FRBSF Weekly Letter

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Deregulation and Bank Profitability

The deregulation of interest-rate ceilings at banks and thrifts is now almost complete. Will the removal of these ceilings lead to lower profits? It would seem so since the removal of interest-rate ceilings is expected to lead to higher rates on retail time deposit accounts and unchanged or even lower rates on loans. (See the *Letter* of January 13, 1984 for a discussion of the effects of deregulation on deposit and loan rates.) These developments, assuming no change in the mix of liabilities, would lead to smaller interest-rate spreads, and, *all other things equal*, to lower profits. However, in this *Letter*, we show that deregulation will cause the overall costs of attracting deposits to fall and the mix of liabilities to change. Thus, the effects of deregulation on profitability are not as clear cut as many analysts seem to believe.

Competition and profitability

The effect of deregulation on profitability ultimately depends upon its effect on competition because the degree of competition in an industry determines its profitability in the long-run. In a fully competitive industry with unrestricted entry of new firms (and exit of existing ones), actual entry and the threat of entry force prices (interest rates) to a level where firms earn a "normal" rate of profit. Thus, if banks and thrifts were fully competitive before deregulation and remain so after deregulation, at least in the long-run, deregulation will not affect profitability. However, some analysts argue that interest-rate ceilings restricted explicit interest-rate competition for deposits, and that this restriction led to an overall reduction in competition and an increase in profitability. Below, we show that there is little evidence to support this view of interest-rate ceilings.

A cartel?

Those that argue interest rate ceilings inhibited competition are implicitly assuming that the ceilings were a mechanism for effecting a legal cartel enforced by the government that enabled the banking industry to reap extraordinary profits by keeping the rates paid on deposits below the competitive level. However, to be effective, such a cartel would have had to allocate deposits among institutions, effectively enforce prohibitions against competition by banks seeking to increase their own market shares and inhibit competition from outside the banking cartel. Although the government prevented regulated firms from cheating on the cartel through explicit interest-rate competition, other types of competition (nonprice competition) were not inhibited and probably could not have been fully restricted. For example, despite some limited controls on entry, banks could advertise more, open new branches, hold longer business hours and provide "free" checking accounts and various other services to attract deposits. Further, the government appeared to be unable or unwilling to enforce interest-rate ceilings on nonregulated financial institutions such as money market mutual funds (MMMFs), which grew rapidly when the ceilings became binding.

In addition, a profit-maximizing cartel would have varied interest ceilings with market interest rates because it could have increased profits by taking into account changes in the demands for loans or the supply of deposits. Deposit-rate ceilings on passbooks have varied very little over time and they do not appear to have followed market rates like a cartel's would have. Furthermore, during the 1950s and early 1960s, when rates were relatively stable, deposit-rate ceilings often were not binding. In contrast, a cartel would always set a ceiling that was binding. Since one would expect it to be easy to enforce a cartel during such a period of interest-rate stability, the fact that the ceilings were not binding casts much doubt on the cartel hypothesis.

Competition

Banks and thrifts did in fact compete for funds, both among each other and with nonregulated financial intermediaries such as money market mutual funds. Interest-rate ceilings led banks to compete for regulated deposits by offering non-priced services and to attract more unregulated funds such as large-denomination CDs (which have not been subject to interest-rate ceilings since the early 1970s) than they would have without ceilings. These two responses, however, caused the average cost of attracting funds to be higher than they would have been without interest-rate regulation.

Generally, providing goods and/or services directly in exchange for other goods and/or services (nonprice competition) is less valuable to the consumer than a direct monetary payment. This is because the cost to the bank of providing the goods and services would exceed their value to the consumer unless the consumer would have purchased these particular goods and services anyway. Thus, the cost of providing nonpriced services generally exceeded the value that the depositors placed on them. This view of competition is supported by the rapid shift of banks to interest-rate competition after deregulation even though explicit interest is taxable.

The shift toward explicit interest-rate competition after deregulation means that the costs of competing for deposits have fallen. Even though the explicit rate of interest paid on deposits previously regulated has risen after deregulation, income from fees, cost-savings from reductions in nonpriced services and cost-savings achieved by reducing the reliance on more expensive liabilities such as CDs will *more than offset* the increased interest costs. Thus, in the long run, deposit-rate deregulation will mean lower costs for banks and thrifts.

The transition

The adjustment from nonprice to price competition will take time. During this transition some factors, such as lower expenditures on nonpriced services, will lower costs, while other factors, such as selling branches and reducing staff size, will lead to higher costs. Thus, the net effects on profits are uncertain.

As banks move to price competition, they will reduce expenditures that were aimed at attracting deposits. Some of these that can easily be adjusted, such as promotional expenditures, will be cut back first, while expenditures on branches and personnel will be scaled back slowly. But, to the extent that branches and specific skills of employees were tailored to providing non-priced services and cannot be shifted without cost to other uses, banks will face capital losses. Administrative and other expenses associated with selling capital and restructuring workforces also should tend to depress the profits of existing banks during the transition period. However, one might note that banks formed after deregulation (new entrants) will not face such costs.

On the other hand, since non-price competition is less efficient and hence more costly per dollar of deposits than price competition, banks will be able to lower their total costs (per dollar) of attracting deposits even in the short-run. These lower costs will tend to increase profits temporarily until new firms, responding to these profit incentives, enter the industry.

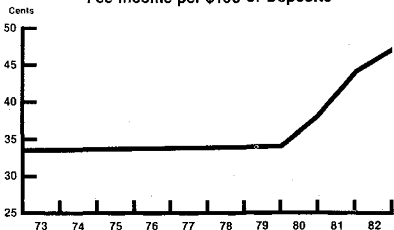
Moreover, by switching to price competition, banks should be able both to reduce their reliance on more expensive types of deposits, such as CDs, and to attract deposits away from unregulated competitors, such as money market mutual funds. This too should have a short-run positive impact on profits. For one thing, the process of "double intermediation," in which depositors buy into MMMFs that are investing in accounts at large banks, is less direct and therefore likely to be more costly than if banks were to attract the deposits directly.

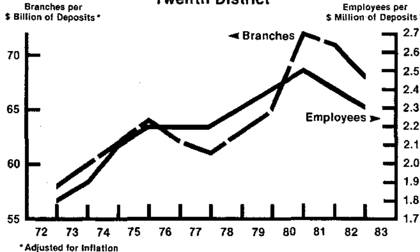
What actually happened to profits?

Preliminary evidence for western (Twelfth District) banks, as well as the nation's, supports the notion that interest-rate deregulation has fundamentally changed the way banks compete for deposits but not the degree of competition banks face. Deregulation, as expected, has led to the explicit payment of interest at market-determined rates, increases in banks' non-interest income, and decreases in non-interest expenses, but it has had little effect on explicit interest margins.

As regulations restricting the payment of explicit interest were reduced, banks began charging for services that were previously free or priced below cost. As Chart 1 indicates, the income from deposit-service charges and fees of banks in this region has risen rapidly since 1979—the first full year after the authorization of the near market rates on six-month money market certificates. In fact, over the last five years, banks have nearly doubled their service charge income per hundred dollars of domestic deposits.

The payment of explicit interest at market rates also has had the expected effect of causing banks to economize on non-interest expenses in their retail banking operations. For example, from the peak at year-end 1981 to December 1983, western banks actually reduced their total staff by nearly four percent. Moreover, the number of branch offices operated by banks in the region has in-





creased only slightly since 1981—a significant slowdown after many years of rapid expansion. Chart 2, which measures the number of employees per million dollars of deposits (total domestic deposits, adjusted for inflation) and the number of branches per billion dollars of deposits, shows the extent of these changes after 1981.

Downturns in both labor and capital inputs have lagged behind some of the major steps in the deregulation of interest rates (MMCs in June 1978, Automatic Transfer Service Savings Accounts in November 1978, and NOW Accounts in January 1981) because both time and resources are needed to adjust staff and capital levels. These inputs cannot be adjusted as quickly as the prices that banks set on their service charges and deposit fees.

Furthermore, banks were not likely to make wholesale reductions in branches and staff immediately even after the phase-out of deposit interest-rate ceilings was authorized by passage of the Depository Institutions Deregulation and Monetary Control Act of 1980. Until the authorization of money market deposit accounts (MMDAs—a short-term account free of interest-rate ceilings) in December 1982, banks still found that operating and staffing those offices helped generate core deposits and allowed them to compete with the money market funds by providing significant (yet costly) implicit returns. Finally, with the trend toward even more product deregulation, many institutions believed that their branch networks could be restructured to provide a marketing base for a wide array of financial services.

Deregulation is expected to increase the interest cost of retail deposits and not affect or even lower loan rates, but this alone does not imply that banks will experience a decline in explicit interest margins. Although interest margins of banks depend on a variety of factors—including portfolio mix, interest-rate levels and changes in interest rates—margins actually widened in 1983. They did so despite the tremendous inflow that year into MMDAs, which attracted over $50 billion at western banks ($370 billion nationally). Deregulation did result in money flowing out of "low" interest savings and other controlled accounts into "high" interest MMDAs, but there were other offsetting shifts in funding mixes. Once banks were finally able to compete directly with money market mutual funds for retail deposits, they captured a larger proportion of the retail deposit market. These new funds then allowed banks to reduce their reliance on more expensive managed liabilities, such as CDs, which fell by $30 billion at western banks. The result has been increasing or at least stable margins that have helped maintain profitability.

Conclusions

Although bank profitability depends on a number of factors such as asset quality, interest rates and growth, the deregulation of interest-rate ceilings appears to have had only minor effects on profits. Western banks' profitability, whether measured by return on assets (ROA) or return on equity (ROE), has declined by over 50 percent over the last two years. However, the fall-off appears more directly related to the serious asset quality problems experienced by a limited number of large banks than to the accelerated trend toward deposit-rate deregulation. When net income is adjusted to exclude the sharp run-up in loan-loss provisions during these years, there is much less movement and even a slight increase in both ROA and ROE. Since loan losses are probably not directly related to interest-rate deregulation, it appears that deregulation has not had any significant net effects on profitability. Moreover, as deregulation has accelerated (since the beginning of 1979), there has been over a 50 percent increase in the number of banks in the Twelfth District—hardly an indication of lower expected profitability.

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BANKING DATA—TWELFTH FEDERAL RESERVE DISTRICT

(Dollar amounts in millions)

Selected Assets and Liabilities Large Commercial Banks	Amount Outstanding 6/20/84	Change from 6/13/84	Change from 12/28/83 Dollar	Change from 12/28/83 Percent Annualized
Loans, Leases and Investments[1] [2]	180,698	625	4,673	5.5
Loans and Leases[1] [6]	161,371	617	6,016	8.0
Commercial and Industrial	48,875	354	2,912	13.1
Real estate	60,118	57	1,219	4.3
Loans to Individuals	28,407	127	1,756	13.7
Leases	4,988	− 15	− 75	− 3.0
U.S. Treasury and Agency Securities[2]	11,953	14	− 554	− 9.2
Other Securities[2]	7,375	− 5	− 788	− 20.0
Total Deposits	187,138	−1,434	− 3,859	− 4.2
Demand Deposits	44,290	− 637	− 4,947	− 20.8
Demand Deposits Adjusted[3]	28,482	−1,748	− 2,849	− 18.9
Other Transaction Balances[4]	12,039	− 396	− 736	− 11.9
Total Non-Transaction Balances[6]	130,809	− 400	1,824	2.9
Money Market Deposit Accounts—Total	37,361	−1,702	− 2,236	− 11.7
Time Deposits in Amounts of $100,000 or more	39,403	− 68	1,238	6.7
Other Liabilities for Borrowed Money[5]	23,661	5,888	654	5.9

Weekly Averages of Daily Figures	Period ended 6/18/84	Period ended 6/4/84
Reserve Position, All Reporting Banks		
Excess Reserves (+)/Deficiency (−)	45	32
Borrowings	131	115
Net free reserves (+)/Net borrowed(−)	− 86	− 83

1 Includes loss reserves, unearned income, excludes interbank loans
2 Excludes trading account securities
3 Excludes U.S. government and depository institution deposits and cash items
4 ATS, NOW, Super NOW and savings accounts with telephone transfers
5 Includes borrowing via FRB, TT&L notes, Fed Funds, RPs and other sources
6 Includes items not shown separately