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# FRBSF WEEKLY LETTER

May 15, 1987

## Assessing Bank Antitrust Standards

The antitrust standards applied to banking mergers and acquisitions have become less restrictive in recent years. In large part, the change has come about because savings and loans and savings banks are now treated as direct competitors with commercial banks by the federal banking regulatory agencies and the Department of Justice in their antitrust analyses.

The treatment of thrifts as direct competitors with banks was prompted by legislation in 1980 and 1982 that granted thrifts new bank-like powers. Key among those powers are the ability to make commercial and industrial (C&I) loans and to offer transactions accounts (NOWs). These two activities had traditionally distinguished the banking industry from the thrift industry.

However, the actual extent to which savings and loans and savings banks in the aggregate have made inroads into traditional banking services is limited. Recent data indicate that among FSLIC-insured savings institutions, C&I loans comprised less than 2 percent of assets, and transactions accounts less than 4 percent, compared with figures of 19 percent and 21½ percent for commercial banks.

Moreover, we still have little direct evidence that the effects of thrifts on competition in banking markets have changed appreciably since 1980. For example, a recent study by Stephen Rhoades at the Federal Reserve Board fails to find evidence that variations in thrift competition influenced the performance of commercial banks during either the late 1970s or the early 1980s.

Do thrifts, then, really matter significantly to banking competition? Even more importantly, have banking antitrust standards become too liberal?

One way to assess the current banking antitrust standards is to examine the competitive effects of those mergers or acquisitions in whose approval the less stringent guidelines were instrumental. This *Letter* considers one of the most significant of the cases to date — the mer-

ger of Wells Fargo Bank N.A. and Crocker National Bank. The merger is significant not only because of the size of the banks involved, but also because of the large number of banking markets in which only by considering savings and loans as direct competitors with commercial banks were banking antitrust standards satisfied. (See my *Letter*, November 28, 1986.)

### Structure-performance framework

In general, antitrust analysis is based on the theory that the extent of competition in a market can be inferred from the market's structure, where the structure is characterized by the degree of concentration of the market shares among firms in the market. According to this theory, the more the supply of banking services in a market is dominated by a few institutions, the more likely it is that the competitors will be able to affect, either overtly or covertly, deposit and loan rates and service fees, and thereby raise profits. Within this analytic framework, a banking merger that would raise concentration *significantly* likely would be denied because the regulatory authority would view the merger as having a *substantially* adverse effect on competition.

The measure of market concentration used in banking antitrust cases is the Herfindahl-Hirschman Index (HHI). This index is computed by adding the squares of percent market shares of the relevant competitors. With one firm in a market, the index takes on a maximum value of 10,000 (100% × 100%). As the number of firms increases, the index approaches its theoretical minimum of zero. The antitrust guidelines set by the Department of Justice indicate that a merger or acquisition in banking likely would be challenged if the HHI increased by 200 points and the post-merger index were over 1800 points.

The addition of thrifts as direct competitors with banks is important because it can dramatically decrease the measured concentration in a banking market. As a result, the presence of thrifts makes it easier to meet the Department of Justice guidelines and consequently to secure approval for mergers and acquisitions involving banks and bank holding companies. A prime example

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is the merger of Wells Fargo National Bank, N.A. and Crocker National Bank, which was approved last year by the Federal Reserve Board and the Comptroller of the Currency. In the Federal Reserve's analysis, which gave a weight of one-half to thrift deposits in calculating market shares and concentration, the inclusion of thrifts as direct competitors brought the effects of the merger on the HHI within the Justice Department's guideline in 15 of the 36 banking markets involved, including the San Francisco area market, which is the second largest in the state.

## Second opinion

Because thrifts made the difference in such a large number of markets, the Wells Fargo-Crocker merger provides a good opportunity to examine whether the inclusion of thrifts compromises antitrust standards in banking. One way to evaluate the approval of that merger is through its effects on the stock market returns of the banks in California. In essence, this method obtains a second opinion from the financial market on the competitive implications of the merger.

According to the structure-performance framework, a merger with anti-competitive effects would be expected to boost future profits of all competitors in the market, not just those of the acquiring bank. The higher future profits would be reflected in an abnormal appreciation in the stock prices of the banks in the relevant markets. Abnormal positive returns to the acquiring firm but not to the other competitors would not be indicative of an anti-competitive merger. Rather, they would suggest that the anticipated higher profits for the acquiring bank were specific to the firm (and not the market) and related, perhaps, to expected reductions in the firm's costs.

## Stock returns

To determine how the financial market viewed the Wells Fargo-Crocker merger, we examined the performance of common stock prices for Wells Fargo Corp. and a sample of other California banking organizations around the time the merger was announced (February 7, 1986). To control for factors affecting banking generally, the performance of a sample of large, non-California banks also was examined. The abnormal rate of return on a bank's stock was measured by the difference between the actual rate of return and the estimated expected rate of return. Esti-

mates of the expected rates of return were based on the historical relationships between the percent changes in the stock prices for the banking organizations and the percent change in the value of a market portfolio of stocks represented by S&P 500.

Using the historical relationships, the abnormal returns were cumulated separately over two three-day periods. The first period covered the three days prior to the announcement of the Wells Fargo-Crocker merger to allow for possible leaks regarding the merger. There is no indication of abnormal positive returns for Wells Fargo in this first period.

The second three-day period includes the day of the announcement and the following two business days. The estimates of the abnormal rates of return among the banks examined in this period are presented in Chart 1. The chart shows that the price of Wells Fargo Corp. stock was over 20 percent higher than would have been expected given the movement in the S&P 500. In dollar terms, the change represents about \$275 million. The higher-than-expected gains, however, are not evident for the other very large banks in California (the three largest banks excluding Wells Fargo). On average, this set of banks shows a lower-than-expected gain that is not statistically different from zero.

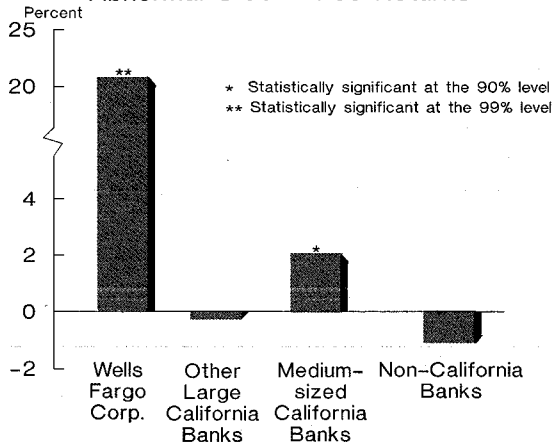
For the set of medium-sized California banks, the average abnormal return shown in the chart is positive, but of only marginal statistical significance. Moreover, if the Wells Fargo-Crocker merger were viewed by the financial market as having anti-competitive effects, it is unclear why the medium-sized banks, but not the large ones, would have been anticipated to benefit.

Overall, the evidence in Chart 1 suggests that financial market participants generally agreed with the Federal Reserve, the Comptroller of the Currency, and the Department of Justice that the Wells Fargo-Crocker merger would not have a *substantially* adverse effect on competition in the California banking markets.

## Pricing of retail deposits

More direct evidence on the competitive implications of the Wells Fargo-Crocker merger can be obtained by looking at how the California banks have priced deposit, loans, and other

Chart 1  
Abnormal Stock Price Returns

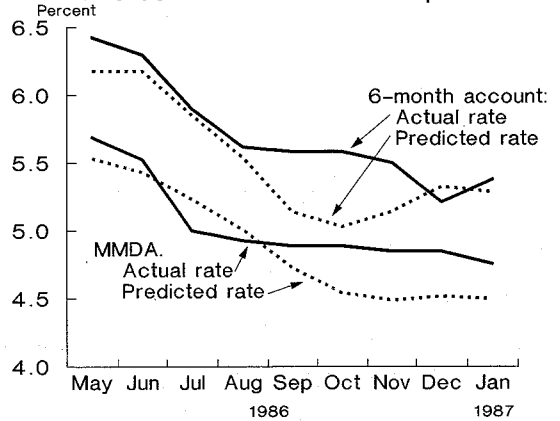


services since the merger. The data on certain accounts come from a monthly survey of deposit rates at a sample of banks.

To test for possible anti-competitive effects of the Wells Fargo-Crocker merger, we compared the pricing of money market deposit accounts (MMDAs) and other retail deposit accounts before and after the consummation of the merger (May 30, 1986). To do this, the relationship between the rates on the deposit accounts and short-term market rates were estimated using monthly data prior to January 1986, the month before the announcement of the merger. The estimated relationships were then used to simulate dynamically the rates on the deposit accounts for the months after the merger. A finding that the actual rates were consistently below the predicted rates would tend to support the idea that the merger reduced competition for retail deposits in California.

The evidence from Chart 2 suggests that this was not the case. The chart shows the predicted and actual weighted average rates on MMDAs and on six-month time deposit accounts of less than \$100,000 at the four largest California banks. Following the Wells Fargo-Crocker merger, the average rate on MMDAs did fall initially somewhat more sharply than predicted. However, for

Chart 2  
Interest Rates on Retail Deposits



most of the latter part of 1986 and into 1987, actual MMDA rates were higher than those predicted based on the pre-merger relationships between MMDA rates and open market interest rates. A comparison of the predicted and actual rates on the six-month time deposit accounts also does not support the view that interest rates were set consistently lower than what would have been expected given the pricing practices of the California banks prior to February 1986.

### Conclusion

The treatment of thrifts as direct competitors with commercial banks has made banking anti-trust standards less restrictive. The significance of this change was particularly evident in the Wells Fargo-Crocker merger. However, in that case, neither the evidence on the pricing of retail deposit accounts nor that on the stock market performance of a sample of California banks indicate that the merger had a substantially adverse effect on competition in California banking markets. These results do not directly demonstrate the actual importance of thrift competition. However, they do suggest that the easing of antitrust standards through the inclusion of thrifts was not detrimental to competition in banking in this instance.

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**BANKING DATA—TWELFTH FEDERAL RESERVE DISTRICT**

(Dollar amounts in millions)

Selected Assets and Liabilities Large Commercial Banks	Amount	Change	Change from 4/23/86	
	Outstanding 4/22/87	from 4/15/87	Dollar	Percent <sup>7</sup>
Loans, Leases and Investments <sup>1 2</sup>	205,016	- 142	1,063	0.5
Loans and Leases <sup>1 6</sup>	183,286	- 230	2,185	- 1.1
Commercial and Industrial	54,252	201	908	1.7
Real estate	68,081	- 62	1,722	2.5
Loans to Individuals	37,148	179	3,619	- 8.8
Leases	5,427	- 13	227	- 4.0
U.S. Treasury and Agency Securities <sup>2</sup>	14,511	94	3,915	36.9
Other Securities <sup>2</sup>	7,219	- 6	668	- 8.4
Total Deposits	209,866	- 6,411	6,829	3.3
Demand Deposits	54,783	- 4,748	5,635	11.4
Demand Deposits Adjusted <sup>3</sup>	38,891	722	4,909	14.4
Other Transaction Balances <sup>4</sup>	20,828	- 609	4,647	28.7
Total Non-Transaction Balances <sup>6</sup>	134,255	- 1,054	3,453	- 2.5
Money Market Deposit Accounts—Total	45,448	- 1,031	739	- 1.6
Time Deposits in Amounts of \$100,000 or more	31,941	31	5,430	- 14.5
Other Liabilities for Borrowed Money <sup>5</sup>	25,021	2,357	4,111	- 14.1
<b>Two Week Averages of Daily Figures</b>	Period ended 4/20/87	Period ended 4/6/87		
<b>Reserve Position, All Reporting Banks</b>				
Excess Reserves (+)/Deficiency (-)	89	9		
Borrowings	72	9		
Net free reserves (+)/Net borrowed(-)	17	1		

<sup>1</sup> Includes loss reserves, unearned income, excludes interbank loans

<sup>2</sup> Excludes trading account securities

<sup>3</sup> Excludes U.S. government and depository institution deposits and cash items

<sup>4</sup> ATS, NOW, Super NOW and savings accounts with telephone transfers

<sup>5</sup> Includes borrowing via FRB, TT&L notes, Fed Funds, RPs and other sources

<sup>6</sup> Includes items not shown separately

<sup>7</sup> Annualized percent change