Increasing competition between financial institutions

The combined forces of regulatory, technological, and general economic changes are causing the financial services provided by commercial banks, savings and loan associations (S&Ls), mutual savings banks and credit unions to blend together. Commercial banks are diversifying their assets toward higher percentages of mortgages and consumer loans, and thrift institutions are seeking authority to diversify their loan structures. Moreover, mounting pressures are working toward, and have partially succeeded in, changing the authority of thrifts to include third-party payment accounts similar to commercial bank demand deposits. As a result of this increased similarity these institutions are becoming more directly competitive with each other.

This article inquires into the structure of commercial banks and thrift[1] institutions at the national, state, and local levels and explores the development of increased competition between these institutions as they become more homogeneous in their product lines.

Structural reform

Since the early 1960s formal studies have indicated that some restructuring of the financial system would be desirable and helpful in promoting national economic objectives. The reform concept has been supported by every independent study group that addressed the subject, from the Commission on Money and Credit in 1961 to President Kennedy's Committee on Financial Institutions in 1963 (the Heller report), the Hunt Commission in 1971, and more recently, the Financial Institutions and the Nation's Economy (FINE) study in 1975. In general, the recommended reforms would make commercial banks and thrifts more homogeneous with respect to services rendered to the public, thereby, it is argued, promoting operating efficiency, better allocation of financial resources, and increased competition.

The FINE study proposals were resisted by numerous groups—including government regulatory bodies as well as financial industry groups—and new legislation in the industry never emerged from the banking committees of the House of Representatives and the Senate in 1976. The Financial Institutions Act of 1976, which would have given demand deposit powers to all thrifts and would broaden their loan powers, was debated in the House Banking, Currency, and Housing Committee and was eventually defeated in May 1976. A strong attack against the bill by the commercial banking sector and a general lack of public interest and support were apparently responsible for the bill's demise.

Three piecemeal reform bills that were introduced in the Senate Banking, Housing, and Urban Affairs Committee met a similar fate. Committee resistance was greater than expected and all three were tabled in September 1976.

In contrast, the financial institutions themselves have been making substantial strides toward homogeneity by working within current statutes and pushing their interpretations to the limit, even into the courts. Moreover, a number of financial statutes at the state level have been changed recently to

[1]The term, thrifts, is herein defined to mean savings and loan associations, mutual savings banks, and credit unions.

favor broader powers for the thrifts. Third-party payments accounts similar to commercial banks' demand deposits—negotiable orders of withdrawal (NOW)—are being used by mutual savings banks and savings and loan associations in states where statutes permit. These NOWs are drafts depositors can write against interest-bearing savings accounts. (The state of Illinois has adopted a law permitting state-chartered savings and loan associations to issue noninterest-bearing accounts—NINOWS.) In addition, many credit unions may now issue share drafts, which are similar to NOW instruments, and current legislative proposals would significantly expand their asset powers to include a wider range of loans to customers. These and other proposed changes are evidence that the financial institutions' environment is one of dynamic change and the trend toward increased homogeneity will most likely continue.

Industry developments

Commercial banks and thrifts are similar in some respect in that the bulk of the liability side of the balance sheet of each institution consists of public deposits yielding interest. In the case of thrifts all time and savings deposits—excluding NINOWs—yield interest to the depositors. In addition to time and savings deposits commercial banks are permitted to issue demand deposits, the principal vehicle of our national payments mechanism. With the exception of a few states where mutual savings banks may issue demand deposits, only commercial banks enjoy this privilege. By law, commercial banks may not pay explicit interest on demand deposits, but current debate on this issue suggests elimination of the restriction.

The financial community faces many obstacles to the efficient allocation of credit due to legislative and regulatory constraints. For example, Regulation Q (under which the Federal Reserve in conjunction with other regulatory agencies sets the maximum allowable interest to be paid on time and savings deposits) deposit rate ceilings at times have caused financial institutions to lose deposits when market interest rates have risen above regulated interest levels. When this kind of interest disparity has occurred, the public has shifted funds out of time and savings accounts into higher yielding market instruments. This process, known as "disintermediation," has been particularly severe in the case of mutual savings banks and savings and loan associations, causing serious shortages of funds in the housing market in 1966, 1969, and 1974.

Continuing technological advances in the finance industry are necessitating substantial changes in the operations of all financial institutions. Wire transfer of funds and electronic bookkeeping have become commonplace in many areas of banking. As a result, mounds of labor intensive paperwork have been eliminated. A comprehensive nationwide network of electronically linked banks is foreseen for the future. The new system is evolving under the general name of electronics funds transfer system (EFTS). Innovators of EFTS foresee continued elimination of labor-intensive paper handling with increased speed in transactions and reductions in operating costs.

Many local and regional innovative electronics funds transfer systems are in operation. For example, in February of this year the Iowa Transfer System acclaimed itself the first operational statewide banking network; this network involves about 550 out of the 661 Iowa banks and has the capability of switching on-line transaction messages between participating banks and performing daily settlements proceeding through the Federal Reserve System.

Increased use of magnetic bank cards and EFTS hardware will tend to reduce the growth of demand balances held at commercial banks and blur the distinction between demand deposits and interest-bearing deposits as consumers are able to transfer funds instantaneously from interest-bearing accounts to demand accounts. Moreover, as the issuance of third-party instruments—NOWs and share drafts—by thrifts becomes more widely permitted the primary distinction now enjoyed by commercial banks will disappear. Regulatory change will be induced as technological advances continue to exert pressures in the marketplace.

Industry competition

Traditional analyses of competition within the financial industry segregate commercial banks, mutual savings banks, savings and loan associations, and credit unions into separate "lines of commerce." For example, in bank merger and holding company acquisition cases, the Supreme Court has decreed that "commercial banking" is a relevant line of commerce to be used in analyses of competition. However, the assertion that the different and many services offered to the public by commercial banks constitute only one distinct service, or a distinct bundle of services, called "commercial banking," is not intuitively appealing nor realistic. Many distinct product lines of financial services are offered by different kinds of firms within the financial industry. Commercial banks most certainly compete with thrifts for deposits and certain types of loans. Moreover, from the point of view of the thrift institutions, commercial banks are full, 100 percent competitors offering virtually the same services to the public.

On the liability side of the balance sheet commercial banks compete with all thrifts for time and savings deposits, but compete only with other commercial banks for demand deposits (although NOW instruments and share drafts offered by thrifts currently offer effective competition in a few states).

On the asset side of the balance sheet the competitive structure is significantly more diverse among the depository institutions. Commercial banks can offer a full spectrum of loans whereas thrifts are restricted, by law, to offering certain specialized types of loans. Furthermore, other closely related financial entities, such as finance companies, retail outlets, life insurance companies, and government-supported finance agencies, are important asset competitors for both thrifts and commercial banks.

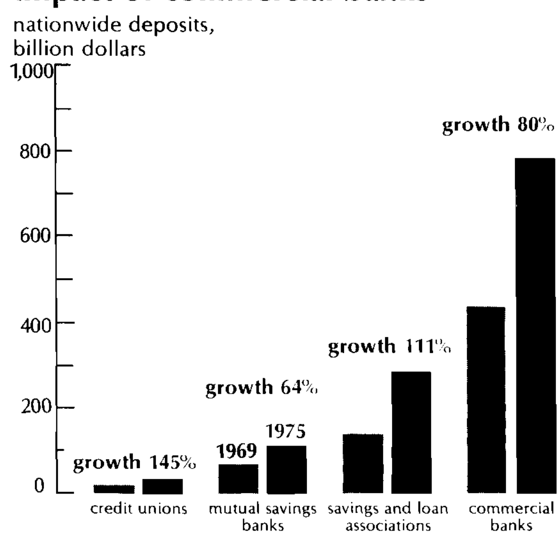
Commercial banks have a competitive advantage by being able to offer a "full line" of financial services to the public, as opposed to the restricted range of services being offered by the thrifts, i.e., the one-stop convenience at a commercial bank has definite customer appeal.

Credit unions are somewhat unique with respect to their customer base. They cannot compete in the public domain, but must restrict their customer solicitation to the membership of the organization with which the credit union is associated. This limited access to credit unions severely restrains their sizes, relative to other financial organizations. While credit unions operate with certain disadvantages, they do enjoy some advantages, such as subsidized office space and management, tax-free status, and the ability to pay higher interest on savings to depositors.

Nationwide analysis

Commercial banks hold, by far, the largest share of aggregate national deposits. At year-end 1975 banks held about 64.6 percent ($786 billion) of the nation's total ($1.2 trillion). The national market shares held by

The high growth of credit unions is overshadowed by the dollar impact of commercial banks



the four depository institutions have shifted slightly in the recent past. Since 1969 commercial banks and mutual savings banks have lost some market shares to savings and loan associations and credit unions. The commercial banks' share of total national deposits has decreased about 2.2 percentage points; and the share held by mutual savings banks decreased by about 1.2 percentage points. The shares held by credit unions and savings and loan associations increased 0.7 and 2.7 percentage points, respectively.

Deposit growth comparisons between the depository institutions show increases across the board. While commercial banks enjoy the dominant position by holding the vast majority of total deposits, their growth over the period 1969-75 has been less than that of either S&Ls or credit unions. Credit unions show the most impressive growth; however, the relatively large growth of 145 percent becomes less impressive when dollar amounts are viewed. The dollar aggregate increase in deposits over the 1969-75 period for credit unions has been only $19.9 billion as compared to a $350.7 billion increase for commercial banks. While growth has been less for commercial banks, the 62.2 percent share of aggregate deposit increases acquired by commercial banks more accurately reflects the dominant position of commercial banks among the four depository groups.

While the depository institutions all compete for time and savings deposits, the structure of asset-related competition is quite different and includes other types of financial institutions.

Aggregate deposit increases over period from 1969-75

	Growth in billions	Percent
Commercial banks	350.7	62.2
Savings and loans	150.5	26.7
Mutual savings banks	42.9	7.6
Credit unions	19.9	3.5
TOTAL	564.0	100.0

Analysis of instalment loans introduces finance companies and retail outlets as significant asset competitors of credit unions and commercial banks. The asset portfolio of credit unions is primarily composed of consumer instalment loans (for the most part S&Ls and mutual savings banks are not permitted to make instalment consumer type loans). Commercial banks are the primary and dominant competitors in the instalment loan market, holding nearly half of the total nationwide market. Note that both commercial banks and credit unions have increased their market shares at the expense of finance companies and retail outlets, shifting more of this specific loan market under the umbrella of depository institutions.

Nationwide aggregate instalment loans by lenders

	1965	1975
	(percent)	
Commercial banks	40.9	46.8
Credit unions	10.3	15.7
Finance companies	33.6	24.0
Retail outlets	13.8	11.3
Others	1.4	2.2
	100.0	100.0

SOURCE: *Federal Reserve Bulletin.*

The data here are aggregated as if the consumers of instalment loans were a homogenous group. This may not be the case and a caveat is in order. It is possible, for example, that a significant portion of finance company borrowers are in a different risk class—a low-risk instalment loan borrower would most likely be accommodated by *all* the lending institutions, but a high-risk borrower might be turned down by a conservative commercial bank yet be accommodated by a finance company, which typically charges higher interest rates to accommodate the higher risk.[2]

Another major category of asset competition for depository institutions is mortgage lending. The asset portfolio of both mutual savings banks and S&Ls is composed primarily of mortgages (to a much lesser degree they also deal in property improvement loans). Their primary competitors for mortgages are commercial banks, life insurance companies, and federally supported agencies.

Nationwide aggregate mortgage loans outstanding on one- to four-family nonfarm homes

	1965	1975
	(percent)	
Savings and loans	44.3	40.6
Commercial banks	14.3	17.2
Mutual savings banks	14.1	10.3
Life insurance companies	13.9	4.0
Federally supported agencies	3.0	12.8
Others	10.4	5.1
	100.0	100.0

SOURCE: *Savings and Loan Fact Book, 1976.*

The data indicate that savings and loan associations and commercial banks significantly increased their market shares of mortgage loans during the 1965-75 period, mostly at the expense of life insurance companies and "others." Although mutual savings banks specialize in mortgages (and are operationally similar to S&Ls), their share of outstanding residential mortgages is much smaller. The reason for the smaller and declining market share of mutual savings banks is that they have significant representation in only about 10 states, all in the northeastern United States, and token representation in seven other states (for example, in the Seventh Federal Reserve District three mutual savings banks are located in Wisconsin and four in Indiana).

Further comparison of the depository institutions shows that credit unions—holding the least aggregate deposits of the four groups—far outnumber the other depository groups combined. And while continuous deposit growth has occurred within each group, the inverse is generally true with respect to total number of firms. (See table at top of next page.) Over the 1969-75 period the change in the number of institutions is negative for all groups except commercial banks. However, the competitive status of commercial banks is a special case because of the effect that the holding company movement has had upon the commercial banking structure. Although the number of commercial banks has increased over the period, the total number of banking organizations has decreased, following the trend of the thrift institutions.

Growth of depository institutions and the concomitant decline in the total number of firms in the industry implies that a concentration of financial resources is taking place. However, bona fide markets for the subject institutions are believed to be more local in nature. The U.S. Supreme Court has consistently expressed the relevance of local markets for commercial banks, and relevant markets for other depository institutions would, in all likelihood, be similar.

A decreasing number of firms at the national level does not necessarily mean that concentration is actually increasing at the local market level. It is possible for increases in aggregate concentration to occur at either the national, regional, or state levels without similar increases occurring in local markets.

[2] A related question is whether or not instalment loans offered by the different financial institutions are true substitute goods. This is an empirically testable question using the theoretical tool of "cross elasticities of demand." However, the difficulty of data collection for this type of analysis renders the exercise beyond the scope of this article.

The theoretical tool, "cross elasticity of demand," can be used to determine if one product or service is in competition with and is a substitute for another. It is computed as follows:

$$E_{a,b} = \frac{\text{percent change in quantity demanded of product a}}{\text{percent change in price of product b}}$$

A positive cross elasticity between two products indicates that they are substitute goods to some degree and are therefore competitive products.

Nationwide growth comparisons of depository institutions

	Number of institutions 1969	Number of institutions 1975	Percent change
Commercial banking organizations*	13,035	12,779	- 2.0
Savings and loans	5,835	4,964	-14.9
Mutual savings banks	496	476	- 4.0
Credit unions	23,876	22,812	- 4.5
TOTAL	43,242	41,031	- 5.1

*Commercial banking organizations reflect the consolidating effect that bank holding companies have had upon the commercial bank structure; the number of individual commercial banks increased 7.1 percent over this period.

SOURCES: *Federal Reserve Bulletin; CUNA Yearbook; National Fact Book of Mutual Savings Banking; Banking and Monetary Statistics, 1941-70.*

For example, a multibank holding company that expands throughout a state by acquiring banks in several *different* markets would not cause increased concentration in any specific local market; however, statewide analysis would show an aggregate concentration increase due to the elimination of the acquired banks as individual competitors. Similar analysis can be extrapolated to regional and national levels.

State-level analysis

The competitive relationships between depository institutions can be more meaningful at the state level than at the national level. At the state level financial groups tend to be more homogeneous because each category of institutions must generally abide by the same state-imposed regulatory constraints (with some exceptions between state and federally chartered institutions) and face generally the same regional economic environment.

Of the five states represented in the Seventh Federal Reserve District, the Wisconsin financial structure seems to be most representative of financial institution national norms and is selected as the sample state from the Seventh Federal Reserve District to analyze in terms of changing competition between the depository institutions.

The State of Wisconsin displays a reasonably good cross section of liberal institutional operations. It has token representation of mutual savings banks (three), very representative operations of savings and loan associations and credit unions, and state law allows multibank holding company operations and limited branch banking. By contrast, the state of Illinois, the most structually restrictive of the five states in the District, does not allow multibank holding companies or mutual savings banks, and branch banking is severely restricted.

Wisconsin depository institutions vs. national norms
(year-end 1975)

	Number of depository institutions: Wisconsin (percent)	Number of depository institutions: Nationwide (percent)	Depository institution deposits: Wisconsin (percent)	Depository institution deposits: Nationwide (percent)
Commercial banks	44.0	34.1	68.6	64.6
Savings and loans	8.7	11.6	27.8	23.5
Credit unions	47.2	53.2	3.4	2.8
Mutual savings banks	0.1	1.1	0.2	9.1
TOTAL	100.0	100.0	100.0	100.0

SOURCES: *Federal Reserve Bulletin; CUNA Yearbook; National Fact Book of Mutual Savings Banking.*

In view of the continuing pressures toward regulatory changes and the penchant of thrift institutions to innovate close substitutes for demand deposits, the following question is pertinent: "What would be the effect on the deposit structure of depository institutions if a change in regulation gave demand deposit powers to the three groups of thrift institutions?" To evaluate this question, the following assumption will be made: the vesting of full demand deposit authority in all four depository institutions would bring about a shift in demand deposits out of commercial banks and into the thrifts until the share of demand deposits held by each group was equal to its current statewide total deposit share.

Under the foregoing assumption commercial banks in Wisconsin would lose, in the aggregate, about $1.7 billion of demand deposits, or 7.6 percent of total state deposits. Savings and loan associations would receive the lion's share, gaining about $1.5 billion in demand deposits; credit unions and mutual savings banks would reap nominal increases.

However, the shift in demand deposits away from commercial banks is, in all likelihood, grossly overstated, at least in the short run. All depository institutions have expertise in their respective areas of operation, and expertise in new areas of operations cannot be acquired rapidly. Moreover, the institution wih competitive advantages in each area of operation would concentrate on the maintenance of those advantages and thereby discourage entry by others. Customer loyalty would also tend to impede the demand deposit shift.

A recent study of NOW accounts in Massachusetts and New Hampshire suggests a demand deposit shift of about 1 percent from commercial banks to NOW accounts at thrifts after two years of NOW experience in those two states.[3] Commercial banks in these states also had NOW authority; thus, they competed with the thrifts for NOWs and the shift was relatively small. It seems likely that the deposit shift of 1 percent might have been less or totally insignificant if commercial banks had been paying interest on demand deposits.

The result of a deposit shift in Wisconsin as hypothesized herein would be a long-run extreme case and would probably never be reached due to the rigidities within each institutional area of operation. Moreover, it is intuitively plausible that a shift of deposits would be greatly diminished or insignificant if commercial banks were allowed to pay interest on demand deposits, issue NOW accounts, and/or pay the same rate as thrifts on time and savings deposits.

Local market effects

Contrary to standing Supreme Court dictum, it is generally believed that commercial banks and thrifts compete in certain product and service lines.[4] From the standpoint of thrifts commercial banks are 100 percent competitors because commercial banks offer many more product lines and services than do thrifts. An increasing homogeneity in the demand deposit category adds a new product line to thrifts (they would still view commercial banks as 100 percent competitors); however, commercial banks would view the change as a new group of demand deposit competitors infringing upon their monopoly rights.

In order to ascertain the competitive impact in a local market that would occur by

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[3]John D. Paulus, "Effects of NOW Accounts on 1974-75 Commercial Bank Costs and Earnings," Staff Paper, Board of Governors of the Federal Reserve System, August 1976, pp. 6.

[4]In the case of *U.S. v. The Connecticut National Bank*, U.S. Sup. Ct., No. 73-767, June 26, 1974, the Supreme Court reaffirmed its position that commercial banking is a specific line of commerce and that commercial banks and mutual savings banks do not compete. However, it is common knowledge that most bankers view thrifts as competitors and that, most certainly, thrifts view commercial banks as competitors. Others are also beginning to view clearer distinctions of competitive product lines between the depository institutions. For example, in the Board's Order of February 22, 1977, the retention of Empire Savings, Building and Loan Association, Denver, Colorado, by the bank holding company, D.H. Baldwin Company, Cincinnati, Ohio, the Board agrees that ". . . banks and savings and loan associations are competitors in several product or service lines . . .."

allowing thrifts to issue bona fide or close substitutes to demand deposits, the Madison, Wisconsin, financial institutions market was selected. Dane County is a good approximation of the local Madison market, having a wide representation of financial institutions (except that none of the three mutual savings banks of Wisconsin are located there). The reasonableness of this market approximation is suggested by the facts that the city of Madison is located in the center of the county and acts as a financial center for the area, and that the Federal Reserve Board has defined Dane County as the relevant market for assessing the competitive effects of proposed bank acquisitions in the past.

Madison financial institutions market—approximated by Dane County, Wisconsin
(December 31, 1975)

Financial institutions	No. of firms	Deposits: Demand	Deposits: Total	Deposits: Percent	Herfindahl Index
		(million dollars)			
Commercial banks	37	327.9	910.8	58.7	.089
Savings and loans	10	0.0	559.4	36.1	.317
Credit unions	51	0.0	80.5	5.2	.124
TOTAL	98	327.9	1,550.7	100.0	.072

Note: No mutual savings banks are located in Dane County.

SOURCE: Report of Condition; *Annual Report*, *Wisconsin Savings and Loan Associations*; *Annual Report*, *Wisconsin Credit Unions*.

Granting demand deposit-like powers to thrifts in the Dane County market would increase the number of competitors of commercial banks by 61 and would decrease concentration in the market as indicated by the aggregate Herfindahl Index of .072.[5] While this aggregate index does not appear very much lower than the Herfindahl Index of the commercial bank category (.089), it nevertheless indicates the potential for increased competition resulting from all institutions being permitted to offer demand deposit accounts.

In a market like the Madison market, where there are many competitors, the concentration index is expected to be low, and as new competitors emerge, declines in the index should also be small. However, in a market where fewer institutions compete, the magnitude of the deconcentration change would be much more significant. For example, in rural markets few (sometimes only one) commercial banks compete; if just one thrift institution emerged as a demand deposit competitor, the decrease in the concentration index would be substantial, indicating a highly favorable expected effect upon competition.

To allow demand deposits (or close substitutes) to be issued by thrifts as well as banks would make the public the immediate beneficiaries. A procompetitive change of this nature would give new alternative sources of checking account services to the public and, under current regulatory arrangements whereby thrifts are allowed to pay a quarter percentage point higher interest rate on time and savings deposits, consumers would gain the option of holding a checking and savings account at the same institution without sacrificing interest paid on savings deposits. However, if Regulation Q constraints are concomitantly abolished as suggested by the various commission studies and/or commercial banks are allowed to offer NOW accounts (supported by the Federal Reserve System), the interest rate differential between thrifts and commercial banks would probably disappear and the shift of customers to thrifts is likely to be minimal and dictated

[5]The Herfindahl Index is a numerical measure of market concentration. The index attains the maximum value of 1.0 where a single firm operates in a market and the value declines with increases in the number of firms, increases with rising inequality among any given number of firms, and vice versa. See the June 1975 issue of *Business Conditions*, "Bank holding companies—concentration levels in three district states," for further information on Wisconsin market concentration and a more detailed explanation of the Herfindahl Index.

by convenience of location. The number of firms offering checking account services to the public would be substantially increased and net public benefits would most likely result.

Summary and conclusions

The forces of change are causing the financial services of each depository institutional group to blend together. Commercial banks are making deeper inroads into consumer loan and residential mortgage markets. Also notable are innovative inroads by thrifts into close substitutes for demand deposits. Some demand deposit redistribution from commercial banks to thrifts will most likely occur as thrifts gain more demand deposit-like powers; however, any adverse effects upon commercial banks would not be catastrophic and the demand deposit shift would appear to be minimal to nil if deposit restrictions were made equal for all depository institutions.

In the aggregate the number of depository firms is decreasing. If this trend continues, concentration increases could begin to jeopardize local market competition; however, this trend will be offset somewhat as the thrifts gain expanded powers to enter into more financial product lines.

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