In Focus This Quarter

◆ Falling Prices in Commodities and Manufacturing Pose Continuing Risks to Credit Quality—Falling prices are causing problems for a wide range of commodity industries—a collection of agricultural, mining, and manufacturing industries that produce standardized products and face global competition, mostly on the basis of price. Firms in these industries have experienced slow or negative profit growth even as they reduce payrolls to cut costs. There are signs that these trends are contributing to higher credit risk for insured institutions. The effects of these problems on local economies and community banks could grow if low prices persist. See page 3.

By Richard A. Brown and Alan Deaton

◆ Shifting Funding Trends Pose Challenges for Community Banks—Several long-term trends are making it more difficult for some institutions to economically fund asset growth with deposits in today’s marketplace. As a result, traditional measures of liquidity and liability composition for commercial banks reflected record-low levels of deposit funding at year-end 1998. The need to augment lagging deposit growth to meet loan demand has led many community banks to seek more wholesale funding sources, particularly borrowings. If the trend toward greater reliance on nondeposit funding continues, liability management may become more important and more challenging for community banks that have historically relied upon deposits for funding and net interest revenues for profitability. See page 11.

By Allen Puwalski and Brian Kenner

Regional Perspectives

◆ Region’s Economic and Banking Conditions—Employment growth in the Region is strong; unemployment rates in most of the states are better than the national average. Banks and thrifts continue to report healthy financial conditions, although community banks’ bottom lines continue to be affected by tight interest margins. Also, as funding sources shift away from deposits, interest margins could be affected, and asset and liability management may become more challenging. See page 18.

◆ Earnings Variability Is Increasing—An influx of new banks and competitive pressures felt by community banks are contributing to increasing profit variability among the Region’s financial institutions. A concern is that insured institutions will attempt to mitigate the effects of weaker performance by engaging in riskier funding and lending strategies. See page 20.

◆ Some Key Industries Face Increased Risk Levels—The chemical, gaming, health care, and steel industries are important to various parts of the Region and are facing increasing levels of risk because of pricing pressures, heightened competition, and global economic forces affecting supply and demand. See page 22.

By the New York Region Staff
The **Regional Outlook** is published quarterly by the Division of Insurance of the Federal Deposit Insurance Corporation for the following eight geographic regions:

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- **Boston Region** (CT, MA, ME, NH, RI, VT)
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In Focus This Quarter

Falling Prices in Commodities and Manufacturing Pose Continuing Risks to Credit Quality

- Prices have fallen sharply across a wide range of commodities and manufactured goods.
- Signs of stress are apparent in some industry sectors.
- These trends are contributing to rising credit risk for insured institutions.
- Effects on local economies and community banks could grow if low prices persist.

The performance of the U.S. economy during the mid-to late-1990s has been generally positive for banking. Economic activity grew in 1998 at an inflation-adjusted rate of 3.9 percent for the second consecutive year. Continued low inflation has helped to offset interest rates low and extend the expansion into its ninth consecutive year. However, one downside of low inflation has been that firms in certain commodity industries have encountered slow or negative growth in revenues because of the low prices they receive for their products.

Commodity industries are defined in this article as a collection of agricultural, mining, and manufacturing industries that produce standardized products and face global competition, mostly on the basis of price. Since the beginning of 1997, price weakness has extended across a wide range of commodity industries, from agricultural products to oil, chemicals, textiles, paper, semiconductors, steel, and even some segments of the auto industry. While many firms have retooled and restructured to cut costs, clear signs of financial stress have become apparent.

The potential importance of problems in commodity industries to the FDIC was illustrated by the banking problems related to oil and agriculture during the 1980s and early 1990s. As documented in a 1997 study by the FDIC Division of Research and Statistics, regional economic dislocations related to declining farmland values and declining oil prices contributed to large increases in credit losses and the eventual failure of hundreds of federally insured banks and thrifts. The analogy to the 1980s is far from perfect—for example, oil and agriculture have not experienced booms comparable to those that preceded their collapse in the 1980s—but exposures to commodity industries remain important for many insured institutions.

This article summarizes recent adverse trends in commodity and manufacturing sectors and discusses why industry-sector problems are important in banking. It takes a high-level approach, emphasizing the economic fundamentals that are driving prices across the economy while ignoring many of the industry-specific factors that are also driving the performance of individual sectors. The goal is to evaluate the effects of these trends on bank credit quality if they persist through 1999 and beyond.

Prices Have Been Declining across a Range of Commodities and Manufactured Goods

Low inflation has been a boon for consumer spending and business investment during the economic expansion of the 1990s. As of March 1999, the Consumer Price Index had risen at an annualized rate of less than 2.0 percent for 8 consecutive quarters and at an annualized rate of less than 4.0 percent for 33 consecutive quarters. The prices of many popular and essential consumer goods—from computers to gasoline—have generally fallen throughout the decade, even as the prices of most services continue to rise steadily. Businesses, too, have benefited from the ability to purchase goods cheaply, as well as from the generally low interest rates that have accompanied low inflation.

The declining average wholesale price of goods is reflected in Chart 1 (next page), which shows changes in the producer price index (PPI) and some of its key components since the beginning of 1997. The PPI focuses on goods, omitting changes in the price of services. The decline of nearly 5 percent in the PPI since the beginning of 1997 has been led by falling prices for mining products, petroleum, and steel. Moreover, economy-wide price declines for wholesale goods have been steady over time, with the PPI registering year-over-year declines for 26 consecutive months through May 1999.
Widespread Pricing Pressures Are Evident in the Components of the Producer Price Index

Percent Change in Selected Components of the Producer Price Index, January 1997 to May 1999

Source: Bureau of Labor Statistics (Haver Analytics)

Although they are only indirectly included in the PPI numbers, the prices of several important agricultural commodities have also fallen substantially. Chart 2 shows that the price of wheat has fallen by more than 35 percent since January 1997, with the price of corn, hogs, and cotton also registering double-digit rates of decline. While the price of hogs has rebounded significantly since the end of 1998—more than doubling from its low of less than 15 cents per pound—prices for corn, wheat, and cotton continued to decline through May 1999.

Reasons for Broad-Based Commodity Price Weakness

Pricing trends in disparate industries such as electronics and agriculture, or oil and steel, are driven in part by industry-specific factors. For example, weather patterns heavily influence agricultural prices, while global politics tends to drive world oil price levels. In manufacturing, technological developments can significantly alter the demand for a product or its cost of production, thereby influencing its market price. For example, improvements in semiconductor manufacturing techniques—from shrinking the size of chips to using larger silicon wafers—have significantly increased production yields in that industry during the 1990s.1

However, the pervasiveness of recent price declines across a wide range of commodities and manufactured goods suggests that a number of common factors are driving prices lower:

- **Low inflationary expectations.** Since 1980, inflation rates have gradually declined worldwide as central banks shifted their focus toward price stability. Disinflation has profoundly altered the expectations of investors, consumers, and businesses, and in the process has altered the course of events in individual markets and in the economy as a whole. As a result, commodities have lost much of their appeal as a hedge against inflation. This has contributed to a decline of more than 50 percent in the price of gold since 1980. The expectations of many businesses have also changed, because with less pricing power they must continually cut costs to remain competitive.

- **Overcapacity because of large-scale investment.** Global investment in productive capacity accelerated during the early to mid-1990s in a number of commodity and manufacturing industries. Many U.S. firms have implemented new technologies and moved their operations closer to their markets or to areas where low-cost labor is available. For example, major U.S. and foreign automakers have invested billions of dollars in recent years in new production facilities in the emerging markets of Asia and Latin America as part of a “build-where-you-sell” strategy.2 Because these additions to capacity largely have not been offset by the closure of existing plants, analysts say that global productive capacity in autos


could exceed demand by more than 20 million units annually by 2000. A similar situation has developed in the semiconductor industry, where capital investment in chipmaking equipment tripled between 1993 and 1996, contributing to a glut of memory chips and plunging prices.

- **Curtailed global demand in the wake of emerging market crises.** The economic crises that have developed in Asia, Russia, and parts of Latin America since 1997 have crimped global demand for commodities and manufactured goods. For example, demand for new cars in Korea fell by 50 percent in 1998. Asia received approximately 30 percent of U.S. feed grain exports in 1996, but declining Asian demand since then has contributed to a sharp decline in global grain prices. The slowdown of economic activity in crisis countries and the resulting decline in their demand for imports is only one factor that has hurt the pricing power of U.S. producers. Another problem is the pricing advantage conferred on countries that have experienced currency devaluation. Firms operating in a country that has devalued its currency experience a reduction in the price of their exports in U.S. dollar terms. This process further depresses the pricing power of U.S. farmers and businesses that sell their goods in global markets.

Recently, there have been signs that some hard-hit Asian economies may soon begin to recover. However, the other factors cited above—low inflationary expectations and rapid investment in productive capacity—may well be longer-term trends. In any event, U.S. farmers and businesses that participate in commodity industries must be prepared for the possibility that pricing pressures will not dissipate in the near term.

**Signs of Stress Are Showing for Affected Industry Sectors**

As commodity prices continue to stagnate, signs of stress are emerging among firms in the commodity industries. A long-term trend toward reduced levels of employment in manufacturing has accelerated in the midst of the current economic expansion. Chart 3 shows that employment levels declined in a wide range of commodity industries in the 24 months ending in May 1999. The total manufacturing sector lost more than 420,000 jobs during that period, while another 64,000 jobs were lost in the mining sector, which includes oil and gas extraction. The trend toward lower levels of employment in mining and manufacturing not only reflects pricing pressures but also attempts by firms in these sectors to maintain profitability by investing in labor-saving technologies.

The profit picture has begun to deteriorate as well for firms operating in commodity industries. Four-quarter trailing earnings through March 1999 for oil-sector firms in the Standard & Poor’s 500 dropped by more than 44 percent from a year ago (see Chart 4), while the earnings of steel firms fell by almost 32 percent. The losses experienced by firms in some of these industrial sectors extended to the farm sector as well, where net

---


5 Barbara McClellan (1998).
incomes fell by more than 7 percent in 1998, according to the *U.S. Department of Agriculture.*

**Affected Industries Have Found Ways to Cope with Pricing Pressures Thus Far**

Despite the signs of stress in industries where prices are weak or declining, U.S. farmers and industrial firms have shown themselves to be fairly resilient thus far in their ability to cope with the situation. Agricultural producers have been making greater use of carryover debt to keep their operations running even if they were not able to fully retire their operating loans during the previous crop year. The *FDIC Report on Underwriting Practices* shows that 29 percent of FDIC-supervised agricultural lenders reported at least a moderate increase in carryover debt during the six-month period ending in March 1999, compared with only 10 percent in March 1998. Although the use of carryover debt is not an uncommon practice in agriculture, it indicates that low prices and declining subsidies have contributed to financial stress for farmers.

Many industrial firms have found ways to increase productivity and cut costs to offset declining revenues. Chart 5 follows trends in annual total revenue and costs for U.S. corporations operating in a selected group of commodity industries. It shows that growth in revenue and costs slowed noticeably in 1997. Both revenue and costs in these sectors declined in 1998, illustrating that firms in these sectors have needed to cut costs to preserve profit margins. Cost cutting in the manufacturing sector is further illustrated by a steady decline in the index of unit labor costs for manufacturing, which started from a value of 100 in 1992 and fell to less than 96 by the first quarter of 1999. Falling unit labor costs means that the productivity of manufacturing workers is rising faster than the cost of their services. This trend demonstrates that manufacturing firms have been successful at implementing new technologies and new capital equipment to cut production costs.

Cost savings and industry consolidation have been accomplished in part through mergers. According to *Merger Stat,* the dollar volume of merger and acquisition transactions involving U.S. firms exceeded $1.2 trillion in 1998, an increase of more than 80 percent from 1997 levels. Both the number and dollar volume of mergers announced in 1998 far exceeded the volumes recorded during the “merger mania” of the 1980s. Some of the largest mergers announced in 1998 involved firms looking for ways to increase market share and cut costs in markets characterized by overcapacity. Examples include the $39 billion Daimler-Chrysler transaction announced in May 1998 and the $80 billion Exxon-Mobil transaction announced in December 1998. Furthermore, merger activity recorded in early 1999 suggests that total merger volume for the year could exceed the record pace of a year ago.

Industries plagued by oversupply and weak prices require consolidation to reduce capacity and improve profit margins. Mergers and acquisitions represent a fairly orderly way for firms operating in a troubled industry to consolidate on their own terms. Bankruptcy filings are an alternative means for severely troubled firms to reduce capacity and achieve consolidation within an industry. Regardless of how industry consolidation is achieved, it often results in reductions in employment (such as those documented in Chart 3).

However, from a lender’s perspective, an orderly consolidation process through mergers and acquisitions is preferable to a disorderly shakeout of firms through bankruptcies.

Recent favorable capital market conditions have allowed firms in troubled industries to consolidate through mergers. Acquisitions are sometimes financed through corporate borrowings or, more commonly, by swapping equity shares that have been rising in value during the bull market of the 1990s. Recent consolidation in commodity industries could be depicted as an

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**Chart 5**

U.S. Corporations Operating in Commodity Industries Have Trimmed Costs to Offset Falling Revenue*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Costs</td>
<td>1,250</td>
<td>1,450</td>
<td>1,650</td>
<td>1,850</td>
<td>2,050</td>
<td>2,250</td>
<td></td>
</tr>
</tbody>
</table>

* Totals represent a summation of revenues and costs for the following industry sectors, as reported by the Bureau of the Census; textile mill products, paper and allied products, chemicals and allied products, industrial chemicals and synthetics, petroleum and coal products, lumber and wood products, iron and steel, electrical and electronic equipment, motor vehicles and equipment, and mining.

Source: Bureau of the Census (Haver Analytics)

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* According to Loan Pricing Corporation’s *Gold Sheets,* syndicated and leveraged lending related to mergers and acquisitions reached a record high of $80 billion in the second quarter of 1998, which represents about 30 percent of the total syndicated and leveraged lending market for that period.
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orderly process, associated with record-high merger and acquisition activity, near-record-low business bankruptcy filings, and low credit losses on commercial and industrial (C&I) loans. However, a sudden change in financial market conditions characterized by sharply higher interest rates, lower stock values, or both could inhibit the ability of businesses to restructure and retool on their own. This could lead to a much more disorderly shakeout of firms accompanied by a rise in business bankruptcies and losses to lenders.

Signs Point to Rising Credit Risk in the Commodity Industries

In dollar terms, the largest commercial bank exposures to the commodity industries are in the portfolios of large banks. Chart 6 provides an estimated breakdown of the aggregate exposure of insured institutions to commodity industries based on corporate balance sheet information collected by the Bureau of the Census. The chart shows that the aggregate exposure of the bank and thrift industries to these sectors is approximately $206 billion, or 26 percent of the total industry C&I portfolio. The largest single industry exposure is to the chemical industry, which represents approximately 9.5 percent of bank C&I loans. In the syndicated loan market, where large U.S. banks dominate in terms of origins, about 25 percent of all loans made in 1998 were to firms operating in the manufacturing sector.

A rough indicator of recent trends in the credit risk associated with bank loans to commodity industries can be found in expected default frequencies (EDFs) calculated by KMV Corporation. The EDF is an estimate of the probability that a firm will default on its bond obligations within one year. Chart 7 tracks the median EDF for firms operating in commodity industries compared with the median for all other firms rated by KMV. This chart shows that while the median EDF for commodity industries has consistently exceeded the median for all other firms in the recent past, this difference has widened appreciably since the middle of 1998. Over the past year, the median EDF for commodity industries has more than doubled, rising from 0.8 percent to 1.9 percent, while the median EDF for all other firms has doubled as well, from 0.6 percent to 1.2 percent. These data indicate that the level of credit risk associated with corporate borrowers has been increasing, led by an increased probability of default among firms operating in commodity industries.

7 Because of the limitations of the data, bank exposures to corporations engaged in agriculture are not broken out in Chart 6.

CHART 6

Commodity Industries Make Up Over One-Quarter of Bank C&I Loans to Corporate Borrowers

<table>
<thead>
<tr>
<th>Industry</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining</td>
<td>3.2%</td>
</tr>
<tr>
<td>Petroleum &amp; Coal</td>
<td>1.2%</td>
</tr>
<tr>
<td>Electronics</td>
<td>4.3%</td>
</tr>
<tr>
<td>Chemicals*</td>
<td>9.5%</td>
</tr>
<tr>
<td>Textiles</td>
<td>1.2%</td>
</tr>
<tr>
<td>Iron &amp; Steel</td>
<td>1.1%</td>
</tr>
<tr>
<td>Automobiles</td>
<td>1.7%</td>
</tr>
<tr>
<td>Lumber &amp; Paper*</td>
<td>4.4%</td>
</tr>
<tr>
<td>All Other</td>
<td>73.5%</td>
</tr>
</tbody>
</table>

* Lumber & Paper includes lumber and wood products and paper and allied products as reported by the Bureau of the Census. Chemicals includes chemical and allied products and industrial chemicals and synthetics as reported by the Bureau of the Census.

** Total includes bank loans not elsewhere classified to the nonfarm nonfinancial corporate business sector as reported in the Flow of Funds. Component loan amounts represent short-term and long-term bank loans on corporate balance sheets, by sector, as reported by the Bureau of the Census.

Sources: Bureau of the Census (Haver Analytics); Federal Reserve Board

CHART 7

The Default Risk of Firms Operating in Commodity Industries Has Risen over the Past Year

Median Expected Default Frequency (EDF)* (Probability that a Firm Will Default on Bond Obligations within One Year)

<table>
<thead>
<tr>
<th>Year</th>
<th>Firms in Commodity Industries</th>
<th>Firms in Other Industry Sectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>05/96</td>
<td>0.4</td>
<td>0.6</td>
</tr>
<tr>
<td>12/96</td>
<td>1.0</td>
<td>0.5</td>
</tr>
<tr>
<td>07/97</td>
<td>1.5</td>
<td>1.0</td>
</tr>
<tr>
<td>02/98</td>
<td>2.0</td>
<td>1.5</td>
</tr>
<tr>
<td>09/98</td>
<td>2.5</td>
<td>2.0</td>
</tr>
<tr>
<td>04/99</td>
<td>3.0</td>
<td>2.5</td>
</tr>
</tbody>
</table>

* KMV’s proprietary calculation for EDF is based on 1) the current market value of the firm, 2) the structure of the firm’s current obligations, and 3) the vulnerability of the firm to large changes in market value.

* Sectors included in the calculation of EDF for commodity industries include the following KMV aggregates: agriculture; automotive; chemicals; electrical equipment; electronic equipment; lumber and forestry; mining; oil refining; oil, gas, and coal exploration and production; paper; semiconductors; steel and metal products; and textiles.

Source: KMV Corporation

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Effects on Local Economies and the Banks That Operate in Them

The economic effects of adversity in commodity industries tend to be most severe in local areas that depend heavily on these sectors for employment and income. In the 1980s, problems in the agricultural and oil sectors kicked off a “rolling recession” that spread through the Plains states and oil-producing regions of the south-central and western states. In agricultural regions, farmland values began to decline around 1981, contributing to the failure of hundreds of FDIC-insured banks between 1984 and 1990. Similarly, declining oil prices in the mid-1980s contributed to the failure of federally insured banks and thrifts in Texas, Oklahoma, Louisiana, and other states, while the attempts of some institutions to diversify into risky real estate investments resulted in still more failures. The FDIC’s analysis of these episodes emphasizes how industry-sector problems can affect local economies and bank credit quality. Moreover, the study shows that there can be a significant lag between the onset of industry-sector problems and the emergence of performance problems in the banking industry. Although banks with direct credit exposures to a troubled industry are likely to be affected first, virtually all banks that operate in areas that are heavily dependent on a troubled sector will eventually have to contend with the indirect effects on the local economy.

To evaluate the extent of local economic effects that might have resulted from the recent adverse trends in the commodity industries, we have conducted analysis on 1,027 U.S. counties identified as particularly dependent on at least one commodity industry (see Table 1 for a list of the commodity industries studied). The purpose of this analysis is not to identify every county that might be affected by these trends; instead, this analysis focuses on the U.S. counties most concentrated in the commodity industries and determines if these counties and banks that operate in them are showing any symptoms of widespread distress.

Table 2 compares 1998 average job growth and unemployment rates in these “most concentrated counties” against the average for all U.S. counties. This comparison shows that the concentrated counties tended to have moderately lower job growth and higher unemployment than the U.S. average. However, further analysis shows

Table 1

<table>
<thead>
<tr>
<th>U.S. Counties Most Concentrated in Commodity Industries by 1998 Payroll Employment</th>
<th>Percent of 1998 County Employment in the Industry</th>
<th>Number of Counties with Employment Concentration in 1998</th>
<th>States with the Most Designated Counties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>&gt;30</td>
<td>295</td>
<td>TX, NE, SD, KS, MO</td>
</tr>
<tr>
<td>Lumber and Paper</td>
<td>&gt;5</td>
<td>305</td>
<td>GA, AL, MS, AR</td>
</tr>
<tr>
<td>Oil and Gas</td>
<td>&gt;5</td>
<td>83</td>
<td>TX, OK, LA</td>
</tr>
<tr>
<td>Chemicals</td>
<td>&gt;5</td>
<td>46</td>
<td>TN, IL, NC, TX</td>
</tr>
<tr>
<td>Steel</td>
<td>&gt;5</td>
<td>70</td>
<td>KY, OH, AR, IN</td>
</tr>
<tr>
<td>Autos</td>
<td>&gt;5</td>
<td>118</td>
<td>MI, IN, OH, KY, TN</td>
</tr>
<tr>
<td>Textiles</td>
<td>&gt;5</td>
<td>156</td>
<td>GA, NC, SC, VA, AL</td>
</tr>
<tr>
<td>Electronics and Semiconductors</td>
<td>&gt;5</td>
<td>33</td>
<td>TX, NY, IN, IA</td>
</tr>
<tr>
<td>Any Commodity Industry</td>
<td>N/A</td>
<td>1,027</td>
<td>TX, GA, NC, TN, AL</td>
</tr>
<tr>
<td>All U.S. Counties</td>
<td>N/A</td>
<td>3,142</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Source: WEFA, based on data from the Bureau of Labor Statistics
that the current situation is not unusual in that job markets in concentrated counties have tended to consistently underperform other U.S. counties over the past two decades. On the whole, the economic picture did not noticeably deteriorate in 1998 for the concentrated counties. Average unemployment declined in 1998 for every group of concentrated counties except oil counties, and average job growth increased in every group of counties except textile counties. These data indicate that while recent problems in the commodity industries might be having severe effects in specific areas, these problems had not translated into a broader weakening of economic performance through the end of 1998.

The financial performance of insured institutions operating in concentrated counties is evaluated in Table 3 (next page). The table provides average C&I loan performance and profitability ratios for 1,915 banks and thrifts identified as having at least 25 percent of their deposits in at least one of the concentrated counties as of June 1998.12 The average C&I loan charge-off ratio for concentrated counties overall was higher than the U.S. average, driven largely by higher average charge-offs in both agricultural and oil and gas counties. Comparisons of past-due and noncurrent C&I loans also indicate that institutions operating in agricultural and oil and gas counties tend to have more problem credits than the U.S. average.13 During the 12 months ending in December 1998, the average noncurrent loan ratio jumped from 4.8 percent to 6.1 percent for institutions operating in agricultural counties, while the average ratio rose from 2.7 percent to 3.8 percent for institutions operating in oil and gas counties.

These results indicate that while profitability in 1998 remained solid for the average bank operating in concentrated counties, credit losses appeared to be on the rise in agricultural and oil and gas counties. However, because this analysis relies on annual data that extend only through 1998, it is by design a backward-looking test for the local effects of problems in the commodity industries. There is every reason to expect these credit problems to intensify over time if commodity prices remain low.14 These considerations suggest that bankers in commodity-dependent counties should continually

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**Table 2**

<table>
<thead>
<tr>
<th>Relative Economic Performance of Counties Most Concentrated in Commodity Industries</th>
<th>1998 Average Employment Growth (%)</th>
<th>1998 Average Unemployment Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>1.1</td>
<td>4.8</td>
</tr>
<tr>
<td>Lumber and Paper</td>
<td>1.3</td>
<td>6.9</td>
</tr>
<tr>
<td>Oil and Gas</td>
<td>1.4</td>
<td>5.6</td>
</tr>
<tr>
<td>Chemicals</td>
<td>1.3</td>
<td>6.0</td>
</tr>
<tr>
<td>Steel</td>
<td>1.7</td>
<td>5.6</td>
</tr>
<tr>
<td>Autos</td>
<td>1.8</td>
<td>4.4</td>
</tr>
<tr>
<td>Textiles</td>
<td>0.9</td>
<td>5.1</td>
</tr>
<tr>
<td>Electronics and Semiconductors</td>
<td>1.9</td>
<td>3.7</td>
</tr>
<tr>
<td>Any Commodity Industry</td>
<td>1.3</td>
<td>5.5</td>
</tr>
<tr>
<td>All U.S. Counties</td>
<td>1.6</td>
<td>5.1</td>
</tr>
</tbody>
</table>

Source: Bureau of Labor Statistics, Household Survey (Haver Analytics)

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12 This analysis identifies the location of deposits by county through the Summary of Deposits report for June 1998, the most recent report available. The analysis is limited to institutions reporting at least $1 million in C&I loans as of December 31, 1998. Institutions operating in one or more concentrated counties and meeting all the selection criteria averaged $195 million in total assets as of December 31, 1998, compared with an average of $733 million in assets for institutions operating in any U.S. county.

13 Past-due loans are defined as loans that have been past due for 30 to 89 days. Noncurrent loans are defined as loans that have been past due for 90 or more days plus loans placed in nonaccrual status.

Table 3

<table>
<thead>
<tr>
<th>Relative Financial Performance of Insured Institutions Operating in Counties Most Concentrated in Commodity Industries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Includes only Insured Institutions with at Least $1 Million in C&amp;I Loans</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>Agriculture</td>
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<tr>
<td>Lumber and Paper</td>
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<tr>
<td>Oil and Gas</td>
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<tr>
<td>Chemicals</td>
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<td>Steel</td>
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<td>Autos</td>
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<tr>
<td>Textiles</td>
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<tr>
<td>Electronics and Semiconductors</td>
</tr>
<tr>
<td>Any Commodity Industry</td>
</tr>
<tr>
<td>All U.S. Counties</td>
</tr>
</tbody>
</table>

Noncurrent loans include loans past due 90 or more days plus loans placed on nonaccrual status. C&I = Commercial and industrial.
Sources: Summary of Deposits, Division of Research and Statistics, FDIC; Bank and Thrift Call Reports (Research Information System)

Monitor their local economy for signs of stress related to problems in the commodity industries.

Conclusion

Businesses operating in a range of commodity and manufacturing industries continue to grapple with weak or declining prices. This problem is not solely the result of industry-specific factors; it is part of long-term economic trends that may continue for some time. Signs of stress among firms in these industries are apparent in the form of declining levels of employment and slow or negative profit growth. However, there are few signs to date of any disorderly industry shakeouts involving widespread business bankruptcies and losses to lenders. Thus far, most firms have managed to cope with the situation by cutting costs and consolidating operations through mergers. At the same time, more forward-looking indicators show that the level of credit risk associated with commodity industries may be on the rise. An analysis of the U.S. counties most heavily dependent on these industries showed few signs of a widespread deterioration in the performance of their economies or in the profitability of their local depository institutions through the end of 1998. However, there are signs of rising credit losses among local depository institutions in counties with the highest concentrations of agriculture and oil and gas extraction. A continuation of today’s weak pricing picture in these industries has the potential to result in higher credit losses for insured institutions during the next few years.

Richard A. Brown, Chief, Economic and Market Trends Section
Alan Deaton, Economic Analyst
Shifting Funding Trends Pose Challenges for Community Banks

- Several long-term trends are making it more difficult for some institutions to economically fund asset growth with deposits in today’s marketplace.

- Lagging deposit growth in recent years has resulted in greater reliance on alternative funding sources to meet loan demand.

- Liability management may become more important and more challenging for community banks that have historically relied upon deposits for funding and net interest revenues for profitability.

For the past few years, assets have been expanding faster than deposits at many commercial banks. The result is an increased reliance on equity and borrowings for funding. Since 1992, commercial bank assets have grown at an average annual rate of 6.3 percent compared with a 3.9 percent average annual growth rate for deposits. Traditional measures of liquidity and funding for commercial banks reflected record-low levels of deposit funding at year-end 1998. Large commercial banks have traditionally made greater use of nondeposit funding alternatives. However, many community banks,\(^1\) which have typically relied more on deposit funding, may face liability management challenges as a result of shifting funding trends. This article surveys the factors influencing the ability of banks to fund loan growth with deposits, discusses community bank funding trends, and considers the implications of these trends for community banks.

Factors Influencing Deposit Funding Trends

The percentage of commercial bank assets, particularly loans, funded with deposits has declined steadily in the 1990s. As shown in Chart 1, the industry’s ratios of deposits to assets and loans to deposits reflect a longer-term shift away from deposit funding. Although the level of these industry ratios is heavily influenced by larger banks, the trend toward lower deposit funding exists for both large banks and community banks and points to secular factors that are affecting banks’ ability to raise deposits in step with asset growth.

Trends in Household Wealth Accumulation

One factor affecting the ability of banks to attract deposits is the recent trend in the way households are amassing wealth. While the total wealth of U.S. households has soared in recent years because of unrealized capital gains on housing and investments, annual net purchases of new financial assets\(^2\) by households as a percentage of disposable income have actually trended downward since the mid-1980s (see Chart 2, next page). A falling personal savings rate and fewer purchases of financial assets may suggest that households are more comfortable consuming a higher percentage of current income as long as capital gains are adding to their accumulated wealth. However, because households have been setting aside less of their current income for savings, the pool of new funds available to purchase bank deposits has been growing more slowly.

Higher-Yielding Investment Alternatives

At the same time that households have been setting aside less of their current income for savings, the share of total new household savings flowing into bank deposits has declined in the 1990s as competition from higher-yielding alternatives has increased. During the 1980s, over 30 percent of the cumulative net increase in

\(^2\) Financial assets are defined as deposits, money market and mutual fund shares, credit market instruments, corporate equities, life insurance reserves, pension fund reserves, and trust reserves.

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\(^1\) Defined here as banks with total assets of $1 billion or less.
financial assets by households and nonprofit organizations flowed into deposits. In contrast, less than 15 percent of the cumulative net increase in financial assets has flowed into deposits during the 1990s, although an increasing proportion has been allocated to deposits in recent years.

Not only do banks face intensifying competition from other banks and thrifts, as indicated by 66 percent of the respondents in Grant Thornton’s 1999 Sixth Annual Survey of Community Bank Executives, but they also face increasing competition from mutual funds and other nonbank financial service providers, such as credit unions.

**Mutual Funds.** Increasingly, consumers are pursuing higher yields by investing in mutual funds. Beyond yields, however, many mutual fund companies also are competing effectively with banks on the basis of convenience by offering money market accounts that allow check writing, automated teller machine cards, and check cards. Chart 3 shows the changes in the composition of household liquid assets during the 1990s. In 1990, bank deposits constituted 38 percent of households’ liquid assets versus 11 percent for mutual funds and money market funds; at year-end 1998, the shares were nearly even. While some of the change in composition can be explained by rising mutual fund share prices, other measures indicate a shifting preference for mutual funds as a savings vehicle. For example, data from the Investment Company Institute show that net inflows into mutual funds have exceeded net increases in insured institution deposit accounts in all but three quarters during this economic expansion. Moreover, the first quarter of 1999 marked the seventeenth consecutive quarter that mutual fund inflows outstripped increases in deposits for all FDIC-insured institutions.

**Credit Unions.** In addition to mutual funds, credit unions also are formidable competitors for consumer savings. Membership in credit unions has increased more than 20 percent over the past decade, while deposits and share accounts have risen by over 90 per-

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Credit unions also offer federal insurance on share accounts as well as competitive rates on comparable deposit-type vehicles relative to other types of financial institutions. For example, according to information from the National Credit Union Association, on average, credit unions have offered rates on one-year share certificates in excess of one-year bank certificates of deposit in nine of the past ten years. As shown in Chart 4, average rates paid by credit unions on one-year share certificates over the 12 months ending May 1999 were consistently higher than rates offered by banks or thrifts and approached retail rates offered by brokerages.

Demographic Shifts

Some analysts maintain that rural community banks face additional funding challenges as a result of demographic shifts. According to the Federal Reserve Bank of Kansas City, rural bankers perceive that sluggish deposit growth is at least partially attributable to the migration of deposits to cities as urban-dwelling heirs of rural depositors relocate funds. While evidence for this deposit migration remains anecdotal, economists at the Federal Reserve Bank of Kansas City indicate that the demographic shift is still in process, and its full effect may not be felt for some time. Further challenging deposit growth for banks, additional evidence suggests that urban dwellers tend to place less of their savings in banks than their rural counterparts do. This trend poses additional consequences for bank deposits as rural populations migrate to suburban areas.

Community Bank Funding Trends

Community banks traditionally rely more heavily upon core deposit funding than larger banks do. For example, Chart 5 (next page) shows that 72 percent of aggregate community bank assets were funded with core deposits at year-end 1998. In contrast, 43 percent of aggregate large bank assets at year-end 1998 were funded with core deposits. This difference in liability structures reflects large banks’ broader use of wholesale funding alternatives and greater access to capital markets instruments.

While large banks have responded to factors influencing deposit growth by making greater use of alternative funding sources, funding options for community banks tend to be more limited. Because of high fixed costs, community banks may find it more difficult than larger institutions to make cost-effective use of capital market instruments such as securitizations or public debt and equity offerings (see “Industry Consolidation Presents Unique Risks and Challenges for Community Banks,” Regional Outlook, Fourth Quarter 1998, for a discussion of additional non-deposit funding sources for community banks).

The need to augment lagging deposit growth to meet loan demand has led many community banks to acquire more noncore funds. These funds include time deposits greater than $100,000, borrowings, foreign deposits, brokered deposits, and demand notes. At year-end 1998, nearly 75 percent of community banks held noncore liabilities representing 10 percent or more of total liabilities. As recently as 1993, only 42 percent of community banks exceeded that threshold. Moreover, over the same five-year period, the ratio of core deposits (defined here as total deposits less time deposits greater than $100,000 and brokered deposits) to total deposits for all community banks declined each quarter.

As community banks’ use of noncore funds has increased, they are relying more on federal funds purchased, repurchase agreements, other borrowings, demand notes, and mortgages (collectively referred to as borrowings). After adjusting for mergers, borrowings funded 12 percent of new community bank asset growth from 1992 through 1998—three times more than the percentage of new asset growth funded by borrowings from 1985 to 1990. Possibly reflecting a shift toward greater acceptance of wholesale funding by community bankers, growth in borrowings has been largely driven by increased use of nonovernight borrowings, which have become the dominant form of borrowings at community banks. As shown in Chart 6, the proportion of community banks reporting nonovernight borrowings has doubled in the 1990s. This trend coincides with growing community bank membership in the Federal Home Loan Bank (FHLB) system and increasing use of FHLB borrowings.

Federal Home Loan Bank Membership

Over the past five years, community banks have substantially increased their membership and participation in the FHLB system. According to data from the Federal Housing Finance Board, for the five-year period ending in 1998, the percentage of FDIC-insured community banks that were members of the FHLB more than doubled to 50 percent. Over the same period, FHLB advances outstanding for community banks grew by more than 50 percent to $47 billion. At year-end 1998, FHLB advances represented approximately 80 percent of all nonovernight borrowings for community banks.

Analysts have cited a number of reasons why community banks are joining the FHLB system. Community banks are using FHLB advances to meet contingent liquidity needs, manage interest rate risk, fund new asset growth, and leverage capital to maintain or boost returns on equity. Recent surveys indicate that FHLB advances will continue to have a role in community bank liability management. Almost one-half of respondents to Grant Thornton’s 1999 Annual Survey of Community Bank Executives considered FHLB borrowings an important funding source over the next three years, and 43 percent plan to increase the use of FHLB advances in 1999. Similarly, the American Bankers Association’s 1999 Community Bank Competitiveness Survey indicated that FHLB advances have become an important funding source for community banks.

*Nonovernight borrowings are defined here as all borrowings other than federal funds purchased and repurchase agreements.
**In Focus This Quarter**

*Survey* reported that FHLB advances are the preferred nontraditional funding product. In addition, legislative changes enacted in third-quarter 1998 have eased membership requirements for banks with assets less than $500 million, significantly increasing access to FHLB advances for smaller banks in rural areas.

### Implications of Funding Trends for Community Banks

According to community banker opinion surveys, the trend toward greater reliance on noncore or alternative funding sources appears likely to continue. *Grant Thornton’s 1999 Annual Survey of Community Bank Executives* found that 75 percent of community bankers expect funding with core deposits to be more difficult in three years than it is today. Moreover, more than 20 percent of community bankers responding to the *American Bankers Association’s 1999 Community Bank Competitiveness Survey* do not expect to derive the bulk of their funding from deposits five years from now. Liability management is an important aspect of a bank’s operations and a key driver of interest expense. Responses to funding challenges will likely influence strategic business decisions that shape the risk profiles of insured institutions, particularly community banks that historically have relied more heavily upon core deposits to fund asset growth and net interest income for profitability.

A fundamental challenge that confronts bank management is the strategic response to the increased costs associated with wholesale funding sources. As shown in Chart 7, the reported interest costs of nondeposit funding alternatives, such as federal funds purchased and repurchase agreements, subordinated notes, and FHLB advances, have traditionally exceeded the interest cost of core deposits for commercial banks. Therefore, as institutions that have typically relied upon core deposits increase the use of nondeposit sources, funding costs will likely rise relative to asset yields. As a result, net interest margins (NIMs) may be pressured.

To some extent bank managers may be able to offset the higher interest costs of wholesale funding strategy by improving efficiency through greater management of overhead expenses and increases in noninterest income. However, community banks face challenges to their ability to increase noninterest income (see “Industry Consolidation Presents Unique Risks and Challenges for Community Banks,” Regional Outlook, Fourth Quarter 1998), and there are limits to cost cutting. If banks are unable to fully offset higher funding costs with increases in noninterest income or reductions in noninterest expenses, overall profitability could suffer. Community bankers in the upper Midwest expressed this concern in a 1998 survey conducted by *The Federal Reserve Bank of Minneapolis*, which found that 57 percent of respondents expect the shift away from deposit funding to decrease bank profitability.

Funding challenges also could alter the liquidity and interest rate risk positions of community banks. The relative complexity and volatility of some nondeposit sources require greater expertise and attention to asset-liability policies and practices to avoid unexpected liquidity strains or exposures to changing interest rate environments. Strategies that result in the pledging of liquid assets, overreliance on purchased funds, or concentrations in price-sensitive long-term assets could adversely affect a bank’s relative liquidity or interest rate risk position. Moreover, interest rate risk management can be further challenged by the complexity of nondeposit funding sources. For instance, some FHLB advances may contain embedded options that required greater expertise and attention to policies and practices that, if not managed properly, could lead to undesirable outcomes if interest rates change adversely.

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In Focus This Quarter

Differences between Community Banks with High and Low Levels of Core Deposit Funding

To evaluate how a shift from a core deposit funding strategy might change the profile of a community bank, performance and condition measures for community banks that rely most heavily on core deposits were contrasted with those that are least reliant on core deposit funding. Table 1 compares 1998 funding, earnings, and asset performance measures for these community bank

Table 1

<table>
<thead>
<tr>
<th>COMPARISON OF BANKS WITH HIGH AND LOW LEVELS OF CORE DEPOSIT FUNDING</th>
<th>ALL COMMUNITY BANKS</th>
<th>COMMUNITY BANKS</th>
<th>COMMUNITY BANKS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HIGH CORE DEPOSIT FUNDING</td>
<td>LOW CORE DEPOSIT FUNDING</td>
<td>COMMERCIAL LENDERS</td>
</tr>
<tr>
<td>SELECTED AGGREGATE MEASURES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NUMBER OF BANKS IN GROUP</td>
<td>405</td>
<td>405</td>
<td>106</td>
</tr>
<tr>
<td>MEDIAN TOTAL ASSETS ($000s)</td>
<td>46,244</td>
<td>118,358</td>
<td>23,274</td>
</tr>
<tr>
<td>MEMBERS OF FHLB (%)</td>
<td>32.10</td>
<td>49.38</td>
<td>17.92</td>
</tr>
<tr>
<td>HAVE OUTSTANDING FHLB ADVANCES (%)</td>
<td>7.65</td>
<td>40.25</td>
<td>6.60</td>
</tr>
<tr>
<td>SELECTED MEDIAN LIQUIDITY AND FUNDING MEASURES (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998 GROWTH IN TOTAL ASSETS</td>
<td>9.02</td>
<td>11.16</td>
<td>5.96</td>
</tr>
<tr>
<td>1998 GROWTH IN TOTAL DEPOSITS</td>
<td>9.74</td>
<td>8.79</td>
<td>6.40</td>
</tr>
<tr>
<td>1998 GROWTH IN BORROWINGS (50.00)</td>
<td>28.62</td>
<td>64.49</td>
<td>31.85</td>
</tr>
<tr>
<td>1998 GROWTH IN TOTAL EQUITY CAPITAL</td>
<td>5.93</td>
<td>7.53</td>
<td>3.46</td>
</tr>
<tr>
<td>TOTAL DEPOSITS-TO-TOTAL ASSETS RATIO</td>
<td>91.04</td>
<td>75.68</td>
<td>90.35</td>
</tr>
<tr>
<td>CORE DEPOSITS-TO-TOTAL ASSETS RATIO</td>
<td>87.29</td>
<td>53.87</td>
<td>87.10</td>
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<tr>
<td>BORROWINGS TO TOTAL ASSETS RATIO</td>
<td>0</td>
<td>9.58</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL EQUITY CAPITAL TO TOTAL ASSETS RATIO</td>
<td>8.25</td>
<td>10.24</td>
<td>9.00</td>
</tr>
<tr>
<td>SELECTED MEDIAN PERFORMANCE RATIOS (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RETURN ON EQUITY</td>
<td>12.65</td>
<td>10.19</td>
<td>11.10</td>
</tr>
<tr>
<td>RETURN ON ASSETS</td>
<td>1.07</td>
<td>1.04</td>
<td>1.01</td>
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<tr>
<td>NET INTEREST MARGIN</td>
<td>4.76</td>
<td>4.03</td>
<td>4.51</td>
</tr>
<tr>
<td>GROSS EARNING ASSET YIELD</td>
<td>8.17</td>
<td>8.02</td>
<td>8.24</td>
</tr>
<tr>
<td>COST OF FUNDING EARNING ASSETS</td>
<td>3.33</td>
<td>4.07</td>
<td>3.74</td>
</tr>
<tr>
<td>NONINTEREST INCOME TO AVERAGE ASSETS</td>
<td>0.76</td>
<td>0.61</td>
<td>0.59</td>
</tr>
<tr>
<td>NONINTEREST EXPENSE TO AVERAGE ASSETS</td>
<td>3.49</td>
<td>2.90</td>
<td>3.23</td>
</tr>
<tr>
<td>EFFICIENCY RATIO</td>
<td>69.01</td>
<td>63.68</td>
<td>68.59</td>
</tr>
<tr>
<td>SELECTED MEDIAN CREDIT QUALITY MEASURES (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NONPERFORMING ASSETS TO TOTAL ASSETS RATIO</td>
<td>0.39</td>
<td>0.44</td>
<td>0.40</td>
</tr>
<tr>
<td>NONCURRENT LOANS TO TOTAL LOANS RATIO</td>
<td>0.53</td>
<td>0.72</td>
<td>0.53</td>
</tr>
<tr>
<td>NET LOAN CHARGE-OFF RATIO</td>
<td>0.11</td>
<td>0.12</td>
<td>0.04</td>
</tr>
<tr>
<td>1998 GROWTH IN NONPERFORMING ASSETS</td>
<td>(9.10)</td>
<td>7.50</td>
<td>10.57</td>
</tr>
<tr>
<td>1998 GROWTH IN NET LOAN LOSSES</td>
<td>6.09</td>
<td>10.24</td>
<td>(3.90)</td>
</tr>
</tbody>
</table>

1 Community banks are banks with $1 billion or less in total assets.
2 Agricultural lenders are banks with 25 percent or more of assets in agricultural real estate loans or agricultural production loans.
3 Commercial lenders are banks with 25 percent or more of assets in commercial and commercial real estate loans.
4 High core deposit funding group is composed of community banks with core deposits-to-assets ratios in the top 5 percent of all community banks, excluding those with equity-to-assets ratios in excess of 25 percent. The low core deposit funding group is composed of community banks with core deposits-to-assets ratios in the bottom 5 percent of all community banks.
5 Gross earning asset yield equals interest income divided by average earning assets.
6 Cost of funding earning assets equals interest expense divided by average earning assets.
7 Efficiency ratio equals noninterest expense divided by the sum of net interest and noninterest income.
FHLB = Federal Home Loan Bank
Sources: Bank Call Reports (Research Information System); Federal Housing Finance Board
groups. High core deposit funders are defined as those community banks with core deposit-to-asset ratios in the top 5 percent of all community banks at year-end 1998. Low core deposit funders are those community banks with a core deposit-to-asset ratio in the bottom 5 percent. A similar comparison is included for agricultural banks and commercial lending specialists, which combined make up roughly 60 percent of each of the total community bank funding groups.

This comparison reveals several differences. First, a tradeoff between heavy reliance on core funding and asset growth is evident. Median measures for the groups indicate that the typical bank that relies less on core deposit funding is larger and growing faster than the typical bank in the high core funding group. Second, less core deposit funding appears to be associated with a lower NIM, primarily the result of higher funding costs. However, overall profitability is similar between the groups mainly because of a lower ratio of overhead expenses to average assets for the low core funders. These characteristics are also evident across the agricultural and commercial specialists groups.

Asset quality indicators suggest that the low core funding groups may exhibit greater credit risk. Although higher asset yields resulting from increased portfolio risk are not evident, median measures for each low core funding group reflect higher levels of noncurrent loans and higher growth in nonperforming assets and net loan losses relative to its high core funding group counterpart. For example, the median growth in nonperforming assets for commercial lending specialists with less reliance upon core deposits was nearly 24 percent in 1998 versus a 17 percent decline for the high core funding group.

**Summary and Conclusions**

Commercial banks have been experiencing a long-term trend toward lower deposit funding of loans and assets. Increasing competition among banks and from thrifts, nonbanks, and higher-yielding investment alternatives has made it more difficult and expensive for some banks to attract deposits in step with asset growth. While some nondeposit funding alternatives may provide a stable source of funds for insured institutions (especially those located in areas characterized by aggressive competition and slow deposit growth), better matching of asset cash flows, and greater flexibility in asset-liability management, they also may pose certain risks. To some extent community banks may be able to manage noninterest expense and noninterest income to offset the relative increase in interest expense incurred to acquire nondeposit funding sources. However, if overall profitability suffers, banks may be tempted to pursue additional portfolio risk to generate higher offsetting asset yields. As a result, liability management may become more challenging for community banks that have historically relied upon deposits for funding and net interest revenues for profitability. In addition, the complexity of some nondeposit funding sources requires greater expertise and attention to policies and practices to avoid unexpected liquidity strains or exposures to changing interest rate environments.

*Allen Puwalski, Senior Financial Analyst*

*Brian Kenner, Financial Analyst*
Regional Perspectives

The Region’s growing economy has stimulated strong and sustained employment growth; unemployment rates in many counties are at their lowest points in this decade.

Financial institutions in the Region continue to report healthy financial conditions, although the variability of earnings across institutions is increasing.

Key industries in the Region, such as chemicals, gaming, health care, and steel, face growing risks because of industry consolidation, reduced demand for exports, and stiffer competition.

Consistent with national trends, the Region’s financial institutions are relying less on core deposits and more on alternative sources of funding. While this practice may have some benefits, it does raise some new issues regarding asset and liability management.

Overview of Economic Conditions

Employment Levels Continue to Rise

With the nation and Region enjoying rapid economic growth, employment levels in the Region continue to rise. Between the first quarters of 1998 and 1999, 337,000 new jobs were added to the Region’s employment base, a growth rate of 1.7 percent. Although employment levels in the nation rose at a somewhat faster 2.2 percent rate over the same time, this period marked more than six consecutive years of job growth in the Region (see Chart 1). Delaware remains the fastest-growing state in the Region, adding jobs primarily in the finance and business service sectors. Between the first quarters of 1998 and 1999, employment levels in Delaware rose 3.4 percent. Job growth in Pennsylvania, at 1.2 percent, was the slowest among the states in the Region. Its employment growth has been sluggish for the past two years, perhaps partially because of continued consolidation in the manufacturing sector as well as weak population growth in the northern and western parts of the state. Year-over-year employment growth rates in Maryland, New Jersey, and New York ranged between 1.8 percent and 2.5 percent as of March 31, 1999, reflecting gains in business services and technology-related industries.

In contrast to the mainland economies, employment in Puerto Rico declined from the first quarter of 1998 to the first quarter of 1999. Figures from the Bureau of Labor Statistics show that employment levels fell by over 7,000 jobs, about 1 percent, over that period. Employment growth has been hindered by the gradual phase-out of tax provisions favorable to investment, which, in turn, has resulted in declines in manufacturing and local government employment. Nonetheless, Puerto Rico’s 13 percent unemployment rate was the lowest in the decade, although it was still substantially higher than the national average.

Rising employment levels have driven many state unemployment rates down to their lowest points in the decade. Except for New York, unemployment rates for all the Region’s states were at or below the U.S. average in the first quarter of 1999. Most counties surrounding...
the Region’s major eastern cities had lower unemployment rates than the U.S. average (see Map 1). Counties in eastern New York, southeastern Pennsylvania, western New Jersey, central Maryland, and northern Delaware have experienced very strong job growth over the past several years. These counties enjoy unemployment rates below 3 percent and are considered to be at full employment levels, leading to some reports of labor shortages. Apparently, counties surrounding, but still anchored to, the central cities have benefited more than outlying counties from the economic expansion. The former generally offer lower business costs, more land, and less congestion than the cities, yet they are close enough to access the cities’ large populations, port facilities, and business markets.

Unemployment rates generally are higher in areas that are more reliant on manufacturing industries. Economies in many parts of northern and western New York and Pennsylvania are dependent on industries such as apparel and textiles, which have been consolidating and relocating to lower-cost areas for many years. More recently, manufacturers in the Region have been slowed by the economic recessions in Asia and Latin America as well as Europe’s weak economy. This combination of factors has hampered employment growth where these industries are concentrated.

The Stronger Economy Has Boosted the Housing Market

After several years of little activity, the stronger economy and job expansion coupled with low mortgage rates and rising consumer confidence have stimulated the housing markets in many parts of the Region. Most notable is Maryland, where existing home sales surged almost 28 percent in 1998, compared with the 14 percent national average. New Jersey experienced a 13 percent gain and New York a 9 percent gain. Pennsylvania trailed with only a 1 percent gain. The positive economic conditions also have boosted new construction of single-family units. Nationally, the number of permits for new single-family homes also rose 12 percent, with the largest gain (17 percent) occurring in New York. Permit data for single-family homes can change quickly over a year and are sensitive to changes in interest rates, employment, and weather conditions. Nonetheless, first-quarter 1999 data show a continuation of these positive trends.

Housing prices across the Region also have risen, reflecting strong demand. According to the Office of Federal Enterprise Housing Oversight, housing prices in the Region’s states rose by 2 to 5 percent between the fourth quarters of 1997 and 1998. The hottest markets were in Long Island, where price increases were in the double digits in the fourth quarter of 1998 and the first quarter of 1999, and Bergen and Passaic counties in New Jersey. Houses in upstate New York, particularly around Buffalo, Rochester, and Syracuse, have experienced less price appreciation. In general, however, the stronger housing market has boosted demand for new home mortgages, refinancings, and home equity loans and has been positive news for insured financial institutions.

1 Data provided by National Association of Realtors.
The Region’s Banks and Thrifts Continue to Report Healthy Financial Conditions

The Region’s banks and thrifts reported generally healthy financial conditions in the first quarter of 1999. The Region’s average return on assets (ROA) was 0.94 percent, compared with 1.06 percent in the first quarter of 1998 and 0.88 percent in the first quarter of 1997. The average net interest margin (NIM) declined to 3.91 percent in the first quarter of 1999, compared with 4.10 percent a year earlier and 4.21 percent two years earlier. The average reported leverage capital ratio remained strong, rising 90 basis points over the first-quarter 1998 figure. Aggregate past-due ratios continued to decline, reflecting improvement in almost all loan categories, with the exception of commercial and industrial loans and credit card loans, which both saw a modest rise in past-due levels from year-earlier figures. Credit card portfolios, which recently have had the highest past-due and charge-off rates, registered a slight rise in aggregate past-due rates from year-earlier levels. Charge-offs on credit card loans were 4.68 percent in the first quarter of 1999, the second quarter in a row and only the second time since December 31, 1996, that the figure was below 5.0 percent. However, the rise in past-dues, although slight, suggests that charge-off levels are unlikely to fall significantly over the next few quarters.

Community banks (or small banks, defined here as banks with total assets less than $250 million), which make up more than half of the Region’s banks, reported lower average ROA numbers than their larger counterparts (see Chart 2). In the first quarter of 1999, community banks had an average ROA of 0.68 percent, compared with 1.24 percent for larger institutions. Community bank figures are affected by the lower average ROAs of savings institutions (0.63 percent) and new banks (negative 2.05 percent). When new banks are excluded, the average ROA for community banks improves to 0.94 percent, which is still 30 basis points lower than that of larger banks, but again is negatively affected by savings institutions. Although all banks have faced narrowing interest margins in the past few years, community banks have less noninterest revenue to bolster the bottom line. Further, community banks’ expenses as a percentage of earning assets are higher than those of larger institutions. These factors result in poorer efficiency ratios\(^3\) for community banks and hinder earnings performance. For more information on the challenges facing community banks, see Community Banks Hurt by Tighter Margins, Higher Costs in the New York Regional Outlook, Fourth Quarter 1998.

Earnings Variability Is Increasing

The stable aggregate profitability reported over the past several years masks an increasing variation in profitability among the Region’s financial institutions. In the past five years, the Region’s median ROA, excluding outliers,\(^4\) has shown little fluctuation, ranging from 0.94 percent to 1.03 percent. However, the variation in profitability across the Region’s institutions, as measured by the distribution of ROAs at various points in time, is at its widest since 1991 (see Chart 3). In 1996, when the distribution showed the lowest variability, ROAs ranged from negative 0.52 percent to 2.41 percent. As of March 31, 1999, ROAs ranged from negative 2.57 percent to 2.76 percent.

Among many factors that could be influencing the increasing dispersion of ROA figures, one is the growing number of new banks in the Region. New banks

\(^2\)New banks are defined as banks that have been insured within the last three calendar years, i.e., that opened on or after January 1, 1996.

\(^3\)The efficiency ratio is defined as noninterest expense divided by the sum of net interest income and noninterest income.

\(^4\)This analysis excludes the top and bottom 2.5 percent of banks with the highest and lowest ROAs, which are considered outliers that would unduly skew the analysis. They are excluded from all analyses in this section unless specifically noted.
typically show weaker earnings performance in their formative years because of high initial start-up costs relative to their small asset base. In the first quarter of 1999, new banks made up 3.4 percent of all banks in the Region, compared with an average of 1.7 percent in the previous five years (see Table 1). Further, these new banks are underperforming new banks of past years. The increased number of new banks (especially the number of banks that are less than a year old) and their poorer performance skew the group’s performance downward. For example, 52 percent of new banks had negative ROAs in the first quarter of 1999, compared with an average of 13 percent of new banks over the previous five years. New banks made up 41 percent of all banks with negative ROAs as of March 31, 1999, compared with an average of 10 percent in the five previous years. Also, 86 percent of new banks have ROAs below the median for the Region, which is significantly higher than in prior years. The sheer volume of start-ups, which have always faced significant initial costs but must now deal with additional pressures experienced by all community banks (intense competition and narrowing NIMs), may partly explain the increased variation in profitability.

Another reason for the Region’s increasing dispersion of earnings is the relatively poorer recent performance of established community banks (banks more than three years old with assets under $250 million). Excluding the new banks, 82 percent of the Region’s banks that had negative ROAs were community banks. This figure compares with 52 percent in 1994 and 73 percent in 1996.

Comparing the established small banks with negative ROAs in 1996 with those in 1999 sheds some light on the difficulties facing smaller institutions today. In the first quarter of 1996, the average ROA for this group was negative 0.21 percent. In the first quarter of 1999, the average ROA for the group was negative 0.78 percent. Over that period, average NIMs fell from 4.04 percent to 3.44 percent, primarily because of a decline in interest income. The group experienced a decrease in the ratio of interest income to earning assets of over 50 basis points, while the average cost of funds increased slightly. Further, although noninterest income has been rising, noninterest expenses have been rising even faster, hurting efficiency ratios.

The number of unprofitable institutions appears to be rising despite generally favorable economic conditions and a lack of higher loan loss provisions. The relatively flat yield curve during 1998 and fierce industry competition combined have resulted in slimmer margins and weaker efficiency ratios. This situation at least partly explains why the range of profitability is increasing and, in particular, why earnings at the poorest-performing institutions have weakened further.

### Table 1

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<td><strong>Percentage of:</strong></td>
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<tr>
<td><strong>New Banks to Total Banks</strong></td>
<td>1.3</td>
<td>1.5</td>
<td>1.7</td>
<td>2.3</td>
<td>1.8</td>
<td>3.4</td>
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<td>13.0</td>
<td>12.0</td>
<td>5.0</td>
<td>19.0</td>
<td>52.0</td>
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<tr>
<td><strong>Banks with Negative ROAs That Are New Banks</strong></td>
<td>8.0</td>
<td>10.0</td>
<td>9.0</td>
<td>8.0</td>
<td>17.0</td>
<td>41.0</td>
</tr>
<tr>
<td><strong>New Banks That Have ROAs Below the Median ROA</strong></td>
<td>50.0</td>
<td>56.0</td>
<td>71.0</td>
<td>52.0</td>
<td>50.0</td>
<td>86.0</td>
</tr>
</tbody>
</table>

* New banks are defined as banks that opened within the previous three calendar years from the date shown. Note: All data are as of March 31 of the year indicated. Source: Bank and Thrift Call Reports.
The major concern for regulators is that insured institutions may combat falling margins by employing riskier funding and lending strategies. These concerns are mitigated somewhat by the fact that today’s poorer-performing institutions are generally much better capitalized and burdened with fewer problem assets than their counterparts of the 1980s.

In both the nation and the Region, several key industries, such as chemicals, gaming, health care, and steel, are facing increasing risks. Pricing pressures, heightened competition, and global economic forces affecting supply and demand are among the factors affecting these industries. See *Falling Prices in Commodities and Manufacturing Pose Continuing Risks to Credit Quality* for a detailed discussion of many of these risks.

### Chemicals

According to *Standard and Poor’s*, the chemicals industry accounts for almost 12 percent of the value of all U.S. manufacturing and is its largest domestic exporting sector. The Region has 285,000 chemical industry jobs, more than one-fourth of the nation’s total employment in the industry. Delaware and New Jersey had the highest concentrations of chemical industry employment, at 5.5 percent and 2.5 percent of each state’s total employment, respectively, in 1998. These figures compare with less than 1 percent of total employment for the nation.

Employment in the chemicals industry in Delaware has been declining since 1990, when it was almost 10 percent of the employment base. More recently, the industry has been vulnerable to declining exports and lower prices resulting from weak economies in Brazil and parts of Asia. This vulnerability has resulted in continuing consolidations and job restructurings. Just recently, DuPont announced layoffs because of pricing pressure and reduced demand. Although there is some evidence that the Asian and Brazilian economies are rebounding, chemical exports to those countries from the Region’s manufacturers are expected to remain weak in the near term.\(^5\) In addition, the chemicals industry, which uses large amounts of oil and other petrochemical products, is vulnerable to rising oil prices. Any significant increases in energy expenses could pressure chemical producers to cut costs or consolidate further.

### Gaming Casinos

Behind Nevada, New Jersey has the highest number of large casino-hotels in the nation. With 12 casino-hotels and 1.1 million square feet of casino space, the Atlantic City casino-hotel industry is the largest single contributor to the state’s tourist economy. In 1997, visitors spent $3.6 billion in Atlantic City’s casinos, 15 percent of all the state’s tourist dollars. In 1998, gaming revenues totaled $4 billion.

Because of its reliance on casino activity, the outlook for the local economy is becoming increasingly unclear. Competition for the gambling dollar has intensified; Indian reservations in Connecticut, slot machines at racetracks in Delaware, gaming boats cruising from New York, and even the growth of Las Vegas all threaten Atlantic City’s prospects. Its heavy reliance on gambling means that Atlantic City is highly susceptible to an economic downturn, when spending on tourism and entertainment usually decline.

*Additionaly, in spite of the boost to the local economy by area resorts, the growth in gaming activity has not brought substantial economic relief to the central city.* Even though casino activity adds 48,000 jobs to Atlantic City’s economy, unemployment rates remain higher in Atlantic City than the rest of the state. Further, casino expansion, which helped the local construction industry in the past, slowed in 1998. City leaders hope that a

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\(^5\) Forecast by *Standard and Poor’s*. 
A combination of attractions will add to the gambling dollars and boost the local economy. Therefore, they plan to add hotel rooms, improve infrastructure and transportation, and build more tourist attractions and commercial facilities.

Health Care

The health care industry is the largest single component of the U.S. economy. The Health Care Financing Administration forecasts that spending on health care will rise from 13.6 percent of the gross domestic product to almost 17 percent within the next ten years. In recent years, the nation's highly fragmented health care system has undergone major cost-containment and restructuring efforts. Nonetheless, in both the Region and the nation, health care employment had been a growing share of total employment, although in recent years growth has leveled off. Health care employment represents almost 8 percent of jobs in the nation and close to 9 percent in the Region. Employment concentrations higher than 8 percent are found in Maryland, New Jersey, New York, and especially Pennsylvania, where one out of every ten jobs is in health care.

The health care sector continues to adjust to the challenges of managed care. With only about half of the population belonging to managed care plans, additional managed care growth is expected over the next decade. This factor, combined with continued pressure to lower prices and reduced government health benefits, is expected to pose increased risks for the industry. In July 1998, Pennsylvania's largest nonprofit health care system, the Allegheny Education and Research Foundation, filed for bankruptcy protection. The bankruptcy is troubling because it evidences the fragility of the health care system. More than half of New Jersey's hospitals operated at a deficit in 1998, according to a survey by the New Jersey Hospital Association. Even the most fiscally fit medical centers are facing tightening revenues and escalating expenses. As a result, risks to the health care industry may increase for the foreseeable future.

Steel

Although positive revenue growth prevailed in the first half of 1998, the U.S. steel industry came under tremendous pressure in the second half. Depressed economic conditions in Latin America, Asia, and Russia led to a sharp increase in lower-priced imports from those regions and curtailed exports to them. As a result, prices fell, production dropped, and overcapacity increased. All told, higher foreign imports, lower exports, and the strike at General Motors lowered revenue and profits and sparked a round of downsizing in the industry.

Almost 14 percent of the nation's employees in the primary and fabricated metal industries (which include steel and aluminum production) are employed in the Region. Employment concentrations are highest in western Pennsylvania, the home of the USX-US Steel Group, the nation's largest steel producer. While the number of employees in the metals industry has been declining since the mid-1970s, rates of decline slowed to a trickle in 1996 and 1997. Between the first quarters of 1998 and 1999, however, employment levels were down 4.6 percent. The metals industry (specifically steel) is no longer the centerpiece of Pennsylvania's economy; the service and finance sectors are far more important to the state's employment base than during the heyday of the industry. Nonetheless, the industry still accounts for 3 percent of the state's total employment, compared with 1.8 percent of the nation's.

U.S. steel companies face several risks that may continue to hurt their profitability and possibly result in additional cost-cutting efforts, consolidation, and downsizing, thereby threatening local economies of counties still dependent on steel production. Excess domestic and global capacity and weak currencies relative to the U.S. dollar in emerging markets could result in significant price pressures for some time to come.

* Standard and Poor's.
Banks’ Funding Sources Shift

Competition for consumers’ financial assets, both within the banking industry and from brokerages, insurance companies, and credit unions, has impeded core deposit growth. As consumers put more of their savings into stocks, mutual funds, and other higher-yielding assets, the banking industry is faced with deposit growth that is lagging behind loan demand. As a result, alternative funding sources are becoming increasingly important (see *Shifting Funding Trends Pose Challenges for Community Banks* for detailed background information on national funding trends). Consistent with national trends, the Region’s banks have become more reliant on noncore deposits and other borrowings in this decade, a trend that is likely to continue as competition for financial assets intensifies.

**Large Banks Show Greater Shifts than Small Ones**

The Region’s average loan-to-deposit (LTD) ratio has not changed significantly in this decade. However, the LTD ratio for large banks (those with over $1 billion in total assets) has trended upward. Large banks reported an average LTD ratio of 101 percent on March 31, 1999, up from a low of 82 percent on March 31, 1992. Chart 4 shows the change in the distribution of LTDs for large banks from March 31, 1992, to March 31, 1999. The percentage of large banks that have LTD ratios above 80 percent has risen from 57 percent to 73 percent.

The Region’s banks are relying less on core deposits\(^7\) and more on other sources of funding (see Chart 5). Core deposits for all institutions in the Region totaled 68 percent of assets on March 31, 1999, compared with a high of 77 percent in 1992 and 1993. Differences in the ratio of core deposits to assets between small and large institutions reflect the smaller banks’ traditional reliance on core deposits for funding, although that reliance is weakening. In large banks, the ratio of core deposits to assets was down to 52 percent on March 31, 1999, compared with 64 percent in 1992. This ratio has fallen in smaller banks as well, but it still remains much higher than for larger banks. Small banks had an average ratio of 71 percent in the first quarter of 1999, down from a high of 80 percent in 1992. The most significant growth in noncore funding has come from borrowings, including Federal Home Loan Bank advances.

Financial institutions also are relying more heavily on the capital markets as a source of funding. Large banks in particular have been using securitization as a financial management tool, although smaller banks are starting to tap the public markets as well. Consumer loans are the asset securitized most often; for example, in this

\(^7\) While the distinction between core and noncore funding has become blurred, core deposits are still considered generally more stable than noncore funding. Core deposits are defined as the sum of Call Report items for demand deposits, all NOW and automatic transfer service accounts, money market deposit accounts, other savings, and time deposits under $100,000.
Regional Perspectives

Region, credit card securitizations reached $119 billion in the first quarter of 1999, up 54 percent from three years earlier.

Implications

Although the increasing availability of noncore funding sources may add more flexibility to banks’ asset and liability management strategies, such strategies could entail new risks. An analysis of banks that were heavy users of noncore funding from 1994 through 1998 shows one possible drawback. Over the five-year period, this group had an average ratio of interest expenses as a percentage of earning assets that was 51 basis points higher than that of the core users (those with a ratio of core deposits to liabilities greater than 70 percent). This group offset the higher expenses with higher yields on earning assets, so that overall earnings performance (in terms of ROA) was comparable with that of the core users. Higher yields, however, could mean the banks are using riskier assets to improve their margins. Noncore users have much higher LTD ratios: over the same five years, LTD ratios for noncore users averaged 115 percent, versus 70 percent for core users. Further, higher interest expenses could be worrisome if the current interest rate environment shifts. The potential for decreased profitability raises the concern that some institutions may respond by venturing into higher-risk business strategies.

Banks may face other risks as they use more noncore funding sources. The reliance on capital markets and other public sources of funding exposes banks to increased market risk; they are likely to be more affected by changes in market sentiment and availability of funds. This situation makes it more difficult to manage bank balance sheets, since outside factors influence banks’ ability to execute planned strategies. Market forces could increase the volatility in funding and make management of liquidity and interest rate risk more difficult. In short, it is likely that as core deposits become more difficult to attract, the management of liquidity and interest rate risks will become increasingly important.

The New York Region Staff

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*Heavy users of noncore funding are defined as banks, excluding new banks, with a ratio of noncore funding sources to total liabilities of greater than 30 percent.*
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