

A REVIEW OF BANK PERFORMANCE IN THE FIFTH DISTRICT, 1982

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Fifth District Profile

The banking industry in the Fifth Federal Reserve District is characterized by both a moderate concentration of assets and a large number of small banks, reflections of the regional and local dimensions of banking in the District. At year-end 1982, there were 670 commercial banks in the District with total assets of approximately \$108 billion, or 5 percent of nationwide banking assets. The largest 32 banks, 24 of which held assets of a billion dollars or more, accounted for 66 percent of Fifth District assets. By contrast, the 558 small banks, with average assets of less than \$100 million, collectively held 18 percent of the banking assets in the District. Summary data on the size distribution of Fifth District banks are presented in table I.

Table I

SIZE DISTRIBUTION OF FIFTH DISTRICT COMMERCIAL BANKS AT YEAR-END 1982

Average Assets ¹ (\$ millions)	Number of Banks	Percent of Average Assets
Less than 10	65	1
10-25	170	3
25-50	197	6
50-100	126	8
100-750	80	16
Over 750	32	66
Total	670	100

¹ Average assets are based on fully consolidated volumes outstanding at the beginning and at the end of the year.

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Table II summarizes the major components of income and expense relative to average assets for all commercial banks in the Fifth District for the years 1979 through 1982. The aggregate profitability of Fifth District banks increased marginally in 1982, after declining in both 1980 and 1981. Dollar profits rose more than 12 percent, and the .87 percent earned on average assets was a slight improvement over the .86 percent return for 1981. However, the rate of return on average equity capital increased 56 basis points, or 56/100 of 1 percent, to 13.12 percent, as asset growth exceeded equity growth for the second consecutive year.

In spite of a strong gain of 7 basis points in net interest margins, the pre-tax return on assets increased only 1 basis point from a year earlier. Rapid increases in net noninterest expenses and loan loss provisions contributed equally in offsetting most of the improvement in net interest margins. Cash dividends grew faster than assets, while the ratio of retained earnings to average assets declined 3 basis points. The rate of retained earnings and the rate of internal equity growth also declined. The 11.5 percent growth in assets was a 142 basis point increase over the comparable 1981 figure.

Interest Revenue

Gross interest revenue as a percent of average assets declined in 1982, after strong gains in both 1980 and 1981. This reduction in gross interest ratios was due primarily to falling market yields during the third and fourth quarters. As a consequence of the pattern of interest rate movements over the year, the ability to generate interest revenue was influenced by the composition of asset portfolios as well as the timing of asset acquisitions. In contrast with the previous two years, when strong gains in interest revenue were associated with a portfolio mix characterized by high yield sensitivity, banks with higher proportions of long-term and fixed-rate assets in their portfolios were likely to experience higher gross interest revenue relative to average assets.

Table II

**INCOME AND EXPENSE AS A PERCENT OF AVERAGE ASSETS
FIFTH DISTRICT COMMERCIAL BANKS, 1979-1982**

Item	1979	1980	1981	1982
Gross interest revenue	8.49	9.46	11.15	10.86
Gross interest expense	4.53	5.60	7.29	6.93
Net interest margin	3.96	3.86	3.86	3.93
Noninterest income	.80	.90	1.01	1.03
Loan loss provision	.26	.26	.25	.28
Other noninterest expense	3.24	3.37	3.48	3.53
Income before tax	1.26	1.13	1.14	1.15
Taxes	.28	.20	.19	.18
Other ²	-.04	-.04	-.09	-.10
Net income	.94	.89	.86	.87
Cash dividends declared	.30	.32	.33	.37
Net retained earnings	.64	.57	.53	.50
Average assets (\$ millions)	80,671	88,280	97,217	108,439

¹ See footnote 1, table I.

² Includes securities and extraordinary gains or losses after taxes.

Assets acquired in the first half of the year contributed more revenue per dollar invested than did assets acquired in the third and fourth quarters.

Gross interest ratios declined an average of 60 basis points at the large banks, where bank loans and other assets with yields that are sensitive to movements in market interest rates dominate portfolios (see chart 1). However, not all banks were so vulnerable to the change in market conditions, and revenue gains were reported for other bank size categories. Gross interest ratios improved 50 basis points for the small bank group which benefited from average yields that typically adjust more slowly to changes in market conditions.

As demonstrated in table III, the timing of asset acquisitions and the composition of asset portfolios were important determinants of gross interest ratios for Fifth District banks in 1982. Banks with increased gross interest ratios typically had a relatively higher rate of asset growth in the first half of the year when market rates were high, and a slower rate of growth over the second half of the year when market rates declined. These banks also benefited from a large inventory of high yielding long-term and fixed-rate assets, and enhanced their ability to maintain high average yields by acquiring a larger proportion of long-term and fixed-rate assets in the

first and second quarters of 1982 than their counterparts with declining or unchanged gross, interest ratios.

As indicated in table IV, which presents aggregate data on average yields of selected interest-earning assets, the average return on interest-earning assets declined 50 basis points in 1982. Net loan yields

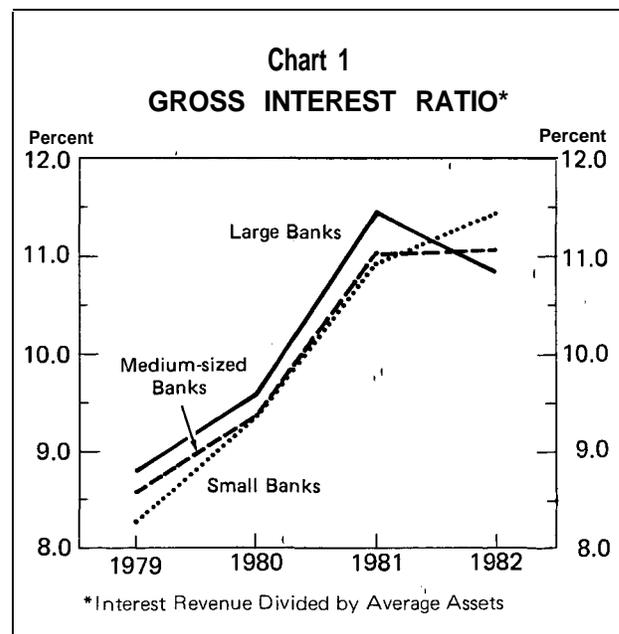


Table III

**CHANGES IN GROSS INTEREST INCOME RATIOS IN RELATION TO ASSET COMPOSITION AND
ASSET GROWTH FOR SELECTED¹FIFTH DISTRICT COMMERCIAL BANKS IN 1982**

Average Assets (\$ millions)	Number of Banks	Percent of Rate-Insensitive Assets ²	Asset Growth		Percent Change in Interest Income Ratio
			Q1Q2	Q3Q4	
Less than 100					
Increased ratio	418	73	5.2	4.6	6.5
Others	120	64	5.6	8.7	- 7.4
100 to 750					
Increased ratio	49	69	4.8	5.1	5.3
Others	31	61	1.7	8.0	- 4.5
750 and over					
Increased ratio	10	66	8.9	6.7	3.9
Others	22	58	1.6	13.6	- 7.5
All Banks					
Increased ratio	477	69	6.6	5.6	5.2
Others	173	59	1.8	12.7	- 7.0

¹Does not include de novo entrants and merged banks.

²Rate-insensitive assets include all assets except the following: Balances with depository institutions, federal funds sold and securities purchased under agreements to resell, U.S. and state and local securities with one year or less remaining maturity, loans to financial institutions, loans for purchasing or carrying securities, commercial and industrial loans.

declined 34 basis points in the aggregate. This aggregate figure, however, obscures the markedly different experience of large and small banks. Specifically, average net loan yields deteriorated quite rapidly at the large banks, but increased at small banks. One reason for the improvement in loan yields at small banks is that they were better positioned to protect the high average yields of the first two quarters with a relatively large share of fixed-rate and long-term loans. The typical small bank in the Fifth District holds over 75 percent of its loan portfolios in consumer and real estate loans.

The return from securities for all Fifth District banks increased 70 basis points in 1982. The timing of purchases during the year was also an important determinant of average yields on securities. With market rates relatively high and fluctuating over the first two quarters, average yields could be improved by rolling over maturing instruments or by expanding security holdings at yields that were above the average yield on the existing portfolio. With market rates declining steadily throughout the third and fourth quarters, however, the opportunity for increasing average yields declined accordingly.

Table IV

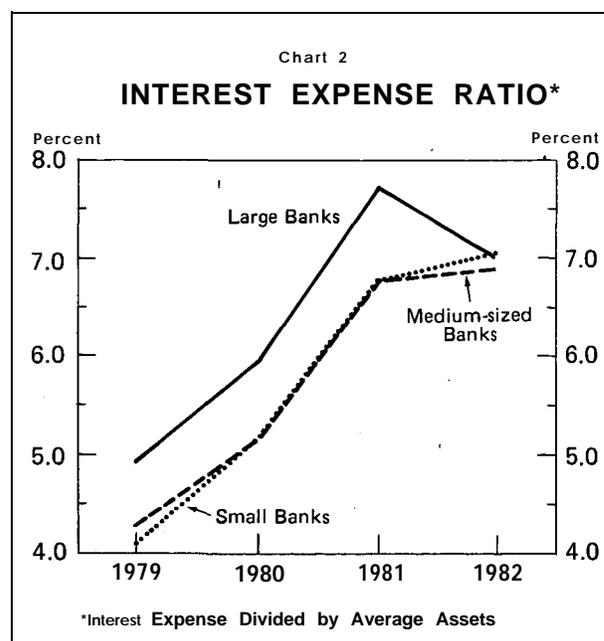
**AVERAGE RATES OF RETURN ON SELECTED INTEREST-EARNING ASSETS
FIFTH DISTRICT COMMERCIAL BANKS, 1979-1982**

Item	1979	1980	1981	1982
Gross loans	11.25	12.50	14.48	14.14
Net loans	11.37	12.63	14.64	14.30
Total securities	6.43	7.15	8.57	9.27
U. S. Government	8.14	9.16	11.22	11.79
State and local	5.17	5.56	6.11	6.68
Other	2.88	3.25	4.20	5.82
Total interest-earning assets	10.09	11.28	13.18	12.68

Interest Expense

After increasing in both 1980 and 1981, interest expense as a percent of average assets declined 36 basis points in 1982. This reduction in interest expense ratios reflected the downward movement of market rates over the second half of the year which lowered the average cost of short-term interest-bearing liabilities as much as 433 basis points (see table V). For example, the effective interest paid for large time certificates of deposit (CDs) was 230 basis points lower in 1982 than in 1981. On the other hand, the average cost of liabilities with relatively long maturities and fixed interest rates, such as subordinated notes and debentures, did not adjust as rapidly to the change in market conditions, and consequently increased slightly. As a result, banks with large shares of rate-sensitive liabilities were most successful in reducing the cost of funds. Interest expense as a percent of assets declined at 78 percent of the banks with over \$750 million in assets, and decreased 71 basis points for that group as a whole (see chart 2). On the other hand, interest expense ratios increased 29 basis points for the small bank group.

Banks in all size categories reported an erosion of traditional demand deposits. These deposits declined 4 percent as a share of liabilities and funded only 21 percent of assets in 1982. As demonstrated in chart 3, demand deposits as a proportion of total Fifth

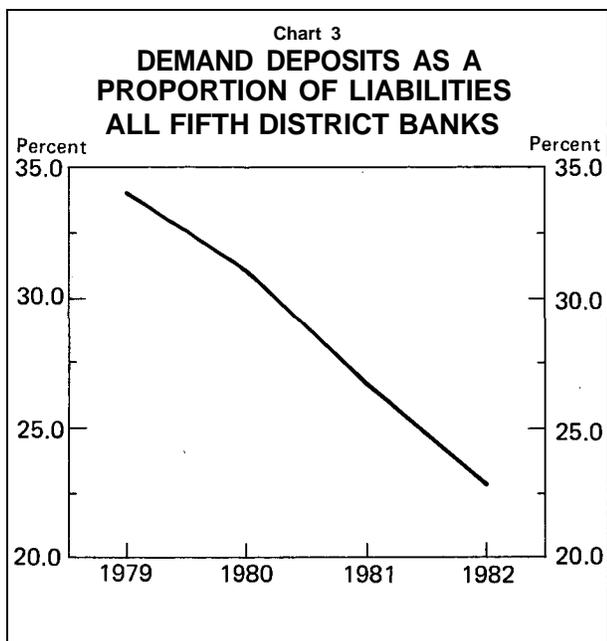


District liabilities have fallen from over 33 percent to less than 23 percent since 1979. Motivating the shift from demand deposits was the ready availability of interest-bearing alternatives, such as negotiable orders of withdrawal (NOW), automatic transfer service (ATS) and cash management accounts, all of which enabled depositors to economize on non-interest-bearing demand deposits and earn a return on transactions balances.

Table V

AVERAGE COST OF FUNDS FOR SELECTED LIABILITIES FIFTH DISTRICT COMMERCIAL BANKS, 1979-1982

Item	1979	1980	1981	1982
Time and savings accounts	7.15	8.68	10.63	9.91
Large time deposits	9.96	11.33	14.35	12.05
Deposits in foreign offices	10.28	13.17	15.18	12.79
Other deposits	6.16	7.54	9.23	9.12
Subordinated notes and debentures	8.19	8.20	8.11	8.34
Federal funds and repurchase agreements	11.94	13.34	15.54	11.21
Other	6.98	8.65	13.49	11.29
Total	7.60	9.13	11.23	10.10



The share of total liabilities with below-market, fixed-rate ceilings also declined again in 1982, continuing the trend of recent years. As a group, banks with assets of less than \$750 million funded less than half of their total assets with ceiling rate deposits in 1982. However, many of these banks continued to utilize a relatively large share of liabilities with costs that do not adjust rapidly to changes in market conditions and, therefore, did not benefit from declining market rates in the second half of the year. In addition, since market yields exceeded interest ceilings on regulated accounts, many of these banks increased the average cost of funds by restructuring liabilities with more market-rate deposits and fewer ceiling rate deposits. Consequently, interest expense grew more rapidly than assets at 78 percent of small- and medium-sized banks.

Net Interest Margins

The average net interest margin, interest income net of interest expense divided by average assets, rose 7 basis points in 1982. Small banks reported the most rapid expansion in net interest margins, while margins also improved for large banks as a group. The timing of asset growth and the composition of assets and liabilities were important determinants of net interest margins in 1982.

Margins at the large banks rose an average of 11

basis points (see chart 4), although nearly half of these banks reported either a decrease or no change in net interest margins from 1981. Because large lenders rely heavily on rate-sensitive assets and liabilities, and accumulated a larger proportion of assets in the second half of the year, they realized substantial reductions in both the average cost of liabilities and the average yield on portfolios. Large banks with increased margins managed to prevent revenues from falling as fast as expenses.

Over 60 percent of small banks reported expanded net interest margins in 1982, and the average margin for banks in this size category rose 21 basis points. In contrast to the large banks, which improved their margins by preventing revenues from falling as fast as expenses, small banks improved interest margins because interest income grew more rapidly than interest expense. Asset growth at small banks was fairly evenly distributed over the year.

Within a given bank size category, the two balance sheet characteristics that were likely to distinguish banks with improved margins from banks with unchanged or depressed margins were (1) the relative proportions of rate-sensitive assets and liabilities, and (2) the timing of asset growth within the year. As table VI demonstrates, banks with improved margins typically had larger shares of rate-insensitive assets and rate-sensitive liabilities and, consequently, were able to benefit from the declines in market yields over

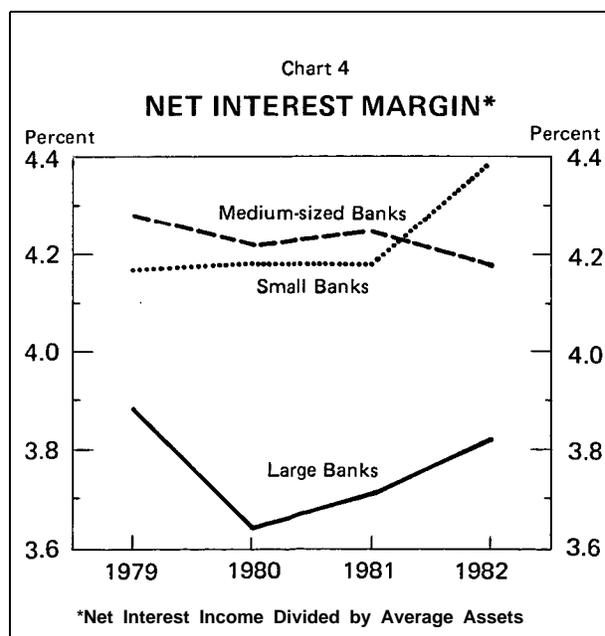


Table VI

**CHANGES IN NET INTEREST MARGINS IN RELATION TO ASSET AND LIABILITY COMPOSITION
AND GROWTH RATES FOR SELECTED¹FIFTH DISTRICT COMMERCIAL BANKS IN 1982**

Total Assets (\$ millions)	Number of Banks	Percent of Rate-Insensitive Assets ²	Percent of Rate-Sensitive Liabilities ³	Asset Growth		Percent Change in Net Margin
				Q1Q2	Q3Q4	
Less than 100						
increased margin	337	73.63	30.77	5.2	4.6	11.6
Others	201	67.64	28.00	5.5	6.8	- 7.8
100 to 750						
Increased margin	53	68.13	31.74	3.7	3.7	11.5
Others	27	60.47	34.90	2.7	11.5	- 7.4
750 and over						
Increased margin	17	60.76	42.82	4.1	10.6	7.1
Others	15	59.01	38.80	1.5	14.5	- 8.6
All banks						
Increased margin	407	64.10	39.09	4.2	8.5	8.6
Others	243	60.52	36.61	2.3	12.8	- 8.4

¹See footnote 1, table III.

²See footnote 2, table III.

³Rate-sensitive liabilities include large time deposits, deposits in foreign offices, federal funds purchased, RPs, MMCs, interest-bearing demand notes issued to the U. S. Treasury and other liabilities for borrowed money.

the year. Banks with increased net margins also tended to grow relatively faster in the first half of the year. Strong first half growth was especially profitable if high average asset yields were locked in but the average cost of funds adjusted rapidly to the decline in market rates.

Noninterest Revenue and Expenses

The ratio of provisions for loan loss to average assets expanded and accounted for a deterioration of 3 basis points in aggregate profitability. The increase in loan loss provisions as a percent of average assets was slightly larger for banks with over \$100 million in assets.

Actual loan losses net of recoveries increased 1 basis point relative to average assets in 1982. The dollar amount of cash recoveries actually decreased by approximately half a percent, while loan charge-offs rose 15 percent.

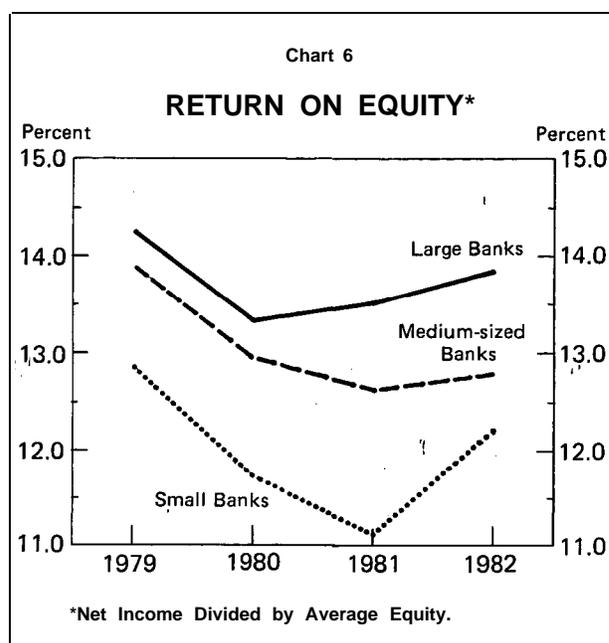
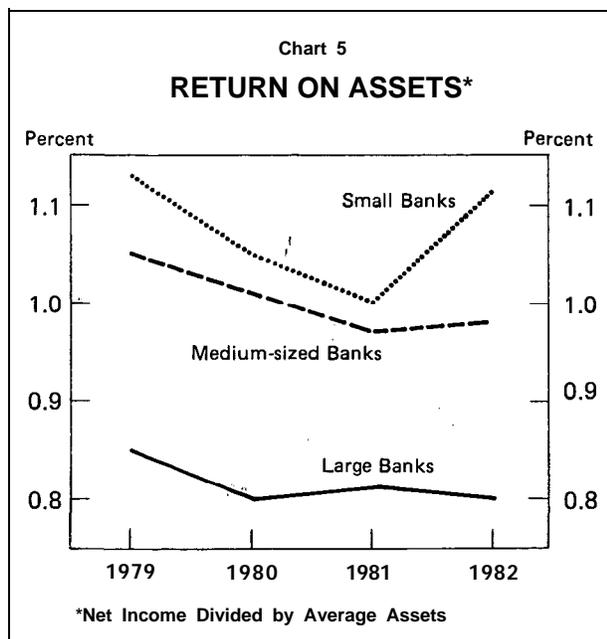
Increases in noninterest revenue and noninterest expense again outpaced asset growth as they have in recent years. The expansion of noninterest expenses was 3 times the gain in noninterest revenue, and net

noninterest expense reduced the return on assets by 3 basis points. Wages and salaries expanded in excess of 11 percent throughout the District but did not affect aggregate expense ratios significantly. Operating costs such as occupancy expenses accelerated even more rapidly than employee expenses, and raised noninterest expense ratios by an average of 8 basis points.

Income from fiduciary activities increased at about the same rate as assets. Service charges on deposits as a fraction of average assets rose 3 basis points, as many banks throughout the District increased their revenue from the explicit pricing of services associated with interest-bearing transactions accounts. The largest banks accounted for a disproportionate share of the gains from service charges and lease financing.

Profits and Dividends

The average return for all Fifth District banks in 1982 rose 1 basis point to .87 percent of assets. A marginal decline in returns for the largest banks was offset by improved profitability at banks in other size categories (see chart 5). For example, the small



banks reported a sizeable gain of 11 basis points in the ratio of net income to average assets. The average return on equity rose more rapidly than the return on assets (chart 6) due to an increase in leverage.

Cash dividends declared on preferred and common stock grew faster than assets, while retained earnings as a fraction of Fifth District assets declined to .5 percent. At large banks, net profits were divided about equally between dividends and retained earnings, as the dividend payout ratio—the ratio of dividends to net income—increased to 49 percent in 1982 from 40 percent in 1981. Consequently, retained earnings scaled to average assets were lower in 1982 than in 1981, and the rate of retained earnings declined to 51 percent of large bank income. With strong increases in net profit rates, the average small bank was able to increase dividends and raise retained earnings to .77 percent of assets and 75 percent of net income.

The increase in equity capital in 1982 was smaller than in 1981, and the 8 percent growth rate of capital failed to keep pace with asset growth. Consequently, the aggregate leverage ratio, defined as average assets divided by average equity, increased by 50 basis points. Increases in leverage were most pronounced at large banks. However, as a group, small banks were able to improve return, on equity and reduce

leverage because of a relatively strong return on assets. Table VII demonstrates the relationship between the return on assets, leverage, and the return on equity for all Fifth District banks for the period 1979-1982.

Retained earnings contributed 82 percent of the increase in equity capital in 1982, compared with 74 percent in 1981 (table VIII). However, as demonstrated in table IX, the rate of internal equity growth declined 21 basis points in 1982 due to the sharp decline in the rate of retained earnings. Since 1979, the aggregate rate of internal equity growth has declined by an average of 58 basis points per year, while the rate of asset growth has increased each

Table VII
RATES OF RETURN AND LEVERAGE FOR
FIFTH DISTRICT COMMERCIAL BANKS¹

Year	Return on Assets		Assets/Equity	=	Return on Equity
1979	.94	x	14.37	=	13.51
1980	.89	x	14.35	=	12.79
1981	.86	x	14.56	=	12.56
1982	.87	x	15.06	=	13.12

¹The return is net income; assets and equity are averages. Discrepancies in calculations are due to rounding error.

Table VIII

**RATE OF RETAINED EARNINGS AND SOURCES OF TOTAL EQUITY CAPITAL
FOR FIFTH DISTRICT COMMERCIAL BANKS**

Year	(1) Net Income (\$000)	(2) Net Retained Earnings (\$000)	(3) Rate of Retained Earnings ¹	(4) Increase in Equity Capital (\$000)	(5) Increase in Equity Capital from Retained Earnings ²
1979	758,804	517,398	.6819	757,411	.6831
1980	788,145	505,872	.6418	573,805	.8814
1981	840,834	514,278	.6116	694,273	.7408
1982	944,785	538,068	.5695	655,340	.8210

¹The rate of retained earnings is calculated by dividing column (2) by column (1).

²The increase in equity capital from retained earnings is calculated by dividing column (2) by column (4).

year and has exceeded internal equity growth by an average of 258 basis points per year. This disparity in growth rates is the primary cause of the 69 basis point increase in the aggregate leverage ratio that has occurred in the Fifth District since 1979.

Summary and Conclusions

In 1982 the profitability of commercial banks in the Fifth District improved slightly following reductions in 1980 and 1981. The rate of return on assets rose from .86 to .87 percent and the rate of return on equity rose from 12.56 to 13.12 percent. Because of the sharp decrease in market yields, the positioning of assets and liabilities and the timing of growth were important determinants of profitability. As a group, only small banks reported increased rates

of return on assets and equity as well as reduced leverage ratios. On a district-wide basis, leverage increased while the rate of retained earnings and the rate of internal equity growth declined.

Banks that held relatively more liabilities than assets carrying interest rates that are highly responsive to changes in market conditions tended to benefit from the decline in market yields. However, if the pattern of interest rate movements in 1982 had been the opposite—that is, had market yields moved up in the second half of the year—banks with this interest-sensitive asset-liability mix would have been vulnerable to rapidly rising interest expenses and more likely to experience decreased net margins and profitability. It should also be noted that the money market deposit account (MMDA), which was introduced in December of 1982, has increased the sensi-

Table IX

**INTERNAL EQUITY GROWTH RELATIVE TO ASSET GROWTH
FOR FIFTH DISTRICT COMMERCIAL BANKS**

Year	Return on Equity ¹		Rate of Retained Earnings ²	=	Internal Equity Growth	Asset Growth
1979	13.51	x	.6819	=	9.21	5.19
1980	12.79	X	.6418	=	8.20	9.43
1981	12.56	X	.6116	=	7.68	10.12
1982	13.12	X	.5695	=	7.47	11.54

¹See footnote 1, table VII.

²As defined in column (3) of table VIII, the rate of retained earnings is the ratio of net retained earnings to net income.

tivity of the commercial bank cost structure to changes in market rates. As a result, commercial bank performance in 1983 and in the future will be more responsive to changing market conditions and more vulnerable to rising market yields. For example, should market rates rise and remain at high levels due to a resurgence of inflation, then the repercussions for Fifth District banks could be severe.

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WHY ECONOMIC DATA SHOULD BE HANDLED WITH CARE: THE CASE OF THE SUSPICIOUSLY SLOW GROWTH STATISTIC

Roy H. Webb

Economic statistics should be used with caution. That admonition is not new, as economists have often warned of errors of observation, conceptual ambiguities, and spurious accuracy embedded in economic data (for example, see Morgenstern [1963]). Moreover, official spokesmen routinely warn of probable errors when releasing new figures. Despite that advice, however, many users of economic data still uncritically accept the seemingly straightforward statistics. The preliminary estimates of gross national product (GNP) and related items for the first quarter of 1983 are a case in point. The purpose of this note is to show that the interpretation of the first quarter statistics can be dramatically changed upon close inspection, and thereby illustrate the general need for caution in interpreting economic statistics.

Preliminary estimates indicated that real GNP grew at a 3.1 percent rate during the first quarter.¹ That relatively slow rate of growth was believed by many observers to be a highly significant indicator of the modest pace of near-term economic expansion. For example, Robert Gough, the director of national forecasting for Data Resources Inc. (a major economic consulting service) asserted, “[The GNP report] reaffirms initial forecasts that the recovery will be modest by historic standards. If this were a typical recovery, you would have a heck of a lot more growth than we’re seeing.” [1983]

If taken at face value, 3.1 percent real growth would indeed be quite modest. However, there are solid reasons for believing that the economy was stronger than the preliminary report indicated. This can most easily be seen by first looking at statistics that are produced in conjunction with the GNP figure and noting that the GNP implicit price deflator

was reported to have grown at a 5.8 percent rate. However, other estimates of inflation were extremely low. The consumer price index, for example, rose at a sluggish 0.4 percent annual rate in the first quarter, and the producer price index for finished goods actually declined at a 3.9 percent annual rate. Thus one’s suspicions should have immediately been aroused by the relatively high inflation estimate contained in the income and product accounts.

The estimate of the deflator, moreover, is critical to the estimate of real GNP. That is, if any factor caused the deflator to temporarily overstate the rate of inflation, then that same factor might well cause the reported growth rate of real GNP to temporarily deviate from the underlying growth trend of real economic activity. To see this, note that the Commerce Department receives estimates of spending in current dollars. In order to estimate real GNP, the Department’s analysts adjust the current dollar figure for inflation by dividing it by the implicit price deflator. Consequently, the real GNP estimate depends on the estimated price index used in its construction.

At times, the GNP deflator diverges from many other price measures due to the fact that the deflator is affected by changes in quantities produced, whereas other indexes represent prices of fixed quantities of items.² More specifically, when (1) there is a sub-

²An implicit price deflator is simply the ratio of current period quantities valued at current prices to those same quantities valued at base period prices. In symbols,

$$IPD_t = \frac{\sum p_t^i q_t^i}{\sum p_{72}^i q_t^i}$$

where IPD is the implicit price deflator, p is the price of a single item, q is the quantity of a single item, the subscript t indexes a time period, 1972 is the base year, and the superscript i indexes all items in the aggregate to be deflated. Thus the deflator can be changed by a change in the pattern of output, that is to say, different q 's in the formula above.

¹All references to the first quarter income and product accounts refer to “preliminary” estimates released in April. Although the statistics are routinely revised, the conceptual difficulties identified in this article are beyond the scope of routine revision.

stantial change in the quantity of an item that is produced, and (2) the price of that particular item has changed either much more or much less than average, (relative to 1972, the base period for the index) then the GNP deflator will behave in a different manner than the GNP fixed-weight price index. And during the first quarter, two factors caused much of the divergence between the GNP implicit price deflator and other estimates of inflation. For one, the volume of federal purchases of agricultural products surged during the fourth quarter of 1982 and then fell back to a more normal level in the first quarter of 1983. Since the particular items purchased had relatively low prices, the net effect was a relatively low level of the deflator for the fourth quarter. A second factor was a significant decline in relatively high priced imports of petroleum products. Because imports are subtracted from domestic product in order to calculate GNP, the decline tended to boost the deflator in the first quarter. Combined with the depressed level of the deflator in the fourth quarter, the final result was a relatively high growth rate for the deflator.

Neither of those two effects represents inflation in the usual sense of a substantial, widespread, and sustained increase in prices. In addition, neither indicates a sluggish rate of growth of real economic activity. But each does have a substantial impact on reported numbers. Thus the GNP fixed-weight price

index, a measure not affected by changes in the composition of output, rose at a 3.2 percent rate. Had that index been used to convert nominal to real GNP, then real growth in the first quarter would have been placed at 5.7 percent, rather than the reported 3.1 percent. (The higher figure seems to be consistent with monthly indicators that grew at a rapid pace, such as housing starts and industrial production.)

One should not conclude that GNP estimates are more unreliable than other economic figures. On the contrary, GNP and related statistics are probably our best single source of economic data. The point is simply that even the best data can be misleading, especially when considering changes over intervals as short as one quarter. Therefore one should not place too much emphasis on short-term movements of economic data without carefully searching for hidden anomalies.

References

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