

Banking 1987: A year of reckoning

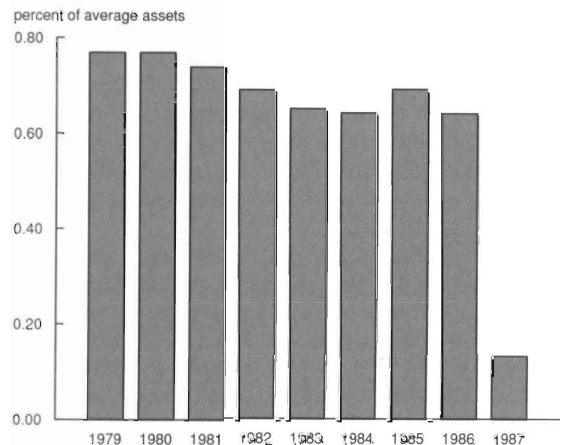
George Gregorash and Theresa Ford

The banking industry garnered more than its share of headlines in 1987. Latin debt provisions by the multinational banks proved by far to be the biggest story, but a host of other issues added drama to an eventful year. Among them were: stresses in the energy-dominated Southwest, the continuing evolution in bank structure (with hostile takeover attempts and growing interstate expansion), and the intensifying debate on expanded banking powers in the face of a volatile stock market. The financial results for the industry were decidedly negative, but the actions taken by bankers and policymakers during the year addressed difficult structural issues that had been building over many years.

Aggregate banking profitability continued a decade-long decline that has been interrupted only in 1985. The U. S. commercial banking industry recorded a return on assets of 0.13 percent in 1987, the lowest rate of return since the Great Depression (see Figure 1).¹ Credit quality was once again the driving force behind earnings performance for all bank size groups. Less Developed Country (LDC) provisioning dominated the earnings picture at large banks. In the smaller bank groups, intensifying difficulties in the Southwest overshadowed improving Midwestern agricultural banking conditions. Bank closings exceeded the record level set in 1986 and remained extraordinarily high by historical standards. The burgeoning growth at banks of off-balance-sheet holdings and a complex array of derivative securities continued unabated.

Given the preponderance of negative financial news reported by banks in 1987, the reaction of shareholders and depositors was reassuringly measured and implied that the year's financial difficulties were already well known and anticipated among the investing public. Though share prices of actively traded bank holding companies generally underperformed overall market indexes, neither the large second and fourth quarter LDC provisions nor the October market break inordinately punished the share values of banking institutions (see Box).

Figure 1
Return on assets—all U.S. commercial banks



Latin trauma

Latin American debt difficulties intensified throughout 1987, beginning with the moratorium on interest payments declared by Brazil and Ecuador in the first quarter of the year. LDC debt holders responded by placing large portions of this debt on nonperforming status. Such difficulties were reflected with a vengeance in bank income accounts in the second quarter when massive loan loss provisioning triggered losses at the larger banks. A second round of provisioning for Latin debt occurred at some money center banks in the fourth quarter.

Even in the absence of Latin debt provisions, large bank earnings in 1987 were at best lackluster. Increased Latin nonperforming assets reduced net interest income. Pressure on net interest margins was further increased through the first three quarters of the year, as increases in benchmark lending rates trailed rising funds costs. The decline in interest rates following the October market break relieved some margin pressure in the fourth quarter but

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for the year as a whole net interest margins at the banks with assets in excess of \$10 billion languished at 2.86 percent of assets, slightly below the 2.91 percent rate registered in the prior two years (see Table 1).

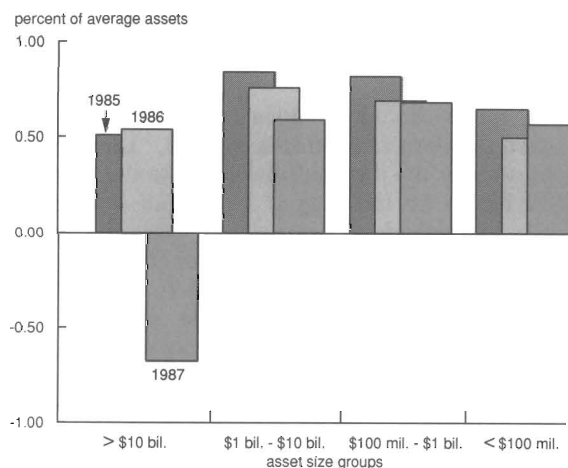
Despite the much publicized cost cutting drives at major banks, aggregate overhead costs at these large banks continued their upward spiral. Overhead costs as a percent of assets rose 20 basis points to 3.10 percent in 1987, paralleling the rise in 1986 over 1985. Cost cutting and overhead reallocation is, however, a longer-term investment and the immediate costs incurred to effect this transition—while expensive in the short run—may well prove ultimately beneficial.

Although margin pressure and overhead growth limited large bank profitability, both considerations were overshadowed in 1987 by credit provisions. Loan loss provisions taken by the banks with assets in excess of \$10 billion totalled slightly over 2 percent of assets in 1987, dwarfing the 0.75 and 0.70 percent provisions of 1986 and 1985. Overall, nearly two-thirds of the nation's banks with assets over \$10 billion recorded net losses for the year. The return on assets in 1987 for the group plummeted to -0.67 percent from 0.54 percent in 1986 (see Figure 2). Because banks of this size hold 37 percent of total U.S. banking assets, the large bank losses heavily weighted the aggregate performance of the industry.

Traders and underwriters

One bright spot in large bank performance was the continuing increase in revenues generated through fees and trading profits. Noninterest income at the banks over \$10 billion in assets rose to 1.77 percent of assets, up 30 basis points from 1986, continuing an upward trend evident throughout the decade. But the growth of this form of income has radically altered the revenue and expense sources

Figure 2
Return on assets—by asset size



at these firms, increasingly diluting traditional financial analysis measures such as net interest margins and returns on assets. Thus, the assessment of risks and risk-adjusted returns at banking firms has become an increasingly difficult task for regulators and securities analysts.

From a performance perspective it is clear that some rethinking is in order. Trading income has grown rapidly, approaching a level equal to the total normalized bottom line profits at large commercial banks. But rates of profitability must be considered in conjunction with the variance of that profitability, and clearly trading profits are more variable than traditional intermediation margins (see Figures 3 and 4). Not only is there a wide variance of profitability in trading among firms but such variance is significant at an individual firm from quarter to quarter.

The growth of revenues and the risk implications associated with trading off-balance-sheet derivatives has not been lost on policymakers. Banking regulators in the major industrialized countries responded to this growing trend by proposing uniform risk-adjusted capital standards in 1987.

The standards recognize some overriding realities in contemporary finance. First, the present system of capital standards based on total asset holdings greatly discourages the holding of low-risk assets at banks. As the direct capital markets have captured an increasing share of high-grade corporate financings, banks have become increasingly noncompet-

Table 1
Income and expenses, as a percent of assets
Banks with over \$10 billion in assets

	1987	1986	1985
Net interest margins	2.86	2.91	2.91
Overhead expense	3.10	2.90	2.70
Loan loss provisions	2.05	0.75	0.70
Noninterest income	1.77	1.48	1.28

Figure 3
Trading income—banks with over \$10 billion in assets

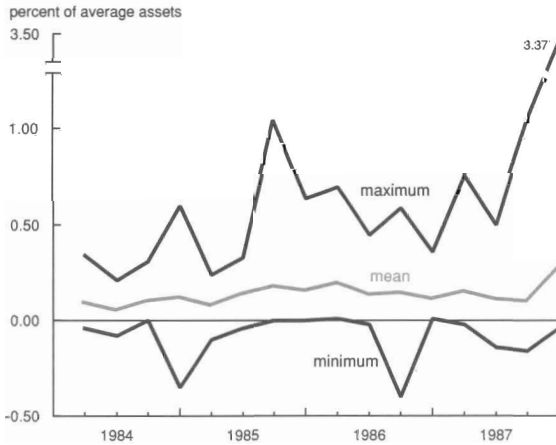
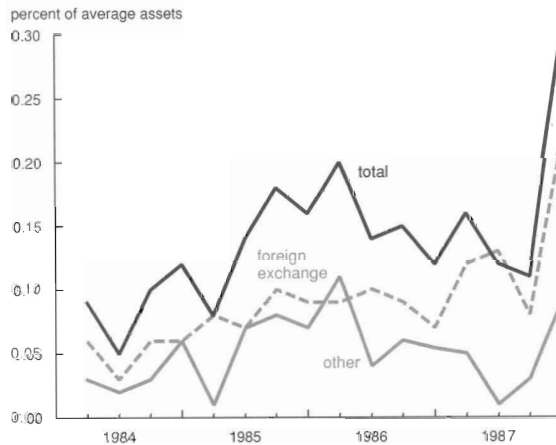


Figure 4
Average trading income—components



itive in providing funds for these low-risk customers. Conversely, the lack of capital accountability on off-balance-sheet financings at banks has not explicitly taken into account the risks of these revenue-generating activities. Finally, increased global competition in financial services requires that harmonization in regulatory standards among major countries be obtained to insure fair competition.

By far the most fundamental recognition of necessary change has come at the legislative level, where Congressional proposals have been made to reshape the configuration of previously separate investment and commercial banking

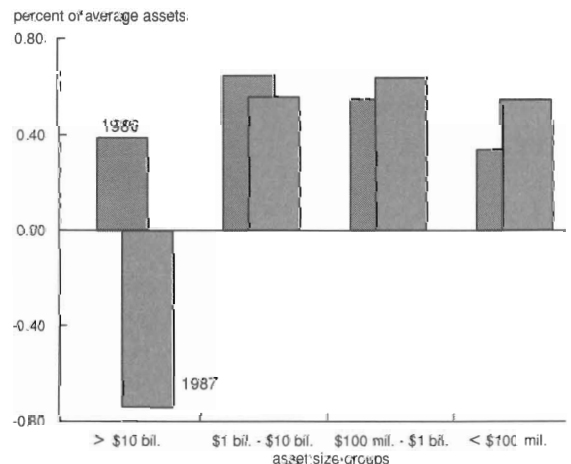
activities. The costs of this separation in terms of forgone synergies and competitive fairness have become increasingly serious in the integrated and technologically advancing financial services field. Although final legislation is certainly not assured, the recognition by legislators of the blurring distinctions between financial service providers is a fundamental element of long-term competitive and safe banking.

Distinction by size

Profitability measures by bank size groups showed that not all banks shared, or shared equally, in the 1987 earnings plunge. In 1986, smaller banks had the most prominent profit declines and the larger banks had more modest declines in profitability. This situation reversed itself in 1987.

Profitability at community banks that have less than \$100 million in assets rose, as measured by a return on assets (ROA) of 0.57 percent in 1987, up from 0.50 percent in 1986. Net ROA (ROA net of securities gains) for these banks increased 20 basis points from 1986 to 0.54 percent (see Figure 5). Securities gains were less prominent in 1987 small-bank earnings. However, in the fourth quarter, these banks, along with most banks, recognized securities losses. For banks with \$100 million to \$1 billion in assets, ROA remained flat at 0.68 percent, but net ROA rose from 0.55 percent in 1986 to 0.62 percent in 1987. Loan pro-

Figure 5
Net return on assets—U.S. by size



vision reductions, most notably in the smaller banks, led to the improved profitability.

Although the levels of securities gains waned in 1987 from the previous two years, use of these gains to augment income for the entire year was still considered high by historical standards. Gains occurred primarily in the beginning of 1987. Securities losses were widespread among sectors and bank size groups under \$10 billion in assets during the fourth quarter. These losses reduced the year-end gains. Banks with over \$10 billion in assets recognized securities gains in the fourth quarter.

In contrast to the gains of the first nine months, the most profitable banks recognized large securities losses in the fourth quarter of 1987, which resulted in securities losses for the year (see Table 2). With the relative rise in interest rates during the year, the remaining appreciation of their securities portfolios was reduced. On the other hand, the least profitable banks recognized slight securities gains in the fourth quarter and throughout the year. However, unlike the most profitable banks, their remaining securities portfolios or "income cushions" depreciated. These banks may be more vulnerable to interest rate rises.

The fourth quarter also registered above-normal growth in loans for the largest banks and an inflow of deposits for all size banks following the stock market plunge. Aggregate deposits grew at an annualized rate of 19 percent during the fourth quarter, while growing only 5 percent for the year. Most of the growth was in transaction deposits which grew at an

annualized rate of 30 percent as opposed to nontransaction deposits which grew at an annualized rate of 14 percent. The Southeast and Midwest regions enjoyed the highest growth rates during the quarter and the year.

Regional variation: The Midwest

Midwestern agricultural banks, supported by the improved farm economy, rebounded in 1987 from the poor performance of past years.² Government price supports, lower operating costs, the lower value of the dollar, recovering land values, and the reduction in the use of marginal farmland contributed to the improvement in the farm economy. Improved earnings, asset quality, and capitalization were recorded in 1987 at agricultural banks. The higher earnings were primarily driven by smaller loan loss provisions.

ROA jumped to 0.66 percent in 1987 from 0.29 percent in 1986 for ag banks in the Midwest, which includes the Federal Reserve Districts of Chicago, St. Louis, Minneapolis, and Kansas City (see Figure 6). Net ROA rose to 0.64 percent from 0.07 percent in 1986 (see Figure 7). For the nine states in the Midwest with over 100 ag banks or where ag banks represent more than 25 percent of total banks, ROA increased 36 basis points on average and net ROA increased 53 basis points on average for ag banks (see Figures 8 and 9). The drop in provisions from 1.46 percent of average assets in 1986 to 0.75 percent in 1987 primarily contributed to the improved ROAs. In addition to the lower provisions, ag banks reduced overhead costs slightly and net charge-offs fell nearly 50 percent from 1986. Overall, the number of ag banks with net losses fell from 504 a year ago to 265 in 1987.

Asset quality measures also improved. The ratio of nonperforming loans to total loans dropped from 5.1 to 3.6 percent in 1987 (see Figure 10). In addition, capital was less encumbered by nonperforming loans in 1987, as shown by the ratio of nonperforming loans to primary capital which declined to 14.9 from 22.1 percent in 1986. Capitalization strengthened at Midwestern ag banks, from 10 percent of total assets in 1986 to 10.3 percent in 1987.

Based on ROA and net ROA, Midwestern ag banks' earnings rebounded in 1987, but their net interest margins fell from 3.94 percent of average assets in 1986 to 3.88 percent. The

Table 2

Securities portfolios appreciation/depreciation
as a percent of average assets.
(unweighted averages by groups)

By decile of net ROA	1986	4Q87	1987
1 (lowest 10%)	0.22	-0.25	-0.30
2	0.38	-0.21	-0.33
3	0.48	-0.21	-0.33
4	0.59	-0.23	-0.28
5	0.69	-0.21	-0.18
6	0.78	-0.15	-0.17
7	0.88	-0.15	-0.13
8	0.97	-0.09	-0.04
9	1.23	-0.01	0.02
10 (highest 10%)	1.66	0.01	0.23

Figure 6
Return on assets
(Districts 7-8-9-10)

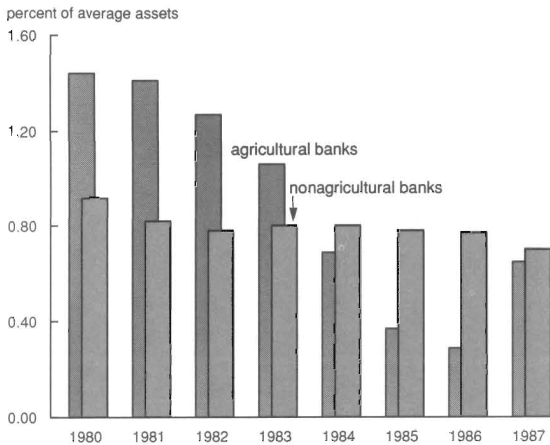
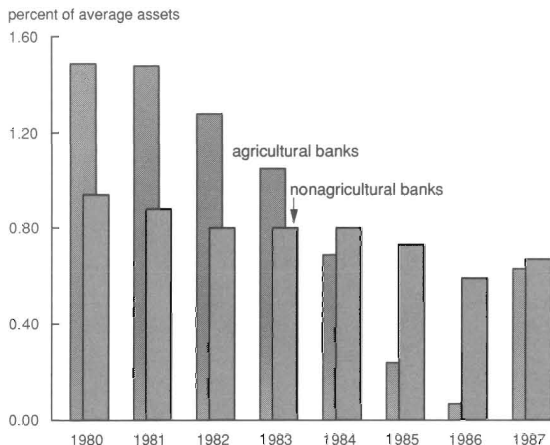


Figure 7
Net return on assets
(Districts 7-8-9-10)



decline in margins was influenced by changing asset portfolios for ag banks. Agricultural banks have been reducing their share of loans in the asset portfolio and increasing their share of securities. These are a less risky, lower yielding form of asset.

In 1980, securities and loans made up 83 percent of total assets for ag banks. There was little change in 1987 with 84 percent of the asset portfolio made up of securities and loans. However, in 1987 securities grew to account for 42 percent of all assets from 30 percent in 1980

Figure 8
Return on assets—ag banks
in top 10 ag bank states

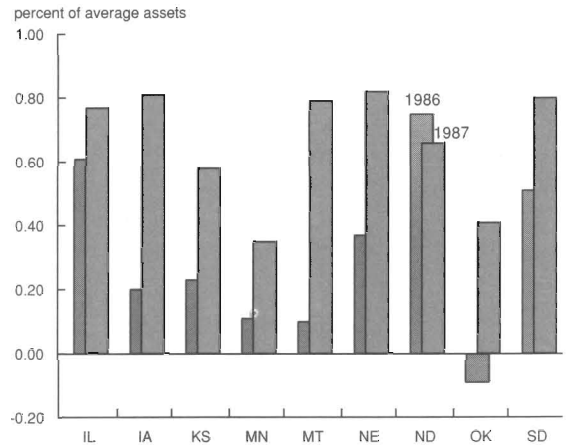
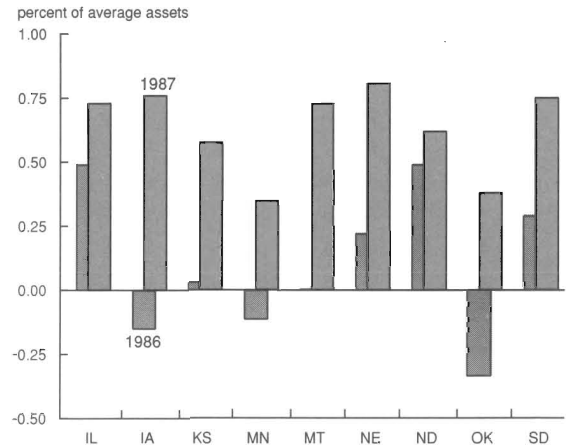


Figure 9
Net return on assets—ag banks
in top 10 ag bank states



(see Figure 11 and Table 3). Loans accounted for 53 percent of total assets in 1980 and fell to 42 percent in 1987. Loan growth in 1987 remained modest at 2.2 percent.

As expected, Midwestern ag banks made seasonal adjustments to their balance sheets during the fourth quarter of 1987. Fourth quarter net charge-offs doubled from the previous quarter but were only half of the fourth quarter a year ago. Similar movements were found with provisions. Securities losses also dampened earnings, in addition to the normal

Figure 10
Nonperforming assets
(Districts 7-8-9-10)

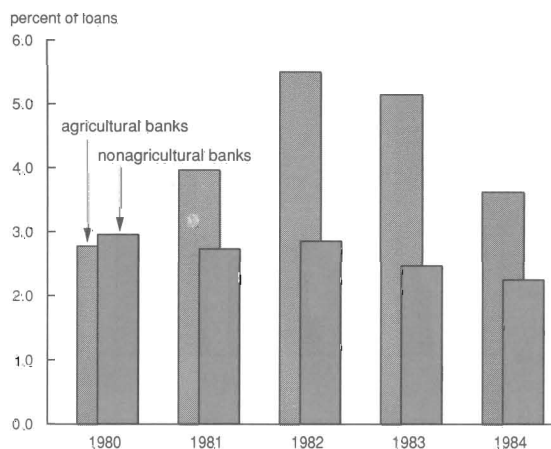


Figure 11
Asset portfolio changes—ag banks
(Districts 7-8-9-10)

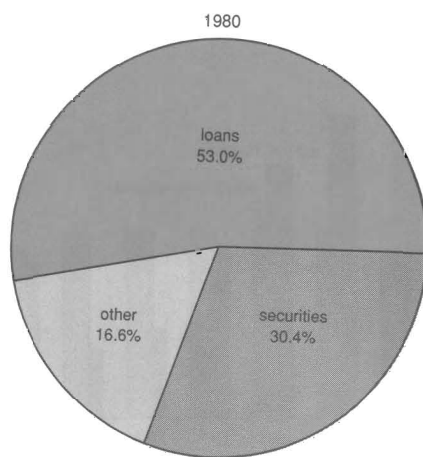
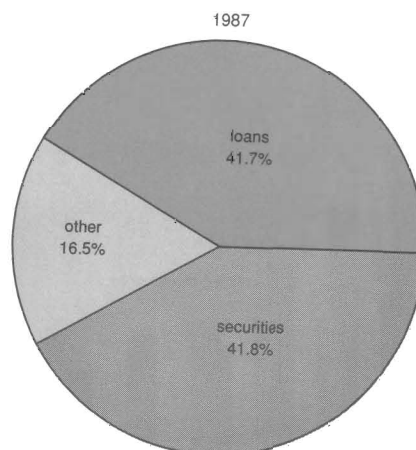


Table 3
Asset portfolio changes
Districts 7, 8, 9, 10 ag banks

	percent of total assets		
	Loans	Securities	Other
1980	52.95	30.40	16.65
1981	50.43	32.18	17.39
1982	50.40	32.91	16.61
1983	50.50	35.03	14.47
1984	48.64	37.68	13.68
1985	46.36	35.29	18.35
1986	41.72	38.81	19.44
1987	41.71	41.77	16.52



seasonal adjustments during the final quarter of 1987.

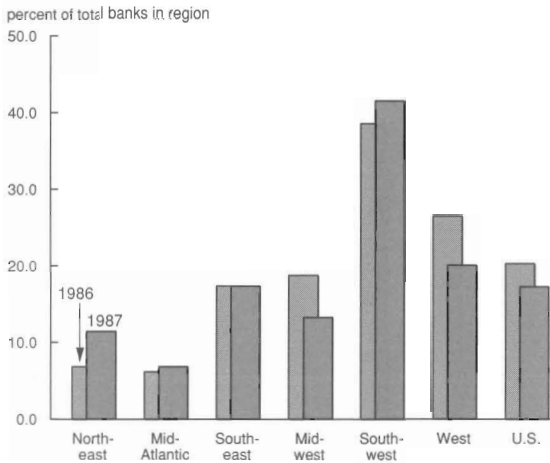
The Southwest

The gains recorded by Midwestern ag banks were more than offset by the losses recorded by banks in the Southwest. Banks in Texas and portions of Louisiana and New Mexico continued to struggle with impaired asset quality, as the energy and real estate sectors remained depressed. Over 40 percent of the region's banks reported net losses in 1987 (see Figure 12). A third of all unprofitable U.S. banks were located in this region, which ac-

counted for 14 percent of all U.S. banks and almost 7 percent of all U.S. bank assets.

Although aggregate loan loss provisions declined for the region, ROA continued to decline to -1.00 percent, down from -0.46 percent in 1986. Negative ROAs were common across bank size groups in the region. Overhead expense also contributed to poor earnings, increasing to 3.16 percent of average assets compared to 2.91 percent a year ago. Although relatively low, noninterest income rose slightly from 0.91 percent of average assets in 1986 to 0.94 percent in 1987. Net interest margins continued to shrink, down from 3.46 percent in 1985, and 3.19 percent in 1986, to 3.11 percent in 1987.

Figure 12
Banks with net losses—by region



Asset quality also deteriorated further for banks in the Southwest. Nonperforming loans equalled 6.6 percent of total loans and nearly 50 percent of primary capital.

In the Southeast and Mid-Atlantic regions, profitability remained high and credit

quality strong, even with the loan loss provisions of the regions' larger banks (see Figures 13 and 14). In the Northeast and West, aggregate performance was dominated by the lower profitability of the larger banks. However, in the Northeast, banks with under \$10 billion in assets reported strong earnings and credit quality. In the West, banks of this size had relatively weak earnings and credit quality, but showed improvement over 1986 performance.

Seventh District in review

Banking performance improved in the Seventh Federal Reserve District, made up of Iowa and portions of Illinois, Indiana, Michigan, and Wisconsin. Excluding the largest banks, District banks reported higher profits for 1987. The disparity in performance between ag and nonag banks narrowed and the number of banks with net losses declined sharply. In Iowa alone, the number of banks with net losses decreased by 63 percent (see Figure 15).

Aggregate ROA for the Seventh District fell slightly from 0.87 percent in 1986 to 0.81

Figure 13
Regions in the U. S.



Figure 14
Return on assets—by region and size

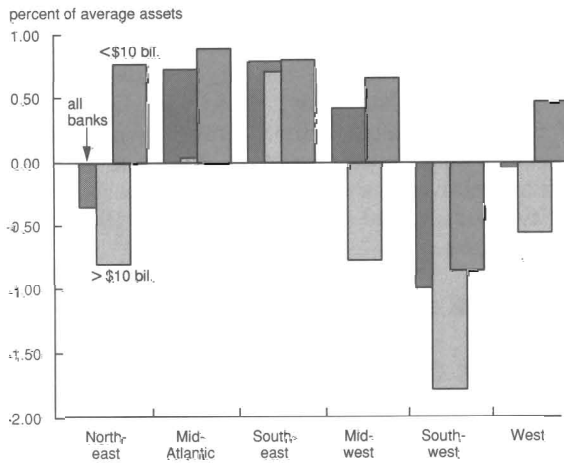
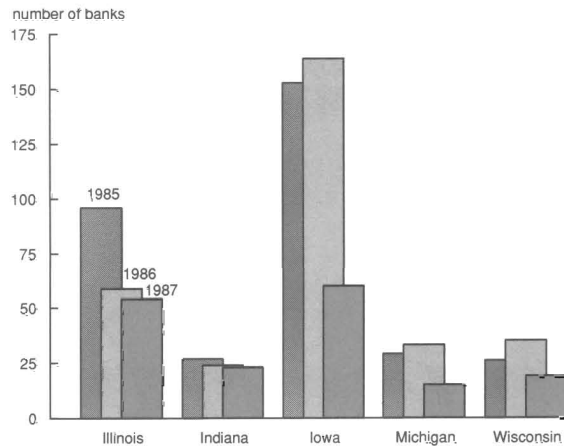


Figure 15
Banks with net losses—Seventh District



percent in 1987, reflecting the higher provision levels of the larger District banks (see Figure 16).³ Net ROA rose from 0.74 to 0.79 percent. The most profitable banks were those with assets between \$100 million and \$1 billion, with an ROA of 1.05 percent. Banks with less than \$100 million in assets showed the most improvement in earnings with an ROA of 0.87 percent as compared to 0.68 percent in 1986.

In addition to earnings, credit quality for the smallest banks was much improved. Nonperforming loans as a percent of total loans

Figure 16
Return on assets—Seventh District

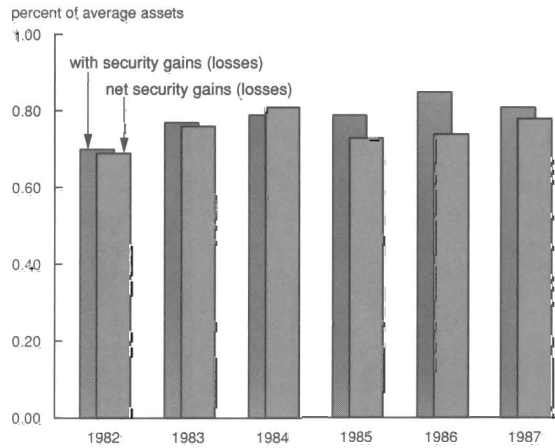
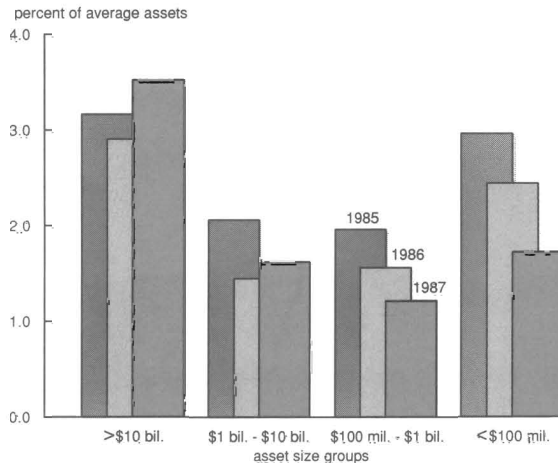


Figure 17
Nonperforming assets by asset size—Seventh District



dropped from 3 percent in 1985 and 2.4 percent in 1986 to 1.7 percent in 1987 (see Figure 17). The sharp decline in net charge-offs, to 0.6 percent of total loans from 1.3 percent in 1986, also demonstrated the improved credit quality of the smaller District banks. In addition, only half of the 1986 level of loan loss provisions were set aside in 1987.

As with the rest of the nation, Seventh District banks relied less on securities gains to boost income. However, the least profitable of the banks in the Seventh District had greater

A market view

In a year marked by tremendous volatility in the stock market, bank stocks had a lackluster year. Continued concerns about the valuation of LDC debt, uncertainty about foreign exchange fluctuations, and the potential effect of the October stock market break on the ongoing debate about expanding bank powers all contributed to a general sense of unease about the future performance of the largest banking firms in the United States.

By using a two-factor capital-asset-pricing model (CAPM), the effects of the changes in the market's perception of the individual firms can be separated from the effects of the changes in the market's perception of the value of the stock market as a whole and of the financial industry (made up of finance, insurance, and real estate) specifically. That is to say, the two-factor CAPM abstracts from the volatility in the stock market in 1987 and statistically evaluates the performance of individual firm share values relative to the market and to the rest of the financial industry.

Technically, the model is as follows:

$$R_i = a + b_1 R_m + b_2 R_f + e$$

where

R_i = daily return on stock of firm 1

R_m = daily return on the S&P 500 (market return)

R_f = daily return on the NY Financial Index

a = constant factor (intercept point)

b_1 = relationship between firm and market returns

b_2 = relationship between firm and industry returns

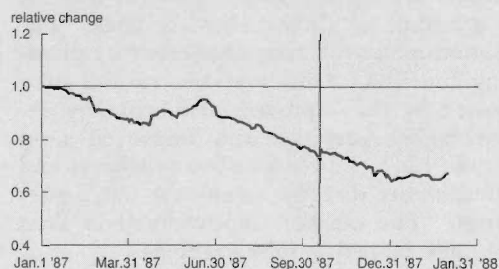
e = error term

This model is estimated using actual firm and market returns for successive six-month periods to determine the a , b_1 , and b_2 parameters. These values are then used to calculate expected values for the firm's returns in each succeeding six month period, by solving for R_i . This calculated R_i is then compared to actual observed R_i to determine the deviation of the actual performance from the expected levels. These deviations are then cumulatively summed over the period and graphed to show firm-specific performance over time.

As the figure below indicates, the average performance of the share values of the largest 12 bank holding companies (BHCs) deteriorated during the year, relative to the market and the industry. A slight improvement in performance during the middle of the second quarter, apparently due to the banks' recognizing the lessened values of LDC debt and taking of large provisions for this debt, was eventually nullified or overwhelmed by the effects of other problems during the year. The market break of October 19th did not have significant persistent effect on the relative performance of these firm's shares.

Within this group of twelve BHCs, there is significant disparity in performance. The banking firms viewed by the

Firm specific stock value changes—
portfolio of 12 largest BHCs



marketplace as being weakest deteriorated further and faster than the average represented in the graph. Those firms with very strong links to the equity markets were much more affected by the events of mid-October, although they seemed to recover much of the lost ground fairly quickly. In addition, those few BHCs viewed as very low-risk firms with high credit standings actually benefited, on a relative basis, from the October experience, possibly as a result of a general flight to quality within the stock market.

It is particularly interesting to note that although the large banking firms' accounting earnings were severely battered by loan loss provisions during the second and fourth quarters, the decline in their shares' relative performance was fairly smooth during the year. The accounting recognition of the losses

on the books of these firms did not seem to cause much of a stir in the market's valuation of these firms, suggesting that the reduced value of LDC assets was already recognized by the investing public. This analysis indicates that the large provisions were viewed primarily as the accounting data merely catching up to what the market already knew.

Although not shown here, the shareholders of large regional BHCs' shares fared much better than those of the largest BHCs. Many large regional BHC shares showed steady relative improvement during the course of 1987. Not surprisingly, the share values of those large regional firms in the oil patch states did not mirror other regional bank trends and declined, even on a relative basis, by the end of the year.

Don Wilson

depreciation of their remaining securities portfolios than the national average and the most profitable District banks had less remaining appreciation in their portfolios than the national average. Thus, in the Seventh District, the remaining investment securities portfolios may be more vulnerable to upward movements in interest rates and the ability to use securities as an income cushion may lessen.

Iowa revived

The improvement in Iowa, where half of the banks are agriculturally oriented, was the most dramatic of all the District states. The large metropolitan banks, unaffected by provisioning for LDC debt, and the rural banks, supported by the improved farm economy, reported higher earnings and improved asset quality in 1987. Lower loan loss provisions and overhead costs directly supported the higher earnings. The marked improvement in asset quality also helped to raise earnings.

ROA more than doubled to 0.85 percent in 1987 from 0.39 percent in 1986 in Iowa. Net ROA jumped 72 basis points to 0.80 percent in 1987. Loan loss provisions, deducted from the income stream, dropped from 1.16

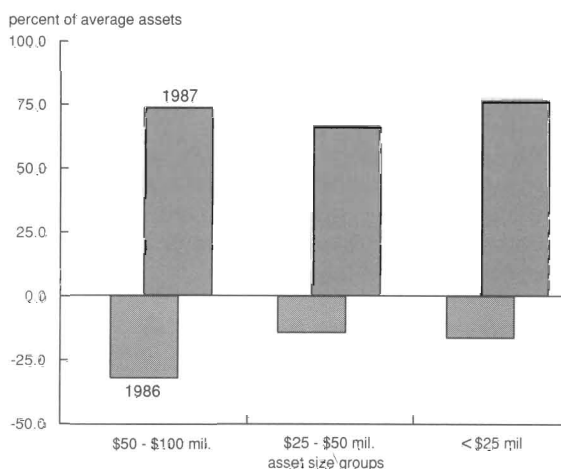
percent of average assets to 0.45 percent in 1987 and overhead costs fell 9 basis points to 2.76 percent of average assets in 1987. Enhanced asset quality also supported the rise in earnings. Nonperforming loans as a percent of total loans declined from 3.45 percent in 1986 to 2.04 percent in 1987.

Iowa banks with under \$100 million in assets had the most notable improvement in performance. These banks make up over 90 percent of the state's banks. Banks of this size registered net losses and poor credit quality in 1986. However, as Figures 18 and 19 illustrate, improvement was widespread among these smaller banks in 1987. Another measure showing the improvement in credit quality was the reduction in net charge-offs. As a result of increases in loan recoveries and decreases in loan charge-offs, net charge-offs fell from 3.31 percent of total loans to 0.95 percent in 1987.

Big District banks have hard year

Unlike in Iowa, some of the largest banks' earnings in the other District states were negatively influenced by additional provisions for LDC debt. ROA for Seventh District banks with over \$1 billion in assets was -0.50 per-

Figure 18
Net return on assets—Iowa
(91.6 percent of Iowa's banks)



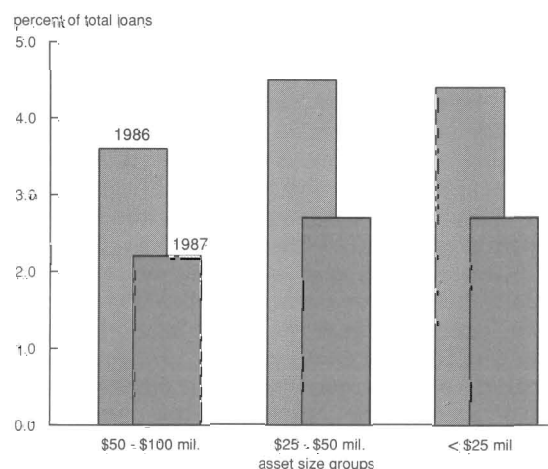
cent in 1987. On the other hand, Seventh District banks with under \$1 billion in assets reported an ROA of 0.97 percent in 1987.

Excluding the largest banks in the District, the improvement in earnings, credit quality, and capitalization was widespread among the states. Agricultural bank performance in the District approached that of its nonagricultural counterparts, and 1987 performance was much improved over 1986.

The bottom line

Credit quality was the driving force behind earnings for all sizes and sectors of U.S. banks in 1987. The multinational banks realized and accounted for their credit problems with high-risk debtor nations. The improvement in credit quality at Midwestern ag banks helped the region's earnings in 1987. On the other hand, the persistent problems with energy and real estate loans primarily contributed to the poor earnings at banks in the Southwest.

Figure 19
Nonperforming loans—Iowa by size
(91.6 percent of Iowa's banks)



The year 1987 will go down as a dismal year in the financial record books. But significant progress was made in addressing fundamental issues whose impact on the banking industry will extend well beyond this year of reckoning.

¹ All data is derived from the Quarterly Reports of Condition and Income filed by all banks with their Supervisory Agency. Ratios are calculated as weighted averages.

² Ag banks are defined as those with ag loans equal to or exceeding 30 percent of total bank loans. Ag loans in this study are loans to farmers and do not include real estate loans secured by farmland.

³ Because Continental Illinois National Bank and Trust Company and First National Bank of Chicago hold 19 percent of Seventh District banking assets, and therefore strongly influence performance measures, their results have been excluded from the data.