Problem Loans Clobber Eleventh District Banks

Profits at Eleventh District commercial banks have suffered dramatically as a result of the recent downturn in the local economy. For all District banks as a group, return on assets dropped from 0.54 percent in 1985 to -0.35 percent in 1986. Hardest hit were the large District banks; their return on assets fell from 0.48 percent in 1985 to -0.66 percent in 1986. Last year's decline in profitability was mainly the result of greater provision for loan losses and a reduction in net interest margin (Table 1). The adverse movements in these accounts, in turn, reflected a sharp and unexpected rise in problem loans.

Loan Loss Provision Soars

Loan charge-off rates and nonperforming loan rates rose markedly in 1986 at the District banks. As a proportion of average loans, charge-offs less recoveries rose from 1.33 percent in 1985 to 1.95 percent in 1986. Moreover, as a proportion of end-of-year loans, nonaccrual loans and loans that were past due 90 days or more and still accruing rose from 3.40 percent in 1985 to 5.34 percent in 1986. These mounting loan difficulties induced the District banks to increase provision for loan losses substantially in order to bolster their loan loss reserves. The magnitude of the increase in the provision for loan losses stemmed from the severity and unanticipated nature of the economic downturn and the related rise in problem loans. For all District banks, provision for loan losses relative to average assets surged from 0.94 percent in 1985 to 1.61 percent in 1986. It increased by the greatest margin at the large District banks, reaching 1.82 percent (Chart 1). At the small banks and medium-size banks, it increased to 1.40 percent and 1.56 percent, respectively.

Net Interest Margin Declines

The mounting loan difficulties also contributed to a reduction in net interest margin—interest income less interest expense relative to average assets. For all District banks, net interest margin fell from 3.25 percent in 1985 to 2.86 percent in 1986. This decline occurred as an increasing proportion of loans ceased accruing interest and risk premiums paid to attract deposits climbed.

According to estimates derived by comparing net interest margin movements at the District banks with those at banks in the rest of the nation, about three-fourths of the decline in net interest margin at the District banks stemmed from the rise in problem loans. Problem loans had the largest estimated effect on net interest margin at the medium-size District banks (Continued on back page)

Growth in Services Adds Stability to Texas Employment

From January 1980 to June this year, the share of total employment in Texas accounted for by private service-producing industries increased from 54.8 percent to 59.7 percent.1 If the shift to service-producing industries is permanent, two effects on the Texas economy should be decreased employment variance and an unemployment rate that, on average, is 1 percentage point lower than if employment shares had remained unchanged.

Service Employment Stable

Employment in service-producing industries generally has lower variance than in goods-producing industries. One reason is that services cannot be stored and, thus, do not suffer from output swings due to unintended inventory accumulations or depletions. Another reason is that the service sector is less unionized, so many shifts in demand can be accommodated more easily by wage adjustments than by employment changes.

The variability of total employment in a region is determined not only by the employment variances of its individual industries but also by their employment covariances. If employment in a given industry is not very responsive to overall movements in the economy and, thus, has a low covariance with employment in other industries and a low variance, then the increased presence of such an industry will lower the overall employment variance of the region. In Texas the variances and covariances of the service-producing industries have generally been lower than those of goods-producing industries (Table 2). (Continued on back page)
Table 1
CHANGES IN RETURN ON ASSETS AT ELEVENTH DISTRICT BANKS

<table>
<thead>
<tr>
<th>Bank size</th>
<th>Percentage-point changes from 1985 to 1986</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Small</td>
</tr>
<tr>
<td>Change in return on assets due to change in each item</td>
<td></td>
</tr>
<tr>
<td>Net interest margin</td>
<td>-.43</td>
</tr>
<tr>
<td>Net noninterest margin*</td>
<td>-.02</td>
</tr>
<tr>
<td>Securities gains or losses</td>
<td>+.10</td>
</tr>
<tr>
<td>Loan loss provision</td>
<td>-.38</td>
</tr>
<tr>
<td>Taxes</td>
<td>+.15</td>
</tr>
<tr>
<td>Change in return on assets</td>
<td>-.57</td>
</tr>
</tbody>
</table>

\* Defined as extraordinary items, net of taxes, plus noninterest income less noninterest expense.

NOTE: Small banks were defined as insured commercial banks having end-of-year assets under $100 million; medium-size banks, as having assets of $100 million or more but less than $1 billion; and large banks, as having assets of $1 billion or more.

Details may not add to totals because of rounding.

SOURCES: Board of Governors, Federal Reserve System.
Federal Reserve Bank of Dallas.

Table 2
STANDARDIZED VARIANCES AND COVARIANCES OF EMPLOYMENT IN TEXAS INDUSTRIES

<table>
<thead>
<tr>
<th>Industry</th>
<th>January 1970-June 1987 Variance</th>
<th>Covariance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
<td>.13</td>
<td>.14</td>
</tr>
<tr>
<td>Retail trade</td>
<td>.39</td>
<td>.58</td>
</tr>
<tr>
<td>Services</td>
<td>.46</td>
<td>.53</td>
</tr>
<tr>
<td>Finance, insurance, and real estate</td>
<td>.64</td>
<td>.42</td>
</tr>
<tr>
<td>Transportation and public utilities</td>
<td>1.46</td>
<td>1.08</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>1.64</td>
<td>1.23</td>
</tr>
<tr>
<td>Construction</td>
<td>3.91</td>
<td>1.63</td>
</tr>
<tr>
<td>Electric and electronic equipment</td>
<td>8.08</td>
<td>1.75</td>
</tr>
<tr>
<td>Oil and gas extraction</td>
<td>36.26</td>
<td>4.24</td>
</tr>
<tr>
<td>Oil field equipment</td>
<td>58.06</td>
<td>5.87</td>
</tr>
</tbody>
</table>

NOTE: Measures are calculated from deviations from trend and are standardized with respect to their means. Numbers are multiplied by 1,000. For further details, see the article cited in text footnote 2.

Federal Reserve Bank of Dallas.

Chart 1
PROVISION FOR LOAN LOSSES IN THE ELEVENTH DISTRICT, BY BANK SIZE

Chart 2
PORTFOLIO VARIANCE OF TEXAS EMPLOYMENT (INDEX, OCTOBER 1978 = 100)

DEPOSITS—LARGE WEEKLY REPORTERS
Eleventh Federal Reserve District

LOANS—LARGE WEEKLY REPORTERS
Eleventh Federal Reserve District

1. Percent change from same quarter in previous year.

SOURCES: Board of Governors, Federal Reserve System.
Federal Reserve Bank of Dallas.

1. Percent change from same quarter in previous year.

SOURCES: Federal Reserve Bank of Dallas.
DISTRICT BRIEFS

The Eleventh District economy is starting to grow very slowly.

- After decreasing every month since January, seasonally adjusted nonagricultural employment in the District rose in July, with gains posted in most major categories. In Texas, total employment declined, however, because of a large decrease in government jobs. Employment in Louisiana increased in July after falling slowly since January, while employment in New Mexico continued to rise gradually.

- District drilling activity continues to climb. The rig count increased sharply in July and held steady through mid-August. Two leading indicators of drilling, well permit applications and the seismic crew count, suggest further gains in the second half of 1987.

- Total construction contracts have increased substantially from the first quarter, but some sectors show weakness. The recent strength has been mainly in non-building construction. Residential contracts have shown a small gain, while nonresidential contracts have remained weak. Although major road projects in Texas may keep non-building construction strong in the coming months, recent declines in both single-family and multifamily housing permits suggest weakness in residential construction.

- Activity is stable or increasing in most manufacturing industries. The lower value of the dollar has stimulated orders in the chemical industry and, more recently, the apparel industry. Orders in the energy-related durable goods industries remain unchanged, while orders for construction-related durables are starting to stabilize at very low levels.

- The District's banks are still adjusting to sluggish economic conditions. There has been virtually no deposit growth at District commercial banks during the past three quarters.

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**UNEMPLOYMENT RATE**

12 PERCENT

(QUARTERLY AVERAGES, SEASONALLY ADJUSTED)

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**HOUSING PERMITS IN TEXAS**

16 THOUSAND

(QUARTERLY AVERAGES, SEASONALLY ADJUSTED)

---

**CONSUMER PRICE INDEX**

8 PERCENT

(SEASONALLY ADJUSTED)

---

**TEXAS INDUSTRIAL PRODUCTION INDEX**

320 (1967 = 100)

(QUARTERLY AVERAGES, SEASONALLY ADJUSTED)

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1. Louisiana, New Mexico, and Texas.

SOURCES: Texas Employment Commission.


Federal Reserve Bank of Dallas.

1. Percent change from same quarter in previous year.


Federal Reserve Bank of Dallas.
Problem Loans (cont.)

(continuing from previous page)

(causing a 0.36-percentage-point drop), followed by the large banks (with a 0.30-percentage-point drop) and then the small banks (with a 0.22-percentage-point drop).

Problem Loans Steer Profitability

Problem loans dominated the District bank profitability picture in 1986. The effect of the rise in problem loans in increasing provision for loan losses and reducing net interest margin accounted for an estimated 79 percent of the forces that decreased return on assets at the large District banks. At the medium-size banks, the effects of problem loans accounted for an estimated 91 percent of the forces decreasing profitability. At the small banks, the effects accounted for an estimated 73 percent of the negative forces.

—Jeffery W. Gunther

Growth (cont.)

Texas Employment Variance Declines

To determine the effect that changing employment shares have had on the overall variation of employment in Texas, a portfolio variance measure was calculated using a weighted sum of individual-industry variances and covariances. The calculations show that the employment portfolio variance increased from 1970 to 1979 but then flattened and started to decline (Chart 2). A lower portfolio variance means that for a given set of economic shocks, the variance of Texas employment will be lower over time.

Much of the decline in the employment portfolio variance was due to a shift in employment shares away from manufacturing and energy extraction industries to service-producing industries. From January 1980 to June 1987, the share of employment in manufacturing and energy extraction declined from 20.8 percent to 17.2 percent.

Implications

Although many factors influence the Texas unemployment rate, a lower employment variance is generally associated with a lower average unemployment rate. Using an econometric model of the Texas economy, it was estimated that, on the basis of the declining employment portfolio variance from 1980 to 1987, the unemployment rate over time should average about 1 percentage point lower than if the state's industrial structure had not changed.2

—Keith R. Phillips

1. Private service-producing industries comprise transportation and public utilities, wholesale and retail trade, services, and finance, insurance, and real estate.