

BRANCH VERSUS UNIT BANKING:

A

SURVEY OF THE LITERATURE

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I. Introduction

The branch versus unit banking controversy is not a recent phenomenon, but instead it extends back to the origins of this country. Even before the signing of the Constitution, there was a basic disagreement between the Jeffersonians who envisaged the United States as being primarily an agrarian economy with only a loose federal government and the Hamiltonians who foresaw the United States as being an industrial economy with a strong central government. As part of the Jefferson schema, a banking structure composed of many small banks was thought to be best for the needs of agriculture while Hamilton and his followers favored a system in which a few large banks would furnish the vast amounts of capital needed for industrialization.

Over the years the branch versus unit banking controversy has risen and fallen in intensity with changes in the political climate. Unfortunately, however, until the past decade or so the question was debated primarily on its emotional appeal and very little systematic work was undertaken to compare the relative operations and performance characteristics of different banking structures.

The purpose of this paper is to report the results obtained from recent empirical studies which have explored various facets of the problem. The review will be presented in three categories: (1) banking offices and branch regulation; (2) branching, profitability, and concentration; (3) branching and performance.

II. Banking offices and regulation

A number of studies have considered the effect that branching regulation has on entry into commercial banking and on the number of banking offices. The evidence is fairly clear that bank entry, which is retarded in the aggregate by regulation, is even more restricted in unit banking states, and that there are fewer banking offices in unit banking areas.

Schweiger and McGee, in their study of "Chicago Banking," divided Chicago and San Francisco into mile squares and compared the number of banks per square. They chose these two cities because of their similar population densities and prevalence of large banks. They found that in 1959 approximately 41 percent of the San Francisco squares had two or more banking firms represented, and 4 percent of the squares had five or more banking firms established. In Chicago, however, approximately 6 percent of the squares had two or more banks, and about one-half of 1 percent of the squares were represented by five or more banking firms.¹ The implication of these findings is that banking facilities are more numerous and conveniently located in branch banking areas than in unit banking areas.

Donald Jacobs, using a regression analysis technique,² attempted to determine whether branching regulation influenced entry or the number of banking offices in a given state.³ The results of his study showed that (1) in 1963 the number of banks in branch banking states was significantly less than in unit banking states, and (2) between 1946 and 1963 fewer new banks were established in statewide branching states, and (3) the absolute increase in the number of banking offices was significantly larger in branch banking states during the period 1946 and 1963, but there was no significant difference in the number of banking offices in existence during 1963.

Jacobs states that these results suggest two conclusions. First, branching restrictions do not affect the number of banking offices. Instead, population and income variables tend to be more important. Second, branch banking

¹Irving Schweiger and John S. McGee, "Chicago Banking," The Journal of Business of the University of Chicago, XXXIV (July, 1961), p. 351.

²Regression analysis is a statistical technique which can be used to show the mathematical relationship between sets of data.

³Donald Jacobs, "The Interaction Effects of Restrictions on Branching and Other Bank Regulations," Journal of Finance: Papers and Proceedings of the Twenty-third Annual Meeting of the American Finance Association, XX (May, 1965), pp. 532-548.

states were underbanked in 1946 because of strong barriers to entry during the Great Depression and during World War II, and that during the period of the study these states were catching up to unit banking states.

Other studies show that after considering the economic factors which influence the number of banks, more offices exist in branch banking states. Using the March, 1961 issue of Polk's Bank Directory and the 1960 census, Paul Horvitz and Bernard Shull compared the number of commercial banking offices with the number of people in different nonmetropolitan areas. In the case of smaller nonmetropolitan communities (under 5,000 population) there were more banking offices per community in unit banking states than in statewide branching states. In communities of more than 5,000 people there were more banking offices in statewide branching states. Using the technique of regression analysis they found that population was a significant determinant of the number of banking offices, but that branch law was only of borderline significance.¹ Because they felt that this result could be due to regional differences, they then separated the United States into seven geographic areas and compared nonmetropolitan communities in unit and branch banking states. They concluded:

The finding that the apparent advantage in number of offices of small unit banking communities disappears when regional comparisons are made, while the advantage of large branch banking communities is maintained, exactly parallels our finding reported previously with respect to numbers of competing banks.

We would conclude that branch banking is likely to result in somewhat greater convenience of banking facilities in moderate and large sized nonmetropolitan areas. The number of additional facilities on average is small in all but the largest communities. The difference in the very small communities is negligible.²

In addition to affecting the number of banking offices, entry regulation has a differential effect on the rate of new entry into commercial banking. Sam

¹Paul M. Horvitz and Bernard Shull, "The Impact of Branch Banking on Bank Performance," National Banking Review (March, 1964), reprinted in Studies in Banking Competition and the Banking Structure (Washington, D.C., Comptroller of the Currency, 1966), p. 146.

²Ibid., p. 147.

Peltzman discovered that because of entry restrictions inherent in the Banking Act of 1935, bank entry (defined as the formation of a new bank) has been about 50 percent less than it would have been without entry regulation.¹ Entry restrictions, however, have not been uniform among states. Rod Pakonen found that entry (defined as the formation of a new banking office) in unit banking states was reduced 70 percent because of the Banking Act of 1935 while entry in limited branching and statewide branching states was reduced by 50 percent and 40 percent, respectively.²

III. Branching, profitability, and concentration.

The relationship of bank size to profits is fairly well established. All of the studies encountered stated that profit rates rise as the bank size increases. While most studies tended to make more general statements, Schweiger and McGee found that ". . . Banks in a given size class earned on average about 1.73 percentage points more (net current earnings) on capital than banks in the next smaller size class."^{3,4}

The relationship of bank organization or of banking concentration⁵ to profits is less clear. When considering banking concentration, two studies found a direct relationship between concentration and profits. Franklin Edwards

¹Sam Peltzman, "Entry in Commercial Banking," Journal of Law and Economics, VIII (October, 1965), p. 11-50.

²Richard Rodney Pakonen, "The Differential Effect of Branch Law Regulation on Commercial Bank Entry," (Unpublished Ph.D. dissertation, Department of Economics, Washington State University, 1969).

³Schweiger and McGee, p. 324.

⁴This study utilized information taken directly from income and dividend reports of Federal Reserve Member banks in 1959. No attempt was made to adjust these reports for differences in accounting procedures.

⁵A concentration ratio is usually used to reflect the size distribution of firms in an industry. A familiar form of this ratio is the proportion of business accounted for by the largest two, three, or four firms in the market. In banking, it is applied chiefly as the percentage of total deposits held by the largest two or three banks.

compared the profitability of commercial banks with banking concentration in thirty-six metropolitan areas. He concluded that in 1962, "From the lowest to highest concentration group there is a difference of 16 basis points, which amounts to a 13 percent rise in earnings."¹ He did consider the possibility that the differences in earnings could have occurred because of "other" factors. To adjust for this, he reasoned that bank profitability should increase as loan rates rise and rates on time and saving deposits fall. Using a regression analysis Edwards found that increases in the average loan rate of 25 basis points increased earnings by 5 basis points. Thus, he concluded that profitability could be related to concentration by way of the effect that concentration has on loan rates and on rates given on time and savings deposits. Of more interest to this paper, however, is the fact that Edwards showed that the relation of concentration to profits was stronger after all branching areas were excluded. This would imply that, at least in the range of existing degrees of concentration, concentration resulting from branching is not an important determinant of profitability.

David C. Motter concluded in a similar fashion that the number of competitors has an effect on a bank's profits. Using national banks chartered in 1962 and comparing profit rates in 1963 and 1964 he subdivided the sample into two groups: one group included those banks with zero or one commercial bank competitor within a certain radius; the other group consisted of those banks with two or more commercial bank competitors. Motter found that those banks "with fewer nearby competitors consistently enjoyed higher rates of return than those with more competitors"² This same pattern held even when the banks were

¹ Franklin R. Edwards, "The Banking Competition Controversy," National Banking Review (September, 1965), reprinted in Studies in Banking Competition and the Banking Structure (Washington, D.C.: Comptroller of the Currency, 1966), p. 326.

² David C. Motter, "Bank Formation and the Public Interest," The National Banking Review (March, 1965), reprinted in Studies in Banking Competition and the Banking Structure (Washington, D.C.: Comptroller of the Currency, 1966), p. 268.

assorted into groups according to branch law, and if they were located within or outside an SMSA.

There does not seem to be a predominant finding regarding the relationship between banking organization and profitability. Franklin Edwards derived a table showing the relationship of profitability and concentration for the 36 metropolitan areas in his study. Table I shows that with the exception of the

Table I
Relationship Between Bank Earnings and
Concentration

Concentration	Average earnings rate	
	All areas	Excluding statewide branching areas
Low: Range: 25-45%	1.23%	1.23%
Medium: Range: 48-65%	1.33	1.36
High: Range: 66-89%	1.39	1.41

low concentration areas the average earnings rate is lower than when statewide branching areas are excluded.¹ This implies that at any given level of concentration, rates of return for commercial banks in statewide branching areas are lower than in unit banking areas.

On the other hand, Horvitz and Shull found no consistent pattern of bank earnings during 1962 and 1963 in the 31 statewide branching or unit banking states. In 1962, banks in unit banking states earned a higher average rate of profit both as a percentage of capital accounts and of total assets. In 1963,

¹Edwards, p. 326.

however, the pattern was turned around and banks in branch banking states earned higher rates of return to capital and assets.¹

Horvitz and Shull then divided commercial banks of these 31 states into three classifications. They found that branch banks tended to have higher rates of return to both capital and assets than did unit banks whether they were located in unit banking states or branch banking states. Unit banks in branch banking states tended to have the lowest rates of return. Thus, they concluded that perhaps the average earnings ratio for all banks in branch banking states was pulled down by the unit banks.

Schweiger and McGee found that branch banks tend to have lower rates of return than unit banks of the same size.² Through the use of regression analysis they found that branch banks earned 1.59 percentage points less on capital than did unit banks of the same size, and that "a branch bank would have to be about \$6.6 million larger than a unit bank to enjoy an equal earnings rate."³ Later, they stated that branch banks are typically larger than unit banks and, believing that unit costs decline as the size of bank increases, Schweiger and McGee concluded that, on the whole, due to increased efficiencies branch banks tend to earn higher rates of return.

A number of points emerge from the preceding discussion. First, large banks tend to be more profitable than small banks. Second, higher degrees of the concentration of banking deposits tend to lead to higher bank profits, although this relationship is not as apparent in branch banking areas. Third, branch banks tend to have lower rates of return than unit banks of the same size. Because branch banks are usually larger than unit banks, however, average rates of return for branch banks tend to be higher than for unit banks.

¹Horvitz and Shull, p. 163.

²Schweiger and McGee, p. 332.

³Ibid., p. 326.

IV. Branching and performance

A. Output -- There is general agreement that branch banks tend to utilize their capacity more fully than do unit banks.

David Alhadeff, in one of the earliest studies designed to compare output ratios of branch and unit banks, found that branch banks tended to utilize their capacity more fully and consistently had higher ratios of loans and investments to total assets than unit banks. He concluded that:

Branch banks as a group have a larger production potential with given resources than unit banks. Furthermore, although the smallest of the branch banks is smaller in size than some of the large unit banks in California, the former generally has a higher load factor than the largest category of unit banks.¹

This conclusion was supported by David C. Motter. In his study of newly chartered banks, Motter found that by 1964 those banks that were chartered in branch banking states in 1962 had a median loan-deposit ratio of 72.9 percent while the banks in unit banking states had a median loan-deposit ratio of 67.3 percent.²

Schweiger and McGee found that branch banks had higher loan-to-asset ratio, but to further test this finding they subdivided their sample of banks according to community size and deposit size. They concluded:

"The same general pattern was found to prevail in this more detailed classification. For each size of bank within each type of community, branch banks averaged a larger percentage of assets in loans than did unit banks with one exception where the two showed the same average. Again, relative differences in lending ratios of unit and branch banks were greatest in the small and medium sizes of banks."³

¹David Alhadeff, Monopoly and Competition in Banking (Berkeley: University of California Press, 1954), p. 57.

²David C. Motter, p. 273.

³Schweiger and McGee, pp. 219-220.

Franklin Edwards made a similar conclusion in his 1962 study of commercial banking behavior in selected metropolitan areas. In addition, he found that not only did branch banks tend to have higher loan-deposit ratios than unit banks, but that unit banks in branch market areas had higher loan-deposit ratios for each size class than unit banks in unit banking markets.¹

B. Loan Charges -- Inconclusive results have been reached in studies concerning the relationship of interest rates on loans with bank organization.

Franklin Edwards, in his study of 31 metropolitan areas, could find no significant difference between banks in unit banking areas and banks in branching areas. After making a further breakdown, he found that branch banks charged higher average loan rates than did unit banks in either branch market areas or unit banking areas while unit banks in branch market areas charged the lowest rates.² Thus, he concluded that differentials in loan rates were not observed because unit banks in branching areas pulled the average down. He did concede, however, that the higher loan rates charged by branch banks could have been due to differences in loan portfolios, for branch banks tend to have higher percentages of their loan portfolios in consumer loans which are risky but high yielding.

Horvitz and Shull found that average loan rates³ were higher in branching areas than unit banking areas in both 1962 and 1963 by 18 and 20 basis points, respectively.⁴ A further breakdown did not alter the results. Branch banks and unit banks in branch banking states had higher interest rates on loans than

¹Franklin Edwards, p. 319.

²Franklin Edwards, p. 315.

³In this study, average loan rates were obtained by dividing Interest on Loans by Total Loans Outstanding. Consequently, the results could be biased because of differences in loan portfolios.

⁴Horvitz and Shull, p. 163.

did unit banks in unit banking states. Moreover, branch banks and unit banks in banks in branch banking states had roughly comparable rates of interest on loans.

Other tests have been conducted to determine if bank organization affects loan rates on specific types of loans. The two most rigorous tests were performed by Theodore Flechsig and by Franklin Edwards. Franklin Edwards, using the loan rates reported in the 1955 and 1957 Business Loan Surveys conducted by the Federal Reserve System, concluded that bank organization did not have a significant effect on loan rates.¹

Theodore Flechsig found:

"On a simple correlation basis, branch banks appeared to charge higher rates on small loans than did unit banks. However, this apparent relationship did not appear when account was taken of regional differences and of loan-deposit ratios, which tend to be higher for branch banks."²

C. Rates paid for time and savings deposits -- There are conflicting results on the question whether branch banks or unit banks pay higher rates of interest on time and savings deposits. Franklin Edwards found that banks in branch market areas tended to pay lower rates of interest on time and savings deposits. In all size classes except the very smallest and the very largest, branch market areas had, as a percentage of time and savings deposits, lower average interest payments. When his sample of banks was further broken down into branch banks, unit banks in branching areas, and unit banks in unit banking areas, branch banks in almost all size classes tended to pay the lowest interest.³

¹Franklin Edwards, Concentration and Competition in Commercial Banking: A Statistical Study (Boston: Federal Reserve Bank of Boston, 1964), p. 72.

²Theodore G. Flechsig, Banking Market Structure and Performance in Metropolitan Areas: A Statistical Study of Factors Affecting Rates on Bank Loans (Washington, D.C.: Board of Governors of the Federal Reserve System, 1965), p. 40.

³Franklin Edwards, "The Banking Competition Controversy," pp. 316-319.

Robert Weintraub and Paul Jessup found similar results in their mail survey of commercial banks. Branch banks paid a lower mean interest rate than did unit banks in the same size class for all size classes except the smallest and largest. For savings held longer than a year, branch banks paid a lower rate of interest than unit banks in all size classes.¹

Paul Horvitz and Bernard Shull discovered that for each size class effective interest rates on time and savings deposits tended to be lower for branch banks than for unit banks. When size of bank was not considered, however, the average rate of interest in 1962 and 1963 tended to be higher for branch banking states. This seemingly contradictory result occurred because of the large number of unit banks with less than \$25 million in assets. Because interest rates rose as the size of unit banks increased, but a similar relationship was not evident for branch banks, the lower interest rate of the large number of unit banks tended to pull the average down.²

Contradicting this result, however, Horvitz and Shull, attempting to determine if operating policies changed after merger, sent questionnaires to all national banks that had acquired other banks through merger in 1962. Of the 63 banks that replied to the questionnaire, more than one-third of the acquiring banks paid different rates of interest on time and savings deposits than did the acquired bank. The acquired bank's rate was changed in 26 cases. This rate was raised in 23 cases and lowered in only three.³ These results were comparable to the study of bank mergers conducted by the New York State Banking Department.

¹Robert Weintraub and Paul Jessup, A Study of Selected Banking Services by Bank Size, Structure, and Location. Subcommittee on Domestic Finance, committee on Banking and Currency, House of Representatives, 88th Congress, 2nd Session, November 17, 1964, p. 29.

²Horvitz and Shull, pp. 162-167.

³Ibid., p. 155.

In the New York study interest rates on savings deposits were increased 51 times and lowered in seven cases.¹

From the preceding pages, it seems safe to say that branch banks tend to devote more of their resources to loans and investments than do unit banks. Whether or not branch banks charge higher rates for loans is not clear. Those studies that utilized more rigorous statistical tests reported no significant difference in loan rates. Those studies that tended to use more aggregative data found that the rates of return on loans outstanding were higher for branch banks than for unit banks; these studies, however, did not account for the effects that differences in loan-deposit ratios or loan portfolios could have on rates of return. Although empirical studies are not definitive, the more sophisticated studies suggest that unit banks pay higher rates for time and savings deposits than do branch banks.

V. Summary

Within the past fifteen years the branch versus unit banking question has been the subject of a large number of empirical studies. The results of these studies generally point to the following conclusions.

(1) Because of legal restrictions affecting entry into commercial banking, the number of new banking offices established each year in the United States is about 50 percent lower than it would be otherwise. Entry is more restricted in unit banking states than in limited branching or statewide branching states.

(2) Large banks, because of increased operating efficiencies, earn

¹Branch Banking, Bank Mergers, and the Public Interest (New York: New York State Banking Department, 1964), p. 175.

higher rates of return than do smaller banks. Branch banks earn less profits than do unit banks of the same deposit size. Branch banks, however, tend to be larger than unit banks and as a result tend to enjoy higher profit rates.

(3) Branch banks tend to commit more of their resources to loans and investments than do unit banks, and tend to keep fewer idle reserves.

(4) The effect that banking organization has on loan interest rates is not well understood. Some studies found that branch banks charge higher interest rates on loans while other studies reported opposite conclusions. Those studies that used more rigorous statistical tests concluded that bank organization did have a significant effect on loan rates.

(5) As a group, branch banks tend to pay lower interest rates on time and savings deposits than do unit banks.