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The problem of clearly understanding the market structure of banking in North Carolina is addressed in "The Banking Industry in North Carolina, 1955-1975: A Discussion of Its Changing Structure." For clarity, the problem is divided into three parts: describing the regulatory structure and how its several parts have effected the banking market; establishing that North Carolina's banking market is strongly oligopolistic; and examining this structural change and the problems associated with the effects of concentration of market power.

The procedure involved various methods of investigation. Reviewing the regulatory structure established the patterns these agencies exhibited during the past two decades that facilitated market concentration. Data collected from these agencies illustrated the facts of market concentration and the trends of structural change. Finally, a review of the literature of the effects of concentration presents the different problems created by market power.

The result of this thesis is a view of how North Carolina's banking market became oligopolistic. Also, the necessity for a change in the attitude of the regulatory agencies becomes apparent. What accompanies these

realizations is an awareness that these agencies must turn policies from the promotion of banking growth to the service of consumer welfare in order to correct the trend of market dominance established in North Carolina.

W. H. HARRIS

A Thesis Submitted to
The Faculty of the Graduate School at
The University of North Carolina at Raleigh
in Partial Fulfillment
of the Requirements for the Degree
Master of Arts

1974

W. H. HARRIS

THE BANKING INDUSTRY IN NORTH CAROLINA, 1955-1975:
A DISCUSSION OF ITS CHANGING STRUCTURE

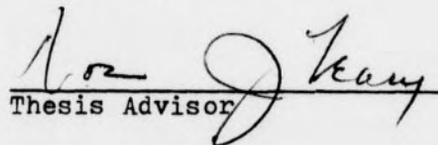
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APPROVAL PAGE

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CHAPTER I
INTRODUCTION

The past two decades have witnessed a large amount of bank expansion in North Carolina. Passage of several federal and state regulations facilitated the predominant methods of bank expansion. The industry structure that emerged in North Carolina during these decades of expansion exhibits oligopolistic properties. The effect of this oligopolistic market can most easily be understood by examining the inherent trade-offs between the promotion of competition and of productive efficiency in the banking market.

Bank expansion, whether accomplished by merger, branching, or affiliation, creates new competitors in markets that may have previously been controlled by one or a few banks. On the other hand, expansion can promote a few dominant banks with the market power to unduly influence the decision making process of borrowers and other lenders. The threat of increased entry stimulates market participants to improve their performance and the quality of services they offer. These two conflicting effects of bank expansion require delicate balancing to protect consumer welfare and to provide optimal structuring of the banking industry.

The effect of concentration, market power, theoretically distorts market performance. Establishing this empirically requires analysis procedures beyond the scope of this thesis and the state of the art to date. However, clear conclusions can be drawn from the trends of the market structure and their effect on competition, efficiency and consumer welfare gains.

The purpose of this paper is twofold: first to review the regulatory statutes and present trends in the industry structure of banking in North Carolina. Second, to discuss the effects of concentration with respect to competition, efficiency and consumer welfare. The method of investigation examines first the agencies and legislation pertinent to the issue at hand. Second, measures of structural change are examined and, finally, theories of the effects of concentration are presented as they pertain to the North Carolina market. The conclusion to the study will suggest policy implications for the future.

Comparisons of the North Carolina market structure with the rest of the nation as well as fifth district banks will be most useful for evaluation in this study. The Fifth Federal Reserve District includes Washington, D.C., Virginia, West Virginia, Maryland, North Carolina and South Carolina.

CHAPTER II
REGULATORY STRUCTURE

The United States has a confusing system of bank regulation growing out of the Constitutional protection of intrastate commerce from federal regulation on the one hand and on the other, the need for a central banking authority. Each of the fifty states has absolute control over all the state banks that elect not to be members of the Federal Reserve System or the Federal Deposit Insurance Corporation. These nonmember and noninsured state banks make up only 1.5% of all banks. The other 98.5% of all banks are subject to the overlapping jurisdiction of three federal agencies as well as the state agency.¹ The Comptroller of the Currency has jurisdiction over all national banks. The Federal Reserve System controls all national banks and any electing state banks. The Federal Deposit Insurance Corporation has a say in the affairs of all members of the Federal Reserve and any state banks choosing to be insured. Table 1 shows a breakdown of these four bank groups.

¹Federal Deposit Insurance Corporation, 1969 Annual Report (1970), p. 36.

TABLE 1
NUMBER AND DEPOSITS OF COMMERCIAL BANKS BY CATEGORY
DECEMBER 31, 1969

	Number	%	Deposits	%
Insured Banks				
Members of Federal Reserve System				
National	4,669	34.1%	\$257,843,791,000	58.6%
State	<u>1,201</u>	<u>8.8%</u>	<u>94,444,591,000</u>	<u>21.4%</u>
Total Fed Members	5,870	42.9	352,288,382,000	80.0
Insured State Non-Members	<u>7,603</u>	<u>55.6</u>	<u>84,701,283,000</u>	<u>19.3</u>
Total Insured Banks	13,473	98.5	436,989,665,000	99.3
Uninsured Banks	<u>208</u>	<u>1.5</u>	<u>2,999,693,000</u>	<u>0.7</u>
Total All Banks	13,681	100.0%	\$439,989,358,000	100.0%

Source: Federal Deposit Insurance Corporation,
1969 Annual Report

THE FEDERAL RESERVE SYSTEM

The percentage of total deposits in each of these groups is not proportionate to their percentage of total banks.¹ Federal Reserve System members account for a portion of total deposits twice that of their percentage of total banks. While they represent only 42.9% of total banks, they account for 80.0% of total deposits.

The history of the Federal Reserve System originates with its creation by the Federal Reserve Act of 1914 which

¹See Table 1.

established the structure in existence today. Twelve regional reserve banks were created to be governed by a seven man central board. While their terms originally were set for ten years, to free them from executive branch domination, these terms were extended to fourteen years in 1933.

The Federal Reserve's jurisdiction extends to all national banks which are required to buy stock in the pertinent regional reserve bank. State banks can elect to become members thus gaining access to the services offered by the Reserve.

At the same time these banks become subject to the supervisory powers of the Fed. As a central bank, the Fed sets reserve regulations, controls bank credit, and buys and sells government securities in the open market. The Fed also regulates extensions of credit for the purchase of intangibles, branching by state member banks, payment of interest on deposits, interlocking directorates, foreign banking, bank mergers and bank holding companies.

In an attempt to hold down the concentration of power over the wealth of the nation, all federally regulated banks are prohibited in the Federal Reserve Act from underwriting securities or purchasing stock in corporations.¹ Member

¹David Leinsdorf and Donald Etra, Citibank, with a Foreword by Ralph Nader (New York: Grossman Publishers, 1973), p. 272.

banks cannot have directors, officers or employees who serve as directors, officers or employees of security companies nor can they purchase their own stock or make loans when their own stock is offered as collateral.

All these powers give the Federal Reserve several integral functions in the United States economy. The monetary policy of the country is implemented by the Federal Reserve's powers of altering reserve requirements, of changing the discount rate and of engaging in open market operations. The banking system itself runs more smoothly for the check clearing, collection service and coin and currency shipments provided by the district offices of the Federal Reserve. Both the purchase and redemption of government bonds as well as the actual handling of tax payments are handled through the Federal Reserve. Finally, the Fed is responsible for the examination of state member banks though this is generally done in cooperation with the state banking authority.

THE COMPTROLLER OF THE CURRENCY

The comptroller of the Currency controls the largest portion of deposits.¹ While this agency was created in 1863 to finance the federal army during the Civil War,² the office now has many more powers than the initial power to charter banks authorized to issue notes secured by government bonds. This power is not to be underestimated, as the Comptroller has the ability to alter the structure of the national banking system through its power to approve charters, branching and mergers. The criteria for acceptance of a new charter is that the bank have the financial backing as well as the managerial ability to run a bank.³ There must be proof of a need in the proposed area for a new bank. Request for new branches are subject to state laws and will be dealt with later. Mergers and acquisitions however must also be approved by the Comptroller's office. These powers enable the Comptroller to control both the number and size of banks in an area.

¹See Table 1.

²Leinsdorf, p. 284.

³Ibid.

The Comptroller also establishes rules and regulations in regard to a bank's investment practices, loan limits to individual customers, deposit gathering, payment of dividends, reporting of information, permissible activities and trust departments. These powers are enforced by periodic (3 in every 2 years) audits. Assets, liabilities, management, adherence to the law and banking practices are scrutinized and reported to the officers of each bank.

The Comptroller is a presidentially appointed 5 year position, similar to any member of the cabinet.

THE FEDERAL DEPOSIT INSURANCE CORPORATION

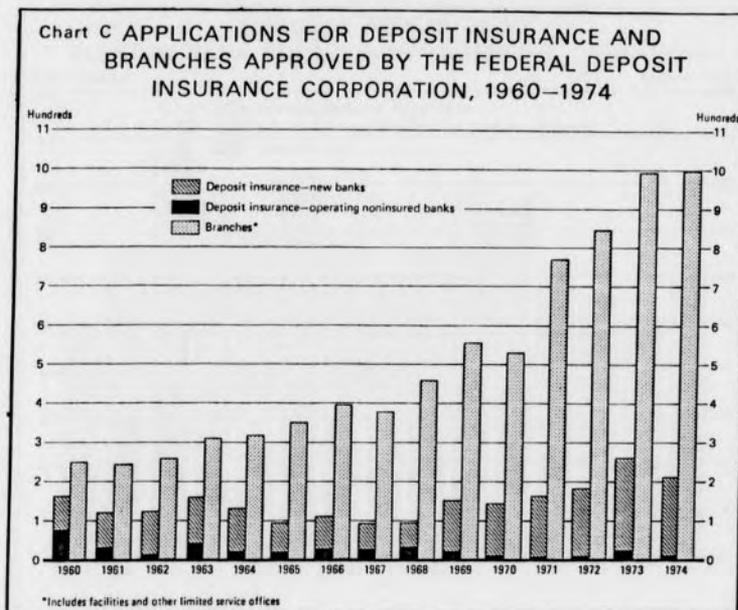
The insurance of bank deposits, both demand and time, through the FDIC is obligatory for all national and state member banks. The insurance is also available to non-member banks. Like any other type of insurance, Federal Deposit Insurance is financed by assessments on the insured depositors. Of the 13,681 banks in the nation in 1969 only 208 were uninsured.¹

¹See Table 1.

The FDIC has power of examination over the non-member state banks that subscribe to their insurance but the most powerful function of the FDIC is the approval of mergers and branching. This power gives the FDIC the ability to shape the market structure of banking. In 1974 the FDIC was relatively lenient with approvals for mergers and branching. During the same period, it was strict with approvals of new charters.¹ Thus the FDIC contributed to the concentration of the banking market. The leniency of approvals for mergers and branching from 1960 to 1974 is exhibited in Figures 1 and 2.

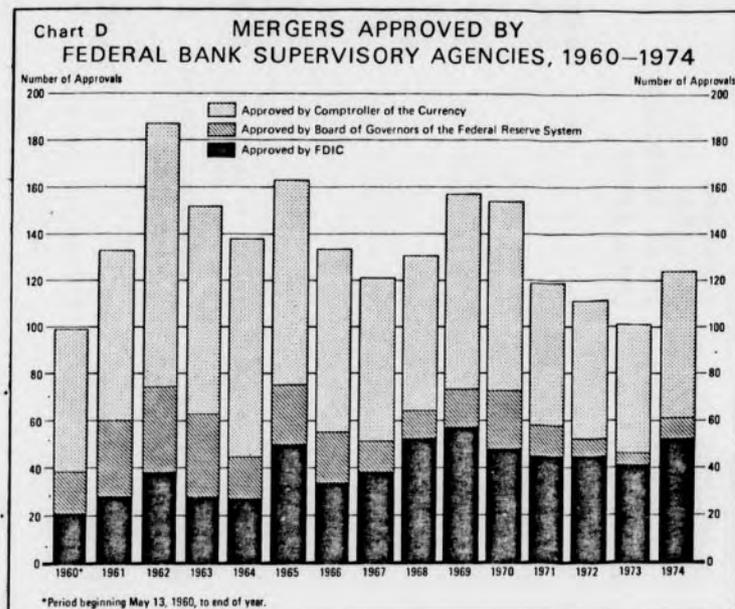
¹Federal Deposit Insurance Corporation, 1974 Annual Report (1975), pp. 12-16.

FIGURE 1



Source: Federal Deposit Insurance Corporation

FIGURE 2



Source: Federal Deposit Insurance Corporation

TABLE 2
 FEDERAL AND STATE REGULATIONS AFFECTING THE BANKING STRUCTURE
 FIFTH FEDERAL RESERVE DISTRICT
 AUGUST, 1970

	FEDERAL REGULATIONS			State Regulations
	National Banks	State Member Banks	Insured Nonmember Banks	North Carolina
1. Entry Require- ments				0-3,000: \$100,000
a. Minimum Capital (require- ments for each population range)	0-6,000: \$50,000			3,000-10,000: \$150,000
	6,000-50,000: \$100,000			10,000-25,000: \$200,000
	50,000 +: \$200,000			25,000-50,000: \$250,000
				50,000 +: \$300,000
b. Paid-in Surplus				50% of capital stock
2. Domestic Branches	Permitted. Prior approval by Comptroller required	Permitted. Prior approval by Board of Governors required	Permitted. Prior approval by FDIC required	

Federal law does not geographically restrict
 branching. Each bank, including each
 national bank, is subject to the geographic
 restrictions on branching imposed by the
 state in which it operates.

TABLE 2 (cont.)

	FEDERAL REGULATIONS			State Regulations
	National Banks	State Member Banks	Insured Nonmember Banks	North Carolina
3. Mergers	Permitted. Prior approval by Comptroller required if resulting bank is a national bank	Permitted. Prior approval by Board of Governors required if resulting bank is a state member bank	Permitted. Prior approval by FDIC required if resulting bank is an insured nonmember bank	Permitted. Prior approval by Commis- sioner of Banks required if resulting bank is a state bank

Mergers involving any insured bank are subject to the Bank Merger Act of 1960 which:

- 1) prohibits mergers resulting in a monopoly, and
- 2) prohibits mergers which lessen competition unless the anti-competitive effects are clearly outweighed by increased public convenience.

4. Bank Holding

Bank Holding Company Act of 1956 defines a bank holding company as any company controlling 25% or more of the voting stock of 2 or more banks or which controls the election of a majority of the directors of 2 or more banks. Within the limits of this definition, prior approval by the Board of Governors is required for:

No statutory provisions regulating bank holding company formations, acquisitions or mergers

TABLE 2 (cont.)

- 1) the formation of a bank holding company,
- 2) the acquisition by a bank holding company of 5% or more of the voting stock of any bank, and
- 3) the merger of a bank holding company with another bank holding company.

The Board receives recommendations of the Comptroller and state banking authorities regarding bank holding company acquisitions which affect national and state banks, respectively. The Board must not approve:

- 1) acquisitions resulting in a monopoly, or
- 2) acquisitions which lessen competition, unless the anticompetitive effects are clearly outweighed by increased public convenience.

Subject to certain detailed provisions, bank holding companies may not engage in business unrelated to banking.

Source: Relevant Federal and state statutes.

THE COMMISSIONER OF BANKS OF NORTH CAROLINA

The main function of the Commissioner of Banks in North Carolina the state regulatory agency, concerns branching and entry requirements. The Commissioner has some powers of investigation and regulation but these apply to only 1.5% of all banks. These banks are both nonmembers of the Federal Reserve System and noninsured by the FDIC. As far as banking structure is concerned, the state regulations of greatest impact are those requirements established for entry, merger and branching, applicable to all banks within the state.

Entry requirements in banking structure affect the number of banks in a given state. Strict requirements limit the ease with which a new bank can enter the market and thus restrict the number of banks within a state. Also these requirements in the form of capital minima affect size distribution as bank size, measured by total assets or total deposits is related to capital -- bank size varying directly with the ratio of total assets/capital.¹

Both Federal and state statutes establish minima for the amount of capital necessary to open a bank. The amount of these minima give some indication of the relative stringency

¹J. Alfred Broaddus, "Regulations Affecting Banking Structure in the Fifth District," Monthly Review Federal Reserve Bank of Richmond (December 1970), p. 7.

of regulations concerning entry in a given state. As can be seen in Table 2, North Carolina requirements, in most every population category, are double those of federal requirements and this is also true with respect to other states in the fifth district. This stringency contributes to the fact that North Carolina has the smallest number of banking organizations in the fifth district with the exception of South Carolina. Having similar banking practices, North Carolina and South Carolina differ in the number of banking operations by only one.

TABLE 3
 NUMBER OF BANKING OFFICES IN THE FIFTH DISTRICT
 GROUPED BY STATE

State and type of bank or office	Total
Maryland-all offices	862
Banks	117
Unit Banks	37
Banks operating branches	80
Branches	745
North Carolina-all offices	1,639
Banks	92
Unit Banks	21
Banks operating branches	71
Branches	1,547
South Carolina-all offices	672
Banks	91
Unit Banks	28
Banks operating branches	63
Branches	581
Virginia-all offices	1,400
Banks	288
Unit Banks	94
Banks operating branches	194
Branches	1,112
Washington-all offices	848
Banks	101
Unit Banks	41
Banks operating branches	60
Branches	747
West Virginia-all offices	240
Banks	214
Unit Banks	188
Banks operating branches	26
Branches	26

Source: Federal Deposit Insurance Corporation
 Annual Report 1974

Another contributing factor to the relatively small number of banking organizations in North Carolina is the branching policy of the Commissioner of Banks in North Carolina.

BRANCHING

There are basically two ways to create branches for an established bank: one is through merger with another established bank, usually the main purpose of merger, and the other is by 'de novo' branching, the creation of an entirely new banking facility. Merger or 'de novo' branching directly affect the banking structure since these activities change both the asset size and the number of banks in a given area. However, the effects of each are opposite in economic impact.

Branching by merger eliminates an existing banking entity reducing the competitiveness of the market. De novo branching on the other hand, creates a new banking entity but not organization. This tends to increase competition by bringing more banking organizations into a given area. However, both kinds of branching increase market power of the expanding bank by increasing its asset size.

Federal law does not restrict branching geographically. Therefore each bank, whether state or national, is subject to the ultimate constraint of the state laws concerning branching. North Carolina allows statewide branching with

prior approval of the Commissioner of Banks. It is reasonable to assume that this office has been liberal with branching approvals since, while North Carolina has the second fewest number of banking organizations in the fifth district, it has the largest number of banking offices.¹

In addition to the four regulatory agencies, North Carolina banks are subject to both federal and state laws. Of notable importance to the topic at hand are the Bank Merger Act of 1960, the Bank Holding Company Act of 1956 amended in 1970 and the Act of October 28, 1974.

THE BANK MERGER ACT OF 1960

The Bank Merger Act of 1960 exempted banks from the provisions of the Clayton Act and established a set of standards for assessing the competitive impact of bank mergers. These standards are different from those which traditionally apply in other business sectors. They allow mergers which result in monopoly power or a lessening of competition if increased public convenience outweighs the

¹Thomas Y. Coleman and Bradley H. Gunter, "Recent Developments in Fifth District Banking," Monthly Review Federal Reserve Bank of Richmond (December 1972), pp. 11-12.

anticompetitive effects. In North Carolina between 1955 and 1970 there were 131 mergers resulting in a decrease in the number of banking organizations from 220 to 98 (9 new banks were started in this period).¹ The Merger Act of 1960 promoted bank mergers in North Carolina.

BANK HOLDING COMPANY ACT 1956 amended 1970

One of the most significant federal laws is the Bank Holding Company Act of 1956 because five of the top six leading banks in North Carolina are one bank holding company. The law as formed in 1956 covers holding companies that control two or more banks. Multibank holding companies are required by this law to seek approval of the Federal Reserve for all acquisitions. The law also requires of these acquisitions that "...all the activities of which are or are to be of a financial, fiduciary, or insurance nature... so closely related to the business of banking or controlling banks as to be a proper incident there to..."²

¹Federal Deposit Insurance Corporation, Summary of Accounts and Deposits in All Commercial Banks (June 30, 1970), p. 202.

²Bank Holding Company Act of 1956, 12 U.S.C., sec. 1843(c) (8).

When the Bank Holding Company Act was written in 1956 one bank holding companies were mostly small family owned banks controlling less than 5% of the nation's commercial bank deposits.¹ However, in 1968 there was a move by a number of the nation's largest banks to form one bank holding companies in order to avoid regulation by the Federal Reserve imposed on multibank holding companies by the 1956 law. In fact by the end of 1968, 23% of the nation's commercial bank deposits fell under the control of one bank holding companies.² The advantages for a one bank holding company created by their omission in the 1956 law include vast directorate powers, tax avoidances and both horizontal and vertical acquisitions as well as unrelated acquisitions.

ADVANTAGES FOR ONE BANK HOLDING COMPANIES
PRE-1970 AMENDMENT

Because the organization of a one bank holding company places the bank as a subsidiary of a larger company, that larger company can expand into nonrelated banking activities without breaking the law or coming under the supervision of the Federal Reserve. These activities prohibited to banks and multibank holding companies but perfectly legal for one

¹Leinsdorf, p. 205.

²Hearings before the House Committee on Currency and Banking on the Bank Holding Company Amendments, 91st Cong., 4th sess. (1969).

bank holding companies include insurance, travel services, leasing, data processing, mutual funds, and other areas.¹ The traditional separation of banking and commerce disappears and the concentration of financial powers becomes inevitable.

In a one bank holding company shareholders no longer have direct voting rights concerning the bank's management because the bank becomes a part of the larger holding company. The shareholder's votes weaken in this new organization and the management of the bank gains great autonomy and independence from the shareholders.

The one bank holding company, pre-1970 amendment, also gained independence from the laws that govern other banks regarding the range of activities and the geographical areas in which they can be involved. Especially in the areas of leasing and travel, the bank after reorganization can cross state and national boundaries, a move which is illegal for banks not organized into one bank holding companies.

By using accounting manipulations, transactions can be moved around within the holding company to avoid taxes and regulation by the Federal Reserve. For instance, if travelers checks operations are transferred to a subsidiary of the holding company then they are no longer classified as demand

¹Leinsdorf, p. 215.

deposits subject to reserve requirements. This frees the money from the 17.5% reserve requirement and allows it to be transferred to a general investment or lending fund.¹ Clearly, this is an advantage open to one bank holding companies but not open to other type banking organizations.

THE 1970 AMENDMENT

Late in 1969 Wright Patman, Chairman of the House Banking and Currency Committee, introduced a bill to eliminate the unfair advantages available to one bank holding companies. Heated debate continued for close to twelve months. However the final outcome resulted in the following: the Federal Reserve has powers of regulation over the acquisitions of one bank holding companies and is required to see that all these acquisitions are functionally related to banking and can reasonably be expected to produce benefits for the public that outweigh possible adverse effects. These benefits are greater convenience, increased competition, gains in efficiency. The adverse effects are undue concentration of resources, decreased or unfair competition, conflicts of interest, or unsound banking practices.

In 1971 the Fed published the regulations it had adopted to enforce the 1970 amendment. They basically outlined the areas approved within the law's restriction that

¹Ibid, p. 217.

bank holding companies, multibank or one bank, could acquire only businesses related to financial, control or management matters of the banking industry.

Among the approved areas of activity falls the granting or acquiring of loans, extensions of credit or mortgages. The Fed defined as acceptable acquisitions, finance, credit and factoring companies. Also acceptable is the operation of industrial banks, Morris plan banks, or industrial loan companies but these banks are prohibited from taking demand deposits or making commercial loans.

Among the nonbanking activities considered to be within the domain of a one bank holding company are: trust services, real estate management, community development investments, insurance agent or underwriter, courier service and consultant services for other banks.¹

It will be seen later how these regulations of the 1970 amendment to the Bank Holding Company Act of 1956 affect the judicial branch's interpretation of a definition for markets in the cases of bank concentration.

There are two sides to the issue. On the one hand bankers feel that banks compete in the market with all other

¹Federal Banking Law Reports, Text of Regulation Y as Adopted by the Board of Governors of the Federal Reserve System (1971).

industries that offer similar services even though none can offer all the services that a bank can. On the other hand prosecutors reason that because of a bank's exclusive right to demand deposit services their market must be defined as including only banks in their geographical area.

BRANCHING AND THE 1970 AMENDMENT

However the most important extension of the 1970 Amendment and its interpretation concerns branching, particularly because branching is allowed statewide in North Carolina. Applications for branches either de novo or from acquisitions are approved only if the performance of the activity proposed by the holding company can reasonably be expected to produce benefits to the public such as greater convenience, increased competition or gains in efficiency that outweigh possible adverse effects such as undue concentration of resources, decreased or unfair competition, conflicts of interest or unsound banking procedures.

This last restriction has been a great concern of Arthur Burns and the Federal Reserve Board.¹ Their main interest has been the stability of the holding company and their bank capital adequacy. Burns and his board fear the holding companies use acquisitions to trade on that same banking strength. This sort of policy could lead to increased

¹Laurence C. Leafer, "Current Trends of the Federal Reserve Board," Group Statutes Reports (Charlotte: First Union National Bank, 1974), p. 10.

concentration in the banking industry if Burns and his board use bank capital adequacy as the only criterion for expansion. The stronger banks would tend to expand gaining more strength thus being more likely to expand again. This sort of spiral would tend to favor the larger banks without regard to the effects of concentration.

While The Federal Reserve issued cease and desist orders, enjoining any activities if not closely related to banking, the holding companies were protected from retroactive enforcement of this law by a 'Grandfather Clause' which allowed the holding companies to continue in any activities they had entered into before June 30, 1968. The choosing of this date reflects the stiffness of the negotiations and the inflexibility of both sides. However in spite of the Grandfather Clause the 1970 Amendment rids most of the one bank holding companies of superfluous activities.

THE ACT OF OCTOBER 28, 1974

The Act of October 28, 1974 extends supervisory authority of the Federal Reserve Board to bank holding companies and their nonbanking subsidiaries. It also grants cease and desist authority to the Fed in order to remedy a supervisory deficiency left over from the 1956 law. The guidelines of this supervisory authority keep the activities of the bank within a holding company in the public interest, specifically stating that their powers are not to be used to

interfere unduly with the activities of the holding company. This last clause protects the depositor and the reputation of the bank from any activities which might result in significant damage.

The 1974 Act further defines a bank holding company as "any company which directly or indirectly owns, controls or holds, with power to vote 25 percent or more of the voting shares of any bank or company that is or becomes a bank holding company under the 1956 (amended 1970) Act or which controls the election of a majority of the directors of the bank or company."¹ As with most aspects of banking, prior approval of the Board of Governors is required for a bank or a holding company to become a bank holding company. A further restriction on bank holding companies prohibits them from loaning to or investing in companies of which they are a subsidiary but they may loan to those companies which are a subsidiary of the bank itself.

Before discussing the effects of these laws consideration of some of the problems associated with concentration ratios in the banking industry will be undertaken.

¹Ibid, pp. 20-22.

CHAPTER III
CONCENTRATION RATIO LIMITATIONS

Among the limitations of concentration ratios are problems with the number of banks to include in the ratio, how to define the product market and how to define the geographic market. The first of these problems concerns the number of banks to be included in the ratio - one or three or five.¹ The shift from one to another slightly alters the degree of concentration but can be judged by comparing the overall statistical correlations between the 1 bank/3 bank and the 1 bank/5 bank ratios. In Table 4, Guttentag and Herman show that for the nation as a whole the ratios are fairly high.

TABLE 4
COEFFICIENTS OF CORRELATION BETWEEN ONE-BANK,
THREE-BANK AND FIVE-BANK CONCENTRATION RATIOS
JUNE 30, 1964

	65 Large Metropolitan Areas	50 States
One v. Five	.76	.93
One v. Three	.88	.96
Three v. Five	.91	.98
Source: FDIC data		

¹Jack M. Guttentag and Edward S. Herman, "Banking Structure and Performance," The Bulletin New York University (February 1967), p. 23.

The correlation coefficients are significant for metropolitan areas and very high for states. Thus for the purposes herein there is little difference in the choice of concentration ratios. Where appropriate differences will be presented but for the most part the statewide C_3 will be the most logical and convenient ratio to present. Table 5 lists in order the five largest banks in North Carolina and shows the 1, 3, 5 concentration ratios for total offices and total deposits.

TABLE 5
 FIVE LARGEST BANKS IN NORTH CAROLINA
 DECEMBER 31, 1974

Bank or Banking Organization	Number Banking Offices	Percent Banking Offices	Total Deposits (\$000's)	Percent Total Deposits	Concen- tration Ratio
Wachovia Bank and Trust Company, N.A., Winston-Salem	195	11.9	2,489,386	20.8	C ₁ 20.8
North Carolina National Bank Charlotte	159	9.7	2,310,173	19.3	
First Union National Bank of North Carolina, Charlotte	185	11.3	1,428,264	11.9	C ₃ <u>53.0</u>
First-Citizens Bank and Trust Raleigh	217	13.3	1,060,958	8.9	
The Northwestern Bank North Wilkesboro	166	10.1	922,544	7.7	C ₅ <u>68.6</u>

Sources: FDIC 1974 Annual Report & Moody's

A second limitation of concentration ratios results from the fact that the number of firms in the actual market is not included in the concentration ratio.¹ The number of alternatives in the market place and their behavior, whether price followers or competitive fringe, may be insufficiently weighted in a one, three or five bank ratio. The significance of this ratio depends on the correlation between concentration ratios and the number of firms in the market. Table 6 shows that for the nation as a whole, one and three bank ratios are moderately correlated. Again by using the C_3 this limitation will not effect this study.

TABLE 6

COEFFICIENTS OF CORRELATION BETWEEN
NUMBER OF BANKS AND CONCENTRATION
RATIOS BY POPULATION
OF METROPOLITAN AREA
NOVEMBER 18, 1964

Number	Population of Metropolitan Areas	Number of Banks vs.	
		One-Bank Concen- tration Ratio	Three-Bank Concen- tration Ratio
201	All	-.45	-.55
20	50,000-99,999	-.78	-.88
129	100,000-499,999	-.58	-.78
29	500,000-1,000,000	-.64	-.72
23	Above 1,000,000	-.45	-.61

Source: Calculated from FDIC data

¹Ibid, p. 26.

The arbitrariness of market definitions in banking constitutes a third limitation of concentration ratios. This arbitrariness extends to both product market definitions as well as geographic market definitions. Product markets and geographic markets are intricately related because the geographic market depends on the particular product under consideration. This issue is further clouded by the fact that banks are multiservice or multiproduct institutions.

MARKET DEFINITIONS

In any study of concentration, product markets and geographic markets must be defined in some fashion. In the study of the banking industry the task is particularly difficult and confusing. The phraseology in the Clayton Act ambiguously refers to the "line of commerce" and "the section of the country" to define product and geographic markets. In *Brown Shoe Company v. United States*, 'line of commerce' is interpreted as the product market and 'section of the country' as the geographic market.¹ And in *Philadelphia National Bank v. United States* this interpretation was restated in a more workable form than previous definitions. For either product or geographic markets "the narrowest reasonable market is the relevant one."²

¹Eugene M. Singer, Antitrust Economics (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1968), pp. 244-247.

²Ibid, pp. 254-256.

A reasonable market with respect to the line of commerce of a commercial bank is an evasive concept. Commercial banks are multiproduct multiservice institutions. While they have a virtual monopoly on the demand deposit service, they also offer savings, loan, insurance, mortgage and trust services. These services directly compete with less diverse institutions: savings and loans, insurance companies, trust companies, mortgage and loan companies, and finance companies.

The courts, however, have consistently ruled that the relevant line of commerce is commercial banking and have disregarded these other institutions. The argument supporting this interpretation is summarized in *Philadelphia National Bank v. United States* (1963):¹

that the cluster of products (various kinds of credit) and services (such as checking accounts and trust administration) denoted by the term 'commercial banking,' composes a distinct line of commerce. Some commercial banking products or services are so distinctive that they are entirely free of effective competition from products or services of other financial institutions; the checking account is in this category. Others enjoy such cost advantages as to be insulated within a broad range from substitutes furnished by other institutions...

¹ *United States v. Philadelphia National Bank*, 374 U.S. 321, 356-357, and 326, (1963), quoted in David Leinsdorf and Donald Etra, *Citibank* (New York: Grossman Publishers, 1973). p. 338.

Finally, there are banking facilities which, although in terms of cost and price they are freely competitive with the facilities provided by other financial institutions, nevertheless enjoy a settled customer preference, insulating them to a marked degree from competition; this seems to be the case with savings deposits. In sum, it is clear that commercial banking is a market 'sufficiently inclusive to be meaningful in terms of trade realities.'

This interpretation is supported by several facts. Mutual savings and loan associations offer one-half percent higher interest rate on time deposits however the growth rate of such deposits is only in line with commercial bank's time deposit growth rate.¹ Another fact that supports this interpretation that commercial banking is a market in and of itself concerns bank loyalties. In an interview, Dr. James Golson, Vice President in charge of marketing for First Union National Bank, explained that once a customer selects one service with a bank, because of loyalties the chances that they will select that bank for another service increases with each successive service.

¹Ibid, p. 340.

PRODUCT LINE

In the Manufacturers Hanover case, Judge Lloyd MacMahon differentiated the product line by the two categories of wholesale and retail.¹ The argument runs that a wholesale bank is one that caters to large accounts such as large business firms and governments. These banks have relatively few accounts but large ones usually over \$100,000. These accounts enjoy the prime interest rate and are not bound to close geographic proximity.

The retail bank caters to the small business and household accounts, looking for a large number of small accounts. These customers come from a local geographic market. There are banks that fall into a third category enjoying both retail and wholesale customers. These banks compete in both local and national (or regional) markets.

This differentiation has been found basically pedantic by Guttentag² and Herman. Their study reveals that these markets have similar concentration ratios.

Furthermore it is reasonable to concentrate on state markets because of the inertia and loyalty that confine bank customers to state and local banks and because North Carolina

¹ Guttentag, p. 71.

² Guttentag, p. 80.

has statewide branching thus forcing most banks to compete throughout the state. Guttentag and Herman found that with statewide branching, concentration ratios were biased downward but with small differences from unit branching states.¹

GEOGRAPHIC MARKET

There are few geographic restraints with respect to the product of the banking industry. Money is the classifiable commodity with minor transportation cost. Thus actual distance has little to do with circumscribing geographic markets. Additionally the clearing services of the Federal Reserve help reduce any problems of distance to a great extent.

The court ruled in the Philadelphia National Bank case that an intrastate SMSA approximates the narrowest reasonable market.² However, this definition depends on the amount of branching in a particular state. The extension of markets to statewide markets is justifiable in North Carolina because of the relatively loose restrictions on statewide branching. Guttentag and Herman's findings mentioned above support this extension.

¹Guttentag, pp. 51-53.

²United States v. Philadelphia National Bank, pp. 357-358.

MULTIPRODUCT MULTISERVICE INSTITUTIONS

The services offered by banks numbers as high as seventy distinguishable products or services. The main services are: checking account facilities, financial accounting and payment services, lock box facilities, time and savings accounts, advisory or trust department services, customer credit, agricultural credit, business credit, real estate credit, loans for the purchase of securities, foreign exchange or letters of credit, underwriting of municipal securities, safekeeping facilities, coin and currency supply, and miscellaneous financial instruments - certified checks, travelers checks, cashiers checks, letters of credit.

Most banks do not offer all of these services: it is a function of their location and size. A large metropolitan bank would have little demand for agricultural loans while a rural bank similarly would have little, if any, demand for foreign exchange facilities. In this regard, the best generalization that can be made is that the banking market is local for small business and household services. "Some small customers may, of course, have potential alternatives beyond local market areas, but for the majority the forces of ignorance, inertia, local ties, the relative disinterest of outside banks in nonlocal customers, and the cost and other disadvantages of locating and maintaining outside

relationships, render nonlocal banking facilities poor alternatives."¹ In the Philadelphia National Bank case, a member of the Pennsylvania Banking Board testified that when making application for branches, banks invariably define their prospective market in terms of about a mile and a half radius, reflecting the strategic importance of convenience to the small depositor.

For the larger customer, distance is less of a barrier. Size and credit ratings become determining factors with fewer barriers created by local ties, inertia, ignorance and the cost of doing business at a greater distance. In Luttrell and Pettigrew's study of banking facilities in the St. Louis area, 25% of firms with net worth over \$1 million and 42% of firms with net worth below \$1 million banked principally with the bank closest to their main office. This average distance was estimated at approximately 5.7 and 2.9 miles respectively.²

From all this it can be concluded that the market area definition depends on the type of service under consideration. Definitions by political or administrative

¹Guttentag, p. 36.

²Clifton B. Luttrell and William E. Pettigrew, "Banking Markets for Business Firms in the St. Louis Area," Monthly Review Federal Reserve Bank of St. Louis (September 1966), p. 20.

boundaries are thus by necessity arbitrary. However, since North Carolina has lenient statewide branching laws, a statewide concentration ratio is less hampered by the restrictions mentioned above.

Differences arise between state and SMSA concentration ratios in North Carolina, the latter usually running 20 to 30 percentage points higher than the state percentages. Both types of ratios will be presented in this thesis where possible because SMSA data are less often available than are statewide data. However for the several reasons mentioned above, this will not hamper the progress of the discussion at hand.

CHAPTER IV
TRENDS IN NORTH CAROLINA BANKING MARKET

BRANCHES AND MERGERS

The sum of the effects of North Carolina state regulations on banking (stiff entry requirements, lenient branching regulations and liberal merger policy) can be seen in the following Tables 7 and 8. During the period of time between the passage of the Bank Holding Company Act of 1956 and the 1970 Amendment to that act, there was a net loss of 122 banking operations. None of this number fell into bankruptcy. Absorption and mergers were the cause of this decrease in the number of banking organizations. During this same period of time, the number of branches in operation increased by 793.

After the 1970 Amendment to the 1956 Holding Company Act which put a stop to the 1968 one bank holding company movement, the rate of attrition of North Carolina banking operations slowed down drastically. Between 1970 and 1974 the net reduction in the number of banking organizations was only 6. However, the number of branches was increasing at an even faster rate. In just four years there were 428 new branches.

By way of comparison with the other twenty states that permit statewide branching, North Carolina lost the largest number of banking organizations between 1955 and 1974. None of the 128 banks fell into bankruptcy but ceased operations because of merger or absorption. During this same period of time North Carolina gained the second largest number of branches being second only to California which is bigger both in size and population.

Clearly, this reflects the relative leniency of North Carolina authorities in the opening of branches and the allowance of mergers.

NEW ENTRY

As mentioned in Chapter I, North Carolina has stiff entry requirements which contribute to the relatively small number of banks in the market. Table 9 shows the number of new banking organizations created between 1955 and 1974. The number is small compared to both the number of new branches and the number of mergers and absorptions.

TABLE 7
 NUMBER OF BANKS AND BRANCHES IN STATES
 WITH UNLIMITED BRANCHING

	<u>Dec. 31, 1955</u>		<u>Dec. 31, 1970</u>		<u>Dec. 31, 1974</u>	
	BANKS	BRANCHES	BANKS	BRANCHES	BANKS	BRANCHES
ALASKA	18	14	11	62	12	82
ARIZONA	11	95	12	323	25	425
CALIFORNIA	149	1212	152	3033	198	3490
CONNECTICUT	98	103	61	436	139	774
DELAWARE	30	38	18	87	20	152
DISTRICT OF COLUMBIA	17	54	14	103	16	126
HAWAII	10	55	10	140	12	151
IDAHO	36	67	24	156	24	191
MAINE	59	95	43	226	81	324
MARYLAND	152	168	115	521	117	745
NEVADA	6	29	8	86	8	105
NORTH CAROLINA	220	326	98	1119	92	1547

TABLE 7 (cont.)

	<u>Dec. 31, 1955</u>		<u>Dec. 31, 1970</u>		<u>Dec. 31, 1974</u>	
	BANKS	BRANCHES	BANKS	BRANCHES	BANKS	BRANCHES
OREGON	49	145	49	337	50	424
RHODE ISLAND	10	69	13	171	22	275
SOUTH CAROLINA	149	86	102	418	91	581
SOUTH DAKOTA	171	54	161	98	158	115
UTAH	51	45	48	139	55	186
VERMONT	62	15	43	85	40	138
VIRGINIA	316	176	233	825	288	1112
WASHINGTON	103	208	91	558	101	747

Source: FDIC National Summary 1971 and 1976

TABLE 8
NET CHANGES IN BANKS AND BRANCHES
1955 to 1974

	<u>1955-1970</u>		<u>1970-1974</u>		<u>1955-1974</u>	
	BANKS	BRANCHES	BANKS	BRANCHES	BANKS	BRANCHES
ALASKA	-7	+48	+1	+20	-6	+68
ARIZONA	+1	+228	+13	+102	+14	+330
CALIFORNIA	+3	+1821	+46	+457	+49	+2278
CONNECTICUT	-37	+333	+78	+338	+41	+671
DELAWARE	-12	+49	+2	+65	-10	+114
DISTRICT OF COLUMBIA	-3	+49	+2	+23	-1	+72
HAWAII	0	+85	+2	+11	+2	+96
IDAHO	-12	+89	0	+35	-12	+124
MAINE	-16	+131	+38	+98	+22	+153
MARYLAND	-37	+353	+2	+224	-35	+577
NEVADA	+2	+57	0	+19	+2	+76
NORTH CAROLINA	-122	+793	-6	+428	-128	+921
OREGON	0	+192	+1	+87	+1	+279

TABLE 8 (cont.)

	<u>1955-1970</u>		<u>1970-1974</u>		<u>1955-1974</u>	
	BANKS	BRANCHES	BANKS	BRANCHES	BANKS	BRANCHES
RHODE ISLAND	+3	+102	+9	+104	+12	+206
SOUTH CAROLINA	-47	+332	-11	+163	-58	+495
SOUTH DAKOTA	-10	+44	-3	+17	-13	+61
UTAH	-3	+94	+7	+47	+4	+141
VERMONT	-19	+70	-3	+53	-22	+123
VIRGINIA	-83	+649	+55	+287	-28	+936
WASHINGTON	-12	+350	+10	+189	-2	+539

Source: FDIC National Summaries 1971 and 1975

TABLE 9
SUMMARY OF ACCOUNTS AND DEPOSITS
IN ALL COMMERCIAL BANKS
NATIONAL SUMMARY
JUNE 30, 1970

STATES	BANKS						NO. OF BANKS DEC. 31, 1970
	NO. OF BANKS DEC. 31, 1955	BEGAN OPERATIONS		CEASED OPERATIONS			
		NEW BANKS	OTHERS	MERGERS AND OTHER ABSORP- TIONS	OTHER	NET CHANGE	
With statewide branching prevalent							
ALASKA	18	2	0	9	0	- 7	11
ARIZONA	11	14	0	12	1	+ 1	12
CALIFORNIA	149	139	1	135	2	+ 3	152
CONNECTICUT	98	17	0	54	0	- 37	61
DELAWARE	30	1	0	13	0	- 12	18
DISTRICT OF COLUMBIA	17	4	0	7	0	- 3	14
HAWAII	10	2	0	2	0	NC	10
IDAHO	36	7	0	19	0	- 12	24
MAINE	59	6	0	21	1	- 16	43
MARYLAND	152	24	0	61	0	- 37	115
NEVADA	6	3	0	1	0	+ 2	8
NORTH CAROLINA	220	9	0	131	0	- 122	98
OREGON	49	24	0	24	0	NC	49
RHODE ISLAND	10	5	0	2	0	+ 3	13
SOUTH CAROLINA	149	19	0	64	2	- 47	102

TABLE 9 (cont.)

STATES	NO. OF BANKS DEC. 31, 1955	BEGAN OPERATIONS		CEASED OPERATIONS			NO. OF BANKS DEC. 31, 1970
		NEW BANKS	OTHERS	MERGERS AND OTHER ABSORP- TIONS	OTHER	NET CHANGE	
SOUTH DAKOTA	171	9	0	18	1	- 10	161
UTAH	51	20	0	23	0	- 3	48
VERMONT	62	0	0	19	0	- 19	43
VIRGINIA	316	58	0	140	1	- 83	233
WASHINGTON	103	50	0	62	0	- 12	91

TABLE 9 (cont.)

STATES	BRANCHES						NO. OF BRANCHES DEC. 31, 1970	
	BEGAN OPERATIONS		CEASED OPERATIONS			NET CHANGE		
	NO. OF BRANCHES DEC. 31, 1955	NEW BRANCHES	OTHER	BRANCHES	OTHER			
With statewide branching prevalent								
ALASKA	14	47	10	6	3	+	48	62
ARIZONA	95	247	14	9	24	+	228	323
CALIFORNIA	1,212	1,806	155	130	10	+	1,821	3,033
CONNECTICUT	103	291	56	14	0	+	333	436
DELAWARE	38	44	13	8	0	+	49	87
DISTRICT OF COLUMBIA	54	45	9	5	0	+	49	103
HAWAII	55	83	8	5	1	+	85	140
IDAHO	67	76	15	2	0	+	89	156
MAINE	95	119	25	11	2	+	131	226
MARYLAND	168	307	73	23	4	+	353	521
NEVADA	29	58	2	2	1	+	57	86
NORTH CAROLINA	326	710	133	45	5	+	793	1,119
OREGON	145	171	25	4	0	+	192	337
RHODE ISLAND	69	106	4	8	0	+	102	171
SOUTH CAROLINA	86	282	71	19	2	+	332	418
SOUTH DAKOTA	54	29	19	3	1	+	44	98
UTAH	45	16	25	5	2	+	94	139
VERMONT	15	59	16	4	1	+	70	85
VIRGINIA	176	515	155	18	3	+	649	825
WASHINGTON	208	288	70	2	6	+	350	558

Stiff entry requirements also effect the size distribution of banks in the market. Table 10 shows that North Carolina tends toward large banks with a concentration of deposits in those having deposits of a billion or more.

CONCENTRATION OF DEPOSITS

Graph 1 illustrates the total commercial bank deposits held by the three largest banking organizations in North Carolina for the years 1959, 1971 and 1974. Listed in order of size, the banking organizations represented in Graph 1 are North Carolina National Bank, Wachovia Bank and Trust, and First Union National Bank. Each belongs to a one bank holding company. Their market shares have tended to equalize with respect to each other over time.

The market shares of these three banks however has increased with respect to the rest of the banking market as seen in Table 11. In 1970, the three bank concentration ratio for North Carolina was 51.02, an increase of 17.88 percent in fifteen years. By 1974 the concentration ratio increased to 53.0.

Using C_3 as a means of comparison, in 1970 North Carolina's banking market was the thirteenth most concentrated market in the nation. This national ranking was achieved by the most rapid rate of increase in the nation of the total deposits accounted for by the three largest banks.

SMSA CONCENTRATION TRENDS

It is interesting to note that for SMSA's the concentration of deposits is higher than for the state as a whole. As seen in Table 12, the three largest banks account for higher percentages of total deposits in SMSA's than in states. The change in C_3 and number of banks in the market can be attributed to the change in definition of the area included. The 1970 figures are for Commercial banks while the 1974 figures include Mutual savings banks. Also the SMSA areas are redefined in the 1974 figures to include larger geographic areas. For instance, the 1974 data is not available for Raleigh or Durham because these 1970 SMSA's were redefined as one SMSA in 1974.

However the pertinent information of these statistics remains. SMSA concentration ratios run about 10 points higher than state concentration ratios. This is consistent with the theory that large banks attract and/or seek large accounts. The larger business accounts will most likely be found in the larger metropolitan areas.

TABLE 10
 NUMBER AND DEPOSITS OF ALL COMMERCIAL BANKS
 IN THE FIFTH DISTRICT
 (DECEMBER 31, 1974)
 BANKS GROUPED BY
 DEPOSIT SIZE

State	All Banks	Less than \$1 Million	\$1 Million to \$2 Million	\$2 Million to \$5 Million
WASHINGTON, D.C.				
Banks.....	16	0	0	1
Deposits.....	3,585,604	0	0	3,154
MARYLAND				
Banks.....	114	0	3	10
Deposits.....	8,011,894	0	4,549	38,437
NORTH CAROLINA				
Banks.....	92	0	1	11
Deposits.....	11,952,870	0	1,702	42,732
SOUTH CAROLINA				
Banks.....	89	0	2	14
Deposits.....	3,867,270	0	3,731	46,115
VIRGINIA				
Banks.....	288	6	8	39
Deposits.....	13,083,867	4,014	11,953	131,867
WEST VIRGINIA				
Banks.....	214	2	3	19
Deposits.....	4,979,614	1,522	5,045	69,036

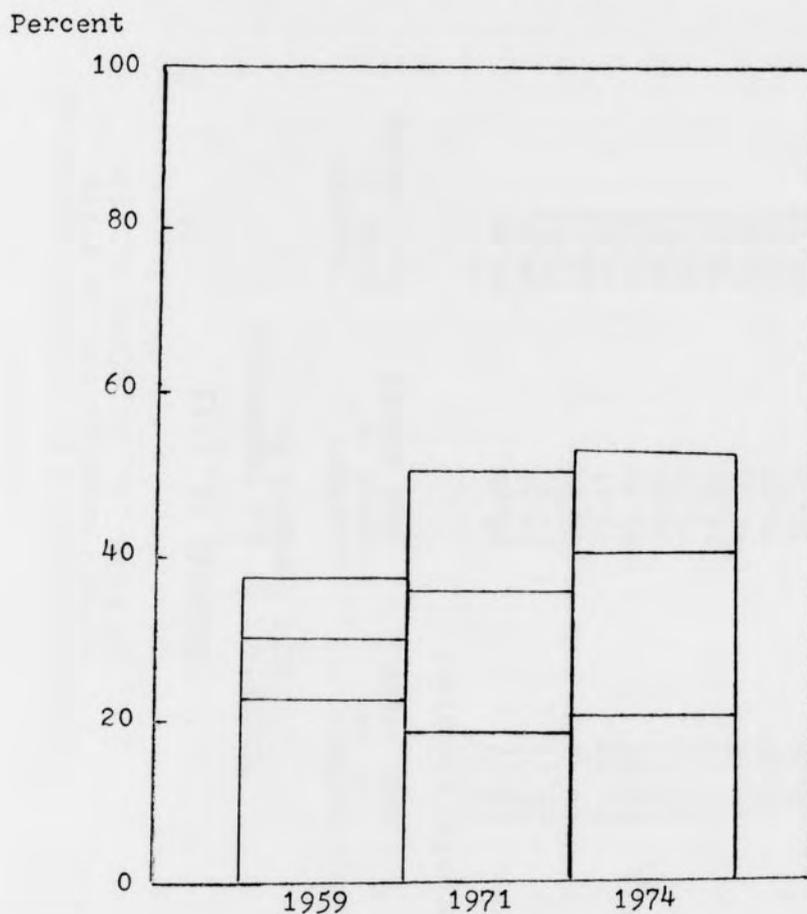
TABLE 10 (cont.)

State	\$5 Million to \$10 Million	\$10 Million to \$25 Million	\$25 Million to \$50 Million	\$50 Million to \$100 Million
WASHINGTON, D.C.				
Banks.....	0	2	5	2
Deposits.....	0	24,615	178,282	152,148
MARYLAND				
Banks.....	24	36	19	13
Deposits.....	167,389	614,567	611,183	803,306
NORTH CAROLINA				
Banks.....	17	26	13	9
Deposits.....	126,123	414,515	447,257	589,518
SOUTH CAROLINA				
Banks.....	27	23	15	1
Deposits.....	199,337	335,074	503,003	56,310
VIRGINIA				
Banks.....	45	98	49	19
Deposits.....	340,345	1,681,642	1,732,521	1,406,321
WEST VIRGINIA				
Banks.....	51	84	33	17
Deposits.....	395,953	1,381,887	1,138,026	1,210,954

TABLE 10 (cont.)

State	\$100 Million to \$500 Million	\$500 Million to \$1 Billion	\$1 Billion or more
WASHINGTON, D.C.			
Banks.....	4	1	1
Deposits.....	1,151,821	843,173	1,232,411
MARYLAND			
Banks.....	4	4	1
Deposits.....	943,736	3,271,250	1,557,477
NORTH CAROLINA			
Banks.....	10	1	4
Deposits.....	2,119,698	922,544	7,288,781
SOUTH CAROLINA			
Banks.....	6	1	0
Deposits.....	1,919,187	804,513	0
VIRGINIA			
Banks.....	20	2	2
Deposits.....	3,985,422	1,342,956	2,446,826
WEST VIRGINIA			
Banks.....	5	0	0
Deposits.....	777,191	0	0

FIGURE 3
SHARE OF TOTAL COMMERCIAL BANK DEPOSITS HELD
BY THREE LARGEST BANKS AND BANKING
ORGANIZATIONS, NORTH CAROLINA
DECEMBER 31, 1959, DECEMBER 31, 1971 AND DECEMBER 31, 1974



Source: Board of Governors Federal Reserve System;
Federal Deposit Insurance Corporation

TABLE 11

RELATIVE SIZE OF THE LARGEST COMMERCIAL
BANKING ORGANIZATION, BY STATE
DECEMBER 31, 1955-JUNE 30, 1970

DECEMBER 31, 1955

PERCENTAGE OF ALL COMMERCIAL
BANK DEPOSITS IN:

STATES	LARGEST BANK OR BANK GROUP	LARGEST BANKS OR BANK GROUPS	LARGEST BANKS OR BANK GROUPS
With statewide branching prevalent			
ALASKA	25.87	58.24	71.81
ARIZONA	47.38	90.38	95.61
CALIFORNIA	44.18	61.88	75.48
CONNECTICUT	17.37	39.63	48.65
DELAWARE	43.55	73.41	84.35
DISTRICT OF COLUMBIA	29.61	64.39	73.96
HAWAII	48.68	92.97	98.71
IDAHO	35.07	75.58	83.71
MAINE	11.73	25.67	36.82
MARYLAND	13.64	36.33	49.02
NEVADA	76.84	94.34	100.00
NORTH CAROLINA	16.64	33.14	42.15
OREGON	44.97	89.10	91.09
RHODE ISLAND	53.73	90.89	96.02
SOUTH CAROLINA	21.92	38.21	45.74
SOUTH DAKOTA	23.74	37.19	41.01
UTAH	26.47	56.97	70.60
VERMONT	8.16	20.77	29.66
VIRGINIA	7.57	20.60	27.99
WASHINGTON	32.74	58.82	72.07

TABLE 11 (cont.)

JUNE 30, 1970

PERCENTAGE OF ALL COMMERCIAL
BANK DEPOSITS IN:

STATES	LARGEST BANK OR BANK GROUP	LARGEST BANKS OR BANK GROUPS	LARGEST BANKS OR BANK GROUPS
With statewide branching prevalent			
ALASKA	33.27	69.26	85.25
ARIZONA	45.95	90.58	96.93
CALIFORNIA	38.30	60.90	77.53
DELAWARE	32.80	74.23	91.45
DISTRICT OF COLUMBIA	30.40	69.72	90.16
HAWAII	37.09	76.49	88.93
IDAHO	36.67	77.47	86.29
MAINE	13.16	35.28	51.78
MARYLAND	19.20	42.56	60.31
NEVADA	61.72	86.83	97.57
NORTH CAROLINA	20.58	51.02	66.84
OREGON	42.31	83.58	86.29
RHODE ISLAND	50.47	85.82	92.65
SOUTH CAROLINA	22.89	46.63	59.23
SOUTH DAKOTA	23.47	42.41	46.55
UTAH	30.24	59.13	71.51
VERMONT	14.30	37.46	49.47
VIRGINIA	13.73	34.23	48.06
WASHINGTON	32.38	60.04	73.07

TABLE 11 (cont.)

NET CHANGE 1955-1970

STATES	LARGEST BANK OR BANK GROUP	LARGEST BANKS OR BANK GROUPS	LARGEST BANKS OR BANK GROUPS
With statewide branching prevalent			
ALASKA	+ 7.40	+ 11.02	+ 13.44
ARIZONA	- 1.43	+ 0.20	+ 1.32
CALIFORNIA	- 5.88	- 0.98	+ 2.05
CONNECTICUT	+ 1.10	+ 6.20	+ 11.15
DELAWARE	- 10.75	+ 0.82	+ 7.10
DISTRICT OF COLUMBIA	+ 0.79	+ 5.33	+ 16.20
HAWAII	- 11.59	- 16.48	- 9.78
IDAHO	+ 1.60	- 1.89	+ 2.58
MAINE	+ 1.43	+ 9.61	+ 14.96
MARYLAND	+ 5.56	+ 6.23	+ 11.29
NEVADA	- 15.12	- 7.51	- 2.43
NORTH CAROLINA	+ 3.94	+ 17.88	+ 24.69
OREGON	- 2.66	- 5.52	- 4.80
RHODE ISLAND	- 3.26	- 5.07	- 3.37
SOUTH CAROLINA	+ 0.97	+ 8.42	+ 13.49
SOUTH DAKOTA	- 0.27	+ 5.22	+ 5.54
UTAH	+ 3.77	+ 2.16	+ 0.91
VERMONT	+ 6.14	+ 16.69	+ 19.81
VIRGINIA	- 6.16	+ 13.63	+ 20.07
WASHINGTON	- 0.36	+ 1.22	+ 1.00

TABLE 12
 PERCENT OF TOTAL DEPOSITS ACCOUNTED FOR
 BY THREE LARGEST BANKS
 GROUPED BY SMSA

SMSA	1970		1974	
	Number of Banks	Percent Total Deposits C ₃	Number of Banks	Percent Total Deposits C ₃
Asheville	6	84.0	6	77.2
Charlotte	15	82.1	21	76.8
Durham	6	88.1	NA	NA
Fayetteville	6	74.5	9	61.0
Greensboro-Winston- Salem-High Point	16	84.2	26	76.4
Raleigh	10	75.3	NA	NA
Wilmington	6	75.8	6	73.2
Whole State	98	51.0	92	53.0

Source: Summary of Accounts and Deposits in All Commercial Banks, National
 Summary Table 4, June 30, 1970 FDIC

Summary of Deposits in All Commercial and Mutual Savings Banks,
 National Summary Table 3, June 29, 1974 FDIC

Annual Report of the Federal Deposit Insurance Corporation 1974
 Table 105. Number and Deposits of All Commercial Banks,
 December 31, 1974 FDIC

CHAPTER V
EFFECTS OF CONCENTRATION

Having established that North Carolina has a strongly concentrated banking market, the consequences of this concentration should be explored. The questions concerning competition and how it is affected by concentration are addressed in the next chapter. The following chapter deals with the question of relative performance.

COMPETITION

Banking, a highly regulated industry, falls into a peculiar category of neither public or private good. If nothing else, the Twenties taught us that there must be a central banking authority, an issue that has been hotly debated since the time of Jefferson and Hamilton. The restrictions on entry clearly protect the public from bogus operations. However, questions surrounding the severity or leniency of entry conditions are open to debate. North Carolina has strict entrance requirements that reduce the number of banks in the state. Also reducing the number

of banks in the state are the laws permitting statewide branching. The laws governing reserve requirements as well as intervals within which interest rates must remain further reduces competition as seen in the free market. However concentration is not necessarily followed by an inefficient or collusive market. There can be vigorous rivalry among the few as there can be collusive arrangements among the many. However, there is a lower probability of the latter.

There are many areas in which banks can compete but one of the most obvious is that of price leadership in the prime rate convention. One of the three largest banks in the country, but not always the same one, announces a change in the prime rate which is generally followed by the rest of the country. Wojnilower and Speagle report that as of September 1966, fourteen of twenty-three recorded changes in the prime rate were initiated by one of three

New York banks.¹ In economic theory, this is considered to be an entirely natural outcome of market concentration without any explicit collusion.

It is impossible to know whether the market rate would be lower in the absence of the prime rate convention. However, the difference would depend on the ability of borrowers to obtain moneys in the open market and on how often bankers actually do violate the prime rate for their best customers. The prime rate is sticky downward, so in times of easy money the difference in the open market rate and the prime rate is greater as is the tendency for bankers to violate the convention because customers are more likely to go to the open market for funds at a cheaper rate. J. S. G. Wilson found through interviews with bankers that one-fourth of those interviewed broke the prime rate convention in 1961 when money was easy but saw no reason to do same when money was relatively tight in 1955 and 1956.²

¹Albert M. Wojnilower and Richard E. Speagle, "The Prime Rate," Essays in Money and Credit Federal Reserve Bank of New York (1964), p. 16.

²J. S. G. Wilson, "Keener Competition in Commercial Banking," The Banker (September 1962)

So while anchoring the whole interest rate structure, the prime rate is to some extent sensitive to the laws of supply and demand in extreme situations.

Where banks are in direct competition with nonbanking institutions they are far more price competitive than in strictly banking areas like demand deposits. In the area of time or savings accounts, banks compete directly with other money market institutions that sell substitutes like Treasury bills and commercial paper. Savings accounts are in direct competition with more specialized institutions such as savings and loan banks. Although the courts do not recognize these other areas as direct competitors of banks, they must offer a competitive rate of interest to attract funds in these areas.

However in the strictly banking area of demand deposits, price competition in the form of interest paid on demand deposit accounts is prohibited by law. The more vigorous competition in this area takes place in the nonprice areas of advertising, promotion and service. The promotional service of no service charge demand deposits "costs" banks money but may win customers for other services. It appears that in North Carolina the large banks feel no need to offer "free" checking in times of easy money as in 1970. Also at this time the three largest banks were at their peak of concentration power especially in the larger cities.

New "insurgent" banks were the only banks offering free checking in 1970. In 1974 the market was very tight and competition became more intense, all three banks coming out with new advertising campaigns similar to "Bank the Wachovia Free Way". By this time because of the 1970 amendment to the Bank Holding Company Act of 1956, the three largest banks were having to relinquish some of the nonbanking powers they had acquired between 1968 and 1970. Again it appears that the North Carolina banking market is sensitive to the laws of supply and demand but competitive only in times of extreme down turn in the economy.

BRANCHING AND COMPETITION

There are several studies that support the view that while branching tends to promote concentration of the banking industry, it also tends to increase competition. In an unpublished study by Richard Wallace, reviewed in Guttentag and Herman,¹ a unit banking area, Charleston, South Carolina, was compared with a limited branching area, Richmond, Virginia, and an unlimited branching area, Charlotte, North Carolina. Analyzing the business loan market, Wallace concludes that Charleston had the least vigorous competition

¹Richard Wallace, "Businessmen and Their Banks: Observations on Interbank Competition in Six Local Markets," undated, mimeographed cited in Jack M. Guttentag and Edward S. Herman, "Banking Structure and Performance," The Bulletin New York University (February 1967), p. 70.

while Charlotte maintained the more vigorous atmosphere. In a companion study, Clifton Kreps¹ looks at the same geographical areas but at more product lines including demand deposits, time and savings deposits, short term business loans, consumer installments and residential mortgages. Kreps's conclusions agreed with those of Wallace. Referring back to Graph 1 Total Shares of Bank Deposits Held by the Three Largest Banking Organizations it appears that these banks' shares of the market remained fairly equal over the period from 1959 to 1974 implying competition if not fierce competition. However, at the same time the concentration ratio for these three banks increased implying that the three maintained their market powers with respect to the rest of the banking market in North Carolina.

These facts are consistent with the theory that branching has the effect of intensifying competition. "The intensity of branch competition during transition periods of market entry has, in fact, been used as an argument against branch banks."² The reasoning behind this argument is that the competitive tactics of branch banking exceed the bounds of fair play and become predatory. The size and power of an

¹Clifton H. Kreps, Jr., "Character and Competitiveness of Local Banking," undated, mimeographed cited in Guttentag, p. 71.

²Guttentag, p. 78.

already established bank are used in these situations to intimidate, coerce and destroy smaller rivals who might be attempting to enter the market. To this extent branching while intensifying competition, at the same time tends to increase concentration and create larger banking organizations while reducing the absolute number of organizations. The statistics in Tables 7, 8 and 10 demonstrate that this is the case in the North Carolina banking market.

ENTRY AND BRANCHING

The relationship of new entry and branching is a very important aspect of competition in an unlimited branching state like North Carolina. New entry, like branching, increases competition but without the attendant problem of increasing size and power of an already established bank. However, in an unlimited branching state there are several reasons to depend on branching to expand the banking market. First, more branches are likely to be approved by regulatory agencies than new bank charters out of cautiousness. A new office that is unprofitable means failure for a unit bank but only a setback for a larger branching bank. Second, a branch bank can be maintained in urban areas where a unit bank would fail. Third, as going concerns, branching banks are more likely to move rapidly to exploit attractive branching opportunities.

In North Carolina, the authorities have chosen to approve liberally branching request. This has not been the fate of new bank charters. Between 1959 and 1970 only 9 new banks were chartered but 710 new branches were opened. This extreme dependence on branching to expand the banking market has the dual effect of increasing competition and concentration.

PRICE COMPETITION

Attempts to quantify the effects of concentration on the going rate of interest have met with grave difficulties created by the nature of banking. Before outlining the outstanding studies in this field, some expansion of these difficulties is in order.

One source of difficulty concerns the variation in the structure of banking organizations. Generally banks are delineated by branching or unit banking organizations. These variations include differences in size and number of offices within a single organization or geographic area. The rise in popularity of the one bank holding company adds further confusion to this issue. The intrabank organization differs greatly between nonholding company banks and one bank or multibank holding companies.

In addition to the problem created by the variations in structure, is the problem of choosing a distinctive service. The service or product must be singular to the commercial banking industry in order to examine relevant markets. Loan rates are most commonly used for this kind of analysis but the differences in loan characteristics and supply and demand conditions must be taken into account. "Failure to explain the variations in loan rates resulting from these factors, moreover, may make concentration appear to have some relationship to rates when in reality it does not, or vice versa."¹

Once the choice of a distinctive service is made the problem of how to represent that service arises. There are problems associated with either selecting a specific loan rate such as business loans or with choosing a cluster of loan rates. Although the data on the return on all bank loans is readily available from individual bank reports, these rates will include differences in loan portfolios as well as differences in loan characteristics. In addition, using groups of loans does not reflect differences in markets.

¹Theodore G. Flechsig, Banking Structure and Performance in Metropolitan Areas, (Washington: Board of Governors of the Federal Reserve System, 1965), p. 11.

On the other hand, if rates on a specific type of loan are used, the problem of the banking practice of dealing in package terms arises. Specifically, when granting a loan bankers may take into consideration the cluster of services used by specific customers before setting the price of the loan. This is the case especially for business loans where the loan rate is tied not only to credit ratings, loan size, and maturity date, but also by the customer's balances over an extended period of time, noncredit services offered by the bank, collateral business brought to the bank by the customer as well as other nonquantifiable factors. This will tend to increase the real cost of the loan but will not be reflected in the interest rate charged for that specific loan. This has particular consequence to this study as the Federal Reserve reports that large banks usually require compensating balances while most small banks do not.¹

Customers also add to the nonuniformity of prices. Transactions with banks often involve a large degree of bargaining and within certain range, the loan rate may be effected by the aggressiveness or power of the customer. Choosing small business loans will eliminate some of these problems. Because of their smallness, these customers have

¹Board of Governors of the Federal Reserve System, Federal Reserve Bulletin (Washington: U. S. Government Printing Office, June 1956), p. 576.

few real alternatives either from nonbanking institutions or from banks outside their immediate geographical area. This limits their bargaining power. Substantiating this theory is a survey published in the Federal Reserve Bulletin in April, 1956. The survey established that more than 90% of the small businessmen having outstanding debts of \$100,000 or less had borrowed within their own metropolitan area.¹

Finally, there is great variation in the things that effect price competition of banking services other than bank structure adding to the problems of ferreting out the effects of concentration on bank service pricing.

These include population density, income levels, growth rates of population and income, degree of urbanization, availability of nonbanking alternatives, local or regional differences in overall supply of and demand for funds, bank costs, and local traditions regarding the terms on which particular services are provided.²

Some of these variables are correlated with bank structure, making it difficult or impossible to sort out their separate effects.

¹ Board of Governors of the Federal Reserve System, Federal Reserve Bulletin (Washington: U. S. Government Printing Office, April, 1956), p. 345.

²Guttentag, p. 80.

OUTLINE OF STUDIES

With these problems in mind, the following studies address the problem of analyzing price competition in banking. Schweiger and McGee¹ use information on consumer installment loans obtained by expert 'shopping' surveys of banks and other financial institutions in various cities during 1960. To avoid having to allow for differences in risk, loan size, maturity, and other features of loan transactions, the survey asked for quotations on standardized automobile loans and unsecured cash installment loans. Their findings are as follows:

There was evidence that if banking in a particular area became too concentrated with a small number of banks dominating the city, rates might be set quite high. The extreme case here was providence with average car loan rates of about 13.0 percent and a cash loan rate of 15.0 percent. Other cities with relatively concentrated banking structures and high bank charges for loans were Detroit (11.6 car and 12.5 cash loan), San Francisco (11.4 car and 13.7 cash loan), and Cleveland (10.8 car and 14.1 cash loan). On the other hand, the lowest city-wide bank rates for both types of loans were found where there were numerous large banks in active competition. The outstanding cases here were New York City (9.7 car and 9.1 cash loan) and Boston (9.0 car and 10.8 cash loan)²

¹Irving Schweiger and John S. McGee, "Chicago Banking," The Journal of Business (July 1961), pp. 260-271.

²Ibid, p. 265.

These findings are suggestive but make no allowance for factors other than concentration. The study suggest that while concentration implies higher rates, large numbers of banks does not guarantee lower rates.

Franklin Edwards¹ was the first to use statistical controls to separate concentration effects from other influences. In brief, Edwards' model contains a multiple regression analysis relating the average contract rate on business loans in 49 cities to concentration ratios for these areas and to other factors affecting these rates. This analysis was carried through for three classes of loan sizes thus trying to distinguish wholesale from retail trade. Edwards found that loan rates tend to be highest where concentration is highest and where demand is greatest. He used the percent increase in manufacturing employment to measure demand. At the same time, loan rates tended to be lowest where the average size loan is greatest and where a large percentage of the loans had maturity dates of less than a year. These findings imply that market power effects the loan rate, concentration in banking raises loan rates while monopsony power lowers them.

¹Franklin Edwards, Concentration and Competition in Commercial Banking: A Statistical Study, Research Report No. 26 (Boston: Federal Reserve Bank of Boston, 1964), p. 20.

Of further interest in this study is the amount of weight concentration carried in the total equation.

The absolute importance of the concentration variables however is rather small...a 10% increase in concentration will, on the average, increase loan rates by only six basis points. Or if concentration were to increase by 60%, which is approximately the range of concentration values among the 49 metropolitan areas, loan rates would increase by only 36 basis points.¹

Also, when considering borrower size the effect of concentration decreases as the size of the loan increases. "For example, in the class \$1 to \$50 thousand (1955) a 20% increase in concentration raises loan rates on the average, by 36 basis points. In the size class \$50-\$250 thousand, the same increase in concentration raises rates by only 14 basis points."²

These findings underscore the difficulties in separating the variables that determine interest rates. It is apparent however that concentration in the banking market pushes the interest rate up. Also, this power can be ameliorated by an equally powerful borrower reducing the rate to some extent.

Some of the difficulties in obtaining and distinguishing the importance of the effects of concentration on isolated banking services has already been pointed out. A more

¹Ibid, pp. 296-297.

²Ibid, p. 298.

comprehensive measurement might show a greater rate of concentration are affected by some other factor that also effects rates then the cause and effect chain is not valid and an overstatement of concentration effects would result.

This is the argument advanced by Theodore G. Flechsig in Banking Market Structure and Performance in Metropolitan Areas. Flechsig concludes that the small but statistically significant effect of concentration on prices that Edwards found was actually due to regional differences. His reasoning goes as follows. Edwards includes mutual savings banks, which are clustered in the East and thus generates a statistical relationship between concentration and region. Furthermore, with no apparent relationship to concentration, loan rates usually are lower in the East than in the rest of the country.

Adding 19 major cities to the original 49 metropolitan areas of Edwards' study, Flechsig includes variables to measure regional differences. By doing this, the concentration effects of Edwards' model disappear. Flechsig concludes:

The results of the analysis do not prove that concentration is unrelated to market power. The findings do indicate, however, that within the range of existing concentration levels and in the context in which deposit concentrations are usually employed, no identifiable relationship was discovered between concentration ratios and the level of interest rates on business loans. This was true even for small borrowers who are restricted to financing within their local areas and, therefore, would be more vulnerable to noncompetitive pricing practices.¹

¹Flehsig, p. 66.

CHAPTER VI
RELATIVE PERFORMANCE

EFFICIENCY

The question of whether large banks are more efficient than small banks is inseparable from the question of whether branch banks are more efficient than unit banks because most of the largest and few of the smallest banks are branching banks. Operational efficiency refers to the real cost of providing specific services. Allocative efficiency refers to the extent to which resources are channeled into appropriate uses from the standpoint of the community served by a specific bank.

In trying to quantify operational efficiency there is the problem of adding apples and oranges. As a relationship between output and input, operational efficiency could be measured easily if bank outputs and inputs were similar and easily identifiable. However this is not the case. It often is not clear exactly what a unit of output is in a financial institution. For example, is loan output to be measured by the number of dollars loaned or the number of loans made? This question is solved in most of the literature by a matter of convenience. Output is measured in terms of dollars because the data available are in dollar terms.

The second problem of adding apples and oranges involves the weighting of inputs and outputs. If banks are multi-service institutions, they have several types of credit and deposit services which employ nonhomogeneous labor inputs as well as other kinds of inputs. By means of functional cost analysis it is possible to segregate the inputs attributable to each of several homogeneous outputs but a system of weights must be assigned in order to combine inputs.¹

The majority of statistical studies of banking efficiency have not used weighting systems but have used some variant of expense/asset ratios as a measure of efficiency. The following is an outline of the problems incurred by not weighting the ratios and the biases produced by these ratios.

PROBLEMS OF NOT WEIGHTING

Either total assets or total earnings has often been used by investigators. This procedure implies that \$1 of one type of asset is equal to \$1 of any other asset while to the owner of these assets their worth varies widely with respect to terms of expense, risk, convenience, liquidity and other factors.

¹A thorough discussion of weighting systems is found in Appendix A of Guttentag, pp. 169-180.

A more refined method gives certain assets a greater weight if they are relatively costly to acquire. By means of a multiple regression analysis the ratio of expenses to assets is related to the importance of different types of assets in bank portfolios. This method does not assign weights in a systematic way because of the narrowness in defining the relative weights. The only assets given weight are those that are relatively expensive to obtain such as consumer-installment loans. So while the theory of weighting is good the implementation is limited to only a few bank assets.

It should be noted that even a good system of weighting assets does not make allowance for a bank's noncredit output while their expenses are included in total expenses. The provision of deposit and trust services as well as branch offices affect bank expenses but are not included in bank output.

On the input side, all statistical studies of bank efficiency use current expenses as the input measure. This implies that the market prices of inputs are the appropriate weights. One problem associated with this procedure pertains to interest payments on time deposits. Most economists would classify such interest payments as inputs to the bank, not the community, suggesting that the expense ratios of banks having relatively large interest payments

are biased upward. Some studies allow for this by listing interest payments as a separate expense. Others adjust expense to asset ratios for the influence on expense of varying ratios of total deposits in the liability structure of different banks. Neither is particularly satisfactory.

Another problem with the use of current expenses to measure current bank inputs is that, because of insufficient data, investigators must assume that all wage and salary rates are the same for all banks. Clearly this is an inappropriate assumption especially when the study covers a broad geographical area.

BIASES

The literature that approaches the comparison of the efficiency of large versus small banks, or similarly, branch versus unit banks uses one of two approaches. One approach is to make a comparison of the efficiency of branch and unit banks of the same size class; and the second approach compares the efficiency of different size classes regardless of organization. Both use expense/asset ratios that involve certain biases which are unavoidable because of systematic differences of the two groups concerning growth rates, asset structures, range of noncredit services, interest payments on time deposits, and wage and salary rates.

All of the biases seem to overstate the expenses of branch banks and therefore underrate their efficiency. This is particularly noticeable when size is held constant in comparisons of branch and unit banking.

The problem of using a span of one years time, either calendar or fiscal, produces a bias that makes rapidly growing banks look less efficient than slower growing banks. Expense/asset ratio studies implicitly assume that expenses incurred in a given year can be attributed to assets on hand at the end of that year. Some assets have a life longer than one year and the more of these in a bank's asset structure the lower the expense ratio. Thus the more established or slower growing bank will look relatively more efficient than the rapidly growing bank.¹ Large banks grow slower than small ones so this bias would tend to overstate a large bank's efficiency.

The second bias also involves the differences in asset structure. Branch banks generally attempt to capture the small household business. Their asset makeup is largely in loans, the most expensive kind of asset to acquire. Also, most of their loans are of the consumer installment kind, the most expensive kind of loan to make. Within the business

¹Some implications can be drawn with respect to class of bank and growth rate from the study by David and Charlotte Alhadeff, "Growth Rates of Large Banks-1930-1960," The Review of Economics and Statistics, (November 1964), pp. 356-363.

loan category, branch banks undertake more small loans thus resulting again in a more expensive type of asset. Table 13 exhibits the result of this bias. The differences in asset structure result in a bias because the expense/asset ratio is calculated in a manner indifferent to the differences in earning power of assets.

TABLE 13
CURRENT OPERATING EXPENSES AS PERCENT OF ASSETS,
SELECTED YEARS, 1950-1964

Bank Deposits in Millions	California*	United States**			
	1950 Percent of Loans and Investments	1950	1959	1959	1964
		Percent of Loans and Investments		Percent of Total Assets	
Less than \$.5	4.38	3.40	3.60	2.90	3.45
.5-1.0		2.71			
1-2		2.45	3.48	2.84	3.46
2-5	2.89	2.29	3.39	2.76	3.41
5-10	2.56	2.23	3.47	2.83	3.44
10-25	2.82		3.55	2.89	3.51
25-50	2.55	2.19	3.54	2.87	3.49
50-100		2.08	3.42	2.72	3.38
100-500			3.38	2.58	3.17
More than 100	1.99	1.71			
More than 500			3.01	2.25	2.91

*Unit member banks only. Intervals are, under 2, 2-5, 5-15, 15-50, 50-150, and more than 150.

**All insured banks.

Sources: Tables B1 and B4; FDIC, Annual Reports, 1964, p. 204; 1959, p. 154.

The cost incurred in providing noncredit services by banks is included in expenses but not reflected in asset holdings. This fact creates another bias in expense/asset ratios. Trust services, deposit services and bank offices fall into this category. Assuming that big banks offer proportionately more services than small banks, this bias would make the large bank look less efficient than the small. Since the convenience offered by branches is not reflected in the ratio but the expense is, then branch banks again will look less efficient than unit banks.

The last bias of note is that, since large banks are usually located in more urban areas than small ones. they tend to pay higher rents and salaries once again distorting the expense asset ratio.

RATIOS

Taking into account all these biases, expense/asset ratios are not completely useless. Table 14 consists of different efficiency ratios for banks of different size classes with no structural differentiations. The ratio of total operating expenses total assets rises until a bank's total deposits reach \$50 million and thereafter it falls. This implies that economies of scale decrease at this size. Additionally, if this is examined in conjunction with the number of employees per office the conclusion is inescapable. Banks experience rapid diseconomies of scale and suffer with respect to efficiency beyond these sizes.

TABLE 14

EFFICIENCY RATIOS FOR BANKS OF DIFFERENT SIZE
CLASSES IN NORTH CAROLINA, MAY, 1973

Bank Size	Less than <u>2,000</u>	<u>2,000-</u> <u>5,000</u>	<u>5,000-</u> <u>10,000</u>	<u>10,000-</u> <u>25,000</u>	<u>25,000-</u> <u>50,000</u>
Net Income/ Total Assets	.00781	.0072234	.008182	.0085214	.0085377
Total operating income/total assets	.0561548	.0563285	.0570228	.0574033	.0578636
Total operating expenses/total assets	.0458953	.0469365	.0466875	.0468472	.0474281
Net Income/ Total Capital	.0664762	.0759594	.094529	.1067548	.1067628
Capital/ Total Assets	.1174856	.0950957	.086556	.0798228	.0799691
No. of banks/ No. of employees & officers	.1806282	.1194996	.0730617	.035931	.0163182
No. of employees/ No. of banks	5.536	8.3682	13.687	27.83	61.28

TABLE 14 (cont.)

Bank Size	50,000- 100,000	100,000- 500,000	500,000- or more	
Net Income/ Total Assets	.008198	.0078763	.007138	A measure of return on total funds.
Total operating income/total assets	.0572662	.0561385	.0515019	A measure of gross yield to total funds.
Total operating expenses/total assets	.0473739	.0463539	.0419559	A measure of the cost of acquiring and maintaining a stock of income-producing assets.
Net Income/ Total Assets	.104365	.1004312	.0886854	A measure of return on investment should increase with bank size.
Capital/ Total Assets	.0785512	.0784253	.0804949	Should vary inversely with bank size.
No. of banks/ No. of employees and officers	.0081915	.0026762	.0003462	
No. of employees/ No. of banks	122.077	373.65	2887.9	No. of employees per bank.

Source: Federal Reserve Bulletin, May, 1973, pp. 104-106.

Reference to other ratios in this area bears out the conclusion that somewhere in the range of 50 to 100 million dollars in total deposits is the point at which banks begin to experience diseconomies of scale. Having considered the ratio of total expenses/total assets as the cost of acquiring and maintaining a stock of income producing assets, an analysis of the ratio of total operating income/total assets will result in a measure of gross yield to total funds. Again the ratio rises up to the 25-50 million dollar total deposits. For the group of banks with 50 million dollars in total deposits and more the gross yield falls. As one would expect the same is true for the ratio of net income/total assets which is defined as a measure of return on total funds.

Additionally turning from total asset ratios and considering capital ratios the same conclusions are borne out. Net income/total capital is a measure of return on investment and should increase with the size of a bank if economies of scale are present. This ratio too begins to fall for banks larger than 50 million dollars in total deposits.

These measures are not precise enough to make a policy suggestion that no bank should be larger than 50 million dollars in total deposits; however they do suggest that the argument of savings for the customer is not a valid argument for increasing the size of banks that fall into this size category.

A more positive case can be made for large banks if allocative efficiency is used as a standard rather than operational efficiency. The large bank is better able to enter into service competition than the small bank. This has nothing to do with whether the service is actually used but is borne out in a study by Weintraub and Jessup for the House Committee on Banking and Currency. These researchers found that in all but a few cases services were offered more often by a large bank than a small one.¹

Kohn concludes his study of New York State similarly. Since mergers create larger banks, he examined the increase in services reported to be direct outgrowths of mergers. Four out of five of the 205 mergers considered resulted immediately in the addition of at least one new service. The services most often added were, in order of frequency, personal and corporate trust service, car dealer paper purchase, term loans to business, home improvement loans, special checking accounts, direct auto loans and Christmas club accounts.²

¹Robert Weintraub and Paul Jessup, A Study of Selected Banking Services by Bank Size, Structure, and Location, A Report prepared for the Sub-Committee on Domestic Finance of the House Committee on Banking and Currency (Washington, 1964), p. 163.

²Ernest Kohn, Branch Banking, Bank Mergers and the Public Interest, (New York: New York State Banking Department, 1964), pp. 156-160.

TABLE 15
 AVAILABILITY OF SELECTED BANKING SERVICES
 IN NEW YORK STATE
 SPRING 1962

	New York City Banks		Banks Outside New York City			
	Major Banks	Other Banks	Unit Banks	Major Branch Banks	Branch Banks with only In-town Offices	All Other Branch Banks
	(percentage of reporting banks offering service)					
Number of Reporting Banks	9	21	155	29	11	85*
<u>Type of Service</u>						
Special Checking Accounts	89%	86%	72%	100%	91%	89%
Christmas Club Accounts	78	75	89	100	91	98
Term Loans to Business	100	71	65	97	82	78
Direct Auto Loans	89	76	92	97	100	98
Purchased Paper (Auto Dealers)	56	29	56	97	82	76
Home Improvement Loans	78	67	83	90	100	96
Personal Trust	100	52	21	93	55	67
Corporate Trust	100	48	12	86	36	48
Safe Deposit Boxes	100	62	97	100	91	100
In-plant Banking	56	5	4	52	0	7
Travelers Checks	100	100	100	100	100	100
Night Depository	100	76	71	100	100	98

* For certain services, data were available for only 83 or 84 banks.

If the matter of efficiency were a simple matter of cost accounting there would be no question concerning the optimal size of banking organizations. The point at which banks started experiencing diseconomies of scale would be easily discernible and appropriate action could be taken. However, since consumer welfare is the more important basis for judgment the question leaves the realm of mere numbers and becomes a matter of judgment. North Carolina's banking market is clearly heavily concentrated to such an extent that it logically follows that there is a loss in consumer welfare. Industrial organization theorists agree that high concentration produces price leadership whether implicit or explicit and eventually results in a loss in consumer welfare.

CHAPTER VII

CONCLUSION

There is no question that the banking market concentration of North Carolina has increased dramatically since 1955. This concluding section evaluates whether or not this trend achieves a balance between growth, competition and efficiency. In other words, whether or not the banking market of North Carolina approaches a 'socially optimal structure'.

Defining a socially optimal structure in banking is particularly difficult because banking is neither a public nor a private good. On the one hand it needs regulation because of the central function the industry performs in the national economy. On the other hand, it is not an industry that exhibits natural monopoly characteristics. Competition is needed in the banking industry to avoid concentration in such a powerful industry. Furthermore, there are in banking, as in most industries, economies of scale that eventually turn into diseconomies. Pinpointing where economies cease

and diseconomies begin should be one of the tasks of the regulatory agencies.

Stuart Greenbaum describes four performance characteristics which he feels should be the aim of the regulatory agencies.

- 1) Productive efficiency--the social costs of producing banking services with an optimal structure would be equal or less than the social cost of producing the same services with any other implementable banking structure.
- 2) Allocative neutrality--the overall allocation of resources in the economy would not be appreciably influenced by any peculiarity in the banking structure.
- 3) Absence of exploitation of consumers or suppliers of input-banks cannot behave like monopolist or monopsonist.

- 4) Responsivity to changes in technology and in demand for banking services--time required by the banking system to adopt new technology and to adjust its operations to shifts in the composition and magnitude of the public's demand for financial services.¹

The difficulty is that by the nature of banking, these goals conflict with one another. Productive efficiency implies the need for large banking organizations to take advantage of economies of scale available in the financial services. Responsivity to changes in technology and demand is also more easily achieved by a large bank with personnel assigned to keeping abreast of these changes. On the other hand, allocative neutrality and absence of exploitation occur when the banks in the system are relatively small and independently owned, facilitating a competitive structure.

Needless to say implementing these guidelines is a complex task and, as is true in so many instances in Economics, a completely objective method of investigation has not been discovered. Subjectively, however, one can ascertain if the requirements of technological efficiency and benefits of competition are being balanced by the regulatory agencies.

¹ Stuart Greenbaum, "Banking Structure and Costs: A Statistical Study of the Cost-Output Relationship in Commercial Banking," Unpublished Doctoral Dissertation (The Johns Hopkins University, 1964), p. 13.

REGULATORY ACTIVITIES 1955-1974

The North Carolina Commissioner of Banks, Board of Governors of the Federal Reserve, Federal Deposit Insurance Agency and The Comptroller of the Currency have all been lenient with merger approvals between 1955 and 1970. The number of banks in North Carolina, as noted earlier, was reduced by more than one-half during this period. This trend slowed considerably after the passage of the 1970 Amendment to the Bank Holding Company Act of 1956. Between 1970 and 1974 there was a net loss of only six banks. Because of the Amendment, the regulatory agencies became more stringent in approving mergers and acquisitions in situations where it was felt that they might be detrimental to competition. It is important to note that the mere knowledge of this new regulatory attitude served to deter potential applications for merger or acquisition.

Even with the slowing of the merger rate in North Carolina after 1970, the overall trend of the market structure has been toward concentration. In 1955 there were 220 banking organizations but by 1974 there were only 92.

Another factor that contributed to the increase in concentration is the branching policies of the regulatory agencies. During the period 1955 to 1970 branching was rampant-- a net increase of 793 branches brought the North Carolina total to 1119 branches. While mergers decreased

between 1970 and 1974, branching increased at an even faster rate. The four year increase was 428 branches. While branching increases competition to some extent by increasing the number of banking offices available to the public, it also serves to increase concentration by increasing the size of the banks already in the market. The ultimate effect of such active branching is best understood in conjunction with entry policies.

There has been very little activity in the area of new entry in North Carolina since 1955. Between 1955 and 1970 only 9 new banks were approved by the regulatory agencies. This trend has increased since 1970. For example there were 6 new banks established in 1974 alone.

In sum it appears that the governing bodies are exhibiting at least a desire to slow down the growth of concentration in North Carolina banking. The decrease in the approval of mergers and the increase in the approval of new entrants potentially will increase the competition in the market. However, there is little balance between the two, mergers still far more prevalent than new banks. The increase in branching has served only to make the North Carolina market more concentrated. The share of total deposits accounted for by the three largest banks is still growing. It is evident that much is left to do in order to balance the public interest against the banking industry interest.

POLICY ALTERNATIVES

The banking industry in North Carolina appears to have reached a plateau of concentration in the last two years. The structural changes of the late 1960's cemented the positions of First Union, Wachovia and MCNB as the leaders of the banking industry. The main changes that have taken place since 1968 have been to increase their total share of the market with respect to all other banks while their respective positions equalized. Thus policy alternatives to break the hold that these banks maintain over the banking market in North Carolina should be directed at the structure of these three banks.

If the only aim of changing the banking structure were to eliminate concentration then the job would be relatively easy. A return to unit banking along with the elimination of bank holding companies of any sort would insure a market structure of a large number of small banks. This simple solution however, disregards economies of scale, convenience and efficiency in short all the things that provide consumer welfare.

So the job of reorganization is complicated by including consumer welfare with elimination of concentration as parameters for an optimal banking market structure. As stated before the causes of concentration in the North Carolina market -- holding companies and unlimited branching aided by minimal entry-- work at cross purposes. On the one

hand branching adds considerably to consumer welfare by providing convenience and an illusion of smallness for the neighborhood bank customer. Holding companies may in some instances cut costs for the customer because of the availability of in-house operations -- computer, courier and printing services to name a few. Additionally strict entry requirements protect the consumer from bogus operations quickly entering and leaving the market.

On the other hand, branching contributes to concentration by promoting large sprawling banking operations which enter markets before new banks that are held back by the stricy entry requirements. While there is the possibility of economies of scale for holding companies they have over-extended and cancel out the savings of necessary operations by entering into not so closely related ventures and cover losses by bookkeeping shuffles.

There are some dramatic steps that would eliminate these problems. First because of the vast gains in consumer welfare maintain the present branching system in North Carolina but at the same time relax the entry requirements to the same level as those of the Federal regulatory agencies. This step would enable new banks to enter markets previously only open to branches of already established banks increasing the number of banks in the market without decreasing the number of actual offices available to the public (a consequence of unit banking).

The second step reduces the size of the banks in the market by curtailing the activities of bank holding companies. The new holding companies would limit the activities to banking, in-house computer service and courier service. This would add to consumer welfare through savings in operations while eliminating over-extension of banks into real estate, renting, insurance et cetera. The bank holding company could no longer invest in broader line operations and would maintain the traditional separation of banking and industry.

The third and final step would break up the four largest banks in North Carolina into 8 or more banks. This could be accomplished by limiting the size of any bank to total deposits of \$1 billion in 1974 dollars. As seen in Table 10 the four largest banks account for over \$1 billion apiece and for 61.9% of the banking market in North Carolina. By dividing these banks at least in half the market would be less concentrated possibly with 9 banks accounting for 68.6% of the total deposits.

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