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Agricultural and Nonagricultural Banking Statistics, 1980-91

Economic Research Service, Washington, DC

National Technical Information Service



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13. ABSTRACT (Maximum 200 words)

Abstract:
Bank operating statistics for 1980-91 illustrate important differences between agricultural and nonagricultural banks. The agricultural banks, with a higher proportion of agricultural loans, were more profitable overall, while having more securities and fewer loans. Most agricultural banks were small, having assets under $\$ 100$ million, and were located in the Midwest or South. Agricultural bank numbers declined considerably over the study period, but only at a slightly higher rate than did other banks. Many analysts have expressed concern that financial market deregulation would threaten the survival of small banks. The data presented here, however, indicate that, although there has been significant consolidation, these predominantly small agricultural banks are finding ways to compete, and on several measures they outperform nonagricultural banks.
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## Agricultural and Nonagricultural Banking Statistics, 1980-91

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#### Abstract

Bank operating statistics for 1980-91 illustrate important differences between agricultural and nonagricultural banks. The agricultural banks, with a higher proportion of agricultural loans, were more profitable overall, while having more securities and fewer loans. Most agricultural banks were small, having assets under $\$ 100$ million, and were located in the Midwest or South. Agricultural bank numbers declined considerably over the study period, but only at a slightly higher rate than did other banks. Many analysts have expressed concern that financial market deregulation would threaten the survival of small banks. The data presented here, however, indicate that, although there has been significant consolidation, these predominantly small agricultural banks are finding ways to compete, and on several measures they outperform nonagricultural banks.


Keywords: Regulations, structure, agricultural banks, bank size, profitability, liquidity, solvency, efficiency, and risk

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## Summary

Agricultural banks posted better returns, on average, for the 1980's than did larger, nonagricultural banks. Agricultural banks are defined as having a ratio of agricultural loans to total loans that exceeds the average ratio for all banks. Most are small, with less than $\$ 100$ million in assets. Agricultural banks are located mainly in rural areas of the Midwest and South. Between 1980 and 1991, agricultural banks equaled and, in many cases, surpassed other banks under 45 separate measures of profitability, liquidity, efficiency, and solvency. The success of these banks arose from their being more risk-averse, their making safer loans, and their holding more Government securities than did other banks.

Fluctuating economic conditions, financial market innovations, and deregulation policies created an uncertain business environment that led to failure and consolidation of many banks in the 1980's. Banks were competing increasingly with other financial service firms for loan markets and sources of loanable funds. As a result, some analysts thought that agricultural banks would be at a disadvantage compared with larger, more urban banks. However, agricultural banks continued to be a primary source of capital for agriculture, providing both longand short-term loans. Also, the outlook is good that these banks will prosper well into the 1990's.

## Profitability

Except for 1984-86, average rates of returns on assets for agricultural banks exceeded those of other banks. In 1980, agricultural banks averaged 1.27 percent return on assets compared with 0.88 for other banks. In 1991, asset returns were 1.01 and 0.50 for these two groups, respectively. The smallest agricultural banks had the largest and most consistent advantage in profit margin over nonagricultural banks.

## Liquidity

Agricultural banks had greater liquidity than other banks in that they were better able to meet their short-term demands without endangering their longer term plans and prospects. They had greater cash on hand and more investments in Federal funds and Treasury bills, which could easily be converted to cash.

Over the 1980-91 period, agricultural banks took fewer risks than other banks, as indicated by such measures as their loan-to-deposit ratios and securities-to-assets ratios.

## Efficiency

Agricultural banks gained an edge over other banks by reducing their noninterest expenses, or such costs as overhead and employee salaries and benefits. One measure of their success is the ratio of noninterest expense to total assets. On average, agricultural banks consistently had a lower ratio than other banks. In 1991, noninterest expense was 2.8 percent of assets for agricultural banks, compared with 3.7 percent for other banks.

## Solvency

Nonagricultural banks were more highly leveraged (a greater ratio of debts to assets) than agricultural banks. Their equity multipliers (one measure of financial risk) were 14.6 percent compared with 11.7 percent in 1980 , and 15.3 percent compared with 10.9 percent in 1991. In other words, nonagricultural banks took greater risks. Leverage tended to increase as bank asset size increased. Except for the farm debt crisis, which peaked in 1984, agricultural banks, in general, had fewer bad loans than nonagricultural ones.

PE94-189388

# Agricultural and Nonagricultural Banking Statistics, 1980-91 

George B. Wallace

## Introduction

The period 1980-91 was one of notable change in commercial banking. Fluctuating economic conditions, financial market innovations, and subsequent policy responses created an uncertain business environment that led to a series of important adjustments in the banking industry. Many adjustments arose from increased competition from other financial service firms for both loan markets and sources of loanable funds, prompting a trend toward consolidation. Throughout this transitional period, however, commercial banks-especially small ones-continued to be primary sources of financial capital for agriculture, providing both long- and short-term loans. While the agricultural sector and the commercial banks which loaned to it ended the study period profitably, both were also profoundly changed.

This report highlights differences between agricultural and nonagricultural bank operations by comparing operating statistics for each. Agricultural and nonagricultural banking statistics may differ considerably. An earlier statistical bulletin has illustrated that important differences existed between nonmetro- and metro-centered banks (Mikesell and Marlor, 1990). Nearly all agricultural banks also fall into the nonmetro classification, as defined in the earlier statistical bulletin. This report is unique in that it highlights possible differences by documenting both within-year and across-time financial performance characteristics for banks with a concentration of agricultural loans to total loans that is higher than the national average for all commercial banks. Further, since bank size influences operating statistic values, results are presented for six size categories of banks. Data presented consist of descriptive statistics (for example, the number of agricultural banks by year) and financial ratios (for example, rate of return on assets (ROA)). The descriptive statistics are designed to illustrate the overall character of the industry during the decade, as well as some of the structural changes that occurred. Also, fluctuations in financial ratios impart a sense of a bank management's response to changing market conditions.

Specifically, this bulletin highlights the financial characteristics of banks involved significantly in agricultural lending. This is accomplished by: (1) presenting a brief overview of the major events affecting the financial condition of commercial banks; (2) a discussion of the source and description of the data; (3) an illustration of the importance of commercial banks in farm credit markets; (4) defining an agricultural bank; (5) a discussion of financial ratio analysis;

[^0]and (6) providing 45 measures of financial performance ratios which measure characteristics of bank profitability, liquidity, efficiency, and solvency. Sixteen of these ratios are selected to highlight differences in agricultural and nonagricultural bank characteristics (the remaining 29 ratios are presented in the appendix tables). The majority of the performance measures are presented at the national level; however, measures of return on assets and returns to equity are presented at the State level to provide a sense of the extensive diversity that exists in the banking industry.

## Background

Problems that plagued the banking industry in the 1980 's arose from a confluence of economic, regulatory, and managerial forces. As inflation accelerated in the 1970's, binding interest-rate ceilings on deposits made banks, nationwide, increasingly vulnerable to deposit outflows. Inflation also caused significant deterioration in the market value of fixed-rate, long-term mortgages (including farm real estate mortgages), since they carried loan rates far below what could be earned on new investments. The mid-1980's saw depressed farm incomes and falling land values, which undercut repayment and refinancing abilities, leading to a large number of farm bank failures. At the same time, oil price shocks and associated problems in the energy industry exacerbated the financial problems of energy-related banks (Duncan, Gajewski, and Burkhart, 1990). During the late 1980's, poor economic conditions in developing countries affected their debt repayment, resulting in numerous developing country loan defaults at large money-center banks.

Regulatory changes pushed by Congress, regulatory agencies, financial institutions, and consumer groups gained momentum in the late 1970's. The result was passage of the Depository Institutions Deregulation and Monetary Control Act of 1980 and the Garn-St. Germain Depository Institutions Act of 1982. Together, this legislation gradually removed interest rate ceilings on most deposits. The unanticipated removal of deposit rate ceilings temporarily resulted in banks funding fixed low-rate long-term mortgages with high-rate short-term deposits. Deregulation freed banks to engage in new activities by broadening the asset and liability powers of financial institutions. Federal deposit insurance increased from $\$ 40,000$ per account to $\$ 100,000$. In addition, less restrictive branch banking laws were widely adopted, and the number of States permitting interstate banking increased.

In response to this new regulatory-incentive structure, managers of insured institutions that were already on the brink of failure assumed added risk in an effort to boost returns. Highrisk strategies took the form of concentrating loan portfolios in commercial, industrial, consumer, and agricultural loans that often lacked adequate evaluations of the repayment risks involved. In addition, the liability side of the balance sheet saw greater reliance on large certificates of deposit. The flat-rate premiums assessed for deposit insurance introduced the moral-hazard problem since the bank's cost of insurance was independent of its risk profile. The term "moral hazard" refers to changes in bank management's behavior when insurance is introduced. Moral-hazard problems are exacerbated by uniform or flat-rate insurance policies. The deposit insurance record indicates that the "high rollers" take on excessive financial risk; as a result, they are subsidized by the more risk-averse managers (Sinkey, 1989a). Regulators
responded in 1981-82 by imposing minimum capital-to-asset ratios of 5 percent on regional banking organizations and 6 percent on community banks. Risk-based capital standards were agreed upon in 1988 and were fully implemented by the end of 1992. However, it has been suggested recently that requiring banks to maintain large capital reserves may make them hesitant to make loans, leading them to invest in Government securities. While this would reduce the solvency risk of their asset portfolios, it may also result in a reduction in the availability of debt financing for bank customers (Baer and McElravey, 1993).

Historically, banks provided most of the available financial intermediation services within a prescribed set of regulations. Commercial banks were limited primarily to accepting deposits and making loans. Prior to 1980 , banks generally conducted business in their home States or counties and paid interest on mostly local deposits at rates limited by federally authorized ceilings. One exception was the market testing of new financial products conducted in New England but, otherwise, no interest was paid on checking accounts. In addition, prior to 1980, traditional financial intermediaries had limited competition in providing financial services.

Significant deposit deregulation began as early as 1978. Beginning in 1979, the Board of Governors of the Federal Reserve System (FRB) changed monetary policy to target money supply aggregates instead of interest rates. In addition, deregulation of deposit interest rates forced up the cost of loan funds for banks. Banks responded by charging higher rates of interest on loans. The early 1970's through the early 1980's witnessed rising market interest rates, the emergence of new nonbank competitors, and the congressional authorization of new intermediation powers for commercial banks and other financial intermediaries. During the early part of the study period, the composition of funds shifted away from demand deposits, passbook savings, and regular negotiable order of withdrawal (NOW) accounts toward deregulated time and savings deposits paying higher rates of return.

During the mid-1980's the number of banks began to change rather dramatically. From 1970 to 1985, new bank charters outmumbered exiting banks; however, in 1985 this trend reversed as failures increased and many failed banks were merged with healthy ones. An increasing number of banks also disappeared through mergers as more States eliminated or reduced restrictions on branching and bank holding company ownership. The number of agricultural banks declined by over 1,300 (table 1). While 350 farm banks failed, the remaining 950 banks either consolidated, closed their doors, or ceased to make enough agricultural loans to be counted as agricultural banks. Several banks, particularly larger ones, were taken over under the plan of the Federal Deposit Insurance Corporation (FDIC), which allowed solvent banks to take over control of the assets of failed banks, even across State lines.

Besides these and other problems, commercial banks with commitments to agricultural lending experienced additional burdens. By 1983, it was becoming evident that much of the credit that had been extended to agriculture was supported by inflated collateral values and overly optimistic expectations of future farm income. During the mid-1980's, many banks that had made loans to agriculture began to reduce the size of their agricultural loan portfolios, as the number of nonperforming loans increased dramatically above historical norms. The agricultural credit crisis saw agricultural bank failure rates, which had previously been below the national norm, rise to post-Depression highs.

The unique changes of the 1980's raised questions about the ability of small banks to survive, and most agricultural banks were small. In 1991, of the 3,952 agricultural banks, only 1 in 15 had over $\$ 100$ million in assets.

## Data and Methods

This report is limited to commercial banks that had a positive balance of loans, deposits, and assets on the reporting dates that make up the study period. Further, only banks headquartered in the 50 States or the District of Columbia, with deposits insured by the FDIC, were considered. Financial service entities, such as nonbank banks, often take no deposits or make no loans and have been created for specialized purposes. In addition, several nonbank industries have established financial service networks that compete with traditional banking firms. Both types of institutions are excluded from this statistical bulletin. However, it is noteworthy that the development of these alternative financial service firms greatly increased the competitive structure of banking, irreversibly altering the commercial banking environment.

## Sources

The reported information is made up of December 31 data for each year from 1980 to 1991 and is taken from the Bank Report of Income and Condition files of the FRB. These data are publicly available from the Naionai Technical Information Service (NTIS). From time to time, the FRB makes corrections in their historical data file tapes that are reflected in data tapes purchased through NTIS. The data in this bulletin are drawn from 1980 to 1985 NTIS tapes, and 1986 to 1991 yearend FRB tapes. A list of the variables used in calculating each of the presented ratios is available from the author upon request.

## Weighted Statistics

This bulletin focuses on the banking industry, and on specific subsets of the industry, not on individual bank performance. Therefore, the weighted mean is used as the measure of central tendency for comparing calculated ratios across bank type and size. The statistics presented are equivalent to weighted means and are calculated by summing the numerator and denominator components for all banks within the specified subset and then using the aggregate values to calculate the ratio. Alternatively, the unweighted mean could have been used if the intent had been to focus on individual bank performance within a particular group. Unweighted means would have been calculated by finding the ratio value for each individual bank and then taking the arithmetic mean of the ratio. This method is problematic since banks with unusual characteristics cause ratio values to be severely skewed and, in many cases, noncomparable across bank groups. Except for instances where the number of banks within a size class is very small, collapsing all of the banking data within a group into a single sum causes problerns associated with unusual bank characteristics, to be avoided in all but extreme cases.

Table 1-Number oif banks ${ }^{1}$ distributed by asset size ${ }^{2}$

| Bank classification | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ALI BANKS (\$ Millions) | 14,412 | 14,390 | 14,405 | 14,410 | 14,408 | 14,296 | 14,000 | 13,505 | 12,961 | 12,633 | 12,270 | 11,849 |
| Under 25 | 7,211 | 6,693 | 6,224 | 5,776 | 5,496 | 5,164 | 4,725 | 4,403 | 4,030 | 3,695 | 3,284 |  |
| 25 to 50 50 to 100 | 3,542 | 3,657 | 3,734 | 3,742 | 3,759 | 3,734 | 3,657 | 3,533 | 5,361 | 3,695 | 3,284 3,159 | 2,873 3,108 |
| 50 to 100 100 to 300 | 1,968 1,155 | 2,183 1,281 | 2,398 1,428 | 2,621 1,575 | 2,730 | 2,803 | 2,877 | 2,844 | 2,770 | 2,738 | 2,753 | 3,8708 $\mathbf{2 , 7 6 0}$ |
| 300 to 500 | 1,194 | 1,281 | $1+428$ 218 | 1,575 253 | 1,685 262 | 1,784 295 | 1,878 321 | $\begin{array}{r}1,861 \\ \hline\end{array}$ | 1,885 $\mathbf{3} 9$ | 2,015 | 2,073 | 2,099 |
| Over 500 | 342 | 387 | 403 | 443 | 476 | 516 | 542 | 306 558 | 339 576 | 348 605 | 378 618 | 387 622 |
| MELRATIO | 18.45 | 17.99 | 17.74 | 17.56 | 16.97 | 16.14 | 15.78 | 15.60 | 15.73 | 15.84 | 15.94 | 16.57 |
| AG BANKS | 5,316 | 5,231 | 5,160 | 5,120 | 4,978 | 4,847 | 4,690 | 4,480 | 4,337 | 4,180 | 4,067 | 3,952 |
| Under 25 | 3,796 | 3,517 | 3,247 | 3,029 | 2,839 | 2,654 | 2,500 |  |  |  |  |  |
| 25 to 50 | 1,138 | 1,223 | 1,297 | 1,374 | 1,388 | 1,402 | 1,374 | 1,343 | 2,153 1,329 | 1,988 1,281 | 1,804 1,269 | 1,645 1,269 |
| 50 to 100 | 323 | 413 | 501 | 582 | 603 | 639 | 661 | +667 | 1,329 | 1,281 | 1,269 749 | 1,269 774 |
| 100 to 300 | 53 | 71 | 109 | 125 | 141 | 144 | 149 | 144 | 160 | 200 | 237 | 774 |
| 300 to 500 <br> Over 500 | $5$ | 4 | 3 | 5 | 4 | 5 | 4 | 3 | 3 | 3 | 4 | -9 |
|  | 1 | 3 | 3 | 5 | 3 | 3 | 2 | 2 | 5 | 3 | 4 | 4 |
| NONAG BANKS | 9,096 | 9,159 | 9,245 | 9,290 | 9,430 | 9,449 | 9,310 | 9,025 | 8,624 | 8,453 | 8,203 | 7,897 |
| Under 25 | 3,415 | 3,176 | 2,977 | 2,747 | 2,657 | 2,510 | 2,225 | 2,082 |  |  |  |  |
| 25 to 50 | 2,404 | 2,434 | 2,437 | 2,368 | 2,371 | 2,332 | 2,283 | 2,082 | 1,877 2,032 | 1,707 1,951 | 1,480 1,890 | 1,228 1,839 |
| 50 to 100 | 1,645 | 1,770 | 1,897 | 2,039 | 2,127 | 2,164 | 2,216 | 2,177 | 2,032 | 1,951 2,033 | 1,890 2,004 | 1,839 1,986 |
| 100 to 300 | 1,102 | 1,210 | 1,319 | 1,450 | 1,544 | 1,640 | 1,729 | 1,717 | 1,725 | 1,815 | 1,841 | 1,986 1,848 |
| 300 to 500 | 189 | 185 | 215 | 248 | 258 | 290 | 317 | 303 | 1336 | $\begin{array}{r}1845 \\ \hline\end{array}$ | 1,841 374 | 1,848 378 |
| Over 500 | 341 | 384 | 400 | 438 | 473 | 513 | 540 | 556 | 571 | 602 | 374 614 | 378 <br> 618 |

States and Washingtion chartered commercial banks with deposits, loans, and assets greater than zero headquartered in the 50
Washington, D.C
'Over the reported period, inflation had the effect of moving banks from smaller to larger size classes.
The mean ratio of agricuitural loans-to-total loans for all banks. For a bank to be an agricultural bank its ratio of agricultural loans-to-total loans had to exceed this ratio.
Source: All values calculated from the Report of Condition and Report of Income files, Board of Governors of the Federal Reserve
System, unless otherwise noted.

The resulting weighted ratio values provide a representative measure that is readily comparable across different bank types and size classifications.

## What is an Agricultural Bank?

Agricultural banks are normally defined in one of two ways. The FDIC identifies agricultural banks as those having 25 percent or more of total loans concentrated in agriculture. Agricultural loans include those used to finance agricultural production, to purchase farm real estate, or to finance real estate improvements where farmland is used as security for the loan, This definition was used by the FDIC in reporting bank failures during the mid-1980's, when agricultural banks made up a significant portion of failing banks. As the health of agricultural banks was restored, this definition received less use, and the FDIC stopped reporting agricultural bank failures as a separate category.

The FRB defines an agricultural bank as one whose ratio of agricultural loans to total loans exceeds the unweighted national average for that ratio at all banks at a particular point in time (or, the MELRA'TIO)(Melichar, 1987). This definition results in a larger cross section of banks being classified as agricultural, but still only captures $50-60$ percent of commercial bank loans to agriculture. The USDA has reported banking data by the FRB definition for several years, and that practice will continue in this bulletin.

The FRB and the FDIC definition of an agricultural bank uses only the farm loan share of total loans to establish whether a bank is agricultural. This approach has one obvious fault. Large commercial banks account for a significant dollar volume of agricultural loans (slightly under one-fourth of all agricultural loans made by commercial banks nationwide), but such loans are often a small portion of their total loan portfoiio (tables 2 and 3). Therefore, few large banks are classified as agricultural. Because of this, agricultural bank performance is often contrasted with that of small nonagricultural banks, or those below $\$ 500$ million in total assets. The size group classifications in this bulletin allow several different size comparisons. The largest 2 size classes of agricultural banks contained under 10 banks in each study year, meaning that the ratios reported, and particularly the year-to-year changes, could be significantly affected by a single bank. These two size classes were included to ensure more meaningful comparisons in the four smaller size classes.

The MELRATIO illustrates how the weighted ratio of agricultural loans to total loans has changed by bank type and size over the study period (table 2). The magnitude of the MELRATIO ranged from a high of 18.45 percent in 1980 to a low of 15.60 percent in 1987. Since the MELRATIO represents the percentage threshold of agricultural loans-to-total loans a bank must have to be classified as an agricultural bank, the variation in this threshold points out a reason why the group of banks defined as agricultural changed from year to year. Furthermore, without exception, as bank asset size increased, the percentage of loans going to agriculture in the portfolio decreased. At the smallest agricultural banks, loans to agriculture, on average, made up over 45 percent of the loan portfolio. Agricultural loan concentrations stayed above 30 percent for banks below $\$ 100$ million in assets.

## Commercial Bank Involvement in Agriculture

## Commercial Banks Are Major Lenders to Agriculture

Adjustments which arose from increased competition and regional economic cycles are revealed, in pait, by examining the shifts which occurred in loan portfolio shares between 1980 and 1991 (fig. 1). In 1980, small agricultural banks held an average 12.4 percent more of their loan portfolio in agricultural assets than did larger agricultural banks. The larger agricultural banks placed the greatest concentration of their loans with commercial and industrial concerns. The largest share of loans at small nonagricultural banks was in consumer loans (mostly automobile loans), while large nonagricultural banks were heavily involved in commercial and industrial loans. By 1991, the share of loans going to agriculture had increased slightly at both small and large agricultural banks, while loans for commercial

Table 2--Ratio of agricultural loans to total loans

| Bank classification | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1486 | 1987 | 1988 | 1989 | 1990 | 1931 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percerit |  |  |  |  |  |  |  |  |  |  |  |
| ALL BANKS | 4.81 | 4.45 | 4.3.3 | 4.31 | 3.92 | 3.35 | 2.89 | 2.72 | 2.53 | 2.56 | 2.64 | 2.87 |
| (\$ Millions) |  |  |  |  |  |  |  |  |  |  |  |  |
| Under 25 | 24.03 | 23.96 | 24.30 | 24.59 | 23.72 | 22.04 | 21.80 | 21.77 | 22.71 | 23.73 | 24.78 | 27.09 |
| 25 to 50 | 14.63 | ${ }^{1} 4.89$ | 15.73 | 16.53 | 15.90 | 14.92 | 14.66 | 14.69 | 15.55 | 16.34 | 16.53 | 17.77 |
| 50 to 100 | 7.91 | 8.38 | 9.20 | 9.57 | 9.30 | 8.85 | 8.56 | 8.63 | 8.88 | 9.58 | 10.47 | 11.38 |
| 100 to 300 | 3.26 | 3.37 | 3.75 | 4.13 | 4.07 | 3.77 | 3.58 | 3.49 | 3.74 | 4.02 | 4.40 | 4.98 |
| 300 to 500 | 2.56 | 2.03 | 2.12 | 2.09 | 1.70 | 1.69 | 1.75 | 1.69 | 1.61 | 1.69 | 1.77 | 2.12 |
| Over 500 | 1.54 | 1.45 | 1.44 | 1.51 | 1.35 | 1.15 | 0.95 | 0.89 | 0.87 | 0.82 | 0.88 | 0.95 |
| MELRATIO | 18.45 | 17.99 | 17.74 | 17.56 | 16.97 | 16.14 | 15.78 | 15.60 | 15.73 | 15.84 | 15.94 | 16.57 |
| AG BANKS | 38.28 | 37.62 | 37.99 | 37.77 | 37.33 | 35.67 | 35.19 | 35.30 | 34.91 | 35.83 | 35.95 | 37.12 |
| Under 25 | 44.72 | 45.05 | 45.47 | 45.90 | 45.66 | 44.29 | 43.45 | 43.71 | 44.22 | 45.35 | 45.80 | 47.53 |
| 25 to 50 | 37.39 | 37.81 | 39.29 | 39.78 | 39.29 | 37.90 | 37.67 | 37.73 | 38.58 | 40.16 | 40.28 | 41.75 |
| 50 to 100 | 31.94 | 31.34 | 33.25 | 33.85 | 33.68 | 32.18 | 31.57 | 31.28 | 31.12 | 32.88 | 34.63 | 36.04 |
| 100 to 300 | 26.45 | 27.02 | 27.10 | 28.17 | 28.73 | 27.49 | 27.35 | 27.39 | 27.88 | 27.37 | 27.27 | 29.36 |
| 300 to 500 | 30.20 | 28.68 | 34.48 | 28.76 | 19.95 | 21.04 | 21.82 | 20.84 | 20.06 | 19.01 | 35.56 | 28.34 |
| Over 500 | 22.48 | 22.36 | 23.32 | 23.91 | 26.69 | 23.23 | 22.19 | 27.04 | 18.87 | 19.58 | 18.13 | 17.97 |
| NONAG BANKS | 2.08 | 1.90 | 1.85 | 1.84 | 1.68 | 1.49 | 1.30 | 1.25 | 1.19 | 1.17 | 1.20 | 1.30 |
| Under 25 | 5.01 | 4.66 | 4.51 | 4.42 | 4.08 | 3.80 | 3.48 | 3.46 | 3.74 | 3.69 | 3.79 | 4.39 |
| 25 to 50 | 4.42 | 4.27 | 4.25 | 4.07 | 3.75 | 3.42 | 3.41 | 3.32 | 3.35 | 3.45 | 3.35 | 3.44 |
| 50 to 100 | 3.37 | 3.30 | 3.36 | 3.20 | 3.11 | 3.05 | 3.05 | 3.06 | 3.03 | 3.15 | 3.19 | 3.49 |
| 100 to 300 | 2.30 | 2.22 | 2.10 | 2.36 | 2.31 | 2.20 | 2.03 | 2.06 | 2.12 | 2.17 | 2.22 | 2.50 |
| 300 to 500 | 1.76 | 1.47 | 1.66 | 1.51 | 1.33 | 1.34 | 1.44 | 1.52 | 1.45 | 1.55 | 1.52 | 1.63 |
| Over 500 | 1.53 | 1.40 | 1.40 | 1.42 | 1.27 | 1.09 | 0.92 | 0.86 | 0.83 | 0.80 | 0.85 | 0.92 |

Table 3--Sum of agricultural loans outstanding by bank classification

| Bank classification | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Billion dollars |  |  |  |  |  |  |  |  |  |  |  |
| ALL BANKS | 40.09 | 41.16 | 44.49 | 48.31 | 49.76 | 46.87 | 43.95 | 43.50 | 45.22 | 47.43 | 50.14 | 53.02 |
| (\$ Milions) |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 11.24 | 10.65 | 10.30 | 9.91 | 8.61 | 7.63 | 7.16 | 6.96 | 6.76 | 6.40 | 6.19 |
| 25 to 50 | 10.04 | 10.27 | 10.90 | 11.37 | 11.57 | 10.67 | 9.92 | 9.76 | 9.98 | 10.12 | 10.00 | 10.45 |
| 50 to 100 | 5.91 | 6.78 | 8.01 | 9.02 | 9.66 | 9.33 | 8.91 | 9.13 | 9.31 | 9.96 | 10.95 | 11.74 |
| 100 to 300 | 3.25 | 3.70 | 4.53 | 5.52 | 6.34 | 6.21 | 6.00 | 6.09 | 6.75 | 7.85 | 8.73 | 9.70 |
| 300 to 500 | 1.04 | 0.76 | 0.93 | 1.05 | 0.97 | 1.13 | 1.25 | 1.17 | 1.29 | 1.41 | 1.60 | 1.91 |
| Over 500 | 7.70 | 8.41 | 9.48 | 11.05 | 11.31 | 10.92 | 10.24 | 10.19 | 10.92 | 11.33 | 12.47 | 13.04 |
| AG BANKS | 24.04 | 24.81 | 26.86 | 29.09 | 29.76 | 27.22 | 25.07 | 24.46 | 25.55 | 26.70 | 28.33 | 30.10 |
| Under 25 | 10.83 | 10.10 | 9.63 | 9.35 | 9.01 | 7.80 | 6.97 | 6.54 | 6.35 | 6.21 | 5.91 | 5.72 |
| 25 to 50 | 7.95 | 8.26 | 8.92 | 9.55 | 9.77 | 9.04 | 8.37 | 8.28 | 8.59 | 8.73 | 8.70 | 9.19 |
| 50 to 100 | 3.79 | 4.59 | 5.65 | 6.63 | 7.08 | 6.76 | 6.35 | 6.53 | 6.80 | 7.39 | 8.38 | 9.01 |
| 100 to 300 | 1.04 | 1.38 | 2.16 | 2.58 | 2.99 | 2.81 | 2.80 | 2.70 | 3.17 | 3.92 | 4.70 | 5.28 |
| 300 to 500 | 0.34 | 0.22 | 0.21 | 0.31 | 0.22 | 0.25 | 0.23 | 0.12 | 0.13 | 0.13 | 0.23 | 0.47 |
| Over 500 | 0.09 | 0.26 | 0.28 | 0.68 | 0.69 | 0.57 | 0.35 | 0.28 | 0.51 | 0.32 | 0.39 | 0.43 |
| NONAG BANKS | 16.05 | 16.35 | 17.64 | 19.22 | 20.00 | 19.65 | 18.88 | 19.04 | 19.66 | 20.73 | 21.81 | 22.93 |
| Under 25 | 1.32 | 1.14 | 1.02 | 0.95 | 0.90 | 0.82 | 0.66 | 0.62 | 0.61 | 0.54 | 0.49 | 0.48 |
| 25 to 50 | 2.09 | 2.01 | 1.98 | 1.82 | 1.80 | 1.63 | 1.55 | 1.48 | 1.39 | 1.39 | 1.30 | 1.27 |
| 50 to 100 | 2.11 | 2.19 | 2.35 | 2.39 | 2.58 | 2.57 | 2.56 | 2.60 | 2.51 | 2.57 | 2.56 | 2.72 |
| 100 to 300 | 2.21 | 2.32 | 2.37 | 2.94 | 3.35 | 3.40 | 3.20 | 3.38 | 3.58 | 3.93 | 4.02 | 4.42 |
| 300 to 500 | 0.70 | 0.54 | 0.72 | 0.74 | 0.75 | 0.88 | 1.02 | 1.05 | 1.15 | 1.29 | 1.36 | 1.44 |
| Over 500 | 7.62 | 8.15 | 9.20 | 10.37 | 10.62 | 10.36 | 9.89 | 9.91 | 10.42 | 11.01 | 12.07 | 12.61 |

and industrial and consumer purposes declined, giving way to increases in housing and other types of real estate loans. Loan shares also shifted dramatically at nonagricultural banks. Small nonagricultural banks experienced a large increase in real estate loan activity (especially home loans), and large nonagricultural banks had an almost even split among real estate, commercial and incustrial, and consumer loans. Agricultural loans declined slightly at both small and large nonagricultural banks.

Commercial banks have traditionally been, and remain, an important source of debt capital to the agricultural sector. Total real and nonreal estate farm debt volume grew steadily from 1960 to 1984, then declined sharply through 1986 in conjunction with the farm credit crisis (fig. 2). Farm financial stress subsided through 1987 and total farm debt continued to decline. However, the importance of commercial bank involvement in agricultural lending, relative to other agricultural lenders, rebounded strongly in the late 1980 's, as commercial banks increased their outstanding agricultural debt to $\$ 53$ billion by the end of 1991 . Commercial banks have increased their share of farm real estate debt (fig. 3), and provide the largest share of agricultural nonreal estate debt among all agricultural lenders (fig. 4).

## Commercial Bank Numbers Decline

The total number of commercial banks has declined steadily in the United States since 1983, reflecting increasing consolidation in the industry, as well as numerous bank failures. From 1983 through 1991, the number of banks declined 17.8 percent. The number of agricultural banks has declined steadily since 1980, falling 25.7 percent by 1991. The aggregate concentration of agricultural loans-to-total loans declined through 1989. By 1991, the mean ratio of agricultural loans-to-total loans had risen slightly, reflecting the improved overall health of the agricultural sector and the increasing share of farm debt held by banks.

Agricultural banks reached the peak failure rate of 1.67 percent when 75 banks failed in 1987 (table 4). In 1991, 10 agricultural banks failed, compared with 98 nonagricultural ones. Except for the 1984-87 period, nonagricultural banks have had a higher incidence of failure than have agricultural banks. Most failed banks held under $\$ 100$ million in assets. Under the "weak bank" classification, a number of banks were reported to have experienced higher than normal levels of financial difficulty because of bad loans. A bank was defined as weak if that bank's nonperforming loans were greater than that bank's total capital. Larger numbers of bad loans, in turn, increased the likelihood of failure (table 5). A bank was classified as weak if its volume of nonperforming loans exceeded the dollar value of its total capital.

Over the study period, the number of agricultural banks declined 25.6 percent, while the number of nonagricultural banks fell only 13.2 percent (table 1). Some of the difference in rate of decline for these two bank types may be explained by the fact that several banks reduced the relative volume of farm loans to the point of no longer meeting the criteria to be an agricultural bank. The smallest bank size in both agricultural and nonagricultural categories experienced the greatest decline, while the other five size classes showed relatively large increases in the number of banks.

Redistribution of banks to higher size classes is likely to continue as the banking industry undergoes further consolidation because of:

Figure 1--Loan shares by type of loan, 1980 and $1991^{1 /}$


Agbanks
$\$ 100$ Million or less ${ }^{2 /}$


Agbanks More than $\$ 100$ Million


Nonagbanks $\$ 100$ Million or less


Nonagbanks More than $\$ 100$ Million

Agricultural 1/D


Agbanks More than $\$ 100$ Million



Agbanks $\$ 100$ Million or less
1-4 Residential housing loans
Commercial
Industrial

Nonagbanks $\$ 100$ Million or less



Nonagbanks

Does not include loans to other depository institution
2/Bank size by dollare of assets.
Figure 2--Total farm debt, by lender


Figure 3--Share of farm real estate debt, by lender


Figure 4--Share of farm nonreal estate debt, by lender


Table 4--Commercial bank failures and failure rates ${ }^{1}$

| Bank classification | 1980 | 1981 | 1982 | 1983 | $\frac{1984}{}$ | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Agricultural banks ${ }^{2}$ | $\begin{gathered} 0 \\ (0.00) \end{gathered}$ | $\begin{gathered} 1 \\ (0.02) \end{gathered}$ | $\begin{array}{r} 10 \\ (0.19) \end{array}$ | $\begin{gathered} 7 \\ (0.14) \end{gathered}$ | $\begin{gathered} 31 \\ (0.62) \end{gathered}$ | $\begin{array}{r} 69 \\ (1.42) \end{array}$ | $\begin{gathered} 66 \\ (1.41) \end{gathered}$ | $\begin{array}{r} 75 \\ (1.67) \end{array}$ | $\begin{gathered} 41 \\ (0.95) \end{gathered}$ | $\begin{gathered} 22 \\ (0.53) \end{gathered}$ | $\begin{gathered} 18 \\ (0.44) \end{gathered}$ | $\begin{array}{r} 10 \\ (0.25) \end{array}$ |
| Nonagricultural | $\begin{gathered} 10 \\ (0.11) \end{gathered}$ | $\begin{gathered} 9 \\ (0.11) \end{gathered}$ | $\begin{gathered} 23 \\ (0.25) \end{gathered}$ | $\begin{gathered} 37 \\ (0.40) \end{gathered}$ | $\begin{gathered} 47 \\ (0.50) \end{gathered}$ | $\begin{array}{r} 49 \\ (0.52) \end{array}$ | $\begin{gathered} 78 \\ (0.84) \end{gathered}$ | $\begin{gathered} 127 \\ (1.41) \end{gathered}$ | $\begin{gathered} 180 \\ (2.09) \end{gathered}$ | $\begin{gathered} 184 \\ (2.18) \end{gathered}$ | $\begin{gathered} 141 \\ (1.76) \end{gathered}$ | $\begin{gathered} 98 \\ (1.24) \end{gathered}$ |
| Total banks ${ }^{\text {3 }}$ | $\begin{array}{r} 10 \\ (0.07) \\ \hline \end{array}$ | $\begin{array}{r} 10 \\ (0.07) \end{array}$ | $\begin{array}{r} 33 \\ (0.23) \\ \hline \end{array}$ | $\begin{array}{r} 44 \\ (0.31) \\ \hline \end{array}$ | $\begin{array}{r} 78 \\ (0.54) \\ \hline \end{array}$ | $\begin{gathered} 118 \\ (0.83) \\ \hline \end{gathered}$ | $\begin{array}{r} 144 \\ (1.03) \\ \hline \end{array}$ | $\begin{gathered} 202 \\ (1.50) \\ \hline \end{gathered}$ | $\begin{array}{r} 221 \\ (1.71) \\ \hline \end{array}$ | $\begin{array}{r} 206 \\ (1.63) \\ \hline \end{array}$ | $\begin{array}{r} 159 \\ (1.30) \end{array}$ | $\begin{array}{r} 108 \\ (0.91) \end{array}$ |

Source: Calculated from information provided by the Federal Deposit Insurance Corporatiern and the Report of Condition and Report of Income files, Board of Governors of the Federal Reserve System.

Table 5-Number of weak' banks

| Bank classification | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ALL BANKS (\$ Millions) | ก.a ${ }^{2}$ | n.a. | n.a. | 146 | 193 | 278 | 386 | 445 | 292 | 212 | 143 | 120 |
| Under 25 | n.a. | п.a. | n.a. | 68 | 104 | 138 |  |  |  |  |  |  |
| 25 to 50 | n.a. | n.a. | n.a. | 43 | 104 49 | 138 69 | 202 93 | 161 | 119 74 | 80 | 41 | 30 |
| 50 to 100 | n.a. | n.a. | n.a. | 21 | 29 | 47 | 48 | 115 94 | 74 | 59 | 35 | 30 |
| 100 to 300 | n.a. | n.a. | n.a. | 11 | 10 | 47 19 | 48 30 | 94 46 | 56 | 36 | 27 | 19 |
| 300 to 500 | n.a. | n.a. | n.a. | 2 | 0 | 19 3 | 30 0 | 46 8 | 25 | 20 | 23 | 25 |
| Over 500 | n.a. | n.a. | n.a. | 1 | 1 | 2 | 5 | 21 | 12 | 9 8 | 8 9 | 6 10 |
| AG BANKS | n.a. | n.a. | n.a. | 40 | 93 | 143 | 155 | 86 | 54 | 31 | 13 | 13 |
| Under 25 | n.a. | п.a. | n.a. | 20 | 61 | 86 |  |  |  |  |  |  |
| 25 to 50 | n.a. | n.a. | n.a. | 15 | 25 | 86 34 | 107 37 |  | 38 | 21 | 7 | 7 |
| 50 to 100 | n.a. | п.а. | n.a. | 4 | 25 | 34 21 | 11 | 19 | 9 | 6 | 5 | 5 |
| 100 to 300 | п.a. | n.a. | n.a. | 1 | 2 | 2 | 11 | 10 | 7 | 4 | 1 | 0 |
| 300 to 500 | ก.а. | п.a. | n.a. | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 1 |
| Over 500 | n.a. | n.a. | n.a. | $\begin{aligned} & 0 \\ & 0 \end{aligned}$ | 0 | $0$ | $0$ | 0 | 0 | 0 | 0 | 0 |
|  | n.a. | n.a. | п.¢. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NONAG BANKS | п.a. | n.a. | n.a. | 106 | 100 | 135 | 231 | 359 | 238 | 181 | 130 | 07 |
| Under 25 | n.a. | n.a. | n.a. | 48 |  |  |  |  |  |  |  | 107 |
| 25 to 50 | n.a. | n.a. | ก.a. | 28 | 24 | 52 35 | 95 56 | 104 96 | 81 | 59 | 34 | 23 |
| 50 to 100 | n.a. | n.a. | n.a. | 17 | 24 | 36 26 | 56 37 | 96 84 | 65 | 53 | 30 | 25 |
| 100 to 300 | n.a. | n.a. | n.a. | 10 | 84888 | 17 | 37 30 | 84 | 49 | 32 | 26 | 19 |
| 300 to 500 | n.a. | n.a. | n.a. | 2 | 0 | 17 | 30 | 46 | 25 | 20 | 23 | 24 |
| Over 500 | п.a. | п,a. | n.a. | 1 | 1 | 3 | 8 | 8 21 | 6 | 9 | 8 | 6 |
| bank was defined | no | frning | were | 1 | 1 | 2 | 5 | 21 | 12 | 8 | 9 | 10 |

- Continued integration of financial markets
- Fundamental economic adjustments, including adjustments to overcapacity, in both the agricultural and commercial real estate sectors.

Factors that affected the size distribution of commercial banks over this period include inflation, the failure resolution policy of bank regulators, relaxed geographic restrictions on banking organizations, and de novo (new) banks. Each factor affected the number of banks overall or the number in a particular size category. De novo entry is the only factor that did not contribute to the decline in the number of banks.

Bank asset values are reported in nominal dollars. As a result, inflation increased the dollar value of these assets, causing banks near the upward threshold of each size class to move into the next consecutive class over time. However, bank mergers also increased the number of banks in successively larger size classes, while reducing the overall number of banks.

Failure resolution policy affects size distribution in that the preferred method of dealing with an insolvent institution is not to pay off depositors and to liquidate the bank, but rather to merge it with, or sell it to, a healthy bank. Merging or selling reduces the number of banks (unless the purchasing entity is operated as a multibank holding company) and increases the average size of remaining banks.

Relaxation of State branching laws and interstate merger restrictions has increased the rate of bank consolidation and led to fewer and larger banks. Interstate mergers must be structured as holding company transactions, thus leaving the number of banks unchanged. However, if a bank purchases more than one bank within another State, these two banks can be, and often are, consolidated into one, thus reducing the number of banks.

Newly chartered (de novo) banks add to bank numbers, mostly in the smallest size category. There was de novo activity throughout the reporting period in spite of the stress in the banking industry. De novo banks demonstrate abnormal financial ratios in the first few years of their operations as they seek to stabilize operations for long-term survival.

Certain regions of the country experienced larger numbers of bank failures and consolidation activity than others (tables 6 and 7). While the number of banks declined in most States due to failures, an even larger decline in numbers resulted from changes in State banking laws that allowed banks to consolidate more rapidly.

In 1991, most agricultural banks had under $\$ 100$ million of assets. These banks were concentrated in the Midwest, with the smallest number in the Northeast (fig. 5). This concentration is consistent with the greater collection and scale of agricultural activity in the Midwest, and a lesser degree of branching and interstate banking activity.

Table 6-The change in number and asset value of agricultural banks between 1980 and 1991


Table 7--The change in number and asset value of nonagricultural banks between 1980 and 1991


Figure 5--Geographic distribution of agricultural banks, 1991


Source: December 1981, Aeport of Condition end income, Board of Governors of the Federal Reserve System.

## Financial Ratio Analysis

Banks report to their primary regulator using a balance sheet and income statement format. The balance sheet records assets, liabilities, and capital levels at a particular reporting date. The income statement records the flow of revenues and expenses over an accounting period from one reporting date to the next. These reports are file'ं un a quarterly basis with the bank's primary regulator and are coordinated by the Federal Financial Institutions Examination Council (FFIEC). Banks complete one of four sets of forms incorporating the balance sheet and income statement, depending on asset size and whether they have foreign offices. In general, the larger the bank, the more detail it is required to report.

The two basic financial statements (balance sheet and income statement) filed by banks may require banks to report over 1,000 different operating statistics. This reporting requirement results in a rich data set for analysis.

The use of financial ratios in firm performance evaluation is well established and allows comparison both through time and at a particular point in time. Further, the nature of the
financial reporting required of banks by industry regulators (Federal Reserve Bank (FRB), FDIC, and Office of the Comptroller of the Currency (OCC)) lends itself to ratio analysis.


#### Abstract

"Window dressing" of financial statements occurs when firms desire to appear in conformity with industry norms or to reduce tax liabilities. In some instances, stockholders react negatively to performance characteristics which, while not necessarily affecting firm returns, make their firm appear out of step with the characteristics of other similar firms. Because banks have some flexibility in recognition of earnings and losses, as well as taxable and nontaxable income, they are able to alter their portfolios on reporting dates for tax or other purposes (Moyer, 1990). Popular items banks use for "window dressing" are Federal funds purchased or loss-reserve manipulation, and tax-exempt income versus tax-equivalent income reports. Window dressing, if widespread, could cause ratios that are computed from call report data to be either misleading or noncomparable. Methodology used in this bulletin assumes that "window dressing" has no effect on the weighted ratios reported.


Moreover, comparing ratios may lead to faulty conclusions if comparisons are made between ratios constructed from alternative sources or definitions. For example, rate of return on assets (ROA) is alternatively constructed, using net income, net income before taxes, net income after taxes and before securities gains and losses. The denominator may be periodending total assets, average of period beginning-and-ending total assets, average of beginning, midyear and yearend total assets, or other variations. This bulletin presents ratios constructed from yearend reported values, unadjusted for inflation.

Finally, bank financial ratios are meaningful only in conjunction with a bank's past performance or in comparison with other banks. Furthermore, none of the measures presented here has a "correct" value. For exampie, it might seem that a higher leverage ratio is always better since, as leverage increases, other things equal, return on equity will likewise increase. However, such aggressive management practices may lead to an increased risk of default and closer regulator scrutiny. Ratios, then, should be viewed as part of a whole system of bank performance indicators, and not in isolation.

## Characteristics of Financial Performance

A traditional way to evaluate financial performance is to look at measures of profitability, liquidity, efficiency, and solvency. Financial performance measures are derived from entries in a bank's income and balance sheet statistics. Forty-five such measures are employed to ccmpare differences in financial performance characteristics between agricultural banks and their nonagricultural counterparts. Detailed characteristics of bank performance are reported in separate text tables for each of the four performance categories (table 8). Additional appendix tables are included for each performance measure, but excluded from the discussion. In many cases, the additional tables present similar ratios that disaggregate income and balance sheet items in finer detail (for example, interest expense-to-total expense versus deposit interest expense-to-total expense).

Table 8--Ratio definitions

| Criteria | Ratio | Components | Table |
| :---: | :---: | :---: | :---: |
| Profitability | Retum on assets (ROA) | (Net income/total assets) X 100.0 | 9 |
|  | Profit margin (PM) | (Net income/total income) X 100.0 | 10 |
|  | Net interest margin (NIM) | (Net interest income/total assets) X 100.0 | 11 |
|  | Net noninterest margin (NNIM) | (Net noninterest income/total assets)X100.0 | 12 |
|  | Loss rate (LR) | (Net chargeoffs/total loans)X100.0 | 13 |
| Liquidity | Loan-to-deposit (LTD) | (Loans/deposits)XI00 | 14 |
|  | Demand deposits-to-totaI liabilities (DDTL) | (Demand deposits/total liabilities)X100 | 15 |
|  | Total securities-to-total assets (STA) | (Total securities/total assets)X100.0 | 16 |
| Efficiency | Noninterest expense-to-total assets (NIEA) | (Noninterest expense/total assets)X100.0 | 17 |
|  | Assets per employee (APE) | (Interest-earning assets/total assets)X100.0 | 18 |
|  | Interest expense-to-interest bearing liabilities (IEIBL) | (Interest expense/interest bearing liabilities)X100.0 | 19 |
|  | Times interest earned net (TINNRN) | ((Operating income-provision for losses)/interest expense) X100.0 | 20 |
| Solvency | Equity multiplier (EM) | (Total assets/equity capital)X100.0 | 21 |
|  | Total capital-to-total assets (TCA) | (Total capital/total assets)X100.0 | 22 |
|  | Nonperforming loans-tototal loans (NPLTL) | (Nonperforming loans/total loans)X100.0 | 23 |
|  | Nonperforming loans-toequity capital (NPLEC) | (Nonperforming loans/equity capital)X100.0 | 24 |

## Risk

This report does not estimate specific measures of risk. However, the risk a bank faces is reflected in such accounting data as the composition, quality, and liquidity of assets, capital adequacy, and earnings. The gist of the different degrees of risk exposure is reflected in the performance measures that are reported here. For example, decreasing capital and increasing nonperforming loans indicate increasing risk of insolvency. Also, banks aggressively making loans and holding few liquid securities have a riskier profile. It has been shown that
economic risks have important differential impacts on the value of banks across regions because regulation and market forces in different regions lead banks to develop different exposures to risk（Brewer and Cheng，1986）．Furthermore，regional differences in bank branching laws have an important impact on bank equity risk through their effect on a bank＇s reliance on purchased funds．

Regulations governing branching，mergers，and acquisitions affect the ability of banks to develop a broad，stable deposit base，while on the asset side of banks＇balance sheets，these restrictions may limit the ability to engage in risk－reducing diversification of loan portfolios．

Furthermore，it has been suggested that the deposit insurance system in existence during the study period created a strong incentive for already troubled banks to carry additional risk． Depositors likely relied on deposit insurance rather than on bank capital for the safe return of their funds．In addition，banks could borrow at the FRB discount window to cover periods of illiquidity．

With respect to managing risk，a relatively low proportion of total assets in U．S．Government securities reduces liquidity and thus increases risk exposure．Also，a high reliance on purchased or wholesale funds，such as large certificates of deposit，Federal funds purchased， and securities sold under agreements to repurchase，is often associated with high－risk－high－ asset growth and aggressive lending strategies．A more risk－averse，conservative posture is indicated by a high concentration of Federal funds sold and securities purchased under agreements to resell，which increases liquidity．

## Profitability Characteristics

Profitability ratios measure the ability of the firm to produce net returns sufficient to sustain survival and growth（tables 9－13 and appendix table 1）．The primary focus is on returns relative to the level and cost of inputs employed．Comparing profitability at banks of different sizes is complex because asset size is correlated with the composition of asset and liability portfolios，which affects net income．

Profitability was significantly affected by bank management policies toward asset composition，funding practices，and the lack of noninterest cost controls．The most profitable banks often held more securities，which reduced noninterest expense．In general，profitable banks relied more on equity funding，as opposed to purchased liabilities，reducing their interest and noninterest expenses．In addition，profitable banks had more demand deposits， which reduced interest expenses，and they had effective cost controls．Deregulation of deposit interest rates，which continued through 1986，meant interest expense differences played a more important role in determining bank profitability than any other item besides loan quality， since troubled banks would often pay higher－than－normal interest rates to attract deposits．

Bank profits reflected changing economic conditions，conditions in specific bank markets， market interest rates，and the degree of deregulation under which banks operated（for example，see State level data in appendix tables $35-40$ ）．Within this context，small banks （under $\$ 25$ million）had higher adjusted net interest margins and rates of return on assets， while larger banks had higher rates of return on equity（appendix table 1）．Small banks
enjoyed larger interest rate spreads and made better use of their assets, on average. Large banks had higher rates of return on equity because they used higher degrees of financial leverage than did small banks.

## Rate of Return on Assets

The rate of return on assets (ROA) measures profits per dollar of assets and provides a handy gauge of how well a bank's management uses its assets (table 9). ROA provides a way to compare profitability apart from differences in equity-capital ratios (financial leverage). The ROA and the risk profile can be used to evaluate a bank's ability to absorb losses before its capital position is threatened. Higher ROAs can result from increases in the amount of net income earned on a given amount of assets or declines in the value of the asset base with net income unchanged.

- Small agricultural banks (less than $\$ 50$ million in assets) earned higher rates of return on assets than nonagricultural ones except during the period of farm financial stress of 1984 through 1986.
- In 1980, agricultural banks earned a 44-percent-higher rate of return than nonagricultural banks, which fell to a 34 -percent-smaller return in 1985 , and rose to a 102 -percent-higher return in 1991.
- Agricultural banks under $\$ 25$ million registered an ROA that, on average, was 58 points greater than nonagricultural ones. This ROA may have resulted from there being more small urban de novo banks, or because small urban banks face more competition.
- From 1986 to 1990, nonagricultural banks under $\$ 25$ million had negative ROAs, possibly because of the unusually large number of de novo banks in this size class. However, an alternative explanation is the high loss rate (LOSSR) this group of banks experienced


## Profit Margin

Profit margin (PM) measures the percent of operating income that is retained after paying all operating expenses (net income) (table 10). Higher profit margins indicate better management of assets, liabilities, and tax burden. Profit margins increase when expenses decline for a given level of income.

- Except for 1985 and 1986, agricultural banks earned considerably higher profit margins.
- The difference is even more extreme for banks under $\$ 100$ million in assets.
- The smallest agricultural banks had the largest and most consistent advantage in profit margin. At the beginning of the study period, small agricultural banks' average PM was 144 percent that of nonagricultural banks, and the difference increased over the period.

Table 9--Rate of return on assets


Table 10-Net income to total operating income


## Net Interest Margin

Net interest margin (NIM) shows the difference between a bank's average cost of funds and interest earned on interest-earning assets (table 11). Some researchers adjust it for the effect of taxable securities and for loan losses to make actual interest margin more comparable. At least two different methods may be used to adjust for the effect on income of tax-free securities and higher interest rates earned on riskier loans (Sinkey, 1989b). Both adjustment methods have inherent problems and did not appear to change the relative trends between bank sizes or types. For this reason I have presented only net interest margin in this bulletin. NIM is a measure of a bank management team's ability to arrange mixes of assets and liabilities to have the desired outcome on interest rate risk and returns. NIM is affected by average interest rates on the assets and liabilities that make up the bank's portfolios.

- The NIM is higher for all agricultural banks except for the years 1984 to 1986, pointing out the ability of agricultural banks to maintain their interest rate spreads.
- NIM declined moderately for agricultural banks from 1983 to 1986, due to the large volume of nonperforming and nonaccrual loans.
- Small nonagricultural banks held a slight edge in NIM over small agricultural banks until 1988.
- In general, both bank types experienced higher NIMs as bank size declined.


## Net Noninterest Margin

Net noninterest margin (NNIM) measures the ability of a bank to offset noninterest expenses with such noninterest income sources as service charges on checking accounts and other fee income (table 12). Because the operating expenses of salaries and overhead, on average, exceed service and fee income, NNIM is always negative. The closer NNIM is to zero, the more effective the bank has been in adding additional sources of income or in minimizing noninterest-related expenses.

- Nonagricultural banks have an overall edge in NNIM because of larger banks' success in unbundling a variety of services to earn greater fee income.
- The opposite is true for banks under $\$ 100$ million in assets, as agricultural banks have lower noninterest cost in fixed occupancy expense and in salaries and benefits (appendix tables 20 and 21). The large number of new small nonagricultural banks may be an important factor in this difference.


## Loss Rate

Loan net chargeoffs as a percent of total loans (LOSSR) are one measure of the quality of the bank's loan portfolio (table 13). Loan chargeoffs directly reduce bank capital (in 1986, regulators began requiring certain banks to make loan loss allocations in advance of the actual

Table 11--Net interest margin

| Bank classification | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent |  |  |  |  |  |  |  |  |  |  |  |
| ALL BANKS (\$ Millions) | 3.49 | 3.45 | 3.49 | 3.42 | 3.76 | 3.83 | 3.22 | 3.32 | 3.41 | 3.40 | 3.41 | 3.55 |
| Under 25 | 4.31 | 4.48 | 4.38 | 4.21 | 4.14 | 4.24 | 3.98 | 3.96 | 3.93 | 4.01 |  |  |
| 25 to 50 | 4.04 | 4.05 | 4.12 | 3.96 | 3.96 | 4.10 | 3.87 | 3.88 | 3.93 3.89 | 4.01 3.98 | 3.93 3.92 | 4.01 3.95 |
| 50 to 100 | 3.91 | 3.90 | 3.98 | 3.88 | 3.91 | 4.01 | 3.79 | 3.83 | 3.85 | 3.93 | 3.92 3.88 | 3.96 3.93 |
| 100 to 300 | 3.69 | 3.73 | 3.80 | 3.64 | 3.80 | 3.88 | 3.67 | 3.81 | 3.84 | 3.98 | 3.88 3.90 | 3.93 3.96 |
| 300 to 500 | 3.63 | 3.53 | 3.63 | 3.54 | 3.72 | 3.81 | 3.55 | 3.70 | 3.80 | 3.97 | 3.88 | 3.96 4.00 |
| Over 500 | 3.21 | 3.15 | 3.22 | 3.19 | 3.69 | 3.75 | 3.01 | 3.13 | 3.26 | 3.20 | 3.24 | 3.42 |
| AG BANKS | 3.94 | 3.91 | 3.90 | 3.75 | 3.68 | 3.81 | 3.61 | 3.61 | 3.66 | 3.71 | 3.64 | 3.77 |
| Under 25 | 4.19 | 4.34 | 4.26 | 4.17 | 4.03 | 4.16 | 3.89 | 3.83 | 3.84 | 3.91 |  |  |
| 25 to 50 | 3.85 | 3.79 | 3.85 | 3.73 | 3.64 | 3.83 | 3.66 | 3.64 | 3.71 | 3.76 | 3.82 | 3.92 |
| 50 to 100 | 3.71 | 3.62 | 3.73 | 3.55 | 3.49 | 3.67 | 3.47 | 3.50 | 3.57 | 3.76 3.63 | 3.68 3.56 | 3.81 3 |
| 100 to 300 | 3.58 | 3.54 | 3.53 | 3.43 | 3.49 | 3.57 | 3.45 | 3.50 | 3.59 | 3.63 3.60 | 3.56 3.57 | 3.70 3.74 |
| 300 to 500 | 3.64 | 3.60 | 3.67 | 3.61 | 3.93 | 3.51 | 3.22 | 2.97 | 3.34 | 3.51 | 3.57 3.17 | 3.74 3.57 |
| Over 500 | 3.77 | 3.15 | 3.05 | 3.04 | 3.30 | 3.11 | 2.76 | 3.40 | 3.29 | 3.45 | 3.70 | 3.51 |
| NONAG BANKS | 3.45 | 3.41 | 3.46 | 3.39 | 3.77 | 3.83 | 3.19 | 3.31 | 3.40 | 3.38 | 3.39 | 3.54 |
| Under 25 | 4.42 | 4.61 | 4.50 | 4.24 | 4.25 |  | 4.08 | 4.11 | 4.03 | 4.12 |  |  |
| 25 to 50 | 4.13 | 4.18 | 4.25 | 4.10 | 4.14 | 4.25 | 3.99 | 4.03 | 4.01 | 4.13 | 4.05 4.07 | 4.11 4.07 |
| 50 to 100 | 3.95 | 3.96 | 4.04 | 3.96 | 4.03 | 4.10 | 3.89 | 3.92 | 3.94 | 4.02 | 4.07 4.00 | 4.07 4.01 |
| 100 to 300 | 3.69 | 3.74 | 3.81 | 3.66 | 3.82 | 3.91 | 3.68 | 3.83 | 3.86 | 4.01 | 3.93 | 3.98 |
| 300 to 500 | 3.63 | 3.53 | 3.63 | 3.54 | 3.72 | 3.81 | 3.55 | 3.71 | 3.81 | 3.97 | 3.88 | 4.01 |
| Over 500 | 3.21 | 3.15 | 3.22 | 3.20 | 3.69 | 3.75 | 3.01 | 3.13 | 3.26 | 3.20 | 3.24 | 3.42 |

Table 12-Net noninterest margin

| Bank classification | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 192105 Percent |  |  |  |  |  |  |  |  |  |  |  |
| All BANKS (\$ Millions) | -1.92 | -1.95 | -2.02 | -1.95 | -2.19 | -2.16 | -1.84 | -1.85 | -1.80 | -1.73 | -1.79 | -1.89 |
| Under 25 | -2.50 | -2.61 | -2.74 | -2.70 | -2.76 | -2.87 | -2.88 | -2.88 |  |  |  |  |
| 25 to 50 | -2.27 | -2.30 | -2.41 | -2.36 | -2.40 | -2.48 | -2.81 | -2.88 -2.55 | -2.86 -2.51 | -2.84 -2.51 | -2.88 -2.54 | -2.87 -2.60 |
| 50 to 100 | -2.26 | -2.29 | -2.37 | -2.30 | -2.34 | -2.41 | -2.58 | -2.45 -2.40 | -2.31 | -2.51 -2.34 | -2.54 -2.36 | -2.60 |
| 100 to 300 | -2.24 | -2.33 | -2.39 | -2.24 | -2.27 | -2.32 | -2.27 | -2.30 | -2.32 | -2.27 | -2.29 | -2.42 -2.36 |
| 300 to 500 | -2.21 | -2.25 | -2.33 | -2.22 | -2.27 | -2.27 | -2.17 | -2.16 | -2.21 | -2.21 | -2.17 | -2.21 |
| Over 500 | -1.68 | -1.69 | -1.77 | -1.73 | -2.09 | -2.03 | -1.63 | -1.65 | -1.59 | -1.52 | -1.60 | -2.21 -1.72 |
| AG BANKS | $-1.98$ | -1.99 | -2.09 | -2.06 | -2.08 | -2.16 | -2.18 | -2.15 | -2.14 | -2.10 | -2.09 | -2,17 |
| Under 25 | -2.15 | -2.21 | -2.33 | -2.35 | -2.35 | -2.45 | -2.47 |  |  |  |  |  |
| 25 to 50 | -1.87 | -1.87 | -1.97 | -1.97 | -1.99 | -2.45 | -2.47 | -2.45 -2.15 | -2.47 -2.13 | -2.45 | -2.46 -2.13 | -2.53 -2.23 |
| 50 to 100 | -1.85 | -1.88 | -1.95 | -1.93 | -1.96 | -2.04 | -2.05 | -2.01 | -2.13 -2.04 | -2.12 -1.97 | -2.13 -1.95 | -2.23 -2.04 |
| 100 to 300 | -1.93 | -1.92 | -2.08 | -2.04 | -2.00 | -2.08 | -2.05 | -1.99 | -1.99 | -1.94 | -1.95 | -2.04 -2.09 |
| 300 to 500 | -1.77 | -1.73 | -2.00 | -1.85 | -ci. 22 | -2.27 | -2.14 | -1.89 | -1.75 | -2.94 | -1.97 | -2.09 |
| Over 500 | -2.10 | -1.98 | -2.04 | -1.84 | -1.94 | -2.01 | -2.13 | -2.11 | -1.89 | -1.97 | -2.07 | -1.93 -1.92 |
| NONAG BANKS | -1.92 | -1.94 | -2.01 | -1.94 | -2.19 | -2.16 | -1.82 | -1.84 | -1.78 | -1.71 | -1.77 | -1.88 |
| Under 25 | -2.84 | -2.99 | -3.14 | -3.06 | -3.16 | -3.28 | -3.30 |  |  |  |  |  |
| 25 to 50 | -2.45 | -2.51 | -2.63 | -2.58 | -2.63 | -2.71 | -2.73 | -3.34 | -3.27 | -3.26 | -3.35 -2.80 | -3.29 |
| 50 to 100 | -2.33 | -2.38 | -2.47 | -2.40 | -2.44 | -2.51 | -2.48 | -2.51 | -2.76 | -2.76 | -2.80 -251 | -2.86 -2.56 |
| 100 to 300 | -2.25 | -2.35 | -2.41 | -2.26 | -2.29 | -2.34 | -2.28 | -2.51 | -2.46 | -2.47 -2.30 | -2.51 -2.33 | -2.56 -2.39 |
| 300 to 500 | -2.22 | -2.26 | -2.34 | -2.23 | -2.27 | -2.27 | -2.17 | -2.16 | -2.22 | -2.21 | -2.17 | -2.22 |
| Over 500 | -1.68 | -1.69 | -1.77 | -1.73 | -2.09 | -2.03 | -1.63 | -1.65 | -1.59 | -1.52 | -1.59 | -1.72 |

chargeoff), and, if severe enough, may require the bank to increase capital or reduce assets to maintain a viable capital-to-asset ratio.

- LOSSR surged for agricultural banks during the farm credit crisis.
- It is likely that LOSSR is similar across bank types and sizes because of the widespread nature of loan problems that affected different size banks in different regions, over the
study period.


## Liquidity Characteristics

A firm is liquid if it has the ability to raise sufficient funds to cover all short-term liabilities without endangering the longer term plans or prospects of the firm. For banks, this includes the ability to meet sudden or unexpected increases in deposit withdrawals by customers. Banks typically meet these needs through cash holdings and short-term, highly liquid investments, such as Federal funds and Treasury bills. The level and type of loans and deposits held strongly influence bank liquidity (tables 14-16 and appendix tables 2-8). A bank's liquidity is heavily dependent upon its portfolio of Government securities. Such measures as short-term asset 'o total assets (STATA), loans to assets (LTA), securities to assets (STA), and loans to deposits (LTD) provide measures of a bank's liquidity.

Because of liquidity risk, an additional interest expense is incurred when a bank cannot fund its assets without paying a premium over the rates paid by other banks on similar liabilities. Banks that depend more on short-term deposits and purchased funds are more likely to face a liquidity crisis when asset (loan) quality deteriorates. To protect against liquidity risk, bank management uses asset/liability management techniques, which include: lengthening the maturity of the banks liabilities to better match the maturity of its assets, writing loan contracts to reprice more often (for example, using 20 -year amortization with a balloon payment due in 10 years), or increasing the marketability of its asset portfolio by increasing the ratio of liquid securities-to-total assets (for example, holding more Government securities).

## Loans to Deposits

The loan-to-deposit (LTD) ratio has traditionally been used to measure asset liquidity (table 14). However, changes brought about by financial deregulation and innovation have somewhat altered the ratio's interpretation. Loans for purposes such as housing (Ginnie Mae and Freddie Mac), education (Sallie Mae), consumer loans (asset-backed securities), and, to a lesser extent, agricultural mortgages (Farmer Mac I \& II), can be sold in active secondary markets, making these loans more liquid, thus reducing the need to hold securities for liquidity purposes and allowing expansion of loan portfolios. The average LTD ratio, reported as of December 31, increased for all banks until 1990. However, agricultural bank LTD ratios were more erratic, on average, over this same time period, reflecting the bumpy financial adjustments that were occurring in agriculture (appendix table 41).

- Nonagricultural banks have higher LTD ratios. This is due, in part, to large banks having proportionally larger amounts of nondeposit liabilities (for example, Federal funds purchased) which will increase the LTD ratio.

Table 13-Net chargeoffs to total loans

| Bank classification | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 94 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ALL BANKS | 0.43 | 0.41 | 06 |  |  | Percent |  |  |  |  |  |  |
| (\$ Millions) |  | 0.4 | 0.64 | 0.75 | 0.85 | 0.94 | 1.05 | 1.00 | 1.06 | 1.22 | 1.52 | 1.76 |
| Under 25 | 0.42 | 0.50 | 0.75 | 0.85 |  |  |  |  |  |  |  |  |
| 25 to 50 | 0.39 | 0.42 | 0.66 | 0.85 0.80 | 1.11 0.93 | 1.65 | 1.94 | 1.47 | 1.11 | 0.84 | 0.69 | 0.65 |
| 50 to 100 | 0.36 | 0.38 | 0.59 | 0.75 | 0.93 | 1.33 1.16 | 1.54 1.30 | 1.14 | 0.87 | 0.76 | 0.67 | 0.66 |
| 10010300 | 0.36 | 0.38 | 0.59 | 0.60 0.60 | 0.74 0.64 | 1.16 0.81 | 1.30 | 0.93 | 0.71 | 0.63 | 0.63 | 0.65 |
| 300 to 500 | 0.36 | 0.39 | 0.60 | 0.67 | 0.64 0.48 | 0.81 0.68 | 0.98 | 0.76 | 0.66 | 0.60 | 0.67 | 0.78 |
| Over 500 | 0.47 | 0.41 | 0.65 | 0.77 | 0.91 | 0.89 | 0.99 | 0.79 | 0.67 | 0.79 | 0.79 | 0.91 |
|  |  |  |  |  |  |  |  | 1.04 | 1.18 | 1.41 | 1.80 | 2.10 |
| AG BANKS | 0.32 | 0.43 | 0.69 | 0.93 | 1.27 | 2.13 | 2.22 | 1.24 | 0.72 | 0.58 | 0.44 | 0.43 |
| Under 25 | 0.36 | 0.47 | 0.71 |  |  |  |  |  |  |  |  |  |
| 25 to 50 | 0.31 | 0.40 | 0.66 | 0.90 | 1.37 | 2.23 | 2.51 | 1.52 | 0.88 | 0.63 | 0.48 | 0.43 |
| 50 to 100 | 0.29 | 0.41 | 0.68 | 1.05 | 1.32 1.19 | 2.09 2.24 | 2.24 | 1.26 | 0.77 | 0.58 | 0.45 | 0.38 |
| 100 to 300 | 0.31 | 0.41 | 0.69 | . 0.82 | 1.19 | 2.24 | 2.32 | 1.13 | 0.64 | 0.56 | 0.40 | 0.40 |
| 300 to 500 | 0.19 | 0.31 | 0.46 | 0.82 1.13 | 1.10 0.90 | 1.83 185 | 1.75 1.37 | 1.08 | 0.57 | 0.53 | 0.45 | 0.53 |
| Over 500 | 0.47 | 0.73 | 1.25 | 0.63 | 1.901.38 | $\begin{aligned} & 1.85 \\ & 2.10 \end{aligned}$ | $\begin{aligned} & 1.37 \\ & 1.38 \end{aligned}$ | $\begin{aligned} & 0.43 \\ & 1.16 \end{aligned}$ | $\begin{aligned} & 0.86 \\ & 0.76 \end{aligned}$ | $\begin{aligned} & 1.78 \\ & 0.61 \end{aligned}$ | $\begin{aligned} & 0.19 \\ & 0.49 \end{aligned}$ | $\begin{aligned} & 0.32 \\ & 0.41 \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| NONAG BANKS | 0.44 | 0.41 | 0.64 | 0.74 | 0.82 | 0.87 | 1.00 | 0.99 | 1.07 | 1.25 | 1.57 | 1.82 |
| Under 25 | 0.48 | 0.52 |  |  |  |  |  |  |  |  |  |  |
| 25 to 50 | 0.42 | 0.42 | 0.66 | 0.81 | 0.87 0.73 | 1.18 | 1.46 | 1.44 | 1.32 | 1.04 | 0.90 | 0.90 |
| 50 to 100 | 0.38 | 0.38 | 0.57 | 0.74 0.68 | 0.73 0.63 | 0.95 | 1.20 | 1.09 | 0.93 | 0.85 | 0.79 | 0.82 |
| 100 to 300 | 0.36 | 0.38 | 0.58 | 0.59 | 0.63 | 0.75 | 1.06 | 0.88 | 0.72 | 0.65 | 0.70 | 0.73 |
| 300 to 500 | 0.37 | 0.39 | 0.61 | 0.66 | 0.60 | 0.75 | 0.93 | 0.74 | 0.66 | 0.61 | 0.69 | 0.80 |
| Over 500 | 0.47 | 0.41 | 0.65 | 0.77 | 0.47 | 0.66 0.89 | 0.97 | 0.80 | 0.67 | 0.78 | 0.79 | 0.93 |
|  |  |  | 0.65 | 0.77 | 0.31 | 0.89 | 0.99 | 1.04 | 1.18 | 1.41 | 1.80 | 2.10 |

Table 14--Total loans to total deposits


- Higher LTD ratios at agricultural banks correspond to seasonal peak borrowing periods that coincide with crop plantings, while nonagricultural banks record higher LTD ratios in December.
- LTD ratios declined at agricultural banks during the farm financial crisis, reflecting a decline in the number of quality agricultural loans that could be made (and a decline in demand for agricultural credit in general).
- In general, as bank size increases, the average loan-to-deposit ratios increase.


## Demand Deposits-to-Total Liabilities

The demand deposits-to-total liabilities (DDTL) ratio measures the liquidity demands on the bank's deposit base (table 15). Demand deposits include all deposits other than time and savings deposits and, typically, can be withdrawn on very short notice. In recent years, only businesses typically hold large numbers of demand deposit accounts; legally, banks cannot pay interest on these accounts. Because of these changes, DDTL is not as clear a measure of liquidity as it once was.

- DDTL declined for all banks after the annulment of regulation Q raised interest rates on several savings instruments and after other interest-bearing transaction accounts were permitted.
- Prior to deregulation, small banks had a stable local deposit base, but the demand deposits-to-total deposits ratio suggests that the composition of deposits changed after deregulation, possibly accompanying an outflow of deposits from small banks to large banks or nonbank banks (appendix table 17).
- With the additional banking powers provided to savings and loan associations after 1982, banks faced more competition for demand deposits.
- The proportionally lower DDTL ratios at agricultural banks may indicate a more stable deposit base at these banks than at their nonagricultural counterparts.


## Securitles-to-Assets

Commercial banks typically hold securities as a means of providing liquidity (table 16). In recent years, securities have been held in larger numbers as loan demand diminished during regional recessions, as capital requirements increased, and as the effective yield on securities provided competitive yields to riskier loans. Commercial banks are limited to holding securities issued by government entities. For Federal securities in particular, a mature secondary market exists, making these securities ideal liquidity management tools. Also, the securities-to-asset (STA) ratio is a general indicator of the risk-preference characteristics of bank management. In addition, the consensus view is that regulators began scrutinizing certain loan types more closely in response to heavier bank speculation, which probably directed more funds into securities.

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Table 15-Demand deposits to total liabilities


Table 16--Total securities to total assets

－Agricultural banks，in general，and smaller ones，in particular，hold a larger proportion of their assets in the form of securities than do nonagricultural ones（yearend data minimizes the effect of seasonal loan demand at agricultural banks）．
－The percentage of securities held by agricultural banks increased from 30 percent in 1980 to a high of 38 percent in 1991.
－The increase in STA ratios was particularly large at agricultural banks in the $\$ 50-100$ million size class，rising 44 percent over the period 1980－91．
－Larger banks held a smaller percentage of assets as securities than did small banks and their STA ratios tended to remain stable at around 12 to 15 percent，indicating that these banks had access to more sophisticated liquidity management tools，such as the Euro－dollar markets．However，the explanation for different STA ratios may be more complicated， since nonagricultural banks also tended to have stable STA ratios．

## Efficiency Characteristics

Efficiency within the banking firm requires that choices be made among the different possible combinations of resources and technology to be used in providing the bank＇s financial products and services．As competition increased in the banking industry，so did the rewards to efficient management．One of the key areas of efficient management is a bank＇s ability to match asset and liability maturities in order to minimize the costs associated with those liabilities，while maximizing the revenues earned from the bank＇s assets．Controlling operating and interest expenses is critical to efficient bank performance．Relationships between noninterest and interest income and expenses and the amounts of noninterest－earning assets required to operate the banking firm are useful indicators of efficiency（tables 17－20 and appendix tables 9－23）．

## Noninterest Expense－fo－Total Assets

Deregulation of financial markets increased the importance of noninterest cost controls． Those banks that were able to reduce noninterest cost gained an edge over their competition． One comparative measure of how well agricultural banks controlled noninterest cost，relative to their nonagriculturai counterparts，is the ratio of noninterest expense－to－total assets（NIEA） （table 17）．
－On average，agricultural banks consistently have lower NIEA ratios than nonagricultural ones．
－The lower NIEA ratios at agricultural banks may，in part，reflect the lower noninterest expenses associated with doing business in predominantly rural versus urban economies．
－The overall trend for both agricultural and nonagricultural banks was toward increasing expenses for such items as salaries，benefits，＂bricks and mortar，＂and equipment．

## Assets per Employee

One way of increasing efficiency is by controlling noninterest expense through the efficient deployment of employees. Total dollars of assets are divided by the total number of bank employees across bank sizes and types (APE). Agricultural banks with assets under $\$ 50$ million in assets consistently held more assets per employee than nonagricultural ones (table 18).

- All banks showed a trend toward increasing assets per employee over the study period.
- Because asset size classes are discrete, increasing APE measures indicate that the level of banking personnel was being reduced considerably over the period studied.


## Interest Expense-to-Interest Bearing Liabilities

The interest expense-to-interest bearing liabilities (IEIBL) ratio is obtained by dividing total interest expense by total interest-bearing liabilities (table 19). As ceilings were lifted on deposit interest rates and financial markets offered a wider array of products, commercial banks experienced competition for deposits and other interest-bearing liabilities needed to fund assets. As a result, interest cost control became more important to the financial viability of the bank. Managing asset/liability matches to control interest expense was joined by the importance of bank management's need to control noninterest expenses as well, especially as market forces outside of management's control became more dominant. The cost structure of banks appears to have shifted over the study period, as illustrated by comparing the ratio of interest expense-to-total expense and noninterest expense-to-total expense (appendix tables 13 and 19).

- Because large banks, more than small ones, tend to fund the loans they make through purchasing more liabilities, large banks are more significant in the overall IEIBL ratio for nonagricultural banks, giving the nonagricultural bank group consistently higher IEIBL ratios.
- Aside from the largest commercial banks, small agricultural banks had higher IEIBL ratios than did small nonagricultural banks, but the difference diminished over the decade from a high of 1.09 percent (1983) to 0.18 percent (1991).
- This difference was primarily due to the higher rates small agricultural banks had to pay for deposits as compared with their nonagricultural counterparts (appendix table 16). This may be a result of the deposit base of agricultural banks including a smaller proportion of demand deposits than in the case of nonagricultural banks (appendix table 17).
- Overall deposit interest expense (and thus interest expense) increased with bank size. This trend reflects the increasing share of total deposits which consisted of large negotiable certificates of deposit (appendix table 7). The higher rates larger banks had to pay to hold large checking accounts, which resulted from fierce competition in the financial services industry, also increased their interest expenses.

Table 17-Noninterest expense to total assets

| Bank classification | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | 198 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 |
| ALL BANKS | 3.04 | 3.19 | 3.30 |  |  | Percent |  |  |  |  |  |  |
| (\$ Millions) |  |  | 3.30 | 3.30 | 3.41 | 3.46 | 3.05 | 3.22 | 3.22 | 3.27 | 3.41 | 3.63 |
| Under 25 | 3.13 | 3.30 | 3.42 | 3.41 |  |  |  |  |  |  |  |  |
| 25 to 50 | 2.90 | 2.98 | 3.08 | 3.04 | 3.48 3.09 | 3.59 3.22 | 3.59 3.20 | 3.64 3.23 | 3.63 | 3.66 | 3.64 | 3.72 |
| 50 to 100 | 2.91 | 2.99 | 3.07 | 3.01 | 3.09 3.04 | 3.22 3.13 | 3.20 3.40 | 3.23 | 3.24 | 3.29 | 3.31 | 3.44 |
| 100 to 300 | 2.98 | 3.10 | 3.19 | 3.12 | 3.10 | 3.13 3.16 | 3.10 | 3.12 | 3.15 | 3.13 | 3.17 | 3.27 |
| 300 to 500 | 3.06 | 3.17 | 3.28 | 3.19 | 3.20 | 3.16 3.23 | 3.10 3.20 | 3.16 3.17 | 3.17 3.17 | 3.21 | 3.19 | 3.35 |
| Over 500 | 3.08 | 3.25 | 3.37 | 3.40 | 3.57 | 3.23 | 3.20 3.00 | 3.17 3.23 | 3.17 | 3.25 | 3.16 | 3.36 |
|  |  |  |  | 3.40 | 3.57 | 3.59 |  | 3.23 | 3.22 | 3.28 | 3.47 | 3.71 |
| AG BANKS | 2.43 | 2.49 | 2.57 | 2.58 | 2.59 | 2.68 |  |  |  |  |  |  |
| Under 25 | 2.57 |  |  |  |  | 2.68 | 2.71 | 2.69 | 2.73 | 2.70 | 2.69 | 2.81 |
| 25 to 50 | 2.29 | 2.69 2.32 | 2.80 | 2.84 | 2.86 | 2.96 | 3.00 | 2.99 | 3.02 | 3.05 | 3.03 | 3.12 |
| 50 to 100 | 2.31 | 2.39 | 2.41 | 2.42 2.43 | 2.45 | 2.54 | 2.62 | 2.63 | 2.64 | 2.66 | 2.67 | 2.80 |
| 100 to 300 | 2.57 | 2.48 | 2.69 | 2.43 | 2.47 | 2.56 | 2.56 | 2.52 | 2.55 | 2.49 | 2.47 | 2.58 |
| 300 to 500 | 2.69 | 3.23 | 2.76 | 2.68 | 2.65 2.77 | 2.74 2.88 | 2.69 | 2.71 | 2.75 | 2.70 | 2.62 | 2.75 |
| Over 500 | 2.83 | 2.73 | 2.82 | 2.80 | 2.70 | 2.88 281 | 2.75 | 2.31 | 2.50 | 2.88 | 5.35 | 4.05 |
|  |  |  |  | 2.80 | 2.70 | 2.81 | 2.91 | 2.98 | 3.62 | 2.90 | 3.00 | 3.42 |
| NONAG BANKS | 3.09 | 3.25 | 3.35 | 3.36 | 3.48 | 3.52 | 3.07 | 3.25 |  |  |  |  |
| Under 25 | 3.66 | 3.88 | 4.03 |  |  |  |  |  |  | 3.29 | 3.44 | 3.67 |
| 25 to 50 | 3.19 | 3.30 | 3.42 | 3.99 3.39 | 4.10 3.45 | 4.20 | 4.21 | 4.33 | 4.29 | 4.32 | 4.33 | 4.45 |
| 50 to 100 | 3.02 | 3.12 | 3.22 | 3.17 | 3.45 3.20 | 3.61 3.29 | 3.54 | 3.59 | 3.63 | 3.70 | 3.73 | 3.87 |
| 100 to 300 | 2.99 | 3.13 | 3.23 | 3.15 | 3.14 | 3.19 | 3.26 3.13 | 3.30 3.19 | 3.34 | 3.34 | 3.42 | 3.52 |
| 300 to 500 | 3.07 | 3.16 | 3.29 | 3.20 | 3.14 3.21 | 3.19 3.23 | 3.13 3.20 | 3.19 | 3.21 | 3.25 | 3.26 | 3.42 |
| Over 500 | 3.08 | 3.26 | 3.37 | 3.40 | 3.57 | 3.23 3.59 | 3.20 3.00 | 3.18 | 3.18 | 3.25 | 3.14 | 3.34 |
|  |  |  | 3.37 | 3.40 | 3.57 | 3.59 | 3.00 | 3.23 | 3.22 | 3.28 | 3.47 | 3.71 |

Table 18-Dollars of assets per employee

| Bank classification | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ALL BANKS | 1.033 | 1.125 |  |  |  | Thousand dollars |  |  |  |  |  |  |
| (\$ Millions) | 1.033 | 1,125 | 1,249 | 1,337 | 1,417 | 1,524 | 1,890 | 1,946 | 2,063 | 2,163 | 2,241 | 2,318 |
| Under 25 | 925 | 992 | 1,064 | 1,144 |  |  |  |  |  |  |  |  |
| 25 to 50 | 999 | 1,079 | 1,171 | 1,144 | 1,199 1,354 | 1,257 1,409 | 1,335 | 1,365 | 1,423 | 1,465 | 1,531 | 1,607 |
| 50 to 100 | 935 | 1,072 | 1,174 | 1,289 | 1,365 | 1,409 | 1,503 1,543 | 1,544 | 1,605 | 1,660 | 1,720 | 1,777 |
| 100 to 300 | 833 | 1,051 | 1,147 | 1,270 | 1,365 | 1,425 1,450 | 1,543 | 1,588 | 1,646 | 1,719 | 1,796 | 1,876 |
| 300 to 500 | +958 | 1,058 | 1,157 | 1,289 | 1,371 | 1,507 | 1,558 | 1,600 1,699 | 1,664 1,814 | 1,722 | 1,830 | 1,891 |
| Over 500 | 1,131 | 1,175 | 1,318 | 1,385 | 1,461 | 1,584 | 2,081 | 2,132 | 1,814 $\mathbf{2 , 2 6 2}$ | $\begin{array}{r} 1,842 \\ 2,374 \end{array}$ | $\begin{aligned} & 1,984 \\ & 2,434 \end{aligned}$ | $\begin{aligned} & 2,029 \\ & 2,512 \end{aligned}$ |
| AG EANKS | 1,147 | 1,343 | 1,440 | 1,522 | 1,622 | 1,679 | 1,745 | 1,794 | 1,851 | 910 |  |  |
| Under 25 | 1,170 | 1,254 | 1,327 | 1,393 |  |  |  |  |  | ,910 | ,00 | 2,064 |
| 25 to 50 | 1,328 | 1,452 | 1,548 | 1,585 | 1,461 1,716 | 1,513 1,771 | 1,574 1,825 | 1,618 1 | 1,655 | 1.678 | 1,749 | 1,814 |
| 50 to 100 | 885 | 1,377 | 1,507 | 1,621 | 1,716 1,700 | 1,771 1,743 | 1,825 1,838 | 1,864 1899 | 1,923 | 1,978 | 2,067 | 2,091 |
| 100 to 300 | 1,163 | 1,311 | 1,362 | 1,461 | 1,577 | 1,743 1,636 | 1.838 1.669 | 1,899 1709 | 1,970 | 2,046 | 2,162 | 2,233 |
| 300 to 500 | 1,173 | 1,147 | 1,375 | 1,531 | 1,561 | 1,636 1,605 | 1,669 1,721 | 1,709 2,209 | 1,776 194 1967 | 1,855 | 2,013 | 2,112 |
| Over 500 | 1,103 | 1,234 | 1,385 | 1,602 | 1,809 | 1,921 | 1,121 $\mathbf{2 , 1 7 4}$ | $\begin{aligned} & 2,209 \\ & 1083 \end{aligned}$ | 1,947 1,862 | 1,822 | 974 | 1,392 |
|  |  |  |  |  | 1,809 |  |  |  | 1,862 | 2,139 | 2,066 | 1,895 |
| NONAG BANKS | 1,025 | 1,110 | 1,236 | 1,324 | 1,404 | 1.514 |  |  |  |  |  |  |
| Under 25 | 771 | 826 | 887 | 969 |  |  |  |  |  | 2,177 | 2,255 | 2,332 |
| 25 to 50 | 898 | 959 | 1,043 | 1,148 | 1,019 |  | 1,152 | 1,174 | 1,240 | 1,289 | 1,341 | 1,407 |
| 50 to 100 | 946 | 1,021 | 1,113 | 1,222 | 1,208 | 1,259 1,355 | 1,361 1,476 | 1,398 | 1,450 | 1,505 | 1,549 | 1,613 |
| 100 to 300 | 823 | 1,041 | 1,135 | 1,259 | 1,2951 | 1,355 1,438 | 1,476 1,551 | 1,515 1,593 | 1,565 | 1,632 | 1,693 | 1,771 |
| 300 to 500 | 954 | 1,056 | 1,155 | 1,285 | 1,368 | 1,438 1,505 | 1,551 1,640 | 1,593 1,695 | 1,656 | 1,710 | 1,812 | 1,869 |
| Over 500 | 1.131 | 1,175 | 1,318 | 1,385 | 1,461 | 1,580 | 1,640 2,080 | 1.695 2 | 1,813 | 1,842 | 2,003 | 2,050 |
|  |  |  |  |  | 1,401 | 1,580 | 2,080 | 2,132 | 2,263 | 2,375 | 2,434 | 2,513 |

## Times Interest Earned Net

The times-interest-earned-net (TINNRN) ratio measures the relationship of operating income (interest and noninterest), less chargeoffs to total interest expense (table 20). Banks pay interest expenses to maintain the liabilities $\mathrm{u}_{\mathrm{i}} *$ of fund income-earning assets. The larger this ratio, the larger the multiple-adjusted interest income is of interest expense. The difference between interest income and interest expense is available to cover noninterest expenses, which typically are higher than noninterest income (see net noninterest margin).

- Nonagricultural banks, excluding the largest size class, had higher TINNRN ratios than their nonagricultural counterparts. This relationship between the two bank types' TINNRN ratios is analogous to the NIM situation. The biggest banks experienced large loan chargeoffs in association with loans to less developed countries (LDC).


## Solvency Characteristics

Whether or not a firm is in immediate danger of failure is of concern for obvious reasons (tables 21-24 and appendix tables 24-29). A solvent firm can convert assets into cash to cover cash shortfalls in paying its liabilities. In general, banks are highly leveraged firms using large amounts of debt and small amounts of equity to acquire assets. Therefore, sudden and large declines in income or increases in losses incurred from problem loans can cause solvency problems. The number of failed banks in the 1980's was the largest since the 1930's. In the 1980's, these bank failures resulted in a great deal of attention being focused on such measures of solvency as the capital-to-asset ratio.

Regulators define a bank's capital as the difference between the book values of its assets and liabilities. Other things equal, a lower ratio of capital-to-assets depresses the bank's equity value by increasing the probability that temporary losses will reduce the book value of the bank's capital to a critical point where the bank regulators will close the bank. Other things held constant, the higher the ratio, the more losses the bank can take before its capital position is threatened.

Important issues in maintaining solvency in the banking industry include questions surrounding the implicit value of being "too-big-to-fail" and risk-based capital standards which became active after the period covered in this bulletin.

## Equity Multiplier

The equity multiplier (EM) is the ratio of total assets-to-equity capital (table 21) and is the inverse of the equity capital-to-asset ratio (appendix table 28). Rate of return on assets (ROA) times EM equals the rate of return on equity (ROE). The return on equity measures the return to the bank's investors. ROE can be increased then by: (1) increasing ROA for a given level of assets and equity; or (2) bank management following the familiar financial leveraging principle of increasing the dollar amount of assets backed by a given level of equity capital.

Table 19--Interest expense to total interest-bearing liabilities

| Bank classification | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1586 | 1987 | 1988 | 1989 | 1990 | 1991 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent |  |  |  |  |  |  |  |  |  |  |  |
| ALL BANKS (\$ Millions) | 8.63 | 11.20 | 10.06 | 7.91 | 11.10 | 9.33 | 6.42 | 6.21 | 6.72 | 7.88 | 7.67 | 6.17 |
| Under 25 | 5.37 | 7.14 | 7.64 | 6.51 | 8.57 | 7.68 | 6.65 | 5.93 | 6.05 | 6.70 | 6.56 | 5.95 |
| 25 to 50 | 5.62 | 7.43 | 7.66 | 6.60 | 8.70 | 7.77 | 6.71 | 5.97 | 6.11 | 6.80 | 6.70 | 5.98 |
| 50 to 100 | 5.70 | 7.51 | 7.57 | 6.44 | 8.67 | 7.68 | 6.65 | 5.98 | 6.15 | 6.84 | 6.70 | 5.97 |
| 100 to 300 | 5.93 | 7.73 | 7.57 | 6.35 | 8.66 | 7.57 | 6.46 | 5.91 | 6.11 | 6.85 | 6.71 | 5.92 |
| 300 to 500 | 5.97 | 7.93 | 7.46 | 6.16 | 8.53 | 7.52 | 6.43 | 5.83 | 6.24 | 7.04 | 6.72 | 5.99 |
| Over 500 | 10.60 | 13.53 | 11.57 | 8.81 | 12.57 | 10.27 | 6.37 | 6.34 | 6.92 | 8.21 | 7.99 | 6.24 |
| AG BANKS | 5.80 | 7.77 | 8.26 | 7.12 | 9.00 | 7.96 | 6.84 | 6.02 | 6.13 | 6.79 | 6.64 | 6.02 |
| Under 25 | 5.49 | 7.35 | 8.18 | 7.05 | 8.92 | 7.94 | 6.81 | 5.98 | 6.08 | 6.73 | 6.62 | 6.03 |
| 25 to 50 | 5.94 | 7.92 | 8.32 | 7.24 | 9.01 | 8.01 | 6.89 | 6.03 | 6.11 | 6.78 | 6.68 | 6.03 |
| 50 to 100 | 6.02 | 8.03 | 8.28 | 7.15 | 9.05 | 8.00 | 6.84 | 6.04 | 6.16 | 6.80 | 6.61 | 6.03 |
| 100 to 300 | 6.19 | 8.09 | 8.30 | 7.09 | 8.95 | 7.83 | 6.82 | 6.00 | 6.17 | 6.79 | 6.63 | 6.00 |
| 300 to 500 | 6.17 | 8.34 | 8.02 | 6.89 | 8.01 | 7.98 | 6.68 | 6.13 | 6.48 | 7.02 | 6.43 | 5.95 |
| Over 500 | 6.81 | 8.47 | 8.19 | 6.43 | 9.48 | 7.77 | 6.55 | 6.26 | 6.14 | 7.33 | 6.84 | 5.89 |
| NONAG BANKS | 8.87 | 11.49 | 10.21 | 7.97 | 11.27 | 9.43 | 6.40 | 6.22 | 6.75 | 7.93 | 7.72 | 6.18 |
| Under 25 | 5.26 | 6.93 | 7.12 | 5.96 | 8.21 | 7.41 | 6.48 | 5.88 | 6.02 | 6.66 | 6.48 | 5.85 |
| 25 to 50 | 5.47 | 7.20 | 7.33 | 6.25 | 8.52 | 7.63 | 6.60 | 5.94 | 6.11 | 6.82 | 6.72 | 5.95 |
| 50 to 100 | 5.64 | 7.39 | 7.40 | 6.25 | 8.56 | 7.58 | 6.59 | 5.96 | 6.14 | 6.85 | 6.73 | 5.94 |
| 100 to 300 | 5.92 | 7.72 | 7.52 | 6.29 | 8.63 | 7.55 | 6.43 | 5.91 | 6.11 | 6.85 | 6.71 | 5.92 |
| 300 to 500 | 5.96 | 7.92 | 7.46 | 6.15 | 8.52 | 7.51 | 6.42 | 5.83 | 6.23 | 7.04 | 6.72 | 5.99 |
| Over 500 | 10.60 | 13.54 | 11.58 | 8.82 | 12.58 | 10.27 | 6.37 | 6.31 | 6.93 | 8.21 | 7.99 | 6.24 |

Table 20-Total operating income to total interest expense

| Bank classification | 1980 | 1981 | 1982 | 1583 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ratio |  |  |  |  |  |  |  |  |  |  |  |
| ALL BANKS (\$ Millions) | 1.44 | 1.34 | 1.39 | 1.48 | 1.48 | 1.58 | 1.66 | 1.69 | 1.65 | 1.55 | 1.56 | 1.73 |
| Under 25 | 1.89 | 1.69 | 1.64 | 1.72 | 1.66 | 1.74 | 1.79 | 1.88 | 1.85 | 1.79 | 1.78 | 1.87 |
| 25 to 50 | 1.79 | 1.60 | 1.59 | 1.66 | 1.61 | 1.70 | 1.76 | 1.85 | 1.83 | 1.76 | 1.75 | 1.85 |
| 50 to 100 | 1.75 | 1.57 | 1.57 | 1.66 | 1.61 | 1.70 | 1.76 | 1.84 | 1.81 | 1.74 | 1.74 | 1.84 |
| 100 to 300 | 1.68 | 1.53 | 1.55 | 1.63 | 1.59 | 1.69 | 1.76 | 1.85 | 1.82 | 1.75 | 1.74 | 1.85 |
| 300 to 500 | 1.67 | 1.49 | 1.53 | 1.63 | 1.61 | 1.69 | 1.75 | 1.84 | 1.80 | 1.74 | 1.74 | 1.85 |
| Over 500 | 1.33 | 1.26 | 1.31 | 1.41 | 1.43 | 1.53 | 1.62 | 1.63 | 1.60 | 1.49 | 1.51 | 1.69 |
| AG BANKS | 1.74 | 1.55 | 1.52 | 1.58 | 1.53 | 1.61 | 1.67 | 1.77 | 1.76 | 1.69 | 1.69 | 1.79 |
| Under 25 | 1.84 | 1.65 | 1.58 | 1.65 | 1.60 | 1.68 | 1.74 | 1.82 | 1.81 | 1.75 | 1.74 | 1.83 |
| 25 to 50 | 1.71 | 1.52 | 1.51 | 1.57 | 1.52 | 1.61 | 1.68 | 1.77 | 1.77 | 1.70 | 1.70 | 1.79 |
| 50 to 100 100 to 300 | 1.67 1.63 | 1.49 1.48 | 1.49 1.47 | 1.54 | 1.50 | 1.58 | 1.64 | 1.74 | 1.73 | 1.67 | 1.68 | 1.76 |
| 300 to 500 | 1.63 1.65 | 1.48 | 1.47 1.50 | 1.53 1.57 | 1.51 1.57 | 1.59 1.55 | 1.65 | 1.75 | 1.74 | 1.67 | 1.68 | 1.78 |
| Over 500 | 1.61 | 1.40 | 1.40 | 1.51 | 1.45 | 1.50 | 1.53 | 1.68 | 1.67 1.73 | 1.63 1.59 | 1.63 1.68 | $\begin{aligned} & 1.75 \\ & 1.79 \end{aligned}$ |
| NONAG BANKS | 1.43 | 1.33 | 1.38 | 1.48 | 1.48 | 1.57 | 1.66 | 1.68 | 1.64 | 1.54 | 1.56 | 1.72 |
| Under 25 | 1.93 | 1.74 | 1.70 | 1.79 | 1.73 | 1.80 | 1.86 | 1.94 | 1.90 | 1.83 | 1.83 | 1.93 |
| 25 to 50 | 1.82 | 1.64 | 1.63 | 1.72 | 1.67 | 1.75 | 1.81 | 1.90 | 1.87 | 1.80 | 1.79 | 1.89 |
| 50 to 100 | 1.76 | 1.58 | 1.60 | 1.68 | 1.64 | 1.73 | 1.79 | 1.87 | 1.84 | 1.77 | 1.77 | 1.87 |
| $\begin{aligned} & 100 \text { to } 300 \\ & 300 \text { to } 500 \end{aligned}$ | 1.68 | 1.53 | 1.55 | 1.63 | 1.60 | 1.70 | 1.77 | 1.86 | 1.83 | 1.76 | 1.75 | 1.86 |
| 300 to 500 Over 500 | 1.67 1.33 | 1.49 | 1.53 | 1.63 | 1.61 | 1.69 | 1.75 | 1.84 | 1.80 | 1.74 | 1.74 | 1.85 |
| Over 500 | 1.33 | 1.26 | 1.31 | 1.41 | 1.43 | 1.53 | 1.62 | 1.63 | 1.60 | 1.49 | 1.51 | 1.69 |

By increasing EM, management can increase ROE, but not without increasing risk (that is, the familiar tradeoff of increased risk bringing increased returns). Therefore, bank management cannot rely too heavily on financial leverage to increase ROE without attracting an undesired level of regulator scrutiny. If a bank's regulators decide that the bank is relying too heavily on leverage, they will require either an increase in equity capital or the dispors? of certain risky assets. Thus, a tradeoff exists between maximizing the return to the bank's investors and meeting the safety and soundness objectives of bank regulators.

- When comparing all agricultural and all nonagricultural banks, nonagricultural banks, without exception, had the highest EM values, with the largest nonagricultural banks relying most heavily on financial leverage to increase ROE. Even with the high degree of leverage, banks whose ROAs were lowered by low profit margins, resulting from high provisions for loan losses, had trouble raising their ROEs to industry averages (appendix table 1).
- As bank size increased for both categories of banks, EM increased. The smallest agricultural banks had EMs that averaged 0.98 less than those of agricultural banks in the \$50-100 million size class. However, the difference narrowed to only 0.36 in 1991.
- Small nonagricultural banks maintained a larger EM than did small agricultural banks, and the difference increased over the study period from 0.33 in 1980 to 1.19 in 1991.
- The difference in EM can be explained by more conservative management of small agricultural banks. Agricultural banks consistently maintain equity capital-to-total-capital ratios similar to those of nonagricultural banks (appendix table 29).


## Total Capital to Assets

Total capital to assets (TCA) differs from the inverse of EM in that regulators allow bank management to classify additional items as capital when evaluating whether the bank is sufficiently capitalized (table 22)(Baer and McElravey 1993). The required capitalization standards changed numerous times over the study period (Wall 1989). The difference between TCA and equity capital to assets is the portion of nonequity items to assets (appendix table 28).

- Agricultural banks tended to be better capitalized toward the end of the study period than nonagricultural banks.
- Generally as bank size increased, total capitalization decreased.


## Nonperforming Loans to Total Loams

Nonperforming loans to total loans (NPLTL) measures the percent of total loans classified as nonperforming (table 23). Because bank loans are the most important source of bank income, management seeks to minimize this ratio. Therefore, bank management must carefully evaluate the loans extended to ensure the reliability of loan repayments, thus guaranteeing the bank's income stream. However, because of unforeseen economic events (for example, the

Table 21--Total assets to equity capital


Table 22--Total capital to total assets

| Bank classification | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 807800 Percent |  |  |  |  |  |  |  |  |  |  |  |
| (\$ Millions) | 8.07 | 8.06 | 7.95 | 8.07 | 8.48 | 8.68 | 7.67 | 8.19 | 8.25 | 8.35 | 8.66 | 8.93 |
| Under 25 | 9.89 | 10.06 | 10.27 | 10.50 | 10.57 | 10.57 |  |  |  |  |  |  |
| 25 to 50 | 9.03 | 9.06 | 9.18 | 9.13 | 10.57 | 10.57 9.34 | 10.26 9.25 | 10.47 9.52 | 10.65 9.67 | 10.89 9.84 | 10.87 9.87 | 10.79 |
| 50 to 100 | 8.75 | 8.75 | 8.75 | 8.77 | 8.66 | 9.34 8.82 | 9.25 8.75 | 9.53 | 9.67 9.21 | 9.84 9.44 | 9.87 9.51 | 9.97 |
| 100 to 300 | 8.29 | 8.31 | 8.22 | 8.48 | 8.21 | 8.20 | 8.20 | 8.61 | 8.56 | 9.44 8.72 | 9.51 8.77 | 9.71 9.00 |
| 300 to 500 Over 500 | 8.17 | 8.22 | 7.76 | 7.88 | 7.79 | 7.99 | 7.67 | 8.20 | 8.31 | 8.72 8.60 | 8.77 8.52 | 9.00 8.85 |
| Over 500 | 7.59 | 7.60 | 7.48 | 7.64 | 8.36 | 8.66 | 7.31 | 7.91 | 7.99 | 8.07 | 8.49 | 8.79 |
| AG BANKS | 9.23 | 9.20 | 9.28 | 9.35 | 9.47 | 9.55 | 9.53 | 9.78 | 9.95 | 10.07 | 9.91 | 10.07 |
| Under 25 | 9.68 | 9.73 | 9.89 | 10.13 | 10.24 |  |  |  |  |  |  |  |
| 25 to 50 | 9.15 | 9.21 | 9.39 | 9.53 | 10.24 9.65 | 10.31 9.75 | 10.05 9.82 | 10.25 10.00 | 10.42 10.24 | 10.66 10.39 | 10.55 | 10.70 |
| 50 to 100 | 8.81 | 8.76 | 8.94 | 9.02 | 9.10 | 9.28 | 9.82 | 10.00 9.59 | 10.24 9.83 | 10.39 | 10.28 | 10.44 |
| 100 to 300 | 8.38 | 8.55 | 8.36 | 8.27 | 8.58 | 8.73 | 8.85 | 9.59 | 9.83 | 10.07 | 10.00 | 10.21 |
| 300 to 500 | 8.11 | 8.03 | 8.20 | 8.74 | 8.88 | 7.90 | 8.85 7.75 | 9.12 8.49 | 9.49 9.09 | 9.28 | 9.08 | 9.38 |
| Over 500 | 7.90 | 7.01 | 6.66 | 7.46 | 7.69 | 7.48 | 6.83 | 7.22 | 7.31 | 8.89 6.62 | 8.82 6.85 | 8.28 7.38 |
| NONAG BANKS | 7.97 | 7.97 | 7.84 | 7.97 | 8.40 | 8.62 | 7.57 | 8.11 | 8.17 | 8.27 | 8.60 | 8.88 |
| Under 25 | 10.09 | 10.39 | 10.65 | 10.87 | 10.89 | 10.82 | 10.48 |  |  |  |  |  |
| 25 to 50 | 8.98 | 8.99 | 9.07 | 8.90 | 8.95 | 9.09 | 8.92 | 9.72 | + 9.91 | 11.14 | 11.24 | 10.90 |
| 50 to 100 | 8.74 | 8.74 | 8.70 | 8.70 | 8.55 | 8.68 | 8.58 | 9.22 8.86 | 9.31 9.01 | 9.49 9.24 | 9.60 9.34 | 9.66 |
| 100 to 300 | 8.29 | 8.29 | 8.21 | 8.49 | 8.19 | 8.16 | 8.15 | 8.86 8.57 | 9.01 8.49 | 9.24 8.67 | 9.34 8.73 | 9.52 |
| 300 to 500 | 8.17 | 8.23 | 7.76 | 7.87 | 7.77 | 8.00 | 7.67 | 8.20 | 8.49 8.34 | 8.67 8.60 | 8.73 | 8.95 |
| Over 500 | 7.59 | 7.60 | 7.48 | 7.64 | 8.37 | 8.66 | 7.31 | 7.91 | 7.99 | 8.60 8.07 | 8.52 8.49 | 8.87 8.80 |

agricultural credit crisis of the mid-80's) or changes in regulatory evaluations of what constitutes a viable loan, bank management may be required to reclassify loans as nonperforming.

- Except for the $1984-86$ period of farm financial stress, nonagricultural banks have higher NPLTL ratios.
- In general, the smaller the agricultural bank the larger the NPLTL ratio. This may reflect less loan portfolio diversity at smaller banks, or less sophisticated applicant screening and followup.
- Nonagricultural banks with over $\$ 500$ million in assets have experienced the largest level of nonperforming loans, on average, because of the large number of loans made to LDC's, commercial real estate, and so forth.


## Nonperforming Loans to Equity Capital

Bank capital reduces risk by cushioning losses and supports liquidity by maintaining market confidence in the financial viability of the bank, allowing the bank continued access to financial markets (table 24). Nonperforming loans-to-equity capital (NPLEC) is a measure of how much of the bank's core or equity capital is exposed to possible losses. If a bank with a high NPLEC must write off large portions of these loans, it will impair the solvency of the bank, causing regulators to close the bank.

- Although agricultural banks faced high levels of nonperforming loans during the farm financial crisis, only in 1985 was NPLEC for agricultural banks higher than that for other ones.
- Agricultural bank NPLEC ratios improved considerably after 1986, falling to single digits by the end of 1990 . This happened, in part, because small agricultural ban! improved their equity capital positions and, in response to an improving farm economy, were able to lower their net chargeoffs (table 18).
- Loan performance problems were magnified at the largest category of commercial banks as these banks increased capital reserves while addressing LDC loans and problems with other borrowers.


## Conclusions

Over the period 1980-91, agricultural banks went through a lengthy period of extensive adjustment created by a changing financial market environment and a fundamental realignment of the farm sector. The agricultural banks that survived these changes ended the period in solid financial condition, increasing their total real and nonreal estate loan commitments to the farm sector to over $\$ 53$ billion by the end of 1991 . The changes affecting agricultural banks began before the period studied and will continue well into the future.


Table 23--Nonperforming loans to total loans


Table 24--Nonperforming loans to equity capital


## General trends

- National trends mask the large amount of diversity that exists among different bank types and sizes within a given period and across time.
- The dollar volume of agricultural loans made by banks not classified as agricultural in this report indicates it may be time either to devise a new definition of an agricultural bank or to cease making the distinction altogether.
- With the trend in bank consolidation, changes in State branching and bank holding company laws, and the likelihood that we will eventually see some form of nationwide branching, the number of banks will continue to decline.
- The majority of agricultural banks are located in the Midwest and Southern regions of the country.


## Proftability

- Small agricultural banks earned higher rates of return on assets. This is an important indicator that deregulation of financial markets did not disadvantage small banks.
- The smallest agricultural banks had the largest and most consistent profits, compared with nonagricultural ones.
- Net interest margins at agricultural banks were only slightly different from those at nonagricultural banks, indicating that agricultural banks did not maintain unusually high interest rate spreads, as suggested by some.


## Liquidity

- Nonagricultural banks have higher loan-to-deposit ratios. This relationship has existed historically, and possibly indicates fundamental differences in loan demand in the two different markets. In recent years, the difference is more pronounced because of the increased reliance nonagricultural banks have placed on purchased funds rather than on traditional deposits.
- Deregulation of interest rates changed the composition of deposit liabilities of all banks. Financial market innovations resulted in many new financial instruments, and deregulation of interest rates accelerated the flow of funds through the banking system as well as into nontraditional financial service firms.
- Agricultural banks, and smaller ones in particular, held a larger portion of securities to assets than did nonagricultural ones. This relationship likely implies that, overall, agricultural bankers are more risk-averse than other lenders.


## Efficiency

- Agricultural banks, on average, had lower noninterest expenses as a percent of assets than did nonagricultural banks. This may be another indication of the more conservative nature of agricultural bankers. Also, agricultural banks likely face lower salary and benefits costs, on average, than do their nonagricultural counterparts.
- Agricultural banks appear to have more effectively used their employee resources, as this group of banks had a higher dollar value of assets per employee than did nonagricultural banks.
- Agricultural banks were at a small disadvantage in controlling interest expense on liabilities. However, as financial markets became more integrated during the 1980 's, this disadvantage diminished.


## Solvency

- Nonagricultural banks were more leveraged than their agricultural counterparts, having much higher equity multipliers. This is consistent with their heavier use of purchased liabilities.
- Financial leverage tended to increase as bank asset size increased.
- Except for the height of the farm debt crisis, agricultural banks, in general, have had fewer nonperforming loans than their nonagricultural counterparts. It is likely that this says more about the typical agricultural borrower than about differences in banking practice. Agricultural borrowers, on average, may be more risk-averse and also, because of real estate holdings, more likely to be able to secure loans and use their equity in land than are nonagricultural borrowers.

Issues of ongoing importance to the banking industry concern risk-based capital standards, the status of State branching and merger laws, and attempts to reverse the Glass-Steagall Act, which excludes commercial banks from involvement in investment banking. Smaller agricultural banks, in mostly rura! areas, tend to be against many of these changes on the grounds that such changes would create an unlevel playing field. Smaller banks tend to think of themselves as being at a competitive disadvantage to larger, more aggressive banks, even though the small agricultural banks, in many cases, outperformed their larger counterparts.

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| Appendix table 1-nRate of return on equity |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bank classification | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 |
| ALL BANKS | $12912.45 \quad 1155 \quad 10.00 \quad 10.07$ Percent |  |  |  |  |  |  |  |  |  |  |  |
| (\$ Millions) | 12.98 | 12.45 | 11.55 | 10.60 | 10.07 | 10.77 | 9.80 | 1.85 | 12.84 | 7.85 | 7.54 | 7.81 |
| Under 25 | 12.16 | 11.74 | 9.48 | 7.61 | 4.93 | 3.15 | 0.83 | 1.51 |  |  |  |  |
| 25 to 50 | 13.75 | 13.06 | 12.17 | 10.79 | 8.78 | 8.14 | 5.76 | 1.51 5.54 | 6.98 | 4.46 8.04 | 4.16 | 5.57 |
| 50 to 100 | 13.63 | 12.82 | 12.56 | 11.39 | 10.81 | 9.36 | 8.02 | 8. 8.15 | 6.96 9.20 | 8.04 9.97 | 7.31 9.05 | 7.77 |
| 100 to 300 | 13.12 | 12.31 | 11.51 | 10.99 | 11.53 | 11.50 | 8.75 | 10.11 | 9.20 10.17 | 11.81 | 9.05 10.07 | 9.23 9.98 |
| 300 to 500 | 13.10 | 11.61 | 10.73 | 11.53 | 12.86 | 12.34 | 9.49 | 10.02 | 11.09 | 11.05 | 10.07 9.66 | 9.98 11.22 |
| Over 500 | 12.81 | 12.48 | 11.58 | 10.57 | 10.02 | 11.54 | 10.97 | -1.63 | 14.83 | 6.74 | 6.90 | 7.09 |
| AG BANKS | 14.81 | 14.01 | 12.95 | 10.90 | 8.05 | 6.00 | 5.12 | 7.64 | 9.74 | 10.69 | 10.73 | 10.97 |
| Under 25 | 14.44 | 14.11 | 12.44 | 10.63 | 7.12 | 5.22 | 3.09 | 5.39 |  |  |  |  |
| 25 to 50 | 15.13 | 14.14 | 13.51 | 11.36 | 8.27 | 7.11 | 3.09 5.82 | 5.39 7.40 | ${ }^{7.53}$ | 8.80 10.49 | 8.56 10.26 | 8.88 |
| 50 to 100 | 15.08 | 13.94 | 13.80 | 10.52 | 8.39 | 5.97 | 5.82 5.58 | 8.77 | 9.81 10.32 | 10.49 1131 | 10.26 | 10.56 |
| 100 to 300 | 14.61 | 13.54 | 11.58 | 10.93 | 9.31 | 6.63 | 7.63 | 9.71 | 10.32 11.39 | 11.31 12.17 | 11.24 | 11.44 |
| 300 to 500 | 16.04 | 15.72 | 14.43 | 11.42 | 9.66 | -2.26 | 3.85 | 8.29 | 10.96 | 12.17 4.28 | 12.22 9.37 | 11.68 1422 |
| Over 500 | 13.84 | 9.52 | 4.61 | 11.62 | 5.41 | -4.17 | -12.55 | 11.20 | 12.15 | 16.19 | 18.48 | 18.12 |
| NONAG BANKS | 12.80 | 12.29 | 11.41 | 10.57 | 10.26 | 14.18 | 10.17 | 1.38 | 13.08 | 7.64 | 7.31 | 7.58 |
| Under 25 | 10.07 | 9.59 | 6.79 | 4.79 | 2.91 | 1.24 | -1.42 |  |  |  |  |  |
| 25 to 50 | 13.11 | 12.52 | 11.46 | 10.45 | 9.10 | 8.78 | -1.42 | -2.36 4.31 | -1.59 4.93 | -0.02 | -0.51 5.22 | 1.55 |
| 50 to 100 | 13.35 | 12.57 | 12.24 | 11.64 | 11.50 | 10.36 | 8.77 | 7.94 | 4.93 8.81 | 6.32 | 8.22 | 5.70 8.34 |
| 100 to 300 | 13.06 | 12.24 | 11.51 | 11.00 | 11.70 | 11.88 | 9.92 | 10.14 | 10.07 | 9.49 11.78 | 8.20 9.81 | 8.34 9.77 |
| 300 to 500 | 13.02 | 11.53 | 10.69 | 11.53 | 12.92 | 12.56 | 9.57 | 10.04 | 11.09 | 11.71 | 9.81 9.65 | 9.77 11.16 |
| Over 500 | 12.81 | 12.48 | 11.59 | 10.57 | 10.03 | 11.57 | 10.99 | -1.64 | 14.83 | 6.73 | 9.65 6.89 | 11.16 7.07 |

Aupendix table 2-Total deposits to total liabilities

| Bank classification | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent |  |  |  |  |  |  |  |  |  |  |  |
| ( $\$$ Millions) | 83.28 | 81.20 | 80.43 | 81.15 | 69.81 | 70.07 | 71.26 | 70.52 | 71.88 | 72.23 | 74.23 | 74.42 |
| Under 25 | 97.99 | 97.23 | 97.38 | 97.50 | 97.58 | 98.01 | 98.19 | 98.27 | 98.26 |  |  |  |
| 25 to 50 | 96.85 | 95.96 | 96.37 | 96.85 | 97.13 | 97.60 | 98.01 | 98.15 | 98.26 | 98.12 | 98.14 | 98.27 |
| 50 to 100 | 95.62 | 94.69 | 95.33 | 96.08 | 96.40 | 97.00 | 97.32 | 97.22 | 98.04 | 98.01 97 | 97.93 97.34 | 97.99 97 |
| 100 to 300 | 92.46 | 91.78 | 92.44 | 93.56 | 93.44 | 94.50 | 95.32 | 95.30 | 95.29 | 97.38 95.31 | 97.34 95.60 | 97.28 95.85 |
| 300 to 500 | 89.45 | 86.95 | 88.12 | 88.99 | 90.89 | 90.13 | 91.66 | 91.39 | 91.14 | 91.52 | 95.60 91.20 | 95.85 91.97 |
| Over 500 | 75.84 | 73.58 | 72.51 | 73.47 | 58.84 | 59.74 | 61.69 | 61.25 | 63.69 | 64.55 | 67.30 | 67.55 |
| AG BANKS | 97.08 | 95.95 | 95.90 | 95.88 | 96.80 | 97.14 | 97.46 | 97.76 | 97.42 | 97.56 | 97.47 | 97.44 |
| Under 25 | 98.61 | 98.06 | 97.93 | 97.63 | 97.81 | 98.12 | 98.38 | 98.41 |  |  |  |  |
| 25 to 50 | 97.26 | 96.38 | 96.57 | 96.54 | 97.38 | 97.83 | 98.09 | 98.30 | 98.30 98.19 | 98.28 98.13 | 98.24 98.05 | 98.18 |
| 50 to 100 | 95.99 | 95.13 | 95.69 | 96.18 | 96.72 | 97.40 | 97.57 | 97.71 | 98.19 97.73 | 98.13 97.87 | 98.05 97.71 | 97.97 |
| 100 to 300 | 91.93 | 91.48 | 90.85 | 93.31 | 94.72 | 95.63 | 96.17 | 97.09 | 97.81 | 97.87 97.00 | 97.71 96.74 | 97.65 96.93 |
| 300 to 500 | 89.27 | 81.44 | 91.67 | 94.90 | 93.95 | 93.90 | 93.54 | 86.24 | 96.81 | 97.00 95.47 | 96.74 91.99 | 96.93 |
| Over 500 | 95.42 | 83.73 | 82.95 | 81.69 | 91.33 | 85.28 | 83.93 | 82.98 | 85.15 | 88.63 | 89.61 | $\begin{aligned} & 93.69 \\ & 91.80 \end{aligned}$ |
| NONAG BANKS | 82.16 | 80.00 | 79.21 | 79.99 | 68.11 | 68.49 | 69.84 | 69.12 | 70.59 | 71.02 | 73.09 | 73.28 |
| Under 25 | 97.40 | 96.43 | 96.84 | 97.37 | 97.35 | 97.90 |  |  |  |  |  |  |
| 25 to 50 | 96.67 | 95.76 | 96.26 | 97.02 | 96.99 | 97.46 | 97.97 | 98.06 | 98.22 97.94 | 97.95 | 98.02 | 98.38 |
| 50 to 100 | 95.55 | 94.59 | 95.24 | 96.06 | 96.31 | 96.89 | 97.25 | 97.08 | 97.94 97.12 | 97.93 | 97.86 | 98.01 |
| 100 to 300 | 92.48 | 91.79 | 92.55 | 93.57 | 93.35 | 94.41 | 95.26 | 95.18 | 95.17 | 97.22 | 97.20 | 97.15 95.73 |
| 300 to 500 | 89.45 | 87.06 | 88.07 | 88.87 | 90.84 | 90.07 | 91.64 | 91.44 | 91.14 | 91.48 | 95.47 91.19 | 95.73 |
| Over 500 | 75.82 | 73.56 | 72.49 | 73.44 | 58.77 | 59.69 | 61.67 | 61.24 | 63.65 | 64.52 | 67.27 | 67.51 |

Appendix table 3-Total interest income to total operating income

| Bank classification | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent |  |  |  |  |  |  |  |  |  |  |  |
| ALL BANKS (\$ Millions) | 91.01 | 91.59 | 90.76 | 88.51 | 90.42 | 88.94 | 86.95 | 85.61 | 85.90 | 86.19 | 85.36 | 82.94 |
| Under 25 | 93.64 | 94.05 | 94.29 | 93.42 | 93.51 | 93.28 | 92.63 | 91.79 | 91.68 | 91.75 | 92.13 | 91.0.7 |
| 25 to 50 | 93.49 | 94.13 | 94.28 | 93.59 | 93.79 | 93.09 | 92.91 | 92.50 | 92.15 | 92.22 | 92.22 | 91.19 |
| 50 to 100 | 93.33 | 93.90 | 94.01 | 93.16 | 93.64 | 93.09 | 92.45 | 92.03 | 91.51 | 92.12 | 91.90 | 91.02 |
| 100 to 300 | 92.54 | 93.34 | 93.04 | 91.49 | 92.45 | 91.91 | 91.01 | 90.63 | 90.93 | 90.77 | 91.04 | 89.64 |
| 300 to 500 | 91.44 | 92.18 | 91.71 | 90.31 | 91.33 | 90.65 | 88.99 | 88.87 | 89.90 | 90.01 | 90.16 | 88.35 |
| Over 500 | 90.11 | 90.73 | 89.51 | 86.66 | 89.29 | 87.46 | 85.09 | 83.65 | 84.23 | 84.69 | 83.64 | 80.80 |
| AG BANKS | 95.33 | 95.65 | 95.94 | 95.15 | 95.36 | 95.01 | 94.47 | 93.94 | 93.48 | 93.86 | 93.74 | 93.08 |
| Under 25 | 95.58 | 95.80 | 96.13 | 95.53 | 95.46 | 95.22 | 94.60 | 94.00 | 94.06 | 93.89 | 93.98 | 93.58 |
| 25 to 50 | 95.66 | 96.07 | 96.31 | 95.68 | 95.87 | 95.60 | 95.00 | 94.62 | 94.34 | 94.44 | 94.41 | 93.83 |
| 50 to 100 | 95.26 | 95.55 | 95.95 | 95.25 | 95.44 | 95.03 | 94.58 | 94.16 | 94.28 | 94.49 | 94.38 | 94.01 |
| 100 to 300 | 93.48 | 95.09 | 94.75 | 93.93 | 94.07 | 93.63 | 93.17 | 91.87 | 91.81 | 92.12 | 93.10 | 92.80 |
| 300 to 500 | 90.97 | 88.23 | 93.57 | 92.86 | 95.16 | 94.25 | 93.27 | 94.92 | 91.72 | 93.73 | 70.78 | 79.73 |
| Over 500 | 93.13 | 93.58 | 93.17 | 90.31 | 93.34 | 92.03 | 91.06 | 90.51 | 81.83 | 90.92 | 90.75 | 84.13 |
| NONAG BANKS | 90.74 | 91.34 | 90.41 | 88.02 | 90.10 | 88.57 | 86.52 | 85.20 | 85.55 | 85.86 | 85.00 | 82.47 |
| Under 25 | 91.86 | 92.39 | 92.44 | 91.19 | 91.53 | 91.39 | 90.60 | 89.58 | 89.26 | 89.54 | 90.10 | 88.03 |
| 25 to 50 | 92.52 | 93.20 | 93.24 | 92.40 | 92.62 | 91.66 | 91.70 | 91.28 | 90.82 | 90.88 | 90.87 | 89.49 |
| 50 to 100 | 92.98 | 93.53 | 93.52 | 92.58 | 93.16 | 92.55 | 91.86 | 91.42 | 90.68 | 91.38 | 91.08 | 89.96 |
| 100 to 300 | 92.50 | 93.25 | 92.91 | 91.31 | 92.33 | 91.78 | 90.85 | 90.54 | 90.86 | 90.65 | 90.82 | 89.29 |
| 300 to 500 | 91.45 | 92.27 | 91.69 | 90.25 | 91.26 | 90.59 | 88.94 | 88.82 | 89.88 | 89.98 | 90.37 | 88.55 |
| Over 500 | 90.11 | 90.72 | 89.50 | 86.65 | 89.28 | 87.45 | 85.09 | 83.65 | 84.23 | 84.69 | 83.64 | 80.79 |

Appendix table 4-Total loans to total assets

| Bank classification | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent |  |  |  |  |  |  |  |  |  |  |  |
| ALL BANKS <br> (\$ Millions) | 54.64 | 55.25 | 55.10 | 55.61 | 59.12 | 59.20 | 52.45 | 54.00 | 55.33 | 56.45 | 56.45 | 54.18 |
| Under 25 | 53.37 | 51.43 | 50.91 | 51.08 | 52.84 | 51.83 | 49.72 | 49.73 | 49.68 | 50.07 | 49.94 | 49.93 |
| 25 to 50 | 54.58 | 52.71 | 51.77 | 51.38 | 53.87 | 53.26 | 51.42 | 52.28 | 52.56 | 52.95 | 52.89 | 52.40 |
| 50 to 100 | 55.11 | 53.94 | 52.77 | 52.12 | 54.87 | 54.25 | 52.14 | 53.56 | 54.27 | 54.48 | 54.27 | 52.89 |
| 100 to 300 | 54.46 | 54.10 | 53.31 | 53.52 | 57.65 | 57.75 | 55.75 | 58.05 | 59.35 | 59.57 | 59.13 | 57.08 |
| 300 to 500 | 54.10 | 51.96 | 52.41 | 52.86 | 58.04 | 59.63 | 58.55 | 59.67 | 61.63 | 62,48 | 62.43 | 60.65 |
| Over 500 | 54.79 | 56.56 | 56.66 | 57.45 | 60.95 | 60.92 | 51.81 | 53.40 | 54.84 | 56.17 | 56.21 | 53.68 |
| AG BANKS | 53.82 | 51.57 | 51.07 | 50.99 | 52.35 | 49.57 | 46.44 | 46.48 | 47.66 | 48.28 | 48.61 | 48.75 |
| Under 25 | 52.33 | 50.00 | 49.76 | 49.59 | 50.22 | 47.38 | 44.70 | 44.28 | 45.32 | 46.44 | 46.89 | 47.43 |
| 25 to 50 | 54.12 | 51.16 | 50.48 | 50.05 | 50.75 | 48.17 | 45.59 | 45.88 | 46.80 | 47.64 | 47.64 | 48.48 |
| 50 to 100 | 55.40 | 53.48 | 51.93 | 50.75 | 52.59 | 49.46 | 45.47 | 46.09 | 47.02 | 47.39 | 47.45 | 47.25 |
| 100 to 300 | 54.84 | 53.62 | 53.34 | 54.24 | 55.51 | 53.01 | 50.03 | 49.89 | 51.71 | 51.09 | 51.35 | 50.75 |
| 300 to 500 | 58.71 | 52.91 | 57.22 | 59.29 | 70.45 | 68.01 | 66.38 | 54.06 | 54.68 | 51.13 | 48.29 | 50.75 52.45 |
| Over 500 | 66.03 | 58.72 | 57.45 | 60.05 | 69.99 | 64.59 | 62.65 | 81.23 | 57.87 | 65.94 | 66.40 | 52.45 59.18 |
| NONAG BANKS | 54.71 | 55.55 | 55.42 | 55.98 | 59.64 | 59.87 | 52.79 | 54.40 | 55.73 | 56.85 | 56.85 | 54.46 |
| Under 25 | 54.37 | 52.81 | 52.03 | 52.58 | 55.42 | 56.15 | 54.94 | 55.43 | 54.29 | 53.99 | 53.40 |  |
| 25 to 50 | 54.79 | 53.46 | 52.43 | 52.12 | 55.65 | 56.24 | 54.85 | 56.15 | 56.27 | 56.34 | 56.33 | 55.05 |
| 50 to 100 | 55.06 | 54.04 | 52.98 | 52.49 | 55.48 | 55.58 | 54.04 | 55.78 | 56.56 | 56.82 | 56.72 | 54.99 |
| 100 to 300 300 to 500 | 54.45 53.98 | 54.13 51.94 | 53.31 52.35 | 53.47 52.74 | 57.81 5783 | 58.10 | 56.17 | 58.63 | 59.94 | 60.36 | 59.99 | 57.81 |
| Over 500 | 53.98 54.78 | 51.94 56.56 | 52.35 56.66 | 53.74 <br> 57.44 | 57.83 <br> 60.93 | 59.50 60.91 | 58.45 51.79 | 59.72 53.39 | 61.70 54.83 | 62.59 56.16 | 62.62 56.20 | 60.84 |

Appendix table $5-$ Municipal securities to total securities


Appendix table 6--Short-term assets to total assets ${ }^{1}$

| Bank classification | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 9.78 .70 Percent |  |  |  |  |  |  |  |  |  |  |  |
| (\$ Millions) | 8.67 | 8.70 | 9.84 | 7.20 | 22.35 | 20.85 | 18.94 | 18.84 | 18.47 | 17.74 | 18.90 | 21.48 |
| Under 25 | 27.94 | 29.26 | 30.00 | 9.13 | 37.43 |  |  |  |  |  |  |  |
| 25 to 50 | 22.84 | 24.05 | 2.5 .84 | 8.26 | 37.44 | 38.62 | 41.02 | 41.05 | 41.22 | 41.45 | 41.71 | 41.50 |
| 50 to 100 | 20.22 | 20.63 | 22.86 | 7.80 | 31.67 | 31.54 | 37.10 | 36.68 | 36.79 | 36.97 | 37.35 | 37.91 |
| 100 to 300 | 18.38 | 18.66 | 21.61 | 20.41 | 27.98 | 31.72 27.21 | 34.67 30.23 | 33.61 | 33.50 | 34.11 | 34.71 | 36.05 |
| 300 to 500 | 15.79 | 16.59 | 19.28 | 20.19 | 27.98 | 27.21 | 30.23 | 28.37 | 27.37 | 28.11 | 28.88 | 31.11 |
| Over 500 | 0.46 | 0.66 | 1.70 | 3.32 |  | 23.85 | 25.92 | 24.76 | 24.24 | 24.08 | 24.42 | 26.71 |
|  |  |  | 1.70 | 3.32 | 17.67 | 16.08 | 13.49 | 14.10 | 14.13 | 13.27 | 14.76 | 17.72 |
| AG BANKS | 24.12 | 25.60 | 26.61 | 8.23 | 34.53 | 37.31 | 40.58 | 40.85 | 39.72 | 39.86 | 39.70 | 39.49 |
| Under 25 | 29.38 | 31.53 | 32.07 | 7.81 | 39.14 |  |  |  |  |  |  |  |
| 25 to 50 | 22.96 | 25.40 | 27.22 | 7.22 | 39.14 36 | 42.35 | 45.34 | 45.97 | 45.00 | 44.42 | 44.12 | 43.35 |
| 50 to 100 | 19.40 | 21.00 | 26.63 | 6.02 | 32.97 | 38.95 | 41.86 | 42.01 | 41.30 | 40.91 | 41.23 | 40.13 |
| 100 to 300 | 15.28 | 17.82 | 18.95 | 17.55 | 28.79 | 36.48 31.24 | 40.38 | 39.82 | 39.30 | 39.77 | 40.19 | 40.23 |
| 300 to 500 | 11.54 | 9.31 | 15.95 | 18.13 | 18.84 | 31.24 17.26 | 33.59 20.92 | 34.71 27.89 | 33.54 | 35.38 | 35.20 | 36.42 |
| Over 500 | 8.89 | 8.27 | 9.63 | 3.27 | 16.71 | 15.89 | 20.76 | 27.89 4.68 | 31.68 23.07 | 38.50 49.05 | $\begin{aligned} & 36.85 \\ & 21.30 \end{aligned}$ | 35.14 |
| NONAG BANKS | 7.39 | 7.30 | 8.49 | 7.11 | 21.42 | 19.70 | 17.73 | 17.68 | 17.36 | 16.65 | 17.85 | 20.56 |
| Under 25 | 26.56 | 27.06 | 27.99 | 10.44 | 35.74 | 35.00 |  |  |  |  |  |  |
| 25 to 50 | 22.79 | 23.40 | 25.15 | 8.84 | 32.98 | 35.00 | 36.52 34.31 |  | 37.22 | 38.24 | 38.96 | 39.20 |
| 50 to 100 | 20.38 | 20.54 | 22.67 | 8.28 | 32.98 31.32 | 31.97 30.39 | 34.31 33.04 | 33.46 | 33.88 | 34.45 | 34.80 | 36.40 |
| 100 to 300 | 18.50 | 18.70 | 21.80 | 20.61 | 27.92 | 26.92 | 33.04 | 31.77 | 31.66 | 32.24 | 32.74 | 34.49 |
| 300 to 500 | 15.90 | 16.74 | 19.32 | 20.23 | 26.17 | 23.92 | 29.98 25.98 | 27.92 | 26.89 | 27.43 | 28.18 | 30.49 |
| Over 500 | 0.46 | 0.65 | 1.69 | +3.32 | 17.68 | 16.08 | 13.98 | 24.73 14.10 | 24.17 | 23.94 | 24.30 | 26.52 |

Appendix table 7--Large negotiable certificates of deposit to total deposits

| Bank classification | 1980 | 1981 | 1982 | 1983 | 1884 | 1985 | 1986 | 1987 | 1989 | 1989 | 1990 | 1991 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $21.531819 \quad 1792 \quad 10.57 \quad 18.10 \quad 17.30$ Percent |  |  |  |  |  |  |  |  |  |  |  |
| (\$ Millions) | 21.53 | 18.19 | 17.92 | 19.57 | 18.16 | 17.36 | 15.41 | 16.95 | 17.86 | 17.70 | 15.92 | 12.63 |
| Under 25 | 9.25 | 8.99 | 9.38 | 10.36 | 11.56 | 12.11 | 11.23 |  |  |  |  |  |
| 25 to 50 | 10.57 | 10.04 | 10.24 | 10.53 | 11.73 | 12.09 | 111.77 | 11.64 | 10.77 | 10.57 | 9.96 | 8.80 |
| 50 to 100 | 13.02 | 11.91 | 11.74 | 12.01 | 13.00 | 12.97 | 11.77 12.25 | 11.74 12.33 | 11.62 12.44 | 11.89 | 11.43 | 10.17 |
| 100 to 300 | 16.35 | 14.69 | 13.80 | 13.85 | 14.75 | 14.15 | 12.99 | 13.67 | 13.48 | 13.63 | 11.73 | 10.36 |
| 300 to 500 | 19.13 | 16.45 | 16.89 | 17.14 | 16.41 | 16.60 | 15.42 | 16.02 | 15.50 | 15.23 | 13.11 | 10.60 10.73 |
| Over 500 | 28.06 | 21.77 | 21.18 | 24.55 | 21.34 | 19.78 | 16.97 | 19.15 | 20.33 | 19.88 | 17.58 | 10.73 13.63 |
| AG BANKS | 8.66 | 8.34 | 8.39 | 8.73 | 9.32 | 8.09 | 8.42 | 8.74 | 9.24 | 9.90 | 9.72 | 8.88 |
| Under 25 | 6.41 | 6.28 | 6.59 | 7.05 | 7.62 | 7.66 | 7.41 | 723 |  |  |  |  |
| 25 to 50 | 8.35 | 7.85 | 7.82 | 7.76 | 8.18 | 8.27 | 7.41 | 7.23 789 | 8.71 | 7.95 9.13 | 8.01 | 7.36 |
| 50 to 100 | 11.24 | 10.35 | 10.00 | 9.87 | 10.18 | 9.76 | 8.66 | 7.89 9.05 | 8.66 9.79 | 9.13 10.48 | 9.12 | 8.53 |
| 100 to 300 | 15.09 | 13.34 | 11.34 | 11.29 | 12.42 | 11.78 | 8.66 10.96 | 9.05 11.74 | 9.79 1108 | 10.48 | 10.23 | 9.18 |
| 300 to 500 | 18.54 | 12.21 | 11.64 | 14.14 | 17.29 | 11.78 12.62 | 14.90 | 11.74 | 11.08 10.42 | 11.94 | 11.15 | 10.25 |
| Over 500 | 9.51 | 10.68 | 9.21 | 13.48 | 14.50 | 11.38 | 11.08 | 17.04 | 10.42 11.31 | 15.06 10.35 | 11.00 9.06 | $\begin{aligned} & 8.31 \\ & 6.93 \end{aligned}$ |
| NONAG BANKS | 22.76 | 19.00 | 18.69 | 20.60 | 18.96 | 18.04 | 15.94 | 17.55 | 18.45 | 18.21 | 16.32 | 12.87 |
| Under 25 | 12.01 | 11.61 | 12.11 | 13.71 | 15.51 | 16.45 | 15.24 |  |  |  |  |  |
| 25 to 50 | 11.58 | 11.11 | 11.47 | 12.05 | 13.74 | 14.32 | 14.22 | 14.06 | 14.03 | 13.41 13.65 |  |  |
| 50 to 100 | 13.35 | 12.26 | 12.18 | 12.58 | 13.75 | 13.87 | 13.27 | 13.31 | 13.51 | 13.65 13.39 | 12.93 | 11.28 10.79 |
| 100 to 300 | 16.40 | 14.76 | 13.97 | 14.04 | 14.92 | 14.32 | 13.14 | 13.81 | 13.67 | 13.39 13.79 | 12.57 13.02 | 10.79 10.64 |
| 300 to 500 | 19.14 | 16.53 | 16.96 | 17.20 | 16.40 | 16.67 | 15.43 | 16.01 | 15.55 | 15.23 | 13.13 | 10.79 |
| Over 500 | 28.08 | 21.79 | 21.24 | 24.60 | 21.36 | 19.80 | 16.98 | 19.15 | 20.36 | 19.89 | 17.59 | 13.65 |

Appendix table 8-Short-term securities to total liabilities

| Bank clussification | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1988 | 1987 | 1988 | 1989 | 1990 | 1991 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0.2010 .44 Percent |  |  |  |  |  |  |  |  |  |  |  |
| (\$ Millions) | 9.29 | 10.44 | 10.33 | 9.40 | 8.00 | 8.66 | 9.01 | 8.45 | 7.99 | 8.89 | 7.73 | 7.16 |
| Under 25 | 0.57 | 1.11 | 0.93 | 0.73 | 0.51 | 0.34 |  |  |  |  |  |  |
| 25 to 50 | 0.92 | 1.54 | 1.47 | 1.04 | 0.79 | 0.34 0.69 | 0.31 | 0.39 | 0.43 | 0.34 | 0.45 | 0.49 |
| 50 to 100 | 1.96 | 2.75 | 2.32 | 1.66 | 1.37 | 0.69 1.09 | 0.49 1.04 | 0.47 | 0.56 | 0.53 | 0.58 | 0.72 |
| 100 to 300 | 4,55 | 5.40 | 4.81 | 3.79 | 3.27 | 2.74 | 2.30 | 2.38 | 1.06 2.36 | 1.00 | 1.07 | 1.16 |
| 300 to 500 | 7.07 | 9.19 | 8.28 | 6.82 | 5.61 | 5.46 | 4.79 | 2.38 4.76 | 2.36 4.17 | 2.13 4.56 | 2.22 4.24 | 2.01 |
| Over 500 | 13.49 | 14.53 | 14.30 | 13.15 | 10.44 | 11.32 | 11.76 | 10.83 | 10.07 | 11.17 | 4.24 | 3.67 8.86 |
| AG BANKS | 0.95 | 1.66 | 1.81 | 1.62 | 0.90 | 0.99 | 0.89 | 0.79 | 1.03 | 0.78 | 1.03 | 1.23 |
| Under 25 | 0.28 | 0.56 | 0.61 | 0.52 | 0.30 | 0.22 |  |  |  |  |  |  |
| 25 to 50 | 0.48 | 0.98 | 1.12 | 0.79 | 0.44 | 0.42 | 0.39 | 0.31 0.34 | 0.37 0.40 | 0.32 0.39 | 0.40 0.50 | 0.59 0.77 |
| 50 to 100 | 1.49 | 1.85 | 1.63 | 1.23 | 0.98 | 0.42 | 0.82 | 0.34 0.77 | 0.40 0.80 | 0.39 0.64 | 0.50 | 0.77 |
| 100 to 300 | 4.50 | 4.96 | 5.69 | 3.77 | 2.28 | 2.02 | 1.89 | 1.29 | 1.88 | 0.64 | 0.83 | 1.02 |
| 300 to 500 | ASt | 15.25 | 5.20 | 2.71 | 1.50 | 4.29 | 4.14 | 1.29 11.71 | 1.58 6.00 | 1.32 2.76 | 1.70 5 | 1.79 3.89 |
| Over 500 | U. 75 | 12.33 | 13.48 | 14.23 | 5.14 | 11.44 | 10.15 | 12.66 | 10.02 | 8.84 | 5.77 7.40 | 3.89 6.00 |
| NONAG EANKS | 9.97 | 11.15 | 11.00 | 10.01 | 8.44 | 9.11 | 9.45 | 8.84 | 8.34 | 9.28 | 8.06 | 7.48 |
| Under 25 | 0.85 | 1.64 | 1.37 | 0.93 |  |  |  |  |  |  |  |  |
| 25 to 50 | 1.12 | 1.81 | 1.64 | 1.17 | 0.99 | 0.46 | 0.40 | 0.46 | 0.49 | 0.37 | 0.50 | 0.36 |
| 50 to 100 | 2.05 | 2.96 | 2.49 | 1.77 | 1.47 | 0.84 1.18 | 1.11 | . 0.13 | 0.65 | 0.61 | 0.63 | 0.69 |
| 100 to 300 | 4.55 | 5.42 | 4.75 | 3.79 | 3.35 | 2.79 | 1.11 2.33 | 1.13 2.46 | 1.14 | 1.12 | 1.16 | 1.21 |
| 300 to 500 | 7.08 | 9.06 | 8.32 | 6.90 | 5.68 | 5.47 | 4.79 | 4.46 | 2.42 4.15 | 2.20 | 2.27 | 2.04 |
| Over 500 | 13.50 | 14.53 | 14.30 | 13.14 | 10.45 | 11.32 | 11.76 | 4.69 10.83 | 4.15 10.07 | 4.57 11.17 | 4.23 9.59 | 3.67 8.86 |

Appendix table 9-Interest income to total assets


Appendix table 10-Noninterest income to total assets


Appendix table 11--lnterest income to interest-earning assets

| Bank classification | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent |  |  |  |  |  |  |  |  |  |  |  |
| (\$ Millions) | 14.28 | 16.97 | 15.84 | 13.19 | 14.41 | 12.83 | 11.30 | 11.21 | 11.72 | 12.78 | 12.51 | 11.12 |
| Under 25 | 10.27 | 12.32 | 12.74 | 11.50 | 12.04 |  |  |  |  |  |  |  |
| 25 to 50 | 10.31 | 12.27 | 12.57 | 11.34 | 11.84 | 11.54 | 10.65 10.38 | 9.97 9.74 | 9.95 | 10.52 | 10.19 | 9.76 |
| 50 to 100 | 10.31 | 12.26 | 12.46 | 11.15 | 11.73 | 11.06 | 10.38 10.12 | 9.74 9.52 | 9.81 | 10.45 | 10.23 | 9.63 |
| 100 to 300 | 10.49 | 12.56 | 12.51 | 11.00 | 11.68 | 10.87 | 10.12 9.77 | 9.52 | 9.68 9.60 | 10.29 | 10.10 | 9.49 |
| 300 to 500 | 10.71 | 12.85 | 12.55 | 10.98 | 11.38 | 10.70 | 9.67 | 9.38 9.30 | 9.60 9.77 | 10.31 10.56 | 10.12 | 9.48 9.72 |
| Over 500 | 17.39 | 20.26 | 18.11 | 14.55 | 16.14 | 13.86 | 11.97 | 12.05 | 12.63 | 13.80 | 10.28 13.49 | 9.72 11.76 |
| AG BANKS | 10.29 | 12.32 | 12.77 | 11.50 | 11.94 | 11.33 | 10.26 | 9.47 | 9.55 | 10.12 | 9.83 | 9.43 |
| Under 25 | 10.11 | 12.17 | 12.88 | 11.77 | 12.17 | 11.68 |  |  |  |  |  |  |
| 25 to 50 | 10.34 | 12.32 | 12.70 | 11.49 | 11.86 | 11.68 11.33 | 10.70 10.33 | 9.84 | 9.85 | 10.42 | 10.11 | 9.71 |
| 50 to 100 | 10.36 | 12.41 | 12.72 | 11.35 | 11.83 | 11.24 | 10.33 | 9.52 | 9.59 | 10.18 | 9.92 | 9.49 |
| 100 to 300 | 10.74 | 12.50 | 12.80 | 11.37 | 11.82 | 11.24 10.96 | 10.09 9.94 | 9.29 | 9.42 | 10.00 | 9.68 | 9.32 |
| 300 to 500 | 10.94 | 13.28 | 12.94 | 11.53 | 12.00 | 11.03 | 9.94 9.55 | 8.19 | 9.40 | 9.90 10.03 | 9.75 | 9.34 |
| Over 500 | 11.51 | 12.83 | 12.41 | 10.75 | 12.38 | 11.03 | 9.06 | 8.51 9.15 | 9.41 9.17 | 10.03 10.47 | 9.66 10.34 | 9.18 9.73 |
| NONAG BANKS | 14.66 | 17.40 | 16.12 | 13.35 | 14.62 | 12.94 | 11.37 | 11.33 | 11.86 | 12.94 | 12.67 | 19.22 |
| Under 25 | 10.43 | 12.46 | 12.60 | 11.21 | 11.90 | 11.41 |  |  |  |  |  |  |
| 25 to 50 | 10.29 | 12.24 | 12.50 | 11.25 | 11.86 | 11.41 | 10.61 |  | 10.07 | 10.62 | 10.30 | 9.83 |
| 50 to 100 | 10.30 | 12.23 | 12.40 | 11.09 | 11.70 | 11.02 | 10.13 | 9.88 | 9.95 | 10.62 | 10.44 | 9.73 |
| 100 to 300 | 10.48 | 12.57 | 12.49 | 10.97 | 11.67 | 10.86 | 10.13 9.76 | 9.59 9.40 | 9.76 9.62 | 10.38 10.35 | 10.24 | 9.56 |
| 300 to 500 | 10.71 | 12.84 | 12.54 | 10.97 | 11.37 | 10.69 | 9.67 | 9.41 | 9.62 | 10.35 | 10.17 | 9.50 |
| Over 500 | 17.39 | 20.28 | 18.12 | 14.57 | 16.15 | 13.86 | 11.97 | 12.05 | 12.64 | 10.56 13.80 | 13.29 13.49 | $\begin{array}{r}9.73 \\ 11.77 \\ \hline\end{array}$ |

Appendix table 12--Total expense to total assets


Appendix table 13-Interest expense to total expense


Appendix table 14--Interest expense to total assets


Appendix Table 15--Total income to total assets


Appendix table 16.-Average deposit interest rate

| Bank classification | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ALL BANKS | . 30 | 10.99 |  |  |  | Percent |  |  |  |  |  |  |
| (\$ Millions) | . | 10.99 | 10.14 | 7.85 | 8.55 | 7.29 | 5.98 | 5.82 | 6.13 | 7.05 | 6.87 | 5.82 |
| Under 25 | 5.38 | 7.18 | 7.69 | 6.59 | 7.06 |  |  |  |  |  |  |  |
| 25 to 50 | 5.63 | 7.49 | 7.71 | 6.69 | 7.16 | 6.41 6.47 | 5.60 | 5.02 | 5.14 | 5.70 | 5.63 | 5.15 |
| 50 to 100 | 5.65 | 7.49 | 7.57 | 6.51 | 7.16 7.05 | 6.47 6.33 | 5.63 5.49 | 5.06 5.01 | 5.20 | 5.81 | 5.76 | 5.19 |
| 100 to 300 | 5.66 | 7.41 | 7.33 | 6.29 | 6.90 | 6.33 | 5.49 | 5.01 | 5.18 | 5.81 | 5.78 | 5.20 |
| 300 to 500 | 5.42 | 7.35 | 7.08 | 6.05 | 6.90 6.45 | 6.11 5.93 | 5.20 | 4.85 | 5.06 | 5.72 | 5.72 | 5.08 |
| Over 500 | 10.55 | 13.80 | 12.16 | 8.90 | 9.68 | $\begin{aligned} & 5.93 \\ & 7.98 \end{aligned}$ | $\begin{aligned} & 5.11 \\ & 6.36 \end{aligned}$ | $\begin{aligned} & 4.73 \\ & 6.33 \end{aligned}$ | 5.02 | 5.72 | 5.65 | 5.10 |
|  |  |  |  |  |  |  |  |  | 6.65 | 7.68 | 7.40 | 6.13 |
| AG BANKS | 5.78 | 7.80 | 8.29 | 7.21 | 7.65 | 6.87 | 5.93 | 5.22 | 5.33 | 5.93 | 5.84 | 5.34 |
| Under 25 | 5.50 | 7.40 | 8.24 |  |  |  |  |  |  |  | 5.84 | 5.34 |
| 25 to 50 | 5.97 | 8.03 | 8.41 | 7.16 7.38 | 7.55 7.75 | 6.80 6.95 | 5.88 | 5.17 | 5.28 | 5.85 | 5.78 | 5.31 |
| 50 to 100 | 6.02 | 8 | 8.35 | 7.38 7.29 | 7.75 7.74 | 6.95 6.95 | 6.01 5.97 | 5.27 | 5.37 | 5.96 | 5.91 | 5.37 |
| 100 to 300 | 5.87 | 7.89 | 8.06 | 7.29 | 7.74 | 6.95 | 5.97 | 5.25 | 5.41 | 5.99 | 5.88 | 5.41 |
| 300 to 500 | 5.56 | 7.39 | 7.58 | 6.75 | 7.43 7.43 | 6.65 6.80 | 5.77 | 5.10 | 5.29 | 5.86 | 5.79 | 5.27 |
| Over 500 | 6.62 | 8.09 | 8.88 | 6.16 | 7.437.61 | 6.806.78 | 5.735.79 | $\begin{aligned} & 5.44 \\ & 5.03 \end{aligned}$ | 4.52 | 5.93 | 5.45 | 5.25 |
|  |  |  |  |  |  |  |  |  |  | 5.81 | 5.59 | 4.78 |
| NONAG BANKS | 8.54 | 11.30 | 10.32 | 7.91 | 8.63 | 7.33 | 5.99 | 5.86 | 6.18 | 7.43 | 6.94 | 5.85 |
| Under 25 | 5.27 | 6.96 | 7.14 | 6.02 |  |  |  |  |  |  |  |  |
| 25 to 50 | 5.47 | 7.22 | 7.36 | 6.02 | 6.57 | 6.04 | 5.31 | 4.85 | 5.00 | 5.55 | 5.45 | 4.96 |
| 50 to 100 | 5.58 | 7.35 | 7.37 | 6.31 6.30 | 6.82 | 6.19 | 5.40 | 4.93 | 5.09 | 5.71 | 5.67 | 5.07 |
| 100 to 300 | 5.66 | 7.39 | 7.28 | 6.23 | 6.87 6.86 | 6.16 8.07 | 5.36 | 4.93 | 5.11 | 5.76 | 5.74 | 5.12 |
| 300 to 500 | 5.42 | 7.35 | 7.07 | 6.03 | 6.86 6.43 | 6.07 5.92 | 5.16 5.10 | 4.84 | 5.04 | 5.70 | 5.71 | 5.06 |
| Over 500 | 10.55 | 13.82 | 12.17 | 8.91 | 6.43 9.69 | 5.92 7.99 | 5.10 | 4.72 | 5.02 | 5.72 | 5.65 | 5.10 |
|  |  |  | 12.17 | 8.91 | 9.69 | 7.99 | 6.36 | 6.33 | 6.66 | 7.69 | 7.40 | 6.13 |

Appendix table 17-Demand deposits to total deposits

| Bank classification | 1980 | 1981 | 1982 | 1983 | 1984 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 196 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 |
| ALL BANKS (\$ Millions) | 36.40 | 30.28 | 26.53 | 25.46 | 25.20 | Percent |  | 23.10 | 21.72 | 20.59 | 19.70 | 19.05 |
|  |  |  |  |  |  | $\begin{array}{r} \text { f } \\ 25.15 \end{array}$ | 26.09 |  |  |  |  |  |
| Under 25 | 29.70 | 23.83 | 20.99 | 18.48 |  |  |  |  |  |  |  |  |
| 25 to 50 | 29.05 | 23.50 | 20.66 | 18.42 | 17.11 17.38 | 15.91 | 15.67 | 15.25 | 14.81 | 14.42 | 14.04 | 13.44 |
| 50 to 100 | 29.67 | 24.38 | 21.38 | 19.45 | 17.38 18.37 | 16.21 17.29 | 16.05 | 15.23 | 14.86 | 14.26 | 13.69 | 13.40 |
| 100 to 300 | 31.67 | 26.47 | 22.97 | 21.15 | 19.85 | 17.29 | 17.25 | 16.13 | 15.46 | 14.61 | 13.71 | 13.27 |
| 300 to 500 | 35.29 | 30.45 | 25.69 | 24.08 | 19.85 23.36 | 19.22 21.48 | 19.53 | 17.65 | 16.79 | 15.87 | 14.76 | 14.36 |
| Over 500 | 41.03 | 34.12 | 29.82 | 29.27 | 29.44 | $29.67$ | 30.75 | $\begin{aligned} & 19.33 \\ & 26.63 \end{aligned}$ | 18.74 | 23.06 | 22.07 | 15.0421.33 |
|  |  |  |  |  |  |  |  |  | 24.50 |  |  |  |
| AG BANKS | 27.22 | 20.72 | 17.99 | 15.7 | 14.45 | 13.42 | 13.37 | 13.12 | 12.88 | 12.26 | 11.98 | 11.56 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Under 25 | 28.04 | 21.19 | 18.68 | 16.02 |  |  |  |  |  |  |  |  |
| 25 to 50 | 26.01 | 19.57 | 16.88 | 14.40 | 14.73 13.64 | 13.83 | 13.61 | 13.41 12.43 | 13.00 | 12.85 | 12.70 | 12.09 |
| 50 to 100 | 26.49 | 20.64 | 17.39 | 15.22 | 13.64 13.99 | 12.67 12.82 | 12.71 | 12.43 | 12.02 | 11.72 | 11.50 | 11.11 |
| 100 to 300 | 30.05 | 21.95 | 19.46 | 16.90 | 13.39 | 12.82 | 12.72 | 12.83 | 12.18 | 11.70 | 11.14 | 10.53 |
| Over 500 | 31.68 | 29.18 | 23.66 | 18.30 | 16.34 15.48 | 15.08 14.72 | 15.19 15.06 | 14.52 | 13.72 | 13.10 | 12.80 | 12.29 |
|  | 22.76 | 25.45 | 24.47 | 18.3027.79 | $\begin{aligned} & 15.48 \\ & 17.20 \end{aligned}$ | $\begin{aligned} & 14.72 \\ & 17.46 \end{aligned}$ | $\begin{aligned} & 15.06 \\ & 18.76 \end{aligned}$ | $\begin{aligned} & 14.75 \\ & 19.18 \end{aligned}$ | 16.7324.15 | 13.4016.39 | 15.2116.27 | $\begin{aligned} & 12.07 \\ & 19.96 \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| NONAG BANK | 37.28 | 31.22 | 27.34 | 26.39 | 26.17 | 26.12 | 27.05 | 23.82 | 22.33 | 21.14 | 20.21 | 19.55 |
| Under 25 | 31.32 |  |  |  |  |  |  |  |  |  |  |  |
| 25 to 50 | 30.43 | 26.44 25.41 | 23.30 | 20.96 | 19.49 | 17.94 | 17.84 | 17.18 | 16.74 | 16.13 | 15.59 | 15.11 |
| 50 to 100 | 30.26 | 25.22 | 22.37 | 20.64 20.59 | 19.50 19.54 | 18.28 | 18.00 | 16.91 | 16.68 | 15.88 | 15.12 | 14.94 |
| 100 to 300 | 31.73 | 26.69 | 23.22 | 21.46 | 19.54 | 18.53 | 18.54 | 17.11 | 16.50 | 15.57 | 14.63 | 14.28 |
| 300 to 500 | 35.39 | 30.47 | 25.72 | 21.46 24.20 | 20.11 23.49 | 19.53 21.59 | 19.85 | 17.87 | 17.03 | 16.13 | 14.98 | 14.60 |
| Over 500 | 41.04 | 34.14 | 29.83 | 29.28 | 29.48 | 21.59 | 21.60 | 19.37 | 18.76 | 17.54 | 16.08 | 15.10 |
|  |  |  |  |  | 29,48 | 29.71 | 30.77 | 26.63 | 24.50 | 23.07 | 22.08 | 21.33 |

Appendix table 18- Deposit interest expense to total interest expense


Appendix table 19-noninierest expense to total expense

| Bank classification | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent |  |  |  |  |  |  |  |  |  |  |  |
| ALL BANKS (\$ Millions) | 27.21 | 23.46 | 25.71 | 30.17 | 30.35 | 34.30 | 38.60 | 38.97 | 37.97 | 34.44 | 36.01 | 42.63 |
| Under 25 | 37.81 | 32.78 | 31.80 | 34.80 | 35.64 | 38.52 | 41.61 | 44.64 | 44.05 | 41.76 | 42.03 | 4467 |
| 25 to 50 | 35.01 | 29.68 | 29.43 | 31.83 | 32.29 | 35.41 | 38.47 | 41.28 | 40.81 | 38.53 | 38.81 | 44.67 42.42 |
| 50 to 100 | 34.70 | 29.50 | 29.51 | 32.08 | 32.13 | 35.19 | 38.17 | 40.53 | 40.00 | 37.20 | 37.71 | 41.08 |
| 100 to 300 | 34.46 | 29.79 | 30.37 | 33.44 | 32.68 | 35.92 | 39.21 | 41.33 | 40.38 | 37.80 | 37.89 | 41.93 |
| 300 to 500 | 34.93 | 29.75 | 31.09 | 34.30 | 34.39 | 36.89 | 40.20 | 41.81 | 40.11 | 37.57 | 37.68 | 41.69 |
| Over 500 | 23.71 | 20.73 | 23.70 | 28.81 | 29.19 | 33.55 | 38.36 | 39.44 | 37.12 | 33.40 | 35.39 | 42.85 |
| AG BANKS | 30.66 | 25.35 | 24.52 | 26.81 | 27.28 | 30.19 | 33.48 | 36.27 | 36.21 | 33.51 | 33.82 | 36.96 |
| Under 25 | 33.03 | 27.95 | 26.37 | 29.16 | 29.80 | 32.76 | 36.10 | 39.13 | 38.89 | 36.82 | 37.02 | . 39.75 |
| 25 to 50 | 28.91 | 23.72 | 23.28 | 25.33 | 26.02 | 28.86 | 32.61 | 35.63 | 35.38 | 33.18 | 33.50 | 36.82 |
| 50 to 100 | 28.82 | 23.86 | 23.36 | 25.32 | 25.99 | 28.90 | 32.04 | 34.61 | 34.31 | 31.63 | 31.92 | 34.79 |
| 100 to 300 | 30.51 | 24.56 | 25.10 | 27.62 | 27.90 | 31.04 | 33.52 | 36.70 | 36.22 | 33.58 | 33.24 | 36.55 |
| 300 to 500 | 31.54 | 29.15 | 26.61 | 26.86 | 28.80 | 31.16 | 34.12 | 32,20 | 33.50 | 34.09 | 51.63 | 45.92 |
| Over 500 | 29.90 | 24.75 | 25.28 | 30.54 | 26.85 | 31.34 | 35.93 | 37.52 | 44.49 | 33.04 | 35.49 | 43.42 |
| NONAG BANKS | 27.01 | 23.35 | 25.78 | 30.40 | 30.55 | 34.55 | 38.90 | 40.15 | 38.05 | 34.48 | 36.10 | 42.89 |
| Under 25 | 41.87 | 37.08 | 36.95 | 40.39 | 41.21 | 43.79 | 46.90 | 49.69 | 48.87 | 46.50 |  |  |
| 25 to 50 | 37.60 | 32.46 | 32.48 | 35.46 | 35.76 | 39.04 | 41.75 | 44.39 | 43.98 | 41.62 | 47.12 | 50.08 |
| 50 to 100 | 35.75 | 30.74 | 31.05 | 33.97 | 33.78 | 36.94 | 39.87 | 42.17 | 41.68 | 38.90 | 39.59 | 43.84 43.22 |
| 100 to 300 300 to 500 | 34.62 35.02 | 30.04 29.76 | 30.75 31.14 | 33.88 34.45 | 33.04 | 36.27 | 39.63 | 41.65 | 40.69 | 38.17 | 38.37 | 42.52 |
| Over 500 | 35.02 <br> 23.70 | 29.76 <br> 20.72 | 31.14 <br> 23.70 | 34.45 28.81 | 34.48 29.20 | 36.99 33.56 | 40.28 38.36 | 41.90 39.44 | 40.17 37.11 | 37.61 33.40 | 37.52 35.39 | 41.59 |

Appendix table 20-Fixed-occupancy expense to total expense

| Bank classification | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 4.70 P 4.10 Percent |  |  |  |  |  |  |  |  |  |  |  |
| ALL BANKS <br> (\$ Millions) | 4.29 | 3.76 | 4.19 | 5.05 | 4.89 | 5.54 | 6.24 | 6.32 | 5.93 | 5.29 | 5.43 | 6.06 |
| Under 25 | 5.33 | 4.77 | 4.74 | 5.35 | 5.53 | 6.01 | 6.49 | 6.75 | 6.39 | 5.89 | 5.81 | 5.85 |
| 25 to 50 | 5.19 | 4.48 | 4.48 | 4.95 | 4.93 | 5.50 | 5.95 | 6.32 | 6.12 | 5.63 | 5.81 | 5.85 5.86 |
| 50 to 100 | 5.36 | 4.60 | 4.69 | 5.10 | 4.98 | 5.42 | 5.98 | 6.20 | 6.04 | 5.48 | 5.51 | 5.86 5.67 |
| 100 to 300 | 5.59 | 4.87 | 4.96 | 5.48 | 5.10 | 5.56 | 6.06 | 6.28 | 5.97 | 5.54 | 5.44 | 5.74 |
| 300 to 500 | 5.66 | 4.88 | 5.12 | 5.59 | 5.36 | 5.73 | 5.98 | 6.24 | 5.92 | 5.36 | 5.34 | 5.59 |
| Over 500 | 3.79 | 3.37 | 3.92 | 4.94 | 4.79 | 5.53 | 6.31 | 6.33 | 5.89 | 5.22 | 5.43 | 6.17 |
| AG BANKS | 4.13 | 3.49 | 3.43 | 3.84 | 3.77 | 4.10 | 4.49 | 4.77 | 4.66 | 4.25 | 4.18 | 4.41 |
| Under 25 | 4.13 | 3.58 | 3.46 | 3.98 | 4.04 | 4.40 | 4.79 | 5.00 | 4.82 | 4.46 | 4.34 |  |
| 25 to 50 | 3.92 | 3.24 | 3.18 | 3.48 | 3.46 | 3.85 | 4.27 | 4.52 | 4.51 | 4.44 | 4.34 | 4.52 |
| 50 to 100 | 4.12 | 3.46 | 3.42 | 3.67 | 3.64 | 3.93 | 4.33 | 4.68 | 4.44 | 4.10 | 3.96 | 4.27 4.16 |
| 100 to 300 | 4.84 | 3.90 | 3.95 | 4.34 | 4.23 | 4.48 | 4.73 | 5.06 | 4.44 4.85 | 4.41 | 3.96 4.45 | 4.16 4.58 |
| 300 to 500 | 5.49 | 5.50 | 4.80 | 4.46 | 4.03 | 3.93 | 4.31 | 5.28 | 4.85 5.36 | 4.41 5.29 | 4.45 6.49 | 4.58 5.34 |
| Over 500 | 3.75 | 3.84 | 3.87 | 5.80 | 4.04 | 4.54 | 5.39 | 5.66 | 5.85 | 4.23 | 4.59 | 5.34 |
| NONAG BANKS | 4.30 | 3.78 | 4.24 | 5.13 | 4.96 | 5.63 | 6.34 | 6.40 | 5.99 | 5.34 | 5.49 | 6.14 |
| Under 25 | 6.35 | 5.83 | 5.96 | 6.70 | 6.95 | 7.47 | 8.13 |  |  |  |  |  |
| 25 to 50 | 5.73 | 5.06 | 5.13 | 5.77 | 5.75 | 6.41 | 6.88 | 7.30 | 7.86 7.06 | 6.50 | 7.29 6.38 | 7.31 682 |
| 50 to 100 | 5.58 | 4.85 | 5.00 | 5.50 | 5.34 | 5.84 | 6.44 | 6.62 | 6.51 | 5.89 | 6.38 5.88 | 6.82 6.18 |
| 100 to 300 | 5.62 | 4.91 | 5.04 | 5.56 | 5.16 | 5.64 | 6.16 | 6.37 | 6.05 | 5.64 | 5.55 | 5.87 |
| 300 to 500 Over 500 | 5.66 | 4.87 | 5.12 | 5.62 | 5.38 | 5.76 | 6.00 | 6.25 | 5.92 | 5.36 | 5.32 | 5.60 |
| Over 500 | 3.79 | 3.37 | 3.92 | 4.93 | 4.79 | 5.53 | 6.31 | 6.33 | 5.89 | 5.22 | 5.43 | 6.17 |

Appendix table 21--Employee salary and benefit expense to total expenses

| Bank ciassification | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $14.3812 .25 \quad 13.12 \quad 15.27 \quad 15.10$ Percent |  |  |  |  |  |  |  |  |  |  |  |
| ALL BANKS (\$ Millions) | 14.38 | 12.25 | 13.12 | 15.27 | 15.16 | 16.66 | 18.44 | 18.67 | 17.46 | 15.67 | 16.12 | 18.14 |
| Under 25 | 19.73 | 16.94 | 16.12 | 17.46 | 17.75 | 18.68 | 19.83 | 21.18 | 21.04 | 20.16 | 20.38 | 21.38 |
| 25 to 50 | 18.09 | 15.28 | 14.79 | 15.83 | 15.99 | 17.23 | 18.37 | 19.68 | 19.47 | 18.51 | 18.54 | 19.88 |
| 50 to 100 | 17.85 | 15.11 | 14.83 | 15.95 | 15.98 | 17.09 | 18.21 | 19.35 | 19.07 | 17.92 | 18.02 | 19.08 |
| 100 to 300 300 to 500 | 17.74 17.64 | 15.23 | 15.12 15.39 | 16.46 | 16.14 | 17.41 | 18.65 | 19.50 | 18.80 | 17.75 | 17.65 | 18.93 |
| 300 to 500 Over 500 | 17.64 12.75 | 15.01 10.95 | 15.39 12.22 | 16.61 14.77 | 16.63 | 17.35 | 18.33 | 18.91 | 17.75 | 16.89 | 17.21 | 18.07 |
|  | 12.75 | 10.95 | 12.22 | 14.77 | 14.66 | 16.33 | 18.39 | 18.36 | 16.97 | 15.01 | 15.59 | 17.86 |
| AG BANKS | 16.80 | 13.78 | 13.05 | 14.05 | 14.25 | 15.28 | 16.68 | 18.23 | 18.27 | 17.25 | 17.32 | 18.44 |
| Under 25 | 18.56 | 15.58 | 14.42 | 15.69 | 15.97 | 17.01 | 18.38 | 19.97 | 20.21 | 19.54 | 19.66 |  |
| 25 to 50 | 15.78 | 12.93 | 12.43 | 13.39 | 13.69 | 14.80 | 16.23 | 17.93 | 18.08 | 17.26 | 17.68 | 18.55 |
| 50 to 100 | 15.46 | 12.71 | 12.27 | 13.17 | 13.45 | 14.44 | 15.73 | 17.30 | 17.03 | 16.18 | 16.25 | 18.55 17.30 |
| 100 to 300 | 15.70 | 12.73 | 12.75 | 13.77 | 14.14 | 15.29 | 16.95 | 18.40 | 18.22 | 16.92 | 16.59 | 17.34 |
| 300 to 500 | 15.96 | 14.04 | 13.19 | 13.03 | 13.58 | 13.97 | 14.63 | 13.50 | 16.70 | 14.62 | 26.60 | 17.64 22.81 |
| Over 500 | 14.89 | 12.57 | 12.39 | 14.78 | 12.67 | 14.10 | 15.72 | 15.77 | 19.24 | 14.64 | 16.10 | 19.46 |
| NONAG BANKS | 14.25 | 12.16 | 13.12 | 15.36 | 15.22 | 16.74 | 18.54 | 18.69 | 17.42 | 15.60 | 16.07 | 18.13 |
| Under 25 | 20.72 | 18.15 | 17.74 | 19.21 | 19.45 | 20.20 | 21.22 | 22.30 | 21.82 | 20.75 |  |  |
| 25 to 50 | 19.08 | 16.37 | 15.96 | 17.19 | 17.27 | 18.58 | 19.56 | 20.65 | 20.29 | 19.23 | 19.27 | 20.69 |
| 50 to 100 | 18.27 | 15.63 | 15.47 | 16.73 | 16.66 | 17.83 | 18.90 | 19.92 | 19.67 | 18.45 | 18.60 | 19.69 |
| 100 to 300 | 17.82 | 15.35 | 15.29 | 16.66 | 16.29 | 17.56 | 18.78 | 19.57 | 18.84 | 17.82 | 17.76 | 19.07 |
| 300 to 500 | 17.68 | 15.03 | 15.42 | 16.68 | 16.68 | 17.41 | 18.38 | 18.96 | 17.76 | 16.91 | 17.10 | 17.96 |
| Over 500 | 12.75 | 10.95 | 12.22 | 14.77 | 14.67 | 16.34 | 18.39 | 18.36 | 16.97 | 15.01 | 15.59 | 17.85 |

Appendix table 22--Salary per employee


Appendix table 23--Interest earning assets to total assets

(rue ratio values because of data problems. ${ }^{2}$ n.a. $=$ not available.
Appendix table 24--Provisions for loan losses to total loans

| Bank classification | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Percent |  |  |  |  |  |  |
| (\$ Mitlions) | 0.54 | 0.55 | 0.82 | 0.95 | 1.08 | 1.24 | 1.39 | 2.27 | 0.95 | 1.62 | 1.66 | 1.84 |
| Under 25 | 0.52 | 0.61 | 0.88 | 1.04 |  |  |  |  |  |  |  |  |
| 25 to 50 | 0.46 | 0.50 | 0.78 | 1.04 | 1.42 1.18 | 1.95 | 2.18 | 1.62 1.32 | 1.21 | 0.99 | 0.81 | 0.74 |
| 50 to 100 | 0.44 | 0.48 | 0.71 | 0.88 | 0.94 | 1.44 | 1.75 | 1.32 | 1.00 | 0.87 | 0.82 | 0.77 |
| 100 to 300 | 0.44 | 0.48 | 0.75 | 0.75 | 0.83 | 1.44 | 1.52 | 1.07 | 0.85 | 0.77 | 0.80 | 0.81 |
| 300 to 500 | 0.45 | 0.50 | 0.82 | 0.80 | 0.65 | 0.90 | 1.25 | 0.91 1.03 | 0.79 | 0.73 | 0.86 | 0.92 |
| Over 500 | 0.60 | 0.58 | 0.85 | 1.00 | 1.15 | 1.24 | 1.36 | 2.74 | 0.84 0.99 | 0.96 1.90 | $\begin{aligned} & 1.10 \\ & 1.92 \end{aligned}$ | 1.04 2.16 |
| AG BANKS | 0.39 | 0.50 | 0.79 | 1.08 | 1.56 | 2.43 | 2.44 | 1.35 | 0.79 | 0.65 | 0.48 | 0.50 |
| Under 25 | 0.43 | 0.55 | 0.81 | 1.05 | 1.70 |  |  |  |  |  |  |  |
| 25 to 50 | 0.37 | 0.46 | 0.75 | 1.09 | 1.79 | 2.32 | 2.72 | 1.64 | 0.93 | 0.69 | 0.53 | 0.52 |
| 50 to 100 | 0.34 | 0.47 | 0.77 | 1.21 | 1.49 | 2.32 | 2.41 | 1.41 | 0.84 | 0.65 | 0.48 | 0.45 |
| 100 to 300 | 0.37 | 0.50 | 0.87 | 0.99 | 1.49 1.35 | 2.55 | 2.52 | 1.21 | 0.73 | 0.62 | 0.47 | 0.47 |
| 300 to 500 | 0.37 | 0.42 | 0.48 | 1.38 | 1.35 | 2.23 | 2.03 | 1.19 | 0.66 | 0.61 | 0.47 | 0.64 |
| Over 500 | 0.67 | 0.85 | 1.20 | 0.74 | 1.82 | 2.58 | 1.85 | 0.83 | 0.81 | 1.81 | 0.32 | 0.43 |
|  |  |  | 1.20 | 0.74 | 1.82 | 2.58 | 2.07 | 0.83 | 0.52 | 0.55 | 0.42 | 0.33 |
| NONAG BANKS | 0.55 | 0.55 | 0.83 | 0.94 | 1.05 | 1.17 | 1.34 | 2.32 | 0.96 | 1.66 | 1.71 | 1.90 |
| Under 25 | 0.60 | 0.67 | 0.94 | 1.02 | 1.18 |  |  |  |  |  |  |  |
| 25 to 50 | 0.50 | 0.52 | 0.80 | 0.85 | 0.97 | 1.48 | 1.71 | 1.61 | 1.45 | 1.28 | 1.09 | 0.99 |
| 50 to 100 | 0.46 | 0.49 | 0.70 | 0.80 | 0.80 | 1.16 | 1.42 1.28 | 1.28 | 1.09 | 0.99 | 1.00 | 0.95 |
| 100 to 300 | 0.44 | 0.47 | 0.74 | 0.73 | 0.80 | 1.11 0.94 | 1.28 | 1.03 | 0.88 | 0.81 | 0.90 | 0.92 |
| 300 to 500 | 0.45 | 0.51 | 0.82 | 0.78 | 0.80 0.64 | 0.94 0.87 | 1.17 | 0.90 | 0.79 | 0.74 | 0.89 | 0.95 |
| Over 500 | 0.59 | 0.58 | 0.85 | 1.00 | 0.64 1.15 | 0.87 1.33 | 1.24 | 1.04 | 0.84 | 0.96 | 1.12 | 1.05 |
|  |  |  |  |  | 1.15 | 1.23 | 1.36 | 2.74 | 0.99 | 1.90 | 1.93 | 2.16 |

Appendix table 25--Provisions for loan losses to total assets


Appendix table 26--Provisions for loan losses to total income

| Bank classification | 1980 | 1981 | 1982 | 1983 |  | 1985 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | - | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1950 | 1991 |
| ALL BANKS | 2.36 | 206 |  |  |  | Percent |  |  |  |  |  |  |
| (\$ Militions) |  |  | 3.28 | 4.44 | 4.98 | 6.26 | 7.85 | 12.89 | 5.23 | 8.22 | 8.46 | 9.79 |
| Under 25 | 2.82 | 2.71 | 3.75 | 4.91 |  |  |  |  |  |  |  |  |
| 25 to 50 | 2.56 | 2.29 | 3.44 | 4.49 | 6.74 5.73 | 9.45 | 11.12 | 8.76 | 6.43 | 5.01 | 4.18 | 3.92 |
| 50 to 100 | 2.50 | 2.27 | 3.42 3 | 4.48 4.38 | 4.73 | 7.71 7.22 | 9.29 8.29 | 7.56 | 5.65 | 4.61 | 4.38 | 4.24 |
| 100 to 300 | 2.43 | 2.22 | 3.46 | 3.86 | 4.65 4.34 | 7.22 | 8.29 | 6.26 | 4.93 | 4.17 | 4.40 | 4.52 |
| 300 to 500 | 2.46 | 2.24 | 3.74 | 4.13 | 4.34 3.51 | 5.66 5.23 | 7.34 787 | 5.30 | 4.98 | 4.25 | 5.04 | 5.49 |
| Over 500 | 2.27 | 1.95 | 3.19 | 4.53 | 5.07 | 5.23 | 7.87 | 6.80 | 5.47 | 5.78 | 6.82 | 6.40 |
|  |  |  |  |  |  | 6.07 | 7.67 | 15.13 | 5.22 | 9.29 | 9.44 | 11.18 |
| AG BANKS | 2.17 | 2.25 | 3.41 | 5.16 | 7.37 | 11.44 |  |  |  |  |  |  |
|  |  |  |  |  |  |  | 11.94 | 7.09 | 4.13 | 3.26 | 2.48 | 2.67 |
| 25 to 50 | 2.35 | 2.40 | 3.33 | 4.73 | 7.55 | 11.13 | 12.56 | 8.07 | 4.63 |  |  |  |
| 50 to 100 | 1.07 | 2.05 | 3.19 | 5.04 | 7.31 | 10.62 | 11.52 | 7.30 | 4.63 | 3.30 3.23 | 2.60 | 2.64 |
| 100 to 300 | 1.93 2.07 | 2.18 2.33 | 3.39 | 5.79 | 7.12 | 12.01 | 12.20 | 6.34 | 4.34 3.83 | 3.23 3.09 | 2.41 2.39 | 2.40 |
| 300 to 500 | 2.11 | 4.75 | 3.98 2.31 | 5.07 770 | 6.83 | 11.48 | 10.85 | 6.67 | 3.74 | 3.20 | 2.63 | 3.54 |
| Over 500 | 4.12 | 4.25 | 6.35 | 4.49 | 8.29 | 16.77 | 13.40 | 5.46 | 4.91 | 9.56 | 1.33 | 2.16 |
|  |  |  |  |  | 11.17 | 16.54 | 14.89 | 7.28 | 3.16 | 3.56 | 2.74 | 2.05 |
| NONAG BANKS | 2.37 | 2.05 | 3.27 | 4.39 | 4.83 | 5.94 | 7.62 | 13.17 |  |  |  |  |
| Under 25 | 3.24 |  |  |  |  |  |  |  |  | 8.43 | 8.72 | 10.11 |
| 25 to 50 | 2.78 | 2.41 | 4.16 3.57 | 5.11 | 5.92 | 7.81 | 9.64 | 9.44 | 8.25 | 6.79 | 5.91 |  |
| 50 to 100 | 2.60 | 2.49 | 3.57 3.17 | 4.18 4.00 | 4.85 3.99 | 6.05 | 8.00 | 7.71 | 6.45 | 5.45 | 5.58 | 5.43 5.42 |
| 100 to 300 | 2.45 | 2.22 | 3.42 | 3.77 | 3.99 4.15 | 5.89 | 7.20 | 6.24 | 5.25 | 4.51 | 5.07 | 5.26 |
| 300 to 500 | 2.47 | 2.25 | 3.76 | 4.06 | 4.15 3.42 | 5.24 5.04 | 7.08 7.80 | 5.74 | 5.07 | 4.34 | 5.29 | 5.70 |
| Over 500 | 2.27 | 1.94 | 3.19 | 4.53 | 3.42 5.05 | 5.04 6.05 | 7.80 7.68 | 6.81 1.813 | 5.47 | 5.75 | 6.88 | 6.49 |
|  |  |  |  |  | $\underline{5}$ | 6.05 | 7.68 | 15.13 | 5.22 | 9.30 | 9.45 | 11.20 |

Appendix table 27--Net loan loss provisions to total operating expenses

| Bank classification | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2.62 Percent |  |  |  |  |  |  |  |  |  |  |  |
| ALL BANKS (\$ Millions) | 2.62 | 2.24 | 3.54 | 4.83 | 5.68 | 7.29 | 9.22 | 15.22 | 6.23 | 9.66 | 9.91 | 11.69 |
| Under 25 | 3.34 | 3.13 | 4.16 | 5.40 | 7.69 | 10.84 | 12.54 | 9.90 | 7.26 | 5.69 | 4.69 | 4.46 |
| 25 to 50 | 3.03 | 2.64 | 3.86 | 5.02 | 6.67 | 9.09 | 10.80 | 8.84 | 6.62 | 5.41 | 5.09 | 4.95 |
| 50 to 100 | 2.91 | 2.58 | 3.60 | 4.91 | 5.42 | 8.53 | 9.72 | 7.41 | 5.86 | 4.96 | 5.19 | 5.38 |
| 100 to 300 | 2.77 | 2.47 | 3.79 | 4.27 | 5.03 | 6.67 | 8.63 | 6.93 | 5.94 | 5.11 | 6.00 | 6.59 |
| 300 to 500 | 2.79 | 2.46 | 4.05 | 4.54 | 4.05 | 6.15 | 9.22 | 8.18 | 6.57 | 6.96 | 8.20 | 7.82 |
| Over 500 | 2.48 | 2.09 | 3.41 | 4.87 | 5.73 | 7.05 | 9.03 | 17.86 | 6.22 | 10.89 | 11.03 | 13.37 |
| AG BANKS | 2.65 | 2.63 | 3.86 | 5.77 | 8.61 | 13.57 | 14.04 | 8.49 | 4.96 | 3.91 | 2.96 | 3.24 |
| Under 25 | 2.90 | 2.86 | 3.82 | 5.36 | 8.87 | 13.24 | 14.68 | 9.52 | 5.45 | 3.88 | 3.04 | 3.11 |
| 25 to 50 | 2.53 | 2.40 | 3.65 | 5.69 | 8.59 | 12.73 | 13.68 | 8.77 | 5.25 | 3.89 | 2.88 | 2.90 |
| 50 to 100 | 2.34 | 2.51 | 3.84 | 6.40 | 8.26 | 14.22 | 14.36 | 7.63 | 4.62 | 3.75 | 2.89 | 2.97 |
| 100 to 300 | 2.43 | 2.64 | 4.35 | 5.52 | 7.91 | 13.42 | 12.69 | 8.03 | 4.52 | 3.87 | 3.17 | 4.32 |
| 300 to 500 | 2.52 | 2.01 | 2.62 | 8.45 | 9.75 | 19.02 | 15.21 | 6.28 | 5.95 | 10.97 | 1.48 | 2.57 |
| Over 500 | 4.65 | 4.51 | 6.51 | 4.85 | 12.68 | 18.57 | 16.06 | 8.46 | 3.71 | 4.15 | 3.27 | 2.47 |
| NONAG BANKS | 2.62 | 2.22 | 3.52 | 4.76 | 5.50 | 6.91 | 8.95 | 15.55 | 6.28 | 9.90 | 10.20 | 12.08 |
| Under 25 | 3.71 | 3.37 | 4.49 | 5.44 | 6.56 | 8.66 | 10.48 | 10.25 | 8.95 | 7.42 | 6.36 | 5.94 |
| 25 to 50 | 3.24 | 2.74 | 3.97 | 4.64 | 5.60 | 7.06 | 0.19 | 8.88 | 7.42 | 6.28 | 6.38 | 6.20 |
| 50 to 100 | 3.02 | 2.59 | 3.54 | 4.49 | 4.66 | 6.94 | 8.43 | 7.35 | 6.22 | 5.32 | 5.94 | 6.20 |
| 100 to 300 | 2.79 | 2.46 | 3.75 | 4.18 | 4.82 | 6.18 | 8.33 | 6.86 | 6.05 | 5.22 | 6.29 | 6.83 |
| 300 to 500 | 2.80 | 2.47 | 4.07 | 4.46 | 3.96 | 5.93 | 9.14 | 8.19 | 6.57 | 6.92 | 8.28 | 7.94 |
| Over 500 | 2.48 | 2.08 | 3.41 | 4.87 | 5.71 | 7.02 | 9.02 | 17.86 | 6.23 | 10.90 | 11.04 | 13.38 |

Appendix table 28--Equity capital to total assets

| Bank classification | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent |  |  |  |  |  |  |  |  |  |  |  |
| ALL BANKS (\$ Millions) | 7.02 | 7.03 | 6.89 | 6.99 | 7.13 | 7.13 | 6.19 | 6.02 | 6.27 | 6.22 | 6.45 | 6.75 |
| Under 25 | 9.29 | 9.49 | 9.71 | 9.93 | 9.88 | 9.78 | 9.39 | 9.53 | 9.70 | 9.94 | 9.96 | 9.86 |
| 25 to 50 | 8.33 | 8.41 | 8.56 | 8.51 | 8.50 | 8.59 | 8.44 | 8.59 | 8.77 | 8.94 | 8.98 | 9.09 |
| 50 to 100 | 7.96 | 8.00 | 8.03 | 8.10 | 7.95 | 8.05 | 7.93 | 8.18 | 8.35 | 8.59 | 8.65 | 8.84 |
| 100 to 300 | 7.37 | 7.41 | 7.36 | 7.61 | 7.36 | 7.34 | 7.26 | 7.60 | 7.65 | 7.83 | 7.88 | 8.09 |
| 300 to 500 | 7.05 | 7.12 | 6.77 | 6.95 | 6.87 | 7.05 | 6.72 | 6.94 | 7.07 | 7.34 | 7.44 | 7.76 |
| Over 500 | 6.39 | 6.42 | 6.25 | 6.37 | 6.70 | 6.73 | 5.58 | 5.28 | 5.65 | 5.54 | 5.85 | 6.19 |
| AG BANKS | 8.58 | 8.57 | 8.66 | 8.69 | 8.68 | 8.67 | 8.61 | 8.86 | 9.03 | 9.15 | 9.05 | 9.22 |
| Under 25 | 9.11 | 9.18 | 9.35 | 9.57 | 9.54 | 9.50 | 9.17 | 9.31 | 9.47 | 9.72 | 9.63 | 9.77 |
| 25 to 50 | 8.51 | 8.63 | 8.82 | 8.93 | 8.93 | 8.96 | 8.97 | 9.09 | 9.31 | 9.45 | 9.40 | 9.56 |
| 50 to 100 | 8.12 | 8.08 | 8.30 | 8.36 | 8.33 | 8.41 | 8.41 | 8.73 | 8.97 | 9.20 | 9.19 | 9.41 |
| 100 to 300 | 7.45 | 7.72 | 7.53 | 7.45 | 7.64 | 7.73 | 7.88 | 8.20 | 8.54 | 8.40 | 8.30 | 8.59 |
| 300 to 500 | 6.73 | 6.63 | 6.51 | 7.36 | 7.77 | 6.72 | 6.67 | 7.45 | 8.28 | 7.73 | 7.72 | 7.45 |
| Over 500 | 7.14 | 6.10 | 5.79 | 6.17 | 5.89 | 5.37 | 4.58 | 4.77 | 6.29 | 5.02 | 5.45 | 6.11 |
| NONAG BANKS | 6.89 | 6.91 | 6.75 | 6.86 | 7.01 | 7.02 | 6.05 | 5.86 | 6.13 | 6.07 | 6.32 | 6.62 |
| Under 25 | 9.46 | 9.79 | 10.07 | 10.30 | 10.22 | 10.06 | 9.61 | 9.76 | 9.95 | 10.17 | 10.34 | 9.97 |
| 25 to 50 | 8.25 | 8.30 | 8.42 | 8.28 | 8.26 | 8.37 | 8.13 | 8.29 | 8.42 | 8.62 | 8.70 | 8.76 |
| 50 to 100 | 7.93 | 7.99 | 7.97 | 8.02 | 7.84 | 7.94 | 7.80 | 8.02 | 8.15 | 8.39 | 8.46 | 8.62 |
| 100 to 300 | 7.36 | 7.39 | 7.35 | 7.62 | 7.34 | 7.31 | 7.22 | 7.56 | 7.58 | 7.78 | 7.83 | 8.03 |
| 300 to 500 | 7.06 | 7.13 | 6.77 | 6.94 | 6.86 | 7.06 | 6.72 | 6.94 | 7.06 | 7.34 | 7.43 | 7.77 |
| Over 500 | 6.39 | 6.42 | 6.25 | 6.37 | 6.70 | 6.73 | 5.58 | 5.28 | 5.65 | 7.34 5.54 | 7.43 5.85 | 7.77 6.19 |

Appendix table 29--Equity capital to total capital

| Bank classification | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent |  |  |  |  |  |  |  |  |  |  |  |
| ALL BANKS <br> (\$ Millions) | 87.00 | 87.24 | 86.70 | 86.65 | 84.11 | 82.09 | 80.62 | 73.45 | 76.02 | 74.47 | 74.46 | 75.51 |
| Under 25 | 93.95 | 94.32 | 94.54 | 94.57 | 93.50 | 92.62 | 91.48 | 91.09 | 91.08 | 91.23 | 91.65 | 91.36 |
| 25 to 50 | 92.28 | 92.81 | 93.22 | 93.27 | 92.38 | 92.00 | 91.23 | 90.24 | 90.66 | 90.84 | 90.96 | 91.36 |
| 50 to 100 | 90.96 | 91.49 | 91.87 | 92.33 | 91.71 | 91.27 | 90.71 | 90.64 | 90.67 | 90.99 | 90.97 | 91.04 |
| 100 to 300 | 88.86 | 89.16 | 89.59 | 89.78 | 89.58 | 89.57 | 88.58 | 88.37 | 89.32 | 89.76 | 89.85 | 89.88 |
| 300 to 500 | 86.26 | 86.55 | 87.19 | 88.12 | 88.25 | 88.24 | 87.52 | 84.62 | 85.07 | 85.34 | 87.29 | 87.68 |
| Over 500 | 84.18 | 84.48 | 83.48 | 83.41 | 80.13 | 77.69 | 76.38 | 66.84 | 70.71 | 68.66 | 68.89 | 70.43 |
| AG BANKS | 92.93 | 93.21 | 93.32 | 92.90 | 91.68 | 90.81 | 90.35 | 90.63 | 90.74 | 90.87 | 91.38 | 91.55 |
| Under 25 | 94.14 | 94.38 | 94.54 | 94.41 | 93.13 | 92.20 | 91.19 | 90.89 | 90.88 | 91.15 |  |  |
| 25 to 50 | 93.01 | 93.68 | 93.93 | 93.65 | 92.50 | 91.92 | 91.34 | 90.87 | 90.87 | 90.97 | 91.46 | 91.31 91.59 |
| 50 to 100 100 to 300 | 92.16 | 92.20 | 92.79 | 92.71 | 91.52 | 90.59 | 90.15 | 91.01 | 91.21 | 91.38 | 91.89 | 92.20 |
| $\begin{aligned} & 100 \text { to } 300 \\ & 300 \text { to } 500 \end{aligned}$ | 88.93 83.02 | 90.31 8257 | 90.06 | 90.01 | 89.02 | 88.60 | 89.01 | 89.93 | 89.96 | 90.57 | 91.46 | 91.55 |
| Over 500 | 83.02 90.33 | 82.57 86.99 | 79.41 86.91 | 84.28 82.74 | 87.52 76.61 | 85.11 71.82 | 86.14 | 87.83 | 91.12 | 86.97 | 87.50 | 89.98 |
| NONAG BANKS | 86.44 | 86.67 | 86.07 | 86.06 | 83.46 | 81.42 | 79.94 | 72.35 | 75.09 | 73.49 | 73.47 | 74.57 |
| Under 25 | 93.81 | 94.26 | 94.54 | 94.71 | 93.84 | 93.00 | 91.76 | 91.29 | 91.29 |  |  |  |
| 25 to 50 | 91.95 | 92.38 | 92.84 | 93.05 | 92.31 | 92.04 | 91.16 | 89.82 | 90.51 | 91.32 90.75 | 92.00 90.61 | 31.43 90.75 |
| 50 to 100 | 90.73 | 91.34 | 91.64 | 92.23 | 91.77 | 91.47 | 90.88 | 90.52 | 30.49 | 90.85 | 90.61 | 90.57 |
| 100 to 300 | 88.85 | 89.11 | 89.56 | 89.77 | 89.63 | 89.65 | 88.54 | 88.25 | 89.27 | 89.67 | 89.66 | 89.68 |
| 300 to 500 Over 500 | 86.35 | 86.63 | 87.29 | 88.20 | 88.26 | 88.28 | 87.54 | 84.59 | 85.00 | 85.32 | 87.28 | 87.63 |
| Over 500 | 84.18 | 84.48 | 83.47 | 83.41 | 80.13 | 77.70 | 76.39 | 66.84 | 70.68 | 68.65 | 68.87 | 70.41 |

Appendix table 30 --Sum of assets by bank classification


|  | Billion dollars |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ALL BANKS (\$ Millions) | 1526.52 | 1675.55 | 1860.70 | 2017.69 | 2148.45 | 2361.21 | 2902.32 | 2956.10 | 3111.45 | 3280.13 | 3367.07 | 3411.67 |
| Under 25 | 94.78 | 91.23 | 86.11 | 82.00 | 79.05 | 75.52 | 70.41 | 66.12 | 61.70 | 56.85 |  |  |
| 25 to 50 | 125.69 | 130.84 | 133.78 | 133.88 | 135.05 | 134.28 | 131.64 | 127.10 | 121.34 | 116.84 | 51.75 114.40 | 45.79 112.26 |
| 50 to 100 | 135.42 | 150.00 | 164.83 | 180.89 | 189.30 | 194.37 | 199.49 | 197.66 | 193.08 | 190.82 | 192.62 | 195.01 |
| 100 to 300 | 183.39 | 202.98 | 226.74 | 249.75 | 270.13 | 284.88 | 301.00 | 300.34 | 304.41 | 327.56 | 335.17 | 341.47 |
| 300 to 500 | 74.98 | 72.12 | 83.59 | 95.37 | 98.82 | 111.96 | 122.00 | 116.21 | 129.78 | 133.93 | 144.71 | 147.91 |
| Over 500 | 912.26 | 1028.37 | 1165.65 | 1275.80 | 1377.11 | 1560.19 | 2077.79 | 2148.67 | 2301.13 | 2454.03 | 2528.42 | 2569.23 |
| AG BANKS | 116.67 | 127.89 | 138.41 | 151.00 | 152.30 | 153.92 | 153.44 | 149.09 | 153.60 | 154.35 | 162.10 | 166.32 |
| Under 25 | 46.30 | 44.83 | 42.56 | 41.07 | 39.28 | 37.15 | 35.90 | 33.78 | 31.70 | 29.49 | 27.54 |  |
| 25 to 50 | 39.27 | 42.70 | 44.96 | 47.96 | 49.00 | 49.51 | 48.73 | 47.86 | 47.57 | 45.65 | 45.33 | 45.38 |
| 50 to 100 | 21.42 | 27.40 | 32.75 | 38.59 | 39.96 | 42.45 | 44.20 | 45.32 | 46.46 | 47.42 | 51.01 | 45.38 52.92 |
| 100 to 300 | 7.17 | 9.51 | 14.96 | 16.85 | 18.76 | 19.29 | 20.49 | 19.76 | 22.00 | 28.02 | 33.61 | 35.44 |
| 300 to 500 | 1.93 | 1.44 | 1.06 | 1.81 | 1.60 | 1.76 | 1.61 | 1.09 | 1.22 | 1.29 | 1.36 | 3.17 |
| Over 500 | 0.58 | 2.00 | 2.12 | 4.72 | 3.68 | 3.77 | 2.51 | 1.28 | 4.63 | 2.47 | 3.26 | 4.04 |

NONAG BANKS $1409.851547 .651722 .291866 .691997 .16 \quad 2207.29 \quad 2748.88 \quad 2807.02 \quad 2957.85 \quad 3125.77 \quad 3204.97 \quad 3245.35$

| Under 25 | 48.47 | 46.40 | 43.54 | 40.93 | 39.76 | 38.36 | 34.51 | 32.35 | 30.00 | 27.36 | 24.21 | 20.43 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 25 to 50 | 86.42 | 88.14 | 88.82 | 85.92 | 86.04 | 84.77 | 82.90 | 79.24 | 73.77 | 71.29 | 68.07 | 66.88 |
| 50 to 100 | 114.01 | 122.60 | 132.08 | 142.30 | 149.34 | 151.93 | 155.29 | 152.34 | 146.62 | 143.40 | 141.61 | 142.09 |
| 100 to 300 | 176.22 | 193.47 | 211.78 | 232.89 | 251.36 | 265.60 | 280.50 | 280.58 | 282.41 | 29.54 | 301.56 | 306.03 |
| 300 to 500 | 73.05 | 70.68 | 82.53 | 93.57 | 97.22 | 110.20 | 120.39 | 115.11 | 128.56 | 132.64 | 143.35 | 144.74 |
| Over 500 | 911.68 | 1026.37 | 1163.53 | 1271.08 | 1373.43 | 1556.42 | 2075.28 | 2147.39 | 2296.50 | 2451.55 | 2525.16 | 2565.19 |

Appendix table 31--Sum of deposits by bank classification


NONAG EANKS 1078.471152 .571272 .141391 .701501 .831648 .861803 .531826 .301959 .892084 .92194 .572220 .68

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Under 25 | 42.74 | 40.36 | 37.92 | 35.82 | 34.75 | 33.78 | 30.57 | 28.64 | 26.53 | 24.07 | 21.28 | 18.09 |
| 25 to 50 | 76.64 | 77.39 | 78.30 | 76.46 | 76.56 | 75.72 | 74.61 | 71.26 | 66.16 | 63.79 | 61.71 | 59.80 |
| 50 to 100 | 100.30 | 106.71 | 115.77 | 125.92 | 132.62 | 135.53 | 139.24 | 136.02 | 130.78 | 127.70 | 126.00 | 126.14 |
| 100 to 300 | 150.96 | 164.46 | 181.60 | 202.02 | 218.94 | 233.14 | 247.92 | 246.85 | 248.40 | 262.83 | 265.36 | 269.44 |
| 300 to 500 | 60.74 | 57.15 | 67.76 | 77.56 | 82.57 | 93.55 | 102.92 | 97.96 | 108.89 | 112.43 | 121.01 | 122.72 |
| Over 500 | 647.08 | 706.50 | 790.79 | 873.92 | 956.39 | 1077.14 | 1208.28 | 1245.57 | 1379.12 | 1494.08 | 1599.22 | 1624.48 |

Appendix table 32 - Sum of loans outstanding by bank classification

Bank classifi
(\$ Millions)

| Under 25 | 50.58 | 46.92 | 43.83 | 41.89 | 41.76 | 39.14 | 35.01 | 32.88 | 30.65 | 28.47 | 25.84 | 22.87 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 25 to 50 | 68.61 | 68.97 | 69.26 | 68.79 | 72.75 | 71.52 | 67.69 | 66.45 | 63.78 | 61.92 | 60.50 | 58.82 |
| 50 to 100 | 74.64 | 80.90 | 86.99 | 94.28 | 103.87 | 105.44 | 104.01 | 105.86 | 104.78 | 103.95 | 104.53 | 103.14 |
| 100 to 300 | 99.88 | 109.82 | 120.88 | 133.67 | 155.72 | 164.53 | 167.80 | 174.36 | 180.66 | 195.13 | 198.17 | 194.90 |
| 300 to 500 | 40.57 | 37.47 | 43.81 | 50.42 | 57.35 | 66.76 | 71.43 | 69.34 | 79.98 | 83.69 | 90.42 | 89.72 |
| Over 500 | 499.83 | 581.67 | 660.47 | 732.97 | 839.34 | 950.47 | 1076.41 | 1147.50 | 1261.86 | 1378.47 | 1421.34 | 1379.08 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| AG BANKS | 62.80 | 65.96 | 70.68 | 77.00 | 79.73 | 76.30 | 71.25 | 69.29 | 73.20 | 74.53 | 78.79 | 81.00 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Under 25 | 24.23 | 22.42 | 21.18 | 20.37 | 19.73 | 17.60 | 16.05 | 14.96 | 14.37 | 13.70 | 12.91 | 12.03 |
| 25 to 50 | 21.26 | 21.85 | 22.69 | 24.00 | 24.87 | 23.85 | 22.22 | 21.96 | 22.27 | 21.75 | 21.60 | 22.00 |
| 50 to 100 | 11.87 | 14.65 | 17.01 | 19.59 | 21.02 | 21.00 | 20.10 | 20.89 | 21.85 | 22.47 | 24.21 | 25.01 |
| 100 to 300 | 3.93 | 5.10 | 7.98 | 9.14 | 10.42 | 10.22 | 10.25 | 9.86 | 11.38 | 14.32 | 17.26 | 17.99 |
| 300 to 500 | 1.13 | 0.76 | 0.61 | 1.07 | 1.13 | 1.20 | 1.07 | 0.59 | 0.67 | 0.66 | 0.65 | 1.66 |
| Over 500 | 0.38 | 1.17 | 1.22 | 2.83 | 2.58 | 2.43 | 1.57 | 1.04 | 2.68 | 1.63 | 2.17 | 2.39 |

NONAG BANKS

| Under 25 | 26.35 | 24.50 | 22.66 | 21.52 | 22.04 | 21.54 | 18.96 | 17.93 | 16.29 | 14.77 | 12.93 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 25 to 50 | 47.35 | 47.12 | 46.57 | 44.78 | 47.88 | 47.67 | 45.48 | 44.49 | 41.51 | 40.17 | 38.91 |
| 50 t 100 | 62.77 | 66.25 | 69.98 | 74.69 | 82.86 | 84.44 | 83.91 | 84.98 | 82.93 | 81.48 | 80.32 |
| 100 to 300 | 95.95 | 104.72 | 112.90 | 124.53 | 145.31 | 154.31 | 157.55 | 164.50 | 169.28 | 180.81 | 160.52 |
| 300 to 500 | 39.44 | 36.71 | 43.20 | 49.34 | 56.23 | 65.57 | 70.37 | 68.75 | 79.32 | 83.02 | 89.70 |
| Over 500 | 499.45 | 580.50 | 659.26 | 730.14 | 836.76 | 948.04 | 1074.84 | 1146.46 | 1259.18 | 1376.84 | 1419.18 |

Appendix table 33--Sum of net income by bank classification

| Bank classification | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1301414670 Milion dollars |  |  |  |  |  |  |  |  |  |  |  |
| ALL BANKS <br> (\$ Millions) | 13914 | 14679 | 14810 | 14967 | 15433 | 18132 | 17589 | 3285 | 25086 | 16008 | 16374 | 17965 |
| Under 25 | 1071 | 1017 | 793 | 620 | 385 | 232 | 55 | 95 | 178 | 252 | 214 |  |
| 25 to 50 | 1441 | 1438 | 1393 | 1230 | 1009 | 939 | 641 | 605 | 178 741 | 841 | 214 751 | 251 792 |
| 50 to 100 | 1468 | 1539 | 1664 | 1669 | 1626 | 1464 | 1270 | 1318 | 1483 | 1635 | 1509 | 1591 |
| 100 to 300 | 1773 | 1850 | 1922 | 2090 | 2292 | 2406 | 2132 | 2308 | 2369 | 3030 | 2857 | 2757 |
| $300 \text { to } 500$ | 692 | 596 | 607 | 764 | 874 | 974 | 778 | 808 | 1018 | 1086 | 1039 | 1289 |
| Over 500 | 7469 | 8241 | 8431 | 8595 | 9247 | 12117 | 12714 | -1849 | 19277 | 9164 | 10204 | 11284 |
| AG BANKS | 1482 | 1536 | 1552 | 1430 | 1065 | 801 | 676 | 1009 | 1351 | 1509 | 1575 | 1682 |
| Under 25 | 609 | 581 | 495 | 418 | 267 | 184 | 102 | 170 | 226 | 252 | 227 | 220 |
| 25 to 50 | 506 | 521 | 536 | 486 | 362 | 315 | 254 | 322 | 434 | 453 | 437 | 458 |
| 50 to 100 | 262 | 308 | 375 | 340 | 279 | 213 | 207 | 347 | 430 | 493 | 527 | 570 |
| 100 to 300 | 78 | 99 | 130 | 137 | 133 | 99 | 123 | 157 | 214 | 286 | 341 | 355 |
| 300 to 500 | 21 | 15 | 10 | 15 | 12 | -3 | 4 | 7 | 11 | 4 | $\begin{array}{r}10 \\ \hline\end{array}$ | 34 |
| Over 500 | 6 | 12 | 6 | 34 | 12 | -8 | -14 | 7 | 35 | 20 | 33 | 45 |
| NONAG BANKS | 12432 | 13143 | 13258 | 13537 | 14368 | 17331 | 16913 | 2276 | 23715 | 14499 | 14800 | 16282 |
| Under 25 | 462 | 436 | 298 | 202 | 118 | 48 | -47 | -75 | -48 | -1 | -13 | 32 |
| 25 to 50 | 935 | 917 | 858 | 743 | 647 | 623 | 386 | 283 | 306 | 388 | -13 313 | 334 |
| 50 to 100 | 1206 | 1230 | 1289 | 1329 | 1347 | 1251 | 1063 | 971 | 1053 | 1142 | 982 | 1021 |
| 100 to 300 | 1695 | 1750 | 1791 | 1952 | 2158 | 2307 | 2008 | 2151 | 2154 | 2744 | 2316 | 2401 |
| 300 to 500 | 671 | 581 | 597 | 748 | 862 | 977 | 774 | 801 | 1007 | 1082 | 1030 | 1255 |
| Over 500 | 7463 | 8229 | 8426 | 8562 | 9236 | 12125 | 12729 | -1856 | 19242 | 9144 | 10171 | 111240 |

Appendix table 34--Sum of total capital by bank classification

$\frac{\text { Appendix table } 35--R e t u r n ~ o n ~ a s s e t s ~ f o r ~ a l l ~ b a n k s, ~ b y ~ S t a t e ~}{\text { State }}$


Appendix table $36-$ Return on assets for agricultural banks, by State


Appendix table 37-Return on assets for nonagricultural banks, by State


Appendix table 38-Return on equity for all banks, by State

| State | 1980 | 1981 | 1982 | 21983 | 1984 | 1985 | 1986 | 1987 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Alabama |  |  |  |  |  | Percent |  |  | 1988 | 1989 | 990 | 1991 |
| Alaska | 12.89 | 12.11 | 12.15 | (12.68 | 12.97 | 13.18 | 13.98 | 12.67 | 13.51 | 12.08 | 12.69 | 13.12 |
| Arizona | ${ }_{17.23}$ | 14.09 | 15.45 | 16.17 | 16.00 | 12.24 | -12.61 | -41.22 | -38.76 | 10.73 | 12.65 | 12.70 |
| Arkansas | 11.85 | 11.26 | 13.42 | 12.77 | 13.67 | 13.17 | 11.32 | 1.87 | 3.88 | -34.85 | -3.38 | 2.19 |
| California | 13.67 | 10.83 | 8.50 | 10.79 7.16 | 9.55 | 6.36 | 8.21 | 11.11 | 11.38 | 11.89 | 11.69 | 13.00 |
|  |  |  |  | .16 | 5.07 | 3.14 | 4.56 | -4.28 | 16.90 | 19.22 | 15.45 | 2.89 |
| Colorado | 16.71 | 16.81 | 11.33 | 10.85 | 9.60 | 7.02 |  |  |  |  |  |  |
| Connecticut | 13.17 | 13.96 | 10.96 | 14.44 | 15.35 | 15.53 | 4.59 | 0.69 | 2.54 | 6.13 | -1.24 | 9.09 |
| Delaware | 13.40 | 7.26 | 8.20 | 10.86 | 14.35 | 15.53 | 15.20 | 13.47 | 13.50 | -18.67 | -38.93 | -12.83 |
| District of Columbia | 12.44 | 12.44 | 11.53 | 11.97 | 8.75 | 11.87 | 12.77 | 14.29 | 14.15 | 16.05 | 20.86 | 18.92 |
| Florida | 14.12 | 11.93 | 12.95 | 13.10 | 12.94 | 11.97 | 12.75 12.70 | 5.33 | 12.35 | 12.96 | -43.91 | -55.12 |
|  |  |  |  |  |  |  |  | 11.32 | 12.05 | 9.02 | 4.12 | 6.75 |
| Georgia | 15.69 | 15.91 | 14.65 | 15.14 | 16.07 | 16.66 |  |  |  |  |  |  |
| Hawaii | 15.49 | 13.65 | 13.77 | 13.01 | 11.62 | 12.56 | 15.38 | 14.33 | 14.14 | 13.18 | 10.40 | 9.67 |
| Idaho | 14.05 | 11.60 | 11.93 | 13.09 | 11.18 | 12.56 7.39 | 13.58 6.21 | 14.04 10.96 | 12.26 | 17.75 | 18.09 | 15.87 |
| Illinois | 11.19 | 10.47 | 9.00 | 9.24 | -1.76 | 9.60 | 10.73 | 10.96 | 10.34 | 16.23 | 17.08 | 15.13 |
| Indiana | 12.08 | 8.73 | 7.56 | 8.98 | 10.42 | 11.52 | 11.46 | -3.58 | $\begin{aligned} & 15.66 \\ & 13.53 \end{aligned}$ | 13.22 12.72 | 10.16 10.08 | 9.47 983 |
| lowa | 14.13 | 13.18 | 11.52 | 10.90 |  |  |  |  |  |  |  |  |
| Kansas | 13.99 | 13.44 | 13.01 | 11.52 | 8.73 | 3.83 | 4.78 | 10.12 | 12.12 | 12.41 | 11.61 | 11.76 |
| Kentucky | 14.14 | 13.01 | 11.99 | 11.10 | 8.40 12.23 | 8.28 13.06 | 7.56 12.60 | 7.53 | 10.51 | 11.55 | 9.75 | 10.48 |
| Louisiana | 14.62 | 15.41 | 14.62 | 12.06 | 12.23 | 13.06 5.07 | 12.60 | ( 60 | 12.47 | 12.64 | 9.80 | 10.39 |
| Maine | 12.59 | 11.17 | 12.36 | 14.53 | 14.26 | 16.68 | -0.58 15.85 | $\begin{array}{r} -0.62 \\ 17.14 \end{array}$ | 2.66 17.78 | -1.21 11.98 | 3.50 -1.66 | 3.33 -1.46 |
| Maryland | 12.11 | 12.57 | 12.51 | 11.69 | 178 |  |  |  |  |  |  |  |
| Massachusetts | 13.01 | 14.23 | 14.57 | 14.19 | 14.39 | 14.51 | 11.08 | 10.69 | 12.62 | 12.91 | -6.84 | 9.13 |
| Michigan | 10.80 | 8.44 | 8.18 | 1.38 | 12.58 | 14.85 | 14.58 | 7.21 | 14.32 | -6.70 | -22.04 | 2.72 |
| Minnesota | 13.59 | 12.37 | 12.05 | 11.92 | 10.84 | 12.88 | 12.62 | 12.16 | 16.14 | 16.20 | 13.97 | 14.71 |
| Mississippi | 14.04 | 12.94 | 11.03 | 10.89 | 11.77 | 11.18 13.42 | 11.22 12.86 | 1.52 | 6.07 | 7.28 | 10.61 | 13.52 |
| Missouri | 13.37 | 12.68 |  |  |  |  |  |  |  |  |  |  |
| Montana | 15.04 | 13.44 | 13.39 | 12.85 | 12.45 | 10.89 | 11.07 | 8.78 | 11.24 | 11.64 | 10.83 | 9.57 |
| Nebraska | 16.99 | 16.31 | 14.26 | 11.65 | 88.80 | 5.50 | -0.38 | 5.03 | 0.46 | 13.21 | 13.89 | 11.90 |
| Nevada | 16.03 | 11.99 | 11.68 | 11.41 | 8.80 | 5.00 | 6.08 | 10.03 | 12.72 | 14.01 | 11.87 | 14.19 |
| New Hampshire | 11.63 | 11.15 | 11.18 | 13.41 | 11.28 14.29 | 11.64 | 13.77 | 16.00 | 26.99 | 29.38 | 24.57 | 19.14 |
|  |  |  |  |  |  |  | 17.18 | 15.11 | 13.24 | 12.18 | -25.38 | -1.43 |
| New Jersey | 11.00 | 12.32 | 12.58 | 14.00 | 15.18 |  |  |  |  |  |  |  |
| New Mexico | 13.71 | 13.82 | 13.43 | 12.25 | 15.18 8.14 | 15.67 | 16.39 | 14.79 | 16.41 | 14.44 | -13.50 | -3.78 |
| New York | 12.39 | 12.51 | 12.19 | 11.80 | 8.14 10.86 | 8.47 12.25 | 9.73 | r 9.31 | 8.69 | 10.83 | 4.63 | 6.10 |
| North Carolina | 12.98 | 12.15 | 13.42 | 15.68 | 16.86 | 12.25 | 11.60 | -14.11 | 18.30 | -9.50 | 3.96 | 3.31 |
| North Dakota | 14.45 | 14.02 | 11.87 | 10.40 | 16.47 9.89 | 16.83 9.62 | 18.23 5.59 | 15.42 | 16.86 | 15.66 | 13.82 | 11.01 |
|  |  |  |  |  | 9.89 | 9.62 | 5.59 | 7.90 | 6.20 | 10.14 | 10.50 | 11.51 |
| Ohio | 11.74 | 11.02 | 9.61 | 10.66 |  |  |  |  |  |  |  |  |
| Oklahoma | 16.00 | 16.57 | 12.89 | 6.66 6.87 | 13.91 4.31 | 13.80 0.78 | 15.18 | 13.00 | 15.95 | 14.86 | 12.39 | 13.54 |
| Oregon | 12.96 | 9.83 | 7.50 | 6.87 8.40 | 4.31 10.85 | 0.78 | -9.76 | -1.58 | 0.41 | 6.56 | 10.68 | 11.01 |
| Pennsylvania | 9.91 | 11.84 | 12.36 | 11.20 | 12.85 | 11.63 | 11.36 | 10.82 | 15.96 | 16.82 | 17.48 | 9.92 |
| Rhode Island | 12.00 | 8.01 | 12.44 | 11.92 | 14.11 | 14.84 8.28 | 13.41 | 3.70 | 12.43 | 12.28 | 6.18 | 10.07 |
|  |  |  |  |  | 14.11 | 8.28 | 16.06 | 9.66 | 19.81 | 15.99 | -3.59 | 2.77 |
| South Carolina | 14.60 | 14.28 | 13.42 | 19.37 | 13.69 |  |  |  |  |  |  |  |
| South Dakota | 15.13 | 8.53 | 12.70 | 19.54 | 18.36 | 13.24 14.70 |  | 12.44 | 13.67 | 13.55 | 12.47 | 4.45 |
| Tennessee | 11.75 | 10.50 | 9.06 | 9.34 | 11.59 | 13.54 | 19.97 | 23.63 | 28.80 | 28.93 | 25.99 | 23.97 |
| Texas | 16.22 | . 17.25 | 15.33 | 8.40 | 9.88 | 7.75 | 13.20 | 11.83 | 10.92 | 8.09 | 5.48 | 10.14 |
| Utah | 14.54 | 12.13 | 12.54 | 11.18 | 9.14 | 7.75 9.34 | -6.32 | -19.23 | -24.17 | -6.78 | 6.83 | 10.04 |
|  |  |  |  | 11.18 | 9.14 | 9.34 | 5.49 | 0.83 | 4.68 | 8.80 | 12.14 | 11.28 |
| Vermont | 13.48 | 12.83 | 13.52 | 14.18 |  |  |  |  |  |  |  |  |
| Virginia | 11.78 | 12.09 | 13.22 | 14.86 | 14.94 | 14.13 | 16.41 | 13.40 | 15.81 | 14.75 | 5.47 | -9.54 |
| Washington | 13.55 | 13.27 | 0.96 | -24.20 | 12.29 | 12.24 | 16.41 | 14.81 | 16.35 | 15.88 | 6.49 | 2.64 |
| West Virginia | 10.08 | 9.20 | 10.19 | 11.35 | 10.68 | 12.14 | 11.34 12.47 | 7.09 11.63 | 17.27 | 16.83 | 17.94 | 16.71 |
| Wisconsin | 11.72 | 11.32 | 12.06 | 42.14 | 11.11 | 11.61 | 12.41 | 11.63 | 11.79 | 11.54 | 11.43 | 11.06 |
| Wyoming | 17.13 | 17.15 | 15.23 | 10.12 | 5.94 | 1.61 | 12.21 -5.46 | 8.34 1.46 | 15.15 8.62 | 13.47 11.48 | 13.03 | 12.59 |

Appendix table 3a--Return on equity for agricultural banks, by State

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline tate \& 1980 \& 1981 \& 1982 \& 1983 \& 1984 \& 1985 \& 1986 \& 1987 \& \& \& \& <br>
\hline Alabama \& 14.07 \& \& \& \& \& Pe \& ercent \& 1987 \& 1988 \& 1989 \& 1990 \& 1991 <br>
\hline Alaska \& n.a' \& 12.68
n.a. \& 11.69 \& 7.59 \& 9.42 \& 10.43 \& 10.61 \& 11.16 \& 10.28 \& 11.34 \& 9.42 \& 4.96 <br>
\hline Arizona \& n.a \& n.a. \& n.a. \& п.a. \& n.a. \& ก.a. \& n.a. \& n.a. \& , \& ก.a. \& \& na <br>
\hline Arkansas \& 12.34 \& 10.92 \& 10.53 \& 10.68 \& 8.a. \& -13.99 \& 11.54 \& ก.a. \& n.a. \& n.a. \& \& -102.31 <br>
\hline California \& 13.58 \& 13.74 \& 11.11 \& 7.11 \& 4.95 \& 8.79 \& 9.18 \& 9.63 \& 10.94 \& 11.52 \& 11.96 \& 11.36 <br>
\hline \& \& \& \& \& 4.95 \& 5.01 \& 1.30 \& 3.41 \& 11.03 \& 15.08 \& 14.33 \& 10.03 <br>
\hline Colorado \& 17.55 \& 14.29 \& 12.96 \& 11.55 \& \& \& \& \& \& \& \& <br>
\hline Connecticut \& п.a. \& \& n.a. \& n.a. \& n.a. \&  \&  \& \& \& \& 7.87 \& 9.85 <br>
\hline Delaware \& 13.92 \& 10.97 \& 8.25 \& 15.18 \& 10.63 \& 12.62 \& 13.15 \& 12.82 \& $$
\begin{array}{r}
\text { n.a. } \\
9.40
\end{array}
$$ \& \% 10.98. \& n.a. \& n.a. <br>
\hline District of Columbia \& a. \& ก.a. \& n.a. \& п.a. \& ก.a. \& n.a. \& ก.a. \& \& n.a. \& n.a. \& n.a. \& a. <br>
\hline \& 13.69 \& 13.45 \& 14.97 \& 14.84 \& 13.50 \& 10.56 \& 8.88 \& 10.80 \& 11.62 \& 10,50 \& 10.54 \& 9.05 <br>
\hline Georgia \& 14.63 \& 14.95 \& 12.60 \& 10.62 \& 10.46 \& 12.49 \& \& \& \& \& \& <br>
\hline Hawail \& ก.a. \& n.a. \& n.a. \& n.a. \& n.a. \& ก.a. \& \& \& $$
\begin{array}{r}
11.86 \\
\text { n.a. }
\end{array}
$$ \& $$
12.00
$$ \& $$
10.96
$$ \& <br>
\hline Idaho \& 14.57 \& 13.09 \& 12.28 \& 12.08 \& 8.30 \& 2.74 \& 1.38 \& 4.28 \& \& $$
4.90
$$ \&  \& n.a.
12.57 <br>
\hline Iflinois \& 12.74 \& 12.04 \& 12.02 \& 11.95 \& 9.52 \& 7.43 \& 7.43 \& 8.43 \& 10.10 \& 11.02 \& 10.93 \& 12.57
11.00 <br>
\hline Indiana \& 12.58 \& 9.93 \& 8.03 \& 8.63 \& 8.95 \& 8.08 \& 8.21 \& 9.31 \& 10.70 \& 11.43 \& 10.54 \& 10.48 <br>
\hline lowa \& 15.03 \& 14.06 \& 12.58 \& 14.23 \& 5.41 \& 1.00 \& 2.21 \& 9.05 \& \& \& \& <br>
\hline Kansas \& 14.98 \& 14.64 \& 13.88 \& 11.25 \& 5.21 \& 4.28 \& 3.39 \& 4.05 \& 8.47 \& 11.35 \& 11.12 \& 11.05 <br>
\hline Kentucky \& 15.44 \& 13.69 \& 11.58 \& 9.64 \& 10.05 \& 11.69 \& 10.30 \& 4.82 \& 8.01 \& 10.11 \& 10.36 \& 10.73 <br>
\hline Louisiana \& 16.52 \& 15.47 \& 14.44 \& 10.39 \& 10.56 \& 2.55 \& -5.61 \& 10.45 \& 10.80 \& 11.44 \& 11.18 \& 10.93 <br>
\hline Maine \& п.a. \& n.a. \& п.a. \& n.a. \& n.a. \& n.a. \& $$
\begin{array}{r}
-5.61 \\
\text { n.a. }
\end{array}
$$ \& $$
\begin{array}{r}
-2.94 \\
\text { п.a. }
\end{array}
$$ \& $$
\begin{array}{r}
8.50 \\
\text { n.a. }
\end{array}
$$ \& $$
\begin{array}{r}
11.36 \\
\text { п.a. }
\end{array}
$$ \& $$
\begin{array}{r}
10.75 \\
\text { n.a. }
\end{array}
$$ \& $$
\begin{array}{r}
11.83 \\
\text { n.a. }
\end{array}
$$ <br>
\hline Maryland \& 15.30 \& 12.90 \& 11.11 \& 11.16 \& 12.09 \& \& \& \& \& \& \& <br>
\hline Massachusetts \& ก. \& n.a. \& n.a. \& п.a. \& \& $$
\begin{array}{r}
2.0 . \\
\text { n.a. }
\end{array}
$$ \&  \&  \& \& \& \& 14.33 <br>
\hline Michigan \& 12.69 \& 8.40 \& 9.89 \& 10.57 \& 8.05 \& -1.17 \& - 1.6. \& n.a. \& n.a. \& \& \& n.a. <br>
\hline Minnesota \& ¢5.09 \& 14.36 \& 12.94 \& 10.97 \& 7.98 \& 4.90 \& 3.48 \& 6.06 \& 12.63 \& \& 9.86 \& 10.62 <br>
\hline Mississippi \& 14.95 \& 14.16 \& 13.37 \& 12.31 \& 8.76 \& 10.95 \& 8.89 \& 5.12 \& 10.29 \& 11.21 \& 10.09 \& 10.67
12.97 <br>
\hline Missouri \& 13.96 \& 13.58 \& 13.45 \& 9.70 \& 6.15 \& \& \& \& \& \& \& <br>
\hline Montana \& 16.48 \& 15.57 \& 14.47 \& 14.21 \& 6.15
10.52 \& 3.22 \& 5.24 \& 8.43 \& 11.32 \& 11.10 \& 11.73 \& 12.52 <br>
\hline Nebraska \& 17.68 \& 17.13 \& 15.34 \& 11.89 \& 7.83 \& 3.35 \& -1.60 \& 8.43 \& 3.64 \& 12.37 \& 11.63 \& 11.45 <br>
\hline Nevada \& 13.94 \& 13.81 \& 12.22 \& 12.46 \& 11.91 \& 9.92 \& 7.52 \& 8.95 \& 12.19 \& 3.03 \& 11.87 \& 12.60 <br>
\hline New Hampshire \& n.a. \& п.a. \& n.a. \& n.a. \& n.a. \& n.a. \& п.a. \& n.a. \& $$
\begin{array}{r}
8.88 \\
\text { n.a. }
\end{array}
$$ \& n.a. \& $$
8.65
$$ \& n.a. <br>
\hline New Jersey \& n.a. \& ก.a. \& ก.a. \& n.a. \& \& \& \& \& \& \& \& <br>
\hline New Mexico \& 15.77 \& 15.39 \& 14.73 \& 10.21 \& 9.97 \& 9.01 \& -1.77 \& n.a.
5.35 \& п.a. \& ${ }_{11}$ n.a. \& ${ }_{12.17}^{\text {n.a. }}$ \& n.a. <br>
\hline New York \& 12.38 \& 10.80 \& 13.39 \& 12.83 \& 13.32 \& 13.65 \& -12.48 \& \& 8.98 \& 11.00 \& 12.17 \& 6.70 <br>
\hline North Carolina \& 13.31 \& 13.29 \& 14.84 \& 15.04 \& 12.17 \& 12.05 \& 12.48 \& 11.35 \& 12.12 \& 11.49 \& 8.50 \& 10.02 <br>
\hline North Dakota \& 15.98 \& 15.64 \& 11.96 \& 11.28 \& 12.17
9.52 \& 12.05
9.29 \& 12.71
6.79 \& 8.26
7.83 \& 8.02 \& 11.76

9.50 \& 9.81 \& 11.48 <br>
\hline Ohio \& 11.96 \& 10.64 \& 9.63 \& 9.51 \& 9.26 \& 1156 \& \& \& \& \& \& <br>
\hline Oklahoma \& 17.80 \& 17.57 \& 16.76 \& 9.57 \& 6.29 \& 7.51 \& 12.22 \& 11.76
4.38 \& 13.62
780 \& 12.94 \& 12.30 \& 11.67 <br>
\hline Oregon \& 10.14 \& 7.88 \& 1.66 \& -6.43 \& -26.98 \& -1914 \& 0.53 \& 4.38
3.55 \& 7.86 \& 9.90 \& 10.34 \& 11.07 <br>
\hline Pennsyivania \& $\uparrow 2.27$ \& 12.74 \& 12.97 \& 10.63 \& 12.32 \& -13.95 \& \& 12.55 \& 7.92
13.76 \& 12.78 \& 11.54 \& 8.65 <br>
\hline Rhode Isiand \& п.a. \& n.a. \& п.а. \& n.a. \& п.a. \& n.a. \& 13.09

n.a. \& $$
\begin{array}{r}
12.95 \\
\text { n.a. }
\end{array}
$$ \& \[

$$
\begin{array}{r}
13.76 \\
\text { n.a. }
\end{array}
$$

\] \& \[

$$
\begin{array}{r}
14.55 \\
\text { п.a. }
\end{array}
$$

\] \& \[

$$
\begin{array}{r}
12.23 \\
\text { n.a. }
\end{array}
$$

\] \& \[

$$
\begin{array}{r}
13.13 \\
\text { n.a. }
\end{array}
$$
\] <br>

\hline South Carolina \& 14.55 \& 14.44 \& 15.73 \& 14.18 \& 7.99 \& \& \& \& \& \& \& <br>
\hline South Dakota \& 15.76 \& 13.42 \& 11.21 \& 10.79 \& 8.94 \& 8.61 \& 8.61 \& n.a. \& 4.74 \& -0.04 \& 7.12 \& 6.52 <br>
\hline Tennessee \& 12.42 \& 10.71 \& 11.16 \& 10.29 \& 8.64
9.13 \& 6.21
12.36 \& 6.69 \& 8.84
12.48 \& 11.11 \& 11.83 \& 10.88 \& 12.10 <br>
\hline Texas \& 16.11 \& 16.56 \& 15.38 \& 10.63 \& 8.95 \& 6.99 \& 3.81 \& 12.48
4.96 \& 10.80 \& 10.29 \& 11.60 \& 8.99 <br>
\hline Utah \& 12.62 \& 11.32 \& 7.57 \& 5.97 \& 12,42 \& 1.03 \& \& \& 5.32 \& 6.22 \& 8.26 \& 10.13 <br>
\hline \& \& \& \& \& \& \& 4.89 \& 8.98 \& 5.14 \& 9.19 \& 8.08 \& 8.77 <br>
\hline Vermont \& 13.44 \& 15.35 \& 14.18 \& 16.22 \& 17.88 \& 18.65 \& \& \& \& \& \& <br>
\hline Virginia \& 12.24 \& 12.65 \& 10.51 \& 10.06 \& 13.11 \& 14.28 \& 17.65 \& 20.96 \& 22.88 \& 22.26 \& 13.71 \& -4.65 <br>
\hline Washington \& 15.04 \& 14.46 \& 12.13 \& 10.58 \& 11.02 \& 4.27 \& -1.00 \& 13.98 \& 15.05 \& 17.55 \& 13.98 \& 8.46 <br>
\hline West Virginia \& 13.10 \& 13.20 \& 14.25 \& 14.35 \& 14.68 \& 15.82 \& 17.83 \& 6.86
12.07 \& 10.05 \& 13.67 \& 15.04 \& 10.32 <br>
\hline Wisconsin \& 13.42 \& 13.13 \& 13.42 \& 11.74 \& 9.68 \& 8.31 \& 8.93 \& 12.07
9.44 \& 13.28
10.54 \& 11.26 \& 12.25 \& 11.39 <br>
\hline Wyoming \& 17.68 \& 17.15 \& 15.85 \& 13.98 \& 8.81 \& 8.35 \& 8.49 \& 9.44 \& 10.54
9.24 \& 11.00
11.33 \& 10.29
11.03 \& 9.96
10.52 <br>
\hline
\end{tabular}



Appendix table 41--A comparison of weighted average loan-to-deposit and loan-to-asset ratios

| Year | All Banks |  |  |  | Agricultural Banks |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Loan-to-depositsJune Dec. |  | Loan-to-assets |  |  |  |  |  |
|  | Percent -- Dec. |  |  |  | June | Dec. | June | Dec. |
| 1960 | 54.09 | 51.32 |  |  |  | Percent - |  |  |
| 1981 | 52.55 | 50.34 | 47.73 | 45.85 | ก.a.' | 43.00 | n.a. | 38.60 |
| 1962 | 52.79 | 53.56 | 46.93 | 47.00 | 46.50 | 42.90 | 41.50 | 38.50 |
| 1963 | 54.59 | 56.78 | 48.51 | 57.31 | 46.80 | 45.00 | 41.80 | 40.30 |
| 1964 | 57.80 | 57.18 | 51.23 | 50.73 | 49.40 | 47.30 | 44.20 | 42.30 |
|  |  |  |  |  | 51.40 | 48.00 | 45.90 | 43.20 |
| 1965 | 60.54 | 60.67 | 53.32 | 53.57 |  |  |  |  |
| 1966 | 62.85 | 61.91 | 55.25 | 54.51 | 52.70 | 49.40 | 47.10 | 44.50 |
| 1967 | 62.41 | 59.81 | 54.57 | 54.21 | 54.00 | 52.10 | 48.40 | 46.80 |
| 1968 | 62.15 | 61.19 | 53.74 | 53.17 | 56.10 | 52.60 | 50.10 | 47.40 |
| 1969 | 63.91 | 64.27 | 53.29 | 53.52 | 55.40 | 51.60 | 49.60 | 46.60 |
|  |  |  |  |  | 55.30 | 53.00 | 49.60 | 47.70 |
| 1970 | 64.55 | 60.56 | 53.46 |  |  |  |  |  |
| 1971 | 59.96 | 59.73 | 50.94 | 51.23 | 56.80 | 54.10 | 50.60 | 48.20 |
| 1972 | 62.37 | 61.97 | 52.32 | 50.82 | 55.50 | 53.20 | 49.60 | 47.60 |
| 1973 | 68.16 | 66.35 | 55.50 | 52.29 | 56.00 | 53.00 | 49.90 | 47.60 |
| 1974 | 68.39 | 66.72 | 55.67 | $\begin{aligned} & 54.81 \\ & 55.08 \end{aligned}$ | 56.10 | 54.40 | 50.10 | 48.70 |
|  |  |  |  |  | 57.30 | 55.60 | 50.80 | 49.70 |
| 1975 | 64.48 | 62.60 | 53.08 | 52.05 |  |  |  |  |
| 1976 | 62.85 | 62.59 | 52.77 | 52.51 | 56.70 | 56.30 | 50.60 | 50.30 |
| 1977 | 64.21 | 64.11 | 53.42 | 53.45 | 59.90 | 59.80 | 54.00 | 53.90 |
| 1978 | 66.29 | 66.54 | 54.72 | 53.45 54.43 | 64.10 | 62.50 | 57.40 | 56.30 |
| 1979 | 69.33 | 67.78 | 55.62 | 54.4354.60 | 65.20 | 65.00 | 58.30 | 58.00 |
|  |  |  |  |  | 67.70 | 65.30 | 60.10 | 58.00 |
| 1980 | 67.88 | 71.52 | 54.05 | 53.71 |  |  |  |  |
| 1981 | 68.24 | 74.60 | 53.93 | 55.55 | 64.30 | 60.64 | 56.70 | 53.82 |
| 1982 | 71.62 | 75.04 | 55.95 | 55.55 | 61.70 | 58.79 | 54.20 | 51.57 |
| 1983 | 70.36 | 75.09 | 54.89 | 55.98 | 60.90 | 58.30 | 52.90 | 51.07 |
| 1984 | 75.11 | 79.31 | 58.71 | 59.64 | 59.20 | 58.25 | 51.80 | 50.99 |
|  |  |  |  |  | 60.90 | 59.23 | 53.30 | 52.35 |
| 1985 | 76.61 | 80.15 | 59.58 | 59.87 |  |  |  |  |
| 1986 | 76.63 | 80.46 | 59.32 | 52.79 | 59.80 | 55.88 | 52.60 | 49.57 |
| 1987 | 76.83 | 83.62 | 59.73 | 54.40 | 55.57 53 | 52.13 | 49.02 | 46.44 |
| 1988 | 78.56 | 84.11 | 60.57 | 54.40 55.73 | 53.45 | 52.16 | 47.41 | 46.48 |
| 1989 | 79.69 | 85.24 | 60.94 | 56.7356.85 | 54.12 | 53.78 | 47.92 | 47.66 |
|  |  |  |  |  | 55.70 | 54.42 | 49.03 | 48.28 |
| 1990 | 81.00 | 83.02 | 55.77 |  |  |  |  |  |
| 1991 | 83.52 | 79.59 | 56.05 | 56.85 | $55.26$ | 54.83 | 48.77 | 48.61 |
| 1n.a. $=$ | ailable |  | - | 54.46 | 56.29 | 55.11 | 49.63 | 48.75 |



SIructural and Financial Characteristics of U.S. Farms, 1990: 15th Annual Family Farm Report to Congress, introduces a new reporting format that will provide annual data on the major structural and financial characteristics of the farm sector as portrayed by the U.S. Department of Agriculture's Farm Costs and Returns Survey (FCRS). Annual farm structural data are not available from any other national data source. Estimates from the 1990 survey, the base year for the new data series, indicate that about 1.8 million farms operated 1 billion acres of land in the contiguous United States during the year. The average acreage operated was 588 acres per reporting farm and gross farm sales averaged \$63,200.

The variables presented in this report were selected to provide a comprehensive overview of the organization, resource base, and financial situation of the Na tion's farm sector. These variables fall into three basic categories: farm structure, land base and use, and farm financial and economic well-being. Selected data on farm operator households are also included to provide a sense of the importance of farming to operator households.

Farm structure variables measure the number and distribution of farms by several classifications, such as acreage, value of production, form of organization, type of farm, and operator characteristics. The FCRS data provide the following snapshots of the U.S. farm sector:

- Farm size measures show a concentration of farms in the smaller acreage and sales classes. Farms of less than 500 acres account for slightly more than 80 percent of farms surveyed, but slightly less than 20 percent of the farmland, About 60 percent of farms reported gross farm sales of less than $\$ 20,000$ in 1990; these small farms account for only 4 percent of farm sales.
- The individual owner business organization and the full ownership land tenure arrangement make up the largest proportion of farms. Average acreage and average sales data indicate
that farms operated by individuals and full owners were smaller than farms operated under other forms of business organization and tenure arrangements.
- Beef-hog-sheep operations are the most common production specialty, followed by cash grain operations. The two most common farm types operated the largest shares of farmland and, along with dairy operations, produced the bulk of gross farm sales.
- Measured by average acreage operated, operators with less than a high school education and operators primarily employed in occupations other than farming generally had the smallest farms. No significant differences were found in average acreage operated by age group.


## To Order This Report...

The information presented here is excerf ed from Structural and Financial Characteristics of U.S. Farms, 1990: 15th Annual Family Farm Report to Congress, AIB-690, by Judith Z. Kalbacher, Susan E. Bertley, and Donn A. Reimund. The cost is $\$ 12.00$.

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## Scaled-Back Farm Credit System Rebounds From 1980's Farm Crisis

Contact: Bob Collender/Audrae Erickson, 202-219-0893

The U.S. Farm Credit System sustained some of the largest losses, during the 1980's, among institutions lending to agriculture. But it has now regained financial strength because of rebounding land values, wider net interest margine, and a significant decline in nonaccrual loan rates (net interest margins are the difference between interest paid to account holders and interest collected on loans; nonaccrual loans are loans for which payment is uncertain because of lapses in payments or loan security).

The Farm Credit System is an important lender to agriculture, providing over a fourth of total farm debt and a third of farm real estate debt in 1991. The system's recovery to financial health is documented in a series of financial statistics compiled in Farm Credit System Bank and Association Operating Statistics, 1986-91, recently published by the U.S. Department of Agriculture's Economic Research Service. The statistics also reveal differences in financial stress and recovery by geographic area and by type of institution.


Total lending through the Farm Credit Banks and their related associations (excluding the Banks for Cooperatives) dropped from $\$ 50.5$ billion in 1986 to $\$ 40$ billion in 1988 (and stabilized at that level through 1991), while nonaccrual loans shrank as a percent of loans outstanding from 13.9 percent in 1986 to 5.5 percent in 1991. Short and intermediate-term loans made up 26.6 percent of total FCS loans in 1991, up from 20.5 percent in 1986. Short-term or production loans are made for periods up to one year and are generally used to finance a crop or livestock production cycle. Intermediate-term loans have maturities up to 10 years and are used to finance machinery, equipment, some buildings, and breeding stock. The share of long-term farm mortgages, traditionally the mainstay of the FCS portfolio, by contrast, declined from 68.9 percent to 66.7 percent of total FCS loans. The Farm Credit System's rate of return on equity improved from -11.5 percent in 1986 (weighted average for direct-lending associations, that is, those that make loans) to 8.6 percent in 1991 .

## To Order This Report...

The information presented here is excerpted from Farm Credit System Bank and Association Operating Statistics, 1986-91, S8-882, byRobert N. Collender, Audrae Erickson, and Mark A. Adams. The cost is $\$ 12.00$ ( $\$ 15$ for foreign addresses, including Canada).

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