that existing bank performance is not an explanation of why banks branch de novo into some markets and not others. Only the significantly greater charges on checking accounts and perhaps the smaller proportion of loans in business loans at the sample banks may be considered as positive signals to potential entrants. No other operating characteristics which distinguish the paired banks suggest encouragement to entry. Relative to the control banks, the sample banks' profit levels, deposit interest rates, operating costs, and asset structures are not significantly different.

Table 3

Performance Differences Between Sample Banks in Branch Bank Entry Markets and Control Banks

Bank Performance Measures	Year Relative to Entry Year 0							
	-2	-1	0	1	2	3	4	5
Profit								
1) Net cur. op. earnings/assets	.0014	.0029	.0024	.0005	-.0002	.0012	.0008	.0007
2) Net cur. op. earnings/capital	.0086	.0281	.0172	-.0061	-.0120	.0037	.0002	.0080
3) Net income/assets	.0015	.0018	.0031^{+}	.0011	-.0008	-.0003	-.0002	-.0007
4) Net income/capital	.0131	.0235	.0276^{+}	.0075	-.0170	-.0077	-.0076	-.0070
Revenue								
5) Tot. op. income/assets	-.0005	.0028	.0000	-.0014	-.0025	-.0025	-.0006	-.0015
6) Dem. dep. serv. charge/tot. op. income	.0241*	.0207*	.0142*	.0109$^{\#}$	.0031	.0089^{+}	-.0074	.0049
7) Int. & fees on loans/tot. op. income	-.0482	-.0490	-.0361	-.0457	-.0514	-.0354	-.0346	-.0156
8) Int. U.S. Gov. sec./tot. op. income	.0220	.0219	.0282	.0297	.0290	.0309	.0251	-.0189
9) Tot. op. income/tot. op. expense	.0520	.1000	.0745	.0220	.0021	.0379	.0157	.0119
Service Prices								
10) Int. & fees on loans/tot. loans	.0003	.0030	-.0005	-.0017	-.0005	-.0006	-.0004	-.0010
11) Dem. dep. serv. charge/dem. dep.	.0026$^{\#}$	.0021^{+}	.0015	.0011	-.0004	.0005	-.0024	.0005
Expenses								
12) Tot. op. expense/assets	-.0020	-.0001	-.0024	-.0019	-.0023	-.0036	-.0014	-.0022
13) Officers & emp. exp./total op. exp.	-.0158	-.0270	-.0279	-.0248	-.0260	-.0159	.0061	-.0037
14) Dep. interest/tot. op. exp.	-.0109	-.0097	-.0023	-.0043	-.0072	-.0200	-.0487	-.0085
15) Office exp./tot. op. exp.	.0096	.0154	.0250*	.0217*	.0139^{+}	.0080	.0076	.0050
16) Officers & emp. exp./assets	-.0018	-.0018	-.0024	-.0021	-.0022	-.0023	-.0006	-.0010
17) Office exp./assets	.0003	.0006	.0010*	.0008^{+}	.0004	.0001	.0003	.0001
18) Dep. interest/T&S dep.	.0009	.0030	.0014	.0022	.0019	-.0006	-.0014	.0014
Assets								
19) Assets	-928.3	-584.1^{+}	-666.8^{+}	-374.4	-34.8	-256.3	-379.2	-1049.3
20) Liquid assets/assets	-.0199	-.0233$^{\#}$	-.0044	-.0185	.0182	-.0096	.0017	.0276
21) Earning assets/assets	.0120	.0180	.0067	.0225	.0068	.0073	.0019	-.0035
22) Loans/assets	-.0439	-.0378	-.0156	-.0572	-.0583	-.0383	-.0361	-.0027
23) Cash & due/assets	-.0178	-.0227$^{\#}$	-.0105	-.0250	-.0072	-.0077	-.0012	.0034
24) U.S. securities/assets	.0588	.0291	.0095	.0355	.0388	.0347	.0239	-.0041
25) State & loc. sec./assets	.0213	.0302	.0348	.0164	.0088	.0142	.0070	-.0051
Loans								
26) Real estate/loans	.0642	.0543	.0537	.0614	.0530	.0326	.0481	.0541
27) Farm loans/loans	.0053	-.0140	-.0064	.0142	.0096	-.0019	.0013	-.0141
28) Com'l. & ind. loans/loans	-.0769$^{\#}$	-.0814$^{\#}$	-.0776^{+}	-.0852$^{\#}$	-.0795^{+}	-.0606	-.0672	-.0695
29) Consumer loans/loans	.0649*	.0489	.0502^{+}	.0536^{+}	.0471	.0436	.0286	.0218
30) Gross loan losses/loans	.0013	.0009	.0014	.0013	.0013	.0008	.0019	-.0014
31) Net loan losses/loans	.0010	.0006	.0008	.0014	.0013	.0008	.0019	-.0014
Deposits								
32) Total deposits	-915.8	-590.7^{+}	-707.0^{+}	-416.6	-76.9	-279.6	-760.0	-1198.5
33) Dem. deposits/tot. deposits	.0406	.0444	.0203	.0370	.0524	.0401	.0377	.0253
Capital								
34) Capital/assets	.0025	.0016	.0061	.0042	.0008	.0046	.0030	.0022
35) Capital/risk assets	.0061	.0017	.0032	.0155	.0082	.0123	.0075	.0013
36) Loan loss reserves/loans	.0061	.0069	.0082^{+}	.0040	.0019	.0026	.0023	.0001
Annual Percentage Change								
37) Net cur. op. earnings	.0000	.0000	.0004	.0005	.0619	.0009	.0029	.0008
38) Assets	.0000	.0241	.0375	.0216	-.1027	.0004	.0005	.0018
39) Deposits	.0000	.0276	.0417	.0203	-.2095	.0009	.0030	.0008

*Significant at the 0.01 level, $^{\#}$significant at 0.05 level, $^{+}$significant at the 0.10 level.

That bank performance in the sample markets does not offer any substantial explanation for de novo branch bank entry, but does for unit bank entry, may be at least in part an indirect result of the different branch banking provisions of the states in each sample. For if, as previously suggested, the threat of entry--potential competition--is greater in less restrictive branching states and a significant deterrent to market exploitation, the comparable performance of the sample and control banks in the less restrictive states and the divergent performance in the restrictive states may be attributable to the different branching provisions.[20]

Branch Bank Entry's Impact on Performance

Average performance changes at the sample banks which are attributable to branch bank entry, after controlling for the influence of other factors, are summarized in Table 4. The evidence indicates that branch bank entry effected few changes in the sample banks' performance over the five-year post-entry period.

The principal change is a reduction in checking account service charges. A significant reduction occurred in the first post-entry year and continued until the fifth year, at which time entry's impact on service charges ceased. These lower charges apparently are responsible for the significant, continuing reduction in the banks' income generated by their checking account services.

The only other effect of entry is a gradual decline in the proportion of real estate loans at the sample banks. This change becomes statistically

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[20] While nothing more than an indication, because factors other than branching provisions that may influence bank performance are not controlled, a comparison of the performance of the unit entry and the branch entry bank samples shows that, on average, the sample banks in the unit entry markets have greater profits, lower deposit interest rates, higher loan interest rates, lower expenses, greater liquidity, smaller proportions of earning assets, greater capitalization, and lower loan losses than the sample banks in the branch entry markets.

-1/-

Table 4

Impact of Branch Bank Entry on Performance of Sample Banks

Performance Measures	Year After Entry 1	2	3	4	5
Profit					
1) net cur. op. earnings/assets	-.0011	-.0018	-.0003	-.0007	-.0001
2) net cur. op. earnings/capital	-.0160	-.0224	-.0053	-.0091	.0043
3) net income/assets	-.0005	-.0025	-.0020	-.0018	-.0016
4) net income/capital	-.0061	-.0327	-.0226	-.0225	-.0144
Revenue					
5) tot. op. income/asset	-.0010	-.0021	-.0021	-.0001	-.0004
6) dem. dep. serv. charges/tot. op. income	-.0144+	-.0229*	-.0165*	-.0343#	-.0197#
7) int. & fees on loans/tot. op. income	.0027	-.0034	.0139	.0148	.0392
9) tot. op. income/tot. op. expense	-.0326	-.0543	-.0153	-.0394	-.0241
Service Prices					
10) int. & fees on loans/tot. loans	-.0022	-.0009	-.0010	-.0008	-.0010
11) dem. dep. serv. charge/dem. dep.	-.0013+	-.0028#	-.0018*	-.0045+	-.0015
Expenses					
12) tot. op. expense/assets	.0001	-.0003	-.0018	.0006	-.0003
13) officers & emp. exp./total op. exp.	-.0098	-.0111	-.0001	0238	.0153
14) dep. interest/tot. op. exp.	0092	.0040	-.0099	-.0411	.0045
18) dep. interest/T&S dep.	.0013	.0011	-.0017	-.0025	.0009
Assets					
22) loans/assets	-.0144	-.0156	.0060	.0086	.0512
23) cash & due/assets	-.0078	.0115	.0110	.0181	.0198
Loans					
26) real estate/loans	-.0031	-.0122	-.0344	-.0176	-.0200+
28) com'l. & ind. loans/loans	-.0090	-.0028	.0178	0106	-.0006
29) consumer loans/loans	-.0123	-.0193	-.0231	-.9394	-0.0332
Deposits					
33) dem. deposits/tot. deposits	-.0039	.0128	-.0005	-.0031	-.0143
Capital					
35) capital/risk assets	.0103	0.0023	.0067	.0016	-.0084

significant in the fifth year.

As in the unit bank entry case, the evidence in Table 4 does not suggest that branch bank entry has an adverse impact on the sample banks' viability. The banks' return on assets and on capital as well as their assets and deposits did not decline to levels significantly lower than their control banks, at least not over the immediate five years following entry. Furthermore, there is no evidence that suggests that destructive competition occurred in the short-run.

Branch bank entry's negligible impact in conjunction with the comparable pre-entry performance of the paired sample and control banks has meaning for the competitive intensity of the markets. These results suggest that the pre-entry competition in both the sample and control markets was at such a level as to, one, eliminate on a broad front the excessive exploitation expected in some of the monopoly and duopoly markets (and evidenced in the unit bank entry markets), and two, be unaffected by the intrusion of an additional rival. Whether the banks' comparable performance and negligible impact of branch entry are the direct outgrowth of greater actual or potential competition is uncertain.[21] However, that it may be the result of potential competition is consonant with the branch entry markets' location in the least restrictive branch banking states, where presumably the threat of entry and thus potential competition are the greatest, ceteris paribus.

IV. Summary and Conclusions

In sum, the evidence suggests several conclusions. One, de novo unit bank entry into rural, nonmetropolitan, monopoly or oligopoly markets in restrictive branching states has a significant broad impact on the profitability

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[21] This evidence is consistent with Jacobs' (1971) conclusion that, with respect to small businesses, unrestricted branch banking is of greater benefit than decreased concentration.

and deposit interest rate policies of existing banks. This impact is both immediate and continuing over the five post-entry years. The increase in deposit interest rates is salutary from the standpoint of consumers of financial services. Moreover, the decline in profitability does not appear to have had a negative impact on the viability of existing banks. Two, de novo branch bank entry into such markets in less restrictive branching states has a negligible impact. Three, the differential impact of branch versus unit bank entry on performance may be the result of varying degrees of restrictiveness of state branch banking provisions. This may be the case because less restrictive branching provisions were already promoting a more desirable level of bank performance.

One implication for public policy from these conclusions is that consideration be given to reducing the barriers to branch bank entry at least into nonmetropolitan markets. Secondly, the results suggest that, in evaluating de novo charter and branch applications, bank regulatory authorities continue to consider the performance of existing banks in the markets relative to that of comparable banks in non-entry markets.

Any further policy recommendations must be made with caution since the results apply only to rural, nonmetropolitan markets, and only to commercial bank entry. In particular, it is not clear whether entry by bank holding companies or entry by existing thrift institutions into product markets heretofore traditionally and legally reserved for commercial banks would have a significant impact.

Appendix Table A1

Variable Definitions

Report of Income & Dividends Items	
net curr. op. earnings	net current operating earnings before taxes, securities gains or losses, and provision for loan losses.*
net income	net income after taxes, securities gains or losses, provision for loan losses, and extraordinary items.
tot. op. income	total current operating revenue.
dem. dep. serv. charge	service charges on deposit accounts.
int. & fees on loans	interest, discount and fees on loans.
int. U.S. Gov. sec.	interest and dividends on U.S. Government obligations.*
tot. op. expense	total current operating expense minus the provision for loan losses.*
officers & emp. exp.	officers and employee salaries, wages & benefits.*
dep. interest	interest on time and savings deposits.
office exp.	net occupancy expense of bank premises plus furniture and equipment expense.
gross loan losses	total loan charge-offs.*
net loan losses	loan charge-offs minus recoveries.*
Report of Condition Items	
assets	total assets
capital	total capital accounts
loans	total loans & discounts
dem. dep.	total demand deposits
T & S dep.	total time & savings deposits
earning assets	all securities, Federal funds sold and loans
cash & due	cash, balances with other banks, & cash items in collection process
U.S. securities	U.S. Government obligations and guaranteed obligations
liquid assets	cash & due, U.S. securities and net Federal funds sold and purchased
State & local sec.	obligations of States and political subdivisions
real estate loans	all loans secured primarily by real estate
farm loans	secured & unsecured loans to farmers except those secured by real estate
coml. & ind. loans	all loans for commercial & industrial purposes except those secured by real estate
consumer loans	loans to individuals for household, family, and other personal expenditures
total deposits	total demand and time & savings deposits
risk assets	total assets less cash & due, U.S. securities and Federal agency securities
loan loss reserves	reserves for bad debt losses and other valuation reserves on loans

*Items affected by changes in the reporting forms and tax laws in 1969 and for which the data are adjusted to obtain consistent series over time.

Appendix Table A2

Summary of Regression Analysis of Sample and Control Bank Changes in Performance Across One-, Two-, and Three Bank Markets

(Dependent Variable = dd_{it})

Performance Measures	Year After Entry 1 β	1 γ	2 β	2 γ	3 β	3 γ	4 β	4 γ	5 β	5 γ
Profit										
1) net cur. op. earnings/assets				+						
2) net cur. op. earnings/capital				+						
3) net income/assets										
4) net income/capital										
Revenue										
6) dem. dep. serv. charge/tot. op. income										
7) int. & fees on loans/tot. op. income										
9) tot. op. income/tot. op. expense			-	-						-
Service Prices										
10) int. & fees on loans/tot. loans										
Expenses										
12) tot. op. expense/assets										
13) officers & emp. exp./total op. exp.										
14) dep. interest/tot. op. exp.										
18) dep. interest/T&S dep.			+	+						
Assets										
22) loans/assets										+
23) cash & due/assets						+				
Loans										
28) com'l. & ind. loans/loans	+									
29) consumer loans/loans	-		-		-		-		-	
Deposits										
33) dem. deposits/tot. deposits	-									
Capital										
35) capital/risk assets										

\+ Coefficient is positive and significant at the 0.10 level

\- Coefficient is negative and significant at the 0.10 level

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