



## President's Message: Should the Fed Be Made More Accountable?

Thomas C. Melzer

In recent months, we have seen a host of headlines about the Federal Reserve—"What the Fed Hasn't Said," "Gonzalez Calls Greenspan a Liar" and "Is the Fed Playing Market Games?"—that are quite provocative. Unfortunately, they are also misleading: They create the perception that the Fed is in need of greater accountability.

Currently, two major proposals are pending in Congress to reform the Fed. Both are intended to make the Fed more accountable by changing its structure. While Congressional oversight for an institution like the Fed is indeed appropriate, these proposals seek to change a system that not only works, but already ensures accountability.

When one examines the Fed's early years, one can see how Congress attempted to ensure Fed accountability in its very structure. For example, members of the Federal Reserve Board are confirmed by Congress and hold a voting majority on the Federal Open Market Committee (FOMC), the Fed's chief monetary policymaking body. The Board also oversees the activities of the 12 regional Reserve Banks and is responsible for approving Reserve Bank president selections.

At the same time, Congress clearly intended to keep the Fed independent. For example, Federal Reserve Board members serve 14-year staggered terms. In addition, Reserve Bank presidents, who are not presidential appointees, are voting members of the FOMC. These structural checks and balances ensure that the monetary policymaking process is both accountable and insulated from short-term political agendas.

Recent research shows that an independent central bank best serves the economic interests of a nation. Typically, countries with independent central banks have lower rates of inflation and higher growth in standards of living than those that do not. When monetary policy is not separate from government finance, high inflation and poor economic performance often result.

Ultimately, the economy is our primary concern, and in recent years, I think, the Fed's record speaks for itself. Monetary policy has been successful in gradually reducing inflation during a long period of moderate economic growth, and long-term interest rates are at their lowest in more than 20 years. We must be wary of proposals that, in the name of accountability, alter the Fed's structure in a way that would hamper its ability to achieve the best monetary policy. When the real issues, and not the headlines, are considered, the answer to Fed reform is simple: An independent central bank is in the nation's best interest.



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## Are States Giving Away the Store? Attracting Jobs Can Be A Costly Adventure

Adam M. Zaretsky

"Creating jobs" has become the rallying cry of the '90s. Nearly every state's department of economic development spends countless hours trying to figure out how to attract job-creating firms. As competition among the states for high-profile companies has increased, especially over the past 10-12 years, the stakes have grown as states try to outbid each other to secure the valued prize. The most recent example of this occurred in the battle for a Mercedes-Benz factory, which will open in Vance, Ala. (near Tuscaloosa) sometime in 1997.

Alabama offered Mercedes-Benz a package valued at more than the cost of the plant itself. To lure the \$300 million plant, with about 1,500 jobs, the state promised to buy the site for \$30 million and lease it to Mercedes for \$100. Surrounding communities will contribute an additional \$5 million each, and the University of Alabama will offer German language and culture classes to the children of plant employees. On top of this, the state will provide a package of tax breaks valued at more than \$300 million, which will, among other things, allow the plant to be paid for with money that would have been paid to the state.<sup>1</sup>

The competition for the plant had been narrowed to Alabama, North Carolina and South Carolina, all of which seemed in a dead heat. Alabama's incentive package was slightly richer, but, according to Andreas Renschler, president of the Mercedes subsidiary that will run the U.S. venture, "Whether you get \$10 million more or less in one state doesn't make any difference."<sup>2</sup> A natural question to ask, therefore, is whether packages of this nature are worth it for the state. Are the returns from such offerings enough to offset the costs imposed on the citizens and businesses of the state, who, in the end, have to make up for the lost revenue? Is it wise for states that probably can least afford it to make such offers, or are they just giving away the store?

### A Plethora of Incentives

The sheer size of Alabama's incentive package has led to widespread concern that the bidding has become destructively competitive. What started out as tax incentives to lure new business has accelerated to include worker training, apprenticeship programs, infrastructure improvements and even state screening of applicants. To win a BMW plant, for example, South Carolina agreed to screen all job applicants, then train the plant's entire work force through the state's technical schools.<sup>3</sup> South Carolina even raised private funds—about \$3 million—to pay the expenses of workers flown to Germany for first-hand training. North Carolina offers a similar employee training incentive to any manufacturer that adds six or more new workers.

Infrastructure improvements have generally been broader in their appeal. Before Atlanta's expansion in the mid- to late '80s, for example, the city spent heavily to develop Hartsfield International Airport, which has allowed the area to attract the corporate headquarters of many companies, such as United Parcel Service, Saab and Holiday Inns. This development was also instrumental in Atlanta's becoming the host city for the 1996 Summer Olympics. Closer to home, Tennessee invested heavily in telecommunications technology in

the late 1970s: Local phone companies were allowed to raise rates aggressively if they funneled the new revenue into state-of-the-art digital switches and fiber-optic lines. This made Tennessee one of the country's leading states in telecommunications technology, and attracted firms such as Federal Express and Ingram Industries, which sells commercial CD-ROMs.

Gov. Jim Edgar of Illinois, however, believes, as do many others, states have gone too far, and, by their excessive competitiveness, have encouraged firms to squeeze the last dime out of a government before committing to a state. At the August 1993 meeting of the National Governors' Association, he proposed a set of guidelines that limits how much states would give away in tax breaks and subsidies.<sup>4</sup> Briefly, Gov. Edgar proposed that states take a broad view of being friendly to business, one that goes beyond tax incentives to include quality education and transportation systems. States should invest in communities and people rather than individual businesses so that the fortune of a community is not tied up in one enterprise. In addition, companies should be held accountable for not living up to their end of a bargain after being showered with subsidies.<sup>5</sup> This last provision, sometimes known as a clawback, has been implemented in some states or explicitly written into contracts in others.

Many of the incentives mentioned above were tailored to suit the needs of the targeted firm and not necessarily part of a basic package of incentives. Once a state offers a particular incentive to a firm, however, it would be hard pressed to withhold it from another. Table 1 lists the major provisions offered by each of the Eighth Federal Reserve District states to any prospective business.

Table 1

| ✓<br>Yes X No                                      | AR             | IL | IN | KY | MS             | MO | TN             |
|--|----------------|----|----|----|----------------|----|----------------|
| <b>Financial Incentives</b>                        |                |    |    |    |                |    |                |
| <b>Revenue bonds available</b>                     | ✓              | ✓  | ✓  | ✓  | ✓              | ✓  | ✓              |
| <b>State loans available</b>                       | ✓              | ✓  | ✓  | ✓  | ✓              | ✓  | ✓              |
| <b>State or agency guaranty programs available</b> | ✓              | X  | ✓  | ✓  | ✓              | ✓  | X              |
| <b>General obligation bonds available</b>          | ✓              | ✓  | ✓  | X  | ✓              | ✓  | ✓              |
| <b>Tax Incentives</b>                              |                |    |    |    |                |    |                |
| <b>Sales and use tax exemptions</b>                |                |    |    |    |                |    |                |
| • Machinery and equipment                          | ✓ <sub>1</sub> | ✓  | ✓  | X  | X <sup>2</sup> | ✓  | ✓              |
| • Pollution control devices                        | ✓              | ✓  | ✓  | X  | X <sup>2</sup> | ✓  | ✓              |
| • Raw materials                                    | ✓ <sub>3</sub> | ✓  | ✓  | X  | ✓              | ✓  | ✓ <sub>4</sub> |
| <b>State income taxes</b>                          |                |    |    |    |                |    |                |
| • Personal income tax levied                       | ✓              | ✓  | ✓  | ✓  | ✓              | ✓  | ✓ <sub>5</sub> |
| • Corporate income tax levied                      | ✓ <sub>6</sub> | ✓  | ✓  | ✓  | ✓              | ✓  | ✓              |
| <b>Federal income tax deductible</b>               |                |    |    |    |                |    |                |
| • Personal   | X              | ✓  | ✓  | X  | X              | ✓  | X              |

- Corporate X ✓ ✓ X X ✓ X

### Ad valorem tax exemptions

- Real estate X<sup>7</sup> ✓ X ✓ ✓<sub>8</sub> ✓<sub>9</sub> X
- Machinery and equipment X<sup>7</sup> ✓ X ✓ ✓<sub>8</sub> X X
- Raw materials X ✓ X ✓ ✓<sub>8</sub> ✓ X<sup>10</sup>

### Other Incentives

- Right-to-work laws ✓ X X X ✓ X ✓

### Enterprise zone exemption<sup>11</sup>

- Property tax X ✓<sub>12</sub> ✓ ✓ X ✓ X
- Corporate income tax ✓ ✓<sub>13</sub> ✓ ✓ X ✓ ✓<sub>14</sub>
- Sales tax ✓ ✓<sub>15</sub> X ✓ X X ✓<sub>16</sub>

1. Exemption also applies to certain services of commercial jet aircraft and aircraft components or subcomponents.
2. Full exemption in less developed counties and for headquarters facilities.
3. Does not include natural gas and electricity except with the operation of eligible steel mills.
4. Energy fuels and water not directly used in manufacturing process are taxed, but at a lower rate.
5. Individuals are taxed on interest and dividends only.
6. See enterprise zone.
7. Textile mills are exempt for seven years.
8. Local governing units can grant an exemption on all property taxes, except school taxes, for up to 10 years.
9. Only in selected areas of Missouri.
10. Raw materials are taxable. Growing crops in the hands of the producer or his immediate vendor are exempt.
11. In 1989, the Mississippi Legislature eliminated enterprise zones. The entire state of Arkansas was declared an enterprise zone in July 1993.
12. On new construction, remodeling or renovation.
13. Investment and job tax credits available.
14. Reimbursements allowed for machinery purchases, contributions to public schools in enterprise zones and creation of new jobs. Interest income from improvement, operations or real property loans is also exempt.

15. On building materials (unrestricted) and on items used or consumed in manufacturing or at a pollution control facility (with investment and job retention restrictions).
16. Reimbursement available for taxes on building materials.

This table is only meant to summarize the major provisions of a state's statutes. It is possible that additions or other alterations to the responses reported have occurred. For more detailed and current information, contact the state's Department of Economic Development or its equivalent.

SOURCE: *Industrial Incentive Programs: Arkansas and Neighboring States*. Arkansas Institute for Economic Advancement (December 1992). Data for Illinois, Indiana and Kentucky were obtained from their respective Departments of Economic Development.

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## The Importance of Direct Local Participation

While municipalities cannot offer incentives that are comparable to what states can offer, their direct participation in the negotiations is usually seen as critical. In some instances, local authorities performed most of the work, with the state providing support as needed.

In Illinois, for example, state and local officials joined forces to bring the Diamond-Star Automotive Plant, a Chrysler/Mitsubishi joint venture, to the Bloomington/Normal area of McLean County. Diamond-Star's search began in 1984, and the announcement was made in April 1986. State officials negotiated with local officials to develop a package that was acceptable to Diamond-Star but not too costly to the local governments. The final package included enterprise zones, a metro zone (an agreement between Bloomington and Normal to share costs and revenues), and the "Build Illinois" program. These incentives were not the overriding factor in Diamond-Star's decision to choose Bloomington/Normal; however, the firm did assume that its negotiations with state and local governments would yield some type of package.<sup>6</sup>

St. Louis, without assistance from the state of Missouri, offered about \$70 million to Trans World Airlines to entice it to relocate its headquarters from New York. The deal—\$25 million in cash and \$40 million in a bond issue—gave TWA some of the cash necessary for it to emerge from bankruptcy. In addition, the city forgave \$5.3 million owed in back lease payments.<sup>7</sup> In exchange, the airline turned over its gate leases, jetways, baggage systems and associated property at Lambert-St. Louis International Airport to the city, which rents them back to TWA. Also, the city has the right to reassign gates to other airlines should TWA's departures fall below a certain level.

Sometimes, last-minute offers can change what some communities consider a done deal. In late 1992, for example, officials in Jackson, Tenn., were ready to announce that International Paper Co. would build a new plant, bringing nearly 400 jobs into the area. At the same time, Jackson officials were negotiating with the James River Corp. for a new plant. At the 11th hour, Kentucky offered both companies a package that they apparently couldn't resist, and both opened new plants in Bowling Green, Kentucky. Jackson offered International Paper \$500,000 for employee training; Kentucky gave the company \$39 million in training and other incentives. James River received the same deal. This included \$180,000 per year as a rebate of the personal income taxes paid by the firms' employees, and a 100 percent credit against the companies' corporate income taxes. Tennessee could not match these incentives, especially since the firms were asking the state to abate taxes that do not exist there (Tennessee does not impose a personal income tax on earnings).

In this case, the firms were offered corporate income tax credits equal to the company's annual debt service costs under the Kentucky Rural Economic Development Authority (KREDA). If the tax liability would ever reach the amount of credits allowed, an assessment fee for the difference, up to 6 percent of gross wages, could be taken directly from employee withholdings. Employees could recoup the assessments through personal

income tax credits. This benefit, which would grow as the cost of labor increases, not only eliminated Tennessee's advantage of not having an income tax, but made the lack of such a tax a liability.<sup>8</sup> This example illustrates how easy it has become for states to start a bidding war over firms, and how firms have now come to expect these attractive offers.

## Can States Recoup Their Investments?

One obvious question is whether it is worth the expense states have incurred to lure firms in hopes of creating new jobs. Departments of economic development or independent consultants brought in from local universities have typically been assigned the task of forecasting the potential number of jobs that might be created, including those at the support services and suppliers necessary to keep the primary concern in operation, and the potential increase in revenue these additional workers will generate through income and sales taxes. Of course, such reports should be read with a wary eye, as the incentives to either inflate or deflate the results often depend on the author's affiliation or source of funding. In addition, not all effects can be reliably quantified, usually because broad assumptions that are not always verifiable must be made.

To fully evaluate the effectiveness of such incentives, enough time must elapse so that the benefits to the state can start accruing. As with many projects, state development packages are usually backloaded in terms of the benefits to the state, with the costs occurring primarily at the beginning of the project. Many of the previously cited examples are therefore too new to observe reasonable returns. The Honda Motor Company in Marysville, Ohio, however, began development in 1977; thus, the state has had more than 15 years to observe the firm's impact.

As the *"The Rise of Honda In Ohio"* section illustrates, the returns on Ohio's investments have more than exceeded expectations. This conclusion, however, may not hold for other projects and other states. Alabama's incentive package to Mercedes, for example, dwarfs what Ohio put into Honda. To make the comparison relevant, Ohio's expenditures should be stated in 1993 dollars. The equivalent of Ohio's investments in Honda between 1977 and 1990 in 1993 dollars is slightly more than \$131 million. Thus, in inflation-adjusted terms, Mercedes' package of more than \$300 million is slightly more than double the amount Ohio invested in Honda. It may therefore be difficult for Alabama to recoup the cost of this incentive package.

Meanwhile, there are other issues besides the dollar amounts to consider. The Marysville region of Ohio has today become quite dependent on Honda for its fiscal stability. Union County's dependence on 65 percent of its revenue from one source could expose it to severe hardship should Honda decide to relocate. This is one concern Gov. Edgar expressed at the National Governors' Association meeting. Moreover, some suggest that Honda might still have entered the Ohio market even if this package had not been offered. It appears that the *offering* of tax abatements was probably more important than their actual value.<sup>9</sup>

These are some of the lessons other states are taking to heart when they devise a program intended to lure business. In particular, states are trying hard not to place all their eggs in one basket. States are also trying to protect their investments in a firm, primarily through clawbacks.

## When the Firm Wants To Leave

When General Motors announced in late 1991 that it would close more than 20 plants and lay off almost 75,000 workers, towns across the United States and Canada held their breaths. As GM began announcing its plant closures, one choice was narrowed to either the Arlington, Texas, or Ypsilanti, Michigan, plant, since both were producing similar autos.<sup>10</sup> When GM finally decided to close the Ypsilanti plant, the town promptly sued, arguing that the plant was obligated to remain open because GM had sought and received tax breaks in exchange for jobs: The auto maker had applied for and received tax breaks in 1984 and 1988 on \$250 million of investments, saving 50 percent on its tax bill.

A lower-court ruling held that GM was bound by oral promises that led the town to grant the tax abatements. The state appeals court overturned this ruling, stating that just because a corporation solicits a tax abatement using assurances of jobs as a carrot does not imply evidence of a promise. Thus, municipalities will have to be more specific in stating what they might consider a premature withdrawal from a region and design agreements that heavily penalize a firm for leaving.

Some states, like Louisiana, Ohio and Texas, and some localities have already passed laws requiring companies to compensate municipalities for financial incentives if they move prematurely. Other communities have written these requirements into contracts signed by firms. Arlington, Texas, for example, the site of the other plant, signed a 10-year contract with GM in 1991 under which the city can seek to recover all abated taxes if GM closes the plant within five years.

This represents but one kind of clawback. In general, the idea is to introduce an explicit *quid pro quo* into the development process. Essentially, the firm is given an incentive package on the written understanding that it will create and maintain a certain number of jobs over some stated period of time; otherwise, it must make a compensating payment to the state.

The first major legal clawback battle in the United States occurred in New York between the city of Yonkers and Otis Elevator. The city sold to Otis for a half-million dollars a parcel of land valued at \$16 million. Some years later, Otis was taken over by another firm, which announced it would close the technologically obsolete Yonkers plant and transfer investment out of state. Yonkers sued seeking a prorated clawback for its investment in the plant. Unfortunately, because the city had not stipulated in writing a length of time it expected the firm to remain in Yonkers, it lost the case.<sup>11</sup>

Another case involved Duluth, Minn., and the Triangle Corporation, which in exchange for incentives agreed to a limited clawback clause prohibiting the transfer of any equipment purchased with publicly issued bonds. When Triangle began transferring jobs and equipment, the city sued and won an injunction that was later upheld by the state's Supreme Court. This was the first case that resulted in a favorable verdict for the locality, demonstrating that communities fare much better when they specify a financial recovery procedure before a plant shuts down or scales back.<sup>12</sup>

Some clawback programs have taken unique forms. Under a loan grant convertibility program, for example, the state agrees to lend a firm money with the provision that if a certain number of jobs within a designated period are created, the loan will be converted into a grant. If the total number of jobs is not created, a prorated portion of the financial assistance must be repaid. For instance, if 70 percent of the total jobs were created, then 30 percent of the loan must be repaid.

While clawbacks seem like a reasonable means for states and communities to protect themselves from abuses of their generosity, a serious problem arises when trying to define job creation. Should all jobs be counted, or only those jobs that were created because of the financial assistance offered? How long must a job be retained to qualify as job retention? Should only certain levels or types of jobs be included, or should jobs be weighted by their pay? Should jobs filled by workers from underrepresented groups count differently? How much time should the firm be given to create these jobs?

In addition to addressing these issues, communities must also make allowances for contingencies that are beyond a firm's control, such as business cycles and market changes. Because of these problems, officials have often been hesitant to include clawback provisions in their incentive packages or to enforce them when they are included. To add to the confusion, clawbacks can also become bargaining tools as regions compete with one another for firms—a region that does not insist on clawbacks has a clear advantage over one that does.

## **Can Government and Business Cooperate?**

These issues will be debated for as long as firms seek concessions that they can use to pit states against each other. At the regional level, it is important for each community to do its best to attract companies that provide the most stable jobs. On an aggregate level, though, this type of interstate bidding war seems almost futile since any relocation or expansion in the United States benefits the nation as a whole. In some respects, this is the underlying message of Gov. Edgar's address.

Nevertheless, as long as states continue to compete with each other, more and bigger packages will be negotiated until some threshold is reached, beyond which states will simply refuse to go. Some feel that Alabama reached this threshold with its Mercedes package. If so, future packages may include incentives that do not cause a direct burden on the taxpayers of the state. Whatever the next step, states are finding that attracting and retaining jobs can be a costly adventure.

Sidebar 1

## The Rise of Honda In Ohio

Honda initially built a motorcycle assembly plant which opened in 1979.<sup>13</sup> Ohio gave Honda about \$15 million in incentives and an option to purchase adjacent state-owned property. In 1980, Honda acted on the option and announced it would build a \$250 million automobile plant projected to employ 2,000 workers. This time, Ohio offered about \$45 million in incentives. Production of Honda's Accord began in 1982. In 1984, Honda announced it would build a plastics and an engine plant and spend \$240 million expanding the auto plant. In 1987, expansions of the engine and research and development plants and a second auto plant were announced. In total, Honda had invested more than \$2 billion in Ohio by 1990 and employed more than 8,200 workers in its factories. The state and local governments had contributed more than \$90 million in incentives and rebates.

Honda created prosperity in Ohio beyond even its own projections. Much of this fortune can be attributed to the unforeseen success of Honda's Accord in American markets. Based on the expansions in the 1980s, the state and Honda had projected the creation of about 5,800 jobs. In fact, almost 10,000 jobs were created, which reduced the state's average cost per job created from an estimated \$4,200 to about \$2,500. This additional job creation translated into greater-than-anticipated income tax revenues. By 1990, Ohio was receiving \$7.2 million income tax dollars from Honda employees alone—estimates were for only \$5.1 million.<sup>14</sup> In addition, between 1980 and 1990, Honda of America in Union County, Ohio, paid slightly more than \$27 million in property taxes and had about \$8.5 million abated. In other words, Honda was responsible for only 76 percent of its total property tax bill to the county, but this amount was still nearly 65 percent of all property taxes collected by the county. Clearly this was a good deal for the state, the county and Honda.

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### Endnotes

1. Cooper and Ruffenach, p. A2. [back to text]
2. Woodruff and Templeman, p. 139. [back to text]
3. The following information about the Southeast can be found in Foust and Mallory, p. 101. [back to text]

4. These guidelines, while adopted by the Association, will probably have minimal effect because states, especially poorer ones, typically feel they must do whatever it takes to attract new jobs. [back to text]
5. See Dionne, E.J., Jr. [back to text]
6. See Lind and Elder, pp. 21-23. The "Build Illinois" program is a state program that funneled money to the municipality to provide land, roads, sewer facilities and worker-training programs. [back to text]
7. See Miller. [back to text]
8. See Lewis, p. 19. [back to text]
9. See Marvel and Shkurti, p. 61. The distribution of taxes abated, about \$8.5 million over 10 years, and other incentives, totaling about \$27 million over 10 years, lends support to this argument. [back to text]
10. Most of the following information is from Miller and Felsenthal. [back to text]
11. See Peters, p. 330. [back to text]
12. Ibid., p. 331. [back to text]
13. Most of the following information can be found in Marvel and Shkurti. Numbers cited come directly from tables and other data cited in the article. [back to text]
14. These figures assume an annual wage of \$30,000 in 1988 and an estimate of taxes in Ohio. See footnote b of Table 3 in Marvel and Shkurti, p. 56. [back to text]

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## Can Agriculture Rebound This Year?

Kevin L. Kliesen

Last year was a daunting one for agriculture. Floods, excessive rainfall, freezes, drought and insects all combined to reduce farm output in 1993. These adverse effects, however, occurred unevenly across the United States, as some areas escaped relatively unscathed. Nevertheless, by late October more than 1,200 of all U.S. counties—almost 40 percent—were declared natural disaster areas. In 1991, these counties accounted for nearly 40 percent of the total value of U.S. agricultural production. Will some semblance of normalcy return to the Farmbelt this year, or will further challenges crop up?1

### 1993: What Goes Around Comes Around

Following the bumper crops of 1992, few believed that 1993 would be a repeat. Nevertheless, favorable moisture conditions throughout much of the Farmbelt early on raised expectations for an above-average year. Such expectations were dashed when persistent rainfall in the spring and early summer delayed plantings and flooded farmland. By August, the U.S. Department of Agriculture (USDA) was projecting marked reductions in yield and harvested acreage for most crops. The exception was cotton, which looked to be the second-largest crop on record. But with each subsequent crop report, the USDA became more pessimistic. By November 1, the USDA was projecting a 6.5 billion bushel corn crop, down 31 percent below the record 1992 crop. Likewise, it estimated soybean production at 16 percent below and rice production 9.5 percent below 1992's crops. Beset by insects, dryness and other maladies, cotton production was now expected to be up less than 1 percent from 1992. Because winter wheat was much less affected by weather in 1993, total wheat production was the same as 1992's relatively large crop.

Most District states felt the full impact of last year's calamities. Corn yields and harvested acreage, for example, were down substantially in all states—particularly in Missouri, where a 42 bushel per acre yield reduction, combined with a 650,000 acre reduction in harvested acreage pared 1993's crop by nearly half the previous year's. Except for Indiana, which harvested a record soybean crop, District soybean-producing states also suffered substantial reductions in output; this was mainly attributable to large reductions in harvested acreage, as yields were only marginally below the previous year's and, in Illinois, were actually larger than 1992's. In District cotton-producing states, production was down significantly across the board. Similarly, rice production fell considerably in the two largest rice-producing states—Arkansas and Mississippi.

Despite government intervention, commodity prices are generally determined by factors that affect supply and demand. Thus, reductions on the supply side in 1993 pushed prices upward for most District crops. At the beginning of 1993, for example, corn was trading near \$2 a bushel; toward the end of the year it had risen to over \$2.75 a bushel. Similarly, soybeans rose nearly a dollar a bushel from the end of 1992 to the end of 1993. Cotton prices, on the other hand, traded within a narrow band for much of 1993, while rice prices, except for substantial increases in the last three months of 1993, trended downward. Farmers whose crops were not adversely affected in 1993 thus benefited from the upward movement in commodity prices.

The table presents recent inflation adjusted farm income numbers and the USDA's forecasts for this year. There are two primary measures of farm income: net cash income (NCI) and net farm income (NFI).<sup>2</sup> Despite a modest decline in cash expenses and increased government payments, real NCI in 1993 is estimated at \$47.4 billion, down slightly from 1992. Lower cash receipts for food and feed grains and oil crops (for example, soybeans) more than offset higher cash receipts for livestock. Because of a decline in farm inventories, however, real NFI is projected to fall from \$40.1 billion in 1992 to \$35.4 billion in 1993. In fact, farmers liquidating their grain stocks to take advantage of higher grain prices actually boosted cash crop receipts in 1993.

Table 1

## Farm Income

| BILLIONS OF 1987 DOLLARS     |              |              |              |
|------------------------------|--------------|--------------|--------------|
|                              | 1992         | 1993(E)      | 1994(F)      |
| <b>CASH INCOME STATEMENT</b> |              |              |              |
| CASH RECEIPTS                | 141.4        | 139.1        | 137.4        |
| CROPS                        | 70.0         | 66.7         | 68.0         |
| LIVESTOCK                    | 71.3         | 72.3         | 69.5         |
| +DIRECT GOVT. PAYMENTS       | 7.6          | 8.8          | 7.8          |
| +FARM RELATED INCOME         | 6.3          | 5.6          | 6.3          |
| <b>=GROSS CASH INCOME</b>    | <b>155.2</b> | <b>153.5</b> | <b>151.5</b> |
| -CASH EXPENSES               | 107.5        | 106.1        | 104.2        |
| <b>=NET CASH INCOME</b>      | <b>47.6</b>  | <b>47.4</b>  | <b>45.7</b>  |
| <b>FARM INCOME STATEMENT</b> |              |              |              |
| GROSS CASH INCOME            | 155.2        | 153.5        | 151.5        |
| +NONMONEY INCOME             | 5.0          | 4.8          | 5.1          |
| +INVENTORY ADJUSTMENT        | 3.1          | -2.4         | 3.2          |
| <b>=TOTAL GROSS INCOME</b>   | <b>163.3</b> | <b>156.8</b> | <b>160.4</b> |
| -TOTAL EXPENSES              | 123.1        | 124.1        | 120.6        |
| <b>=NET FARM INCOME</b>      | <b>40.1</b>  | <b>35.4</b>  | <b>39.5</b>  |

E=ESTIMATE; F=FORECAST

NOTE: Forecasts for 1994 represent the midpoint of the USDA's upper and lower bound estimate.

SOURCE: United States Department of Agriculture (December 1993)

[back to text]

## The Outlook for 1994

The USDA expects farm output to increase 5 percent to 10 percent this year. But increases in output do not automatically translate into increases in income. To forecast farm income accurately, we must have some idea of expected future price movements. This is easier said than done because it involves predicting the supply and demand for farm commodities. Forecasting livestock production is much easier because production patterns typically do not change dramatically during the year. For example, the USDA expects another year of

large meat supplies, with total production likely to expand by 3 percent over last year's record output. Much of this increase is due to a projected 5 percent increase in broiler production, which is near last year's increase. Beef production is expected to increase 3 percent to 4 percent, while pork production may decline slightly. Beef prices should thus decline slightly this year, while hog and broiler prices are expected to rise modestly. Catfish production, an increasingly important District industry, looks to remain near 1993 levels, but with slightly higher prices.

Forecasting crop output depends to a large extent on the weather, although the government can also influence crop size at the margin. Accordingly, the USDA expects an increase in farm output this year for two reasons. First, despite an El Niño alert by the National Weather Service in October 1993, the USDA assumes a "normal" weather pattern this year, boosting both crop yields and harvested acreage.<sup>3</sup> Second, the Acreage Reduction Program (ARP) set-aside for wheat, corn, sorghum, barley and oats is zero percent.<sup>4</sup> The USDA expects this policy to boost corn acreage by 3 million acres, leading to an increase in output of 225 million bushels. Moreover, a large fraction of the 8 million acres that were either flooded or not planted last year will be brought back into production this year. Although these developments would—all else equal—push crop prices downward, with corn and soybean stocks at their lowest levels in more than 15 years, this effect may be smaller than usual.

Demand for farm commodities, the other half of the price determination mechanism, depends on a myriad of factors, including the growth of population, livestock production and national income. Although most forecasters project the U.S. economy to grow by about 3 percent this year, many of our agricultural trading partners (for example, Japan, Western Europe and the former Soviet Union) are experiencing sluggish economic growth or outright recession. As a result, foreign demand for most farm commodities could be lackluster. Corn, cotton and soybean exports will also be hit by increased foreign competition. In fact, the USDA expects the U.S. global market share for soybeans and soybean meal to fall to 36 percent this year—a record low. Thus, tighter grain supplies, combined with projected increases in beef, pork and poultry production, may keep corn and soybean prices close to their 1993 year-end levels.

Prospects for rice and cotton are mixed. U.S. rice exports may rise considerably this year: Japan is once again expected to import foreign rice (although not necessarily from the United States), and world demand is forecast to rise. Rice prices are thus expected to average 80 to 95 cents a pound, about double the price that prevailed over much of 1993. U.S. cotton exports are estimated to have increased 13 percent in 1993 over 1992. But despite strong foreign demand, cotton exports are expected to slow markedly this year. Unless other factors come into play, cotton prices will probably continue in the 50 to 60 cents a pound range. In the long run, the passage of the North American Free Trade Agreement (NAFTA) and the successful completion of the General Agreement on Tariffs and Trade (GATT) will likely increase the demand for most U.S. agricultural products.

Taking all of these factors into account, the USDA expects real NCI to decline 3.6 percent this year to \$45.7 billion (see table) because of lower livestock receipts and a net reduction in government payments. Because of a rebuilding of farm inventories, however, real NFI is expected to increase more than 11 percent this year to \$39.5 billion. Increases in the value of farm inventories are expected to occur from both increases in farm output and higher average commodity prices. Given the tight supplies of several commodities, however, substantial market volatility could arise this year—particularly if adverse weather strikes again.

Heidi L. Beyer provided research assistance.

## Endnotes

1. This article summarizes the latest forecasts of the United States Department of Agriculture (USDA) presented at their annual Agricultural Outlook conference in December 1993. [back to text]

2. Net cash income is gross cash income (including government payments plus other farm income) less cash expenses. Net farm income, on the other hand, includes noncash expenses such as depreciation and takes into account changes in inventories because many farmers store their grain after harvest in the hopes of selling it at higher prices later. [back to text]
3. El Niño is a weather pattern thought to be caused by ocean warming and capable of producing extreme weather conditions across the globe. According to the USDA, El Niño could produce "continued saturated soils in the central and western corn belt with high potential for spring flooding on the Upper Mississippi and Lower Missouri Rivers, . . . , spring planting delays, and winter flooding in the southern Great Plains to the Delta regions." [back to text]
4. An ARP stipulates a specific percentage of a farmer's land that must be set aside to qualify for government program payments. [back to text]

## ABOUT THE AUTHOR



### **Kevin L. Kliesen**

Kevin L. Kliesen is a business economist and research officer at the Federal Reserve Bank of St. Louis. His research interests include business economics, and monetary and fiscal policy analysis. He joined the St. Louis Fed in 1988. [Read more about the author and his](#)

[research.](#)



## Making Sense of Mark to Market

Michelle Clark Neely

U.S. bankers have been struggling lately to keep up with increased regulatory and congressional scrutiny of their activities. Now the accountants are getting in on the act. Within the last two years the Financial Accounting Standards Board, or FASB (pronounced FAZZBEE), the chief rule-making body for accountants, has approved several proposals that alter the way banks and other financial institutions make financial disclosures.

These new standards fall under the general category of market value accounting (MVA). MVA, also known as fair value accounting or marking to market, requires that an asset or liability be valued according to its market price, that is, the current price at which it could be sold. The call for MVA has gained momentum in recent years, in part because of the savings and loan (S&L) crisis, during which traditional bank accounting methods failed to reveal the huge unrealized losses imbedded in S&Ls' mortgage portfolios. Much of the S&L losses ultimately borne by taxpayers could have been averted, MVA proponents say, if bank accounting methods had reflected the current rather than historical value of assets and liabilities.

### Market Value vs. Historical Cost Accounting

Historical cost accounting (HCA) is the accounting method traditionally used by most financial institutions. With HCA, assets and liabilities are reported at their contractual values, which may or may not equal their market values.<sup>1</sup>

A simple example will illustrate the point. Suppose a banker purchases a one-year fixed-rate security (or makes a lump-sum, one-year loan) with an interest rate of 10 percent, the current market interest rate. Suppose midway through the year, market interest rates rise to 12 percent. This rise in interest rates would reduce the price (or market value) at which the bank could sell the loan or security at mid-year.<sup>2</sup> The market value of the instrument would fall because a buyer would need to be compensated for the difference between the interest rate on that instrument (10 percent) and the going market interest rate (12 percent). In contrast, by HCA, this asset would be valued at \$1,000. The possibility that changes in market rates will cause changes in earnings or the value of portfolios of assets and liabilities (and hence capital) is called interest rate risk.

Of course, the market value of that instrument would also decline if the borrower paid back only half the principal: The banker loses the opportunity to invest and earn interest on the remaining \$500 outstanding in addition to the loss of principal. This type of risk is called credit or default risk.

Market values, then, are based on expected cash flows and foregone investment opportunities. For an asset that is actively traded, like a government bond, the market price is the best estimation of the asset's true economic value. Full market value accounting would require all assets and liabilities to be valued in a similar fashion.

### Is Half a Loaf Better Than No Loaf?

The use of MVA has been hotly debated for several decades. Proponents argue that MVA would reveal the closest approximation to the true economic value of a bank—its capital—and that it would help both shareholders and regulators better monitor a bank's financial condition. Opponents counter that MVA, while theoretically appealing, is impractical for financial institutions because the market values of most of their assets and liabilities are difficult, if not impossible, to measure accurately.

While the jury is still out on whether full MVA will ever be adopted, partial MVA is now a reality. The most recent FASB statement, FAS 115 (Accounting for Certain Investments in Debt and Equity Securities), went into effect January 1, and requires that all banks report certain portions of their investment portfolios at market value.<sup>3</sup> Under FAS 115, a bank's securities portfolio will be divided into three parts: held to maturity, available for sale and trading securities.

The "held to maturity" category will include only those instruments that the bank has the "positive intent and financial ability" to hold to maturity; these assets will continue to be reported at historical cost. The "trading account" will consist of securities that are frequently bought and sold to generate profits on short-term price movements; these assets will be marked to market with any unrealized gains and losses reported in the income statement, as they have been for a number of years. All other securities will fall into the category "available for sale"; these will also be market, but their unrealized gains and losses will not be reflected in the income statement. Rather, they will form a separate component of shareholders' equity, and thus will affect the measured value of bank capital on the balance sheet.

According to proponents, one of FAS 115's major benefits is that bank capital will now reflect interest rate risk as well as credit risk. Credit risk is accounted for in a bank's allowance for loan losses, a contra item on the balance sheet. Until now, interest rate risk has not been reflected in banks' financial statements.<sup>4</sup> Interest rate risk can be significant for banks, especially for those banks with large securities holdings.

One of the primary economic factors affecting the value of investment securities, or any bond holding, is interest rates. As illustrated in the example above, the inverse relationship between interest rates and (fixed-rate) bond prices implies that an increase in interest rates will depress the market value of banks' outstanding investment securities. If a bank were forced to sell a security before its maturity in this environment, the bank would incur a loss (as the security's selling price drops below its purchase price). With MVA, these interest rate risk effects are accounted for in the capital account: Unrealized gains would supplement capital while unrealized losses would be deducted from capital. A bank with unrealized losses would be forced to hold more capital (or reduce assets) to meet regulatory standards, which would better protect depositors and the Bank Insurance Fund in the event of insolvency.

Moreover, marking a portion of the investment portfolio to market will eliminate the incentive for an accounting abuse known as "gains trading." Banks that gains trade tend to sell those securities with unrealized gains, bolstering income and perhaps book capital, while keeping securities with unrealized losses on the books at historical cost, keeping book capital artificially high. Because unrealized gains and losses will be reflected in capital under FAS 115, the incentive for gains trading will essentially be eliminated. Gains trading will also be discouraged by penalties for those banks that attempt to move securities from the "held to maturity" category into one of the other two categories to take advantage of market value gains.

## **Most Bankers Would Rather Go Without**

Most bankers oppose MVA, whether it is partial or full. While the objections are far-ranging, most have to do with feasibility and possible adverse effects on the banking industry. The principle objection to FAS 115 is that it ignores liabilities. Under partial MVA, measured capital is likely to be volatile as the value of assets fluctuates while the value of liabilities stays constant. Most banks hedge against interest rate risk by making adjustments on the liability side of the balance sheet—such as matching up fixed-rate assets with fixed-rate liabilities of

equal duration—to offset fluctuations on the asset side. Under FAS 115, then, measured capital could be a misleading indicator of the actual amount of interest rate risk inherent in the banks' operations. Increased capital volatility could also raise the cost of capital for many banks.

The problem with full MVA is that most bank assets are difficult to measure at market value. Small commercial loans, for example, are not actively traded so an observable market price does not exist. A similar problem exists on the liability side, in that there is no agreed-upon method to determine the market value of nontraded liabilities like demand deposits. Methods of estimating market values for these nontraded assets and liabilities are likely to vary substantially across banks, making comparability a major problem. And because each market value estimate would have to be done on a case-by case basis, banks are likely to incur significant costs.

Thus, while MVA accounting methods are theoretically appealing and could potentially give bank regulators and depositors a clear picture of banks' financial health, there are some significant real world costs associated with MVA that will not be easy to measure or mitigate. If MVA is to make further inroads into official bank accounting, its supporters should demonstrate that its real world benefits will exceed its real world costs.

Thomas A. Pollmann provided research assistance.

## Endnotes

1. Technically, most assets and all liabilities are currently reported at amortized cost, meaning that, for example, as borrowers make principal and interest payments, the amount outstanding of the loan or security is reduced. The value of liabilities reflects accrued interest due that has not been paid. [back to text]
2. In this case, the market value of this asset can be calculated with the following formula:  $MV = C_1/(1 + r) + \dots + C_n/(1 + r)^n + P/(1 + r)^n$ , where C=interest payment, r=discount or interest rate, n=time to maturity, e.g., five years, and P=principal payment. Initially the present value of this asset is \$1000: the bank could take this amount and invest it at 10 percent to earn the same return as the loan or security. If market interest rates rise to 12 percent immediately, the market value of this instrument falls to \$982.14, since  $((C + P)/1.12) = \$1100/1.12 = \$982.14$ . [back to text]
3. Technically, FAS 115 became effective with fiscal years beginning after December 15, 1993; because most banks' fiscal years coincide with the calendar year, January 1, 1994, was D-day for most. [back to text]
4. In addition to accounting for interest rate risk with market value accounting of the investment portfolio, interest rate risk will soon be incorporated into banks' risk-based capital requirements. [back to text]

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## Pieces of Eight: News Bulletins from the Eighth Federal Reserve District

### Economy Singing The Post-Holiday Blues?

Retailers across the country know it's the ringing of cash registers and not sleigh bells that make a successful holiday season. In fact, holiday shopping spurs so much seasonal employment and consumer spending, the unemployment rate usually rises by almost a whole percentage point in January, and GDP falls an average of 5.2 percent between the fourth and first quarters. In comparison, the worst recession since 1950 showed only a 4.1 percent drop.

"While extreme, these types of seasonal fluctuations are expected around the holidays," says St. Louis Fed economist Joseph A. Ritter. "In fact, similar seasonal fluctuations pervade most aspects of the economy, not just those that are closely tied to weather or Christmas retail sales." For example, residential and nonresidential investment, imports, exports and even government purchases all show strong seasonal fluctuations.

Are seasonal fluctuations bad for the economy? "Most economists don't think so," says Ritter. "Basically, they reflect the efficient response of a market economy to seasonal variations in demand and production opportunities." For more information call 314-444-8809 and request a copy of the January 1994 issue of *National Economic Trends*.

### New Video Teaches Students About the Fed

What do Michael Jordan, Hurricane Andrew and Paul Volcker have in common? They all appear in the Federal Reserve's new educational video, which explains the Federal Reserve System and the role it plays in the economy.

The video, part of the Fed's efforts to improve economic literacy, includes four titles on one videotape, a set of nine classroom posters and accompanying classroom materials. The package is free and ideal for economics, social studies and consumer education teachers.

"The instructional materials have been tested by teachers and were developed by economic education specialists at several Federal Reserve Banks and staff of the National Council for Economic Education and its regional centers," says Debra L. Bangert, economic education specialist for the St. Louis Fed. "First reactions from screenings with teachers across the country have been very positive."

For more information or to order a copy of the video, please call Debra Bangert at 314-444-8421.

### Who Makes Monetary Policy Decisions?

It happens about every six weeks. You turn the TV on or open the newspaper up, and economists are speculating about the outcome of the next Federal Open Market Committee (FOMC) meeting. How many people vote at an FOMC meeting? Who are they?

The FOMC, the nation's monetary policy-setting body, comprises the seven members of the Federal Reserve Board, the president of the New York Fed, and four other Reserve Bank presidents who serve on a rotating basis. For 1994 the voting Reserve Bank presidents are J. Alfred Broaddus Jr., Richmond; Robert P. Forrestal, Atlanta; Jerry L. Jordan, Cleveland; Robert T. Parry, San Francisco; and William J. McDonough, New York. All 12 Reserve Bank presidents participate in the FOMC's policy deliberations.

Proposed 1994 meeting dates:

- February 3
- March 22
- May 17
- July 5
- August 16
- September 27
- November 15
- December 20

## **Numer of Serious Crimes in Eighth District States Per 100,000 Population, 1991**

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| <b>Rank Among 50 States</b> | <b>District State</b> | <b>Number of Crimes</b> |
|-----------------------------|-----------------------|-------------------------|
| 4                           | Kentucky              | 3,358.3                 |
| 12                          | Mississippi           | 4,220.8                 |
| 18                          | Indiana               | 4,817.8                 |
| 21                          | Arkansas              | 5,174.9                 |
| 25                          | Tennessee             | 5,366.7                 |
| 26                          | Missouri              | 5,415.7                 |
| 37                          | Illinois              | 6,132.1                 |

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# District Data

Selected economic indicators of banking,  
agricultural and business conditions in  
the Eighth Federal Reserve District

The Regional Economist  
January 1994

## Commercial Bank Performance Ratios

U.S., District and State

|   | All<br>U.S. | U.S.<br><\$15B <sup>1</sup> | District | AR     | IL     | IN     | KY     | MS     | MO     | TN     |
|---|-------------|-----------------------------|----------|--------|--------|--------|--------|--------|--------|--------|
| <b>Return on Average Assets (Annualized)</b>              |             |                             |          |        |        |        |        |        |        |        |
| 3rd quarter 1993  | 1.22%       | 1.26%                       | 1.27%    | 1.41%  | 1.44%  | 1.20%  | 1.10%  | 1.38%  | 1.21%  | 1.32%  |
| 2nd quarter 1993  | 1.20        | 1.24                        | 1.28     | 1.43   | 1.49   | 1.27   | 1.05   | 1.41   | 1.20   | 1.35   |
| 3rd quarter 1992  | 0.94        | 1.06                        | 1.17     | 1.39   | 1.21   | 1.06   | 1.07   | 1.25   | 1.11   | 1.16   |
| <b>Return on Average Equity (Annualized)</b>              |             |                             |          |        |        |        |        |        |        |        |
| 3rd quarter 1993  | 15.79%      | 15.12%                      | 14.99%   | 15.62% | 15.28% | 12.83% | 12.98% | 15.09% | 15.27% | 17.28% |
| 2nd quarter 1993  | 15.56       | 14.88                       | 15.13    | 15.98  | 16.00  | 13.71  | 12.40  | 15.42  | 15.13  | 17.91  |
| 3rd quarter 1992  | 13.37       | 13.58                       | 14.39    | 16.09  | 13.58  | 12.02  | 13.29  | 13.86  | 14.41  | 16.11  |
| <b>Net Interest Margin (Annualized)</b>                   |             |                             |          |        |        |        |        |        |        |        |
| 3rd quarter 1993  | 4.50%       | 4.85%                       | 4.53%    | 4.55%  | 4.89%  | 4.47%  | 4.33%  | 4.97%  | 4.38%  | 4.66%  |
| 2nd quarter 1993  | 4.50        | 4.85                        | 4.56     | 4.57   | 4.94   | 4.49   | 4.32   | 4.96   | 4.40   | 4.72   |
| 3rd quarter 1992  | 4.47        | 4.81                        | 4.47     | 4.60   | 4.60   | 4.61   | 4.22   | 5.06   | 4.27   | 4.67   |
| <b>Nonperforming Loans<sup>2</sup> ÷ Total Loans</b>      |             |                             |          |        |        |        |        |        |        |        |
| 3rd quarter 1993  | 2.40%       | 1.89%                       | 0.99%    | 0.91%  | 1.24%  | 0.61%  | 1.04%  | 0.86%  | 0.97%  | 1.05%  |
| 2nd quarter 1993  | 2.63        | 1.98                        | 1.07     | 0.93   | 1.24   | 0.77   | 1.16   | 1.01   | 1.11   | 1.04   |
| 3rd quarter 1992  | 3.43        | 2.60                        | 1.43     | 1.27   | 1.74   | 1.06   | 1.39   | 1.34   | 1.53   | 1.45   |
| <b>Net Loan Losses ÷ Average Total Loans (Annualized)</b> |             |                             |          |        |        |        |        |        |        |        |
| 3rd quarter 1993  | 0.80%       | 0.70%                       | 0.35%    | 0.12%  | 0.39%  | 0.16%  | 0.45%  | 0.35%  | 0.35%  | 0.47%  |
| 2nd quarter 1993  | 0.84        | 0.72                        | 0.39     | 0.13   | 0.41   | 0.21   | 0.46   | 0.38   | 0.46   | 0.50   |
| 3rd quarter 1992  | 1.22        | 1.02                        | 0.56     | 0.34   | 0.75   | 0.52   | 0.67   | 0.50   | 0.45   | 0.81   |
| <b>Loan Loss Reserve ÷ Total Loans</b>                    |             |                             |          |        |        |        |        |        |        |        |
| 3rd quarter 1993  | 2.54%       | 2.29%                       | 1.80%    | 1.58%  | 1.83%  | 1.49%  | 1.70%  | 1.69%  | 1.95%  | 2.04%  |
| 2nd quarter 1993  | 2.58        | 2.34                        | 1.81     | 1.62   | 1.82   | 1.50   | 1.74   | 1.73   | 1.93   | 2.06   |
| 3rd quarter 1992  | 2.69        | 2.44                        | 1.80     | 1.62   | 1.81   | 1.41   | 1.73   | 1.69   | 1.94   | 2.09   |

NOTE: Data include only that portion of the state within Eighth District boundaries.

<sup>1</sup> U.S. banks with average assets of less than \$15 billion are shown separately to make comparisons with District banks more meaningful, as there are no District banks with average assets greater than \$15 billion.

<sup>2</sup> Includes loans 90 days or more past due and nonaccrual loans

SOURCE: FFIEC Reports of Condition and Income for Insured Commercial Banks

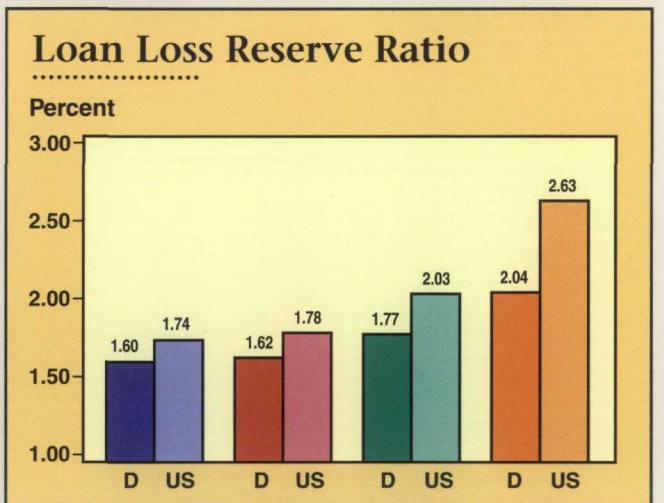
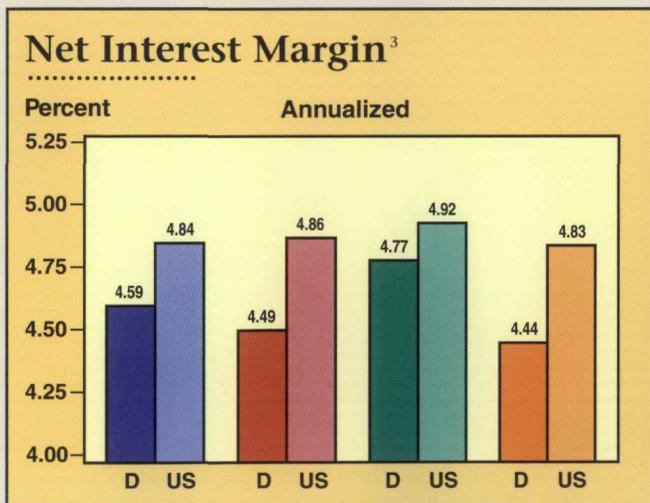
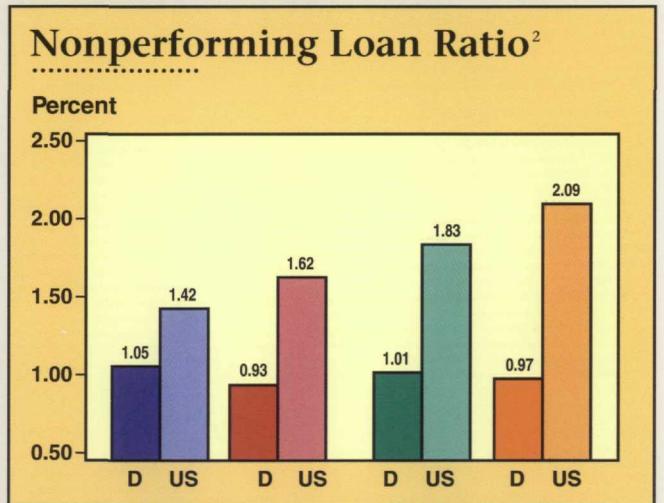
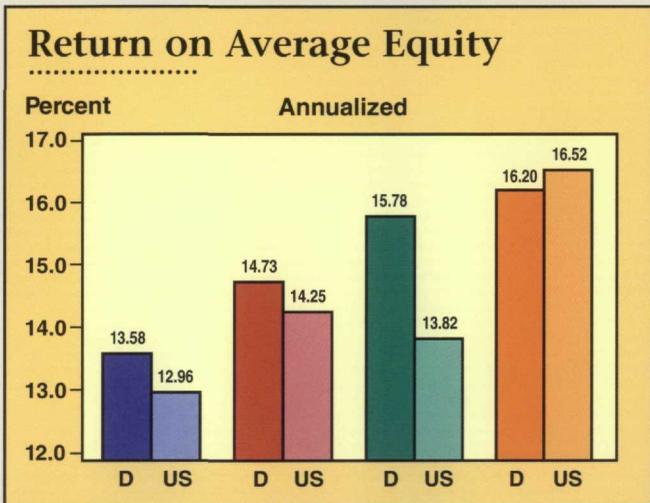
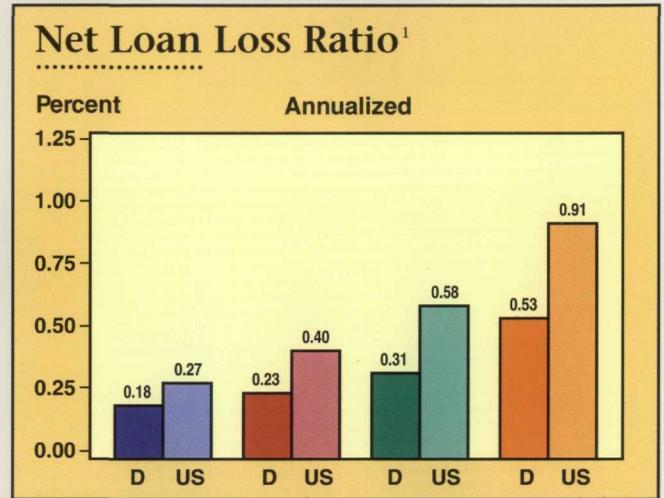
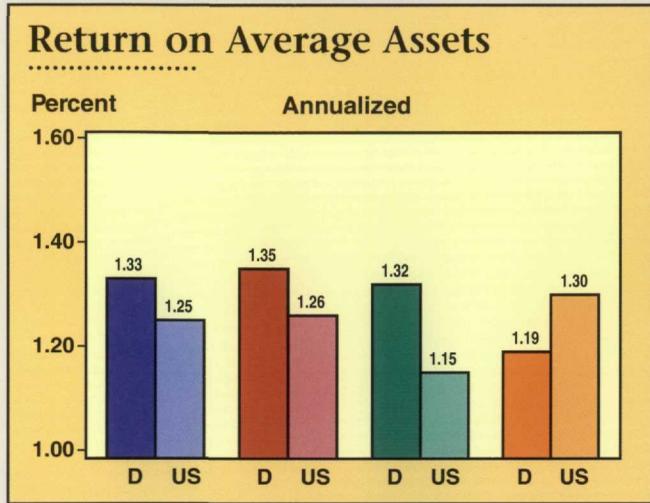
# Commercial Bank Performance Ratios

by Asset Size

3rd Quarter 1993

## Earnings

## Asset Quality



**D = District**  
**US = United States**

|  |                               |  |                             |
|--|-------------------------------|--|-----------------------------|
|  | < \$100 Million               |  | \$300 Million - \$1 Billion |
|  | \$100 Million - \$300 Million |  | \$1 Billion - \$15 Billion  |

NOTE: Asset quality ratios are calculated as a percent of total loans.

<sup>1</sup> Loan losses are adjusted for recoveries

<sup>2</sup> Includes loans 90 days or more past due and nonaccrual loans

<sup>3</sup> Interest income less interest expense as a percent of average earning assets

SOURCE: FFIEC Reports of Condition and Income for Insured Commercial Banks

## Agricultural Bank Performance Ratios

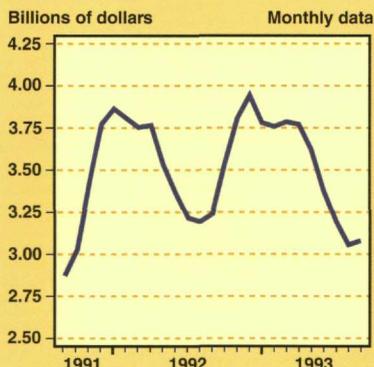
|  | U.S.   | AR     | IL     | IN     | KY     | MS     | MO     | TN     |
|--|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Return on average assets (annualized)</b>               |        |        |        |        |        |        |        |        |
| 3rd quarter 1993   | 1.35%  | 1.36%  | 1.30%  | 1.25%  | 1.34%  | 1.63%  | 1.42%  | 1.27%  |
| 2nd quarter 1993   | 1.36   | 1.38   | 1.33   | 1.26   | 1.36   | 1.53   | 1.47   | 1.31   |
| 3rd quarter 1992   | 1.32   | 1.49   | 1.17   | 1.21   | 1.33   | 1.51   | 1.34   | 1.22   |
| <b>Return on average equity (annualized)</b>               |        |        |        |        |        |        |        |        |
| 3rd quarter 1993   | 13.64% | 13.09% | 12.70% | 12.82% | 13.98% | 16.41% | 14.65% | 12.78% |
| 2nd quarter 1993   | 13.91  | 13.19  | 13.03  | 13.12  | 14.33  | 15.22  | 15.40  | 13.39  |
| 3rd quarter 1992   | 13.82  | 14.76  | 12.06  | 12.38  | 14.14  | 16.07  | 14.40  | 13.27  |
| <b>Net interest margin (annualized)</b>                    |        |        |        |        |        |        |        |        |
| 3rd quarter 1993   | 4.62%  | 4.41%  | 4.23%  | 4.79%  | 4.49%  | 5.19%  | 4.63%  | 4.66%  |
| 2nd quarter 1993   | 4.61   | 4.40   | 4.25   | 4.89   | 4.44   | 5.19   | 4.63   | 4.64   |
| 3rd quarter 1992   | 4.64   | 4.63   | 4.25   | 4.66   | 4.54   | 5.15   | 4.62   | 4.66   |
| <b>Ag loan losses ÷ average ag loans (annualized)</b>      |        |        |        |        |        |        |        |        |
| 3rd quarter 1993   | 0.15%  | 0.41%  | 0.13%  | 0.46%  | 0.15%  | 0.79%  | 0.36%  | -0.06% |
| 2nd quarter 1993   | 0.16   | 0.34   | 0.18   | 0.48   | 0.12   | 1.11   | 0.56   | 3.06   |
| 3rd quarter 1992   | 0.28   | 0.43   | 0.26   | 0.12   | 0.30   | 1.08   | 0.54   | 0.57   |
| <b>Ag nonperforming loans<sup>1</sup> ÷ total ag loans</b> |        |        |        |        |        |        |        |        |
| 3rd quarter 1993   | 1.54%  | 0.74%  | 1.98%  | 1.36%  | 1.44%  | 2.44%  | 1.02%  | 0.12%  |
| 2nd quarter 1993   | 1.73   | 0.81   | 1.80   | 1.73   | 1.91   | 3.99   | 1.20   | 0.68   |
| 3rd quarter 1992   | 1.87   | 1.10   | 3.34   | 2.69   | 2.00   | 3.46   | 2.07   | 0.72   |

NOTE: Agricultural banks are defined as those banks with a greater than average share of agricultural loans to total loans.  
Data include only that portion of the state within Eighth District boundaries.

<sup>1</sup> Includes loans 90 days or more past due and nonaccrual loans

SOURCE: FFIEC Reports of Condition and Income for Insured Commercial Banks

### U.S. Agricultural Exports\*



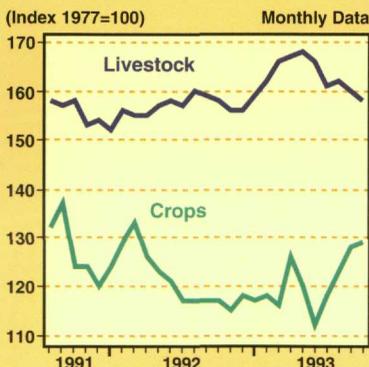
### U.S. Agricultural Exports by Commodity

Dollar amounts in billions

| Commodity            | July | Aug  | Sep  | Year-to-date | Change from year ago |
|----------------------|------|------|------|--------------|----------------------|
| Livestock & products | .62  | .62  | .64  | 7.57         | -7.3%                |
| Corn                 | .23  | .26  | .38  | 4.25         | -7.7                 |
| Cotton               | .11  | .09  | .08  | 1.54         | -29.9                |
| Rice                 | .05  | .07  | .07  | 0.77         | 1.3                  |
| Soybeans             | .28  | .17  | .21  | 4.61         | 6.7                  |
| Tobacco              | .09  | .07  | .06  | 1.44         | -8.0                 |
| Wheat                | .37  | .33  | .36  | 4.74         | 9.6                  |
| TOTAL <sup>1</sup>   | 3.08 | 2.95 | 3.22 | 42.59        | 0.4                  |

<sup>1</sup> Includes commodities not listed here

### U.S. Crop and Livestock Prices



### Indexes of Food and Agricultural Prices

|  | Level  |       |        | Growth <sup>1</sup> |               |
|--|--------|-------|--------|---------------------|---------------|
|  | III/93 | II/93 | III/92 | II/93-III/93        | III/92-III/93 |
| Prices received by U.S. farmers                  | 142    | 143   | 138    | -2.76               | 3.14          |
| Prices received by District farmers <sup>2</sup> |        |       |        |                     |               |
| Arkansas   | 123    | 121   | 121    | 6.80                | 1.10          |
| Illinois <sup>3</sup>                            | 102    | 100   | 99     | 11.14               | 3.72          |
| Indiana  | 114    | 110   | 108    | 15.36               | 5.88          |
| Missouri   | 141    | 138   | 136    | 6.92                | 3.69          |
| Tennessee  | 145    | 143   | 141    | 5.70                | 2.83          |
| Prices paid by U.S. farmers                      |        |       |        |                     |               |
| Production items                                 | 178    | 179   | 177    | -2.22               | 0.56          |
| Other items <sup>4</sup>                         | 197    | 197   | 192    | 0.00                | 2.60          |
| Consumer food prices                             | 141    | 141   | 138    | 0.09                | 2.05          |
| Consumer nonfood prices                          | 146    | 145   | 141    | 2.04                | 2.92          |

NOTE: Data not seasonally adjusted except for consumer food prices and nonfood prices.

<sup>1</sup> Compounded annual rates of change are computed from unrounded data.

<sup>2</sup> Index of prices received for all farm products (1977=100). Indexes for Kentucky and Mississippi are unavailable.

<sup>3</sup> (1985-89=100) for 1991; (1986-90=100) for 1992

<sup>4</sup> Other items include commodities, services, interest, taxes and wages.

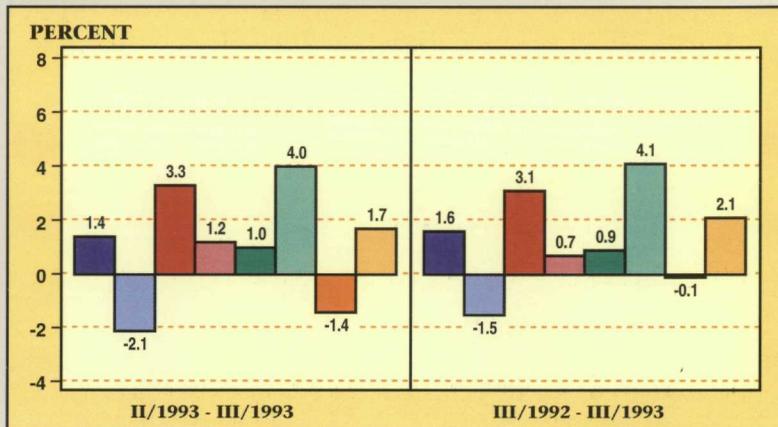
# Selected U.S. and State Business Indicators

## Compounded Annual Rates of Change in Nonagricultural Employment

### United States

|   | III/1993 | II/1993 | III/1992 |
|---|----------|---------|----------|
| Labor force<br>(in thousands)                         | 128,138  | 127,866 | 127,343  |
| Total nonagricultural<br>employment<br>(in thousands) | 110,382  | 109,993 | 108,631  |
| Unemployment rate                                     | 6.7%     | 7.0%    | 7.6%     |

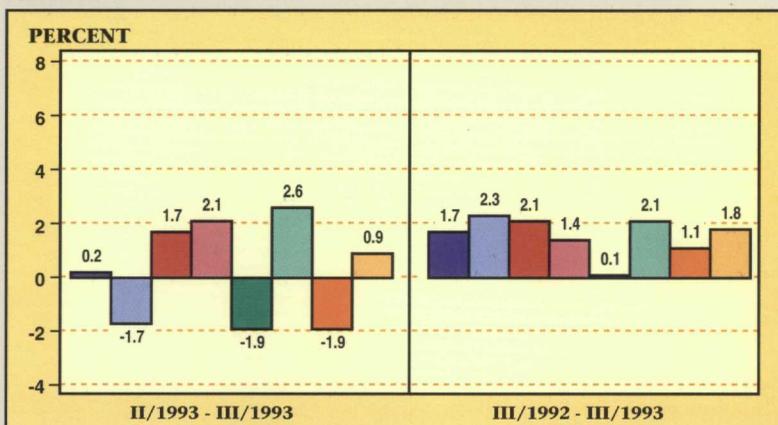
|  | II/1993   | I/1993    | II/1992   |
|--|-----------|-----------|-----------|
| Real personal income*<br>(in billions) | \$3,714.5 | \$3,657.6 | \$3,630.8 |



### Arkansas

|   | III/1993 | II/1993 | III/1992 |
|---|----------|---------|----------|
| Labor force<br>(in thousands)                         | 1,175.3  | 1,153.2 | 1,151.9  |
| Total nonagricultural<br>employment<br>(in thousands) | 980.5    | 980.0   | 964.4    |
| Unemployment rate                                     | 5.9%     | 6.0%    | 7.1%     |

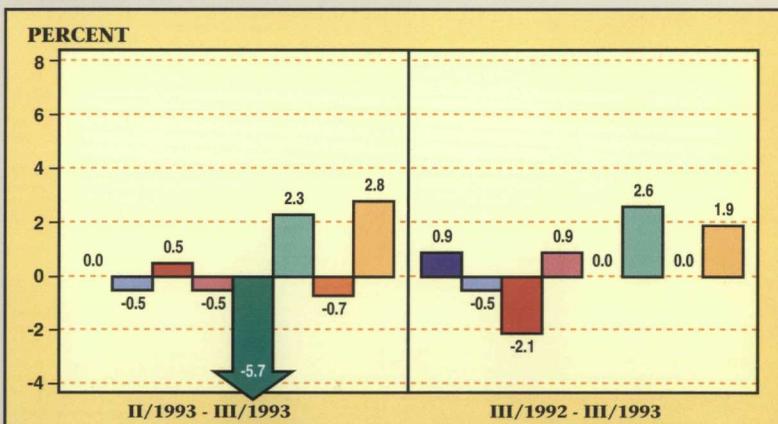
|  | II/1993 | I/1993 | II/1992 |
|--|---------|--------|---------|
| Real personal income*<br>(in billions) | \$27.6  | \$27.5 | \$26.9  |



### Illinois

|   | III/1993 | II/1993 | III/1992 |
|---|----------|---------|----------|
| Labor force<br>(in thousands)                         | 6,117.4  | 6,132.5 | 6,092.1  |
| Total nonagricultural<br>employment<br>(in thousands) | 5,228.2  | 5,227.9 | 5,179.4  |
| Unemployment rate                                     | 7.7%     | 8.3%    | 7.3%     |

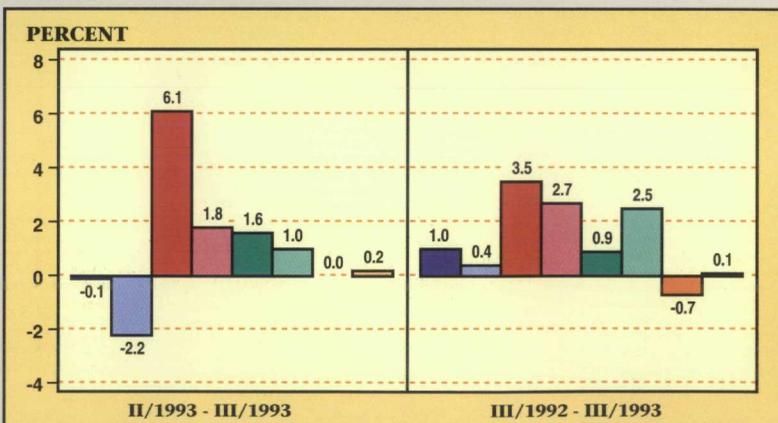
|  | II/1993 | I/1993  | II/1992 |
|--|---------|---------|---------|
| Real personal income*<br>(in billions) | \$184.7 | \$182.8 | \$180.7 |



### Indiana

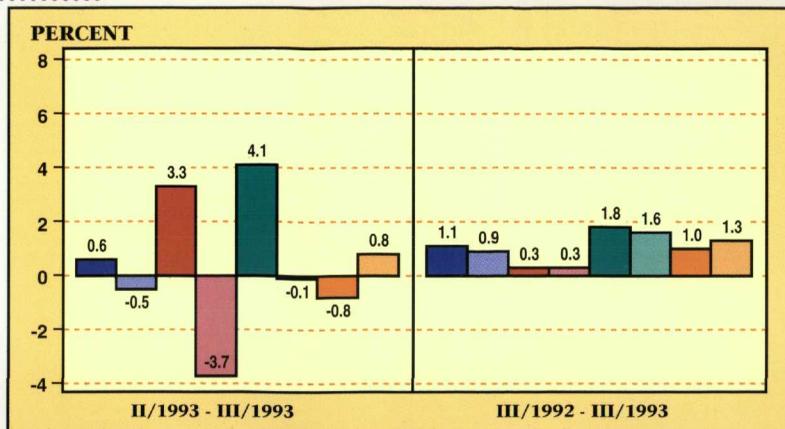
|   | III/1993 | II/1993 | III/1992 |
|---|----------|---------|----------|
| Labor force<br>(in thousands)                         | 2,999.2  | 2,897.3 | 2,881.8  |
| Total nonagricultural<br>employment<br>(in thousands) | 2,560.8  | 2,561.5 | 2,535.5  |
| Unemployment rate                                     | 4.4%     | 6.0%    | 6.7%     |

|  | II/1993 | I/1993 | II/1992 |
|--|---------|--------|---------|
| Real personal income*<br>(in billions) | \$75.9  | \$75.4 | \$73.7  |



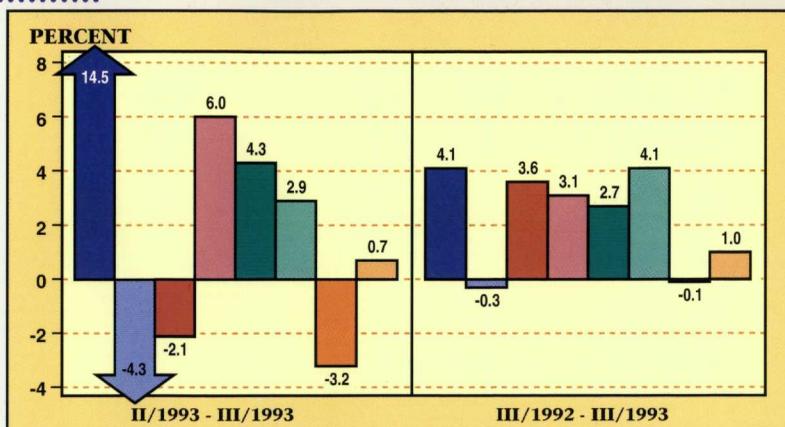
## Kentucky

|   | III/1993 | II/1993 | III/1992 |
|---|----------|---------|----------|
| Labor force<br>(in thousands)                         | 1,774.5  | 1,770.7 | 1,754.7  |
| Total nonagricultural<br>employment<br>(in thousands) | 1,529.7  | 1,527.3 | 1,513.5  |
| Unemployment rate                                     | 6.7%     | 6.7%    | 7.3%     |
|   | II/1993  | I/1993  | II/1992  |
| Real personal income*<br>(in billions)                | \$45.6   | \$45.2  | \$44.8   |



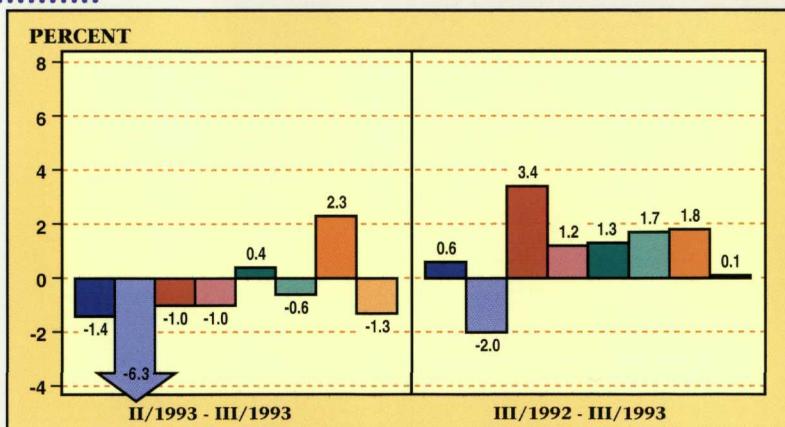
## Mississippi

|   | III/1993 | II/1993 | III/1992 |
|---|----------|---------|----------|
| Labor force<br>(in thousands)                         | 1,200.6  | 1,196.8 | 1,198.0  |
| Total nonagricultural<br>employment<br>(in thousands) | 1,035.2  | 1,000.6 | 994.5    |
| Unemployment rate                                     | 5.7%     | 7.1%    | 8.6%     |
|   | II/1993  | I/1993  | II/1992  |
| Real personal income*<br>(in billions)                | \$27.1   | \$27.1  | \$26.2   |



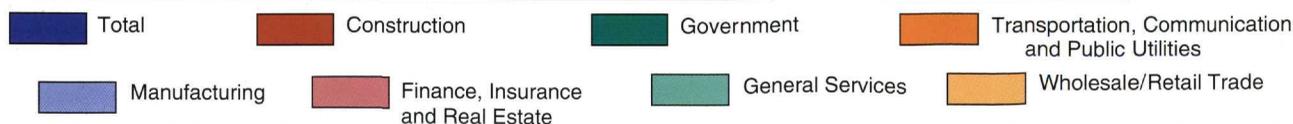
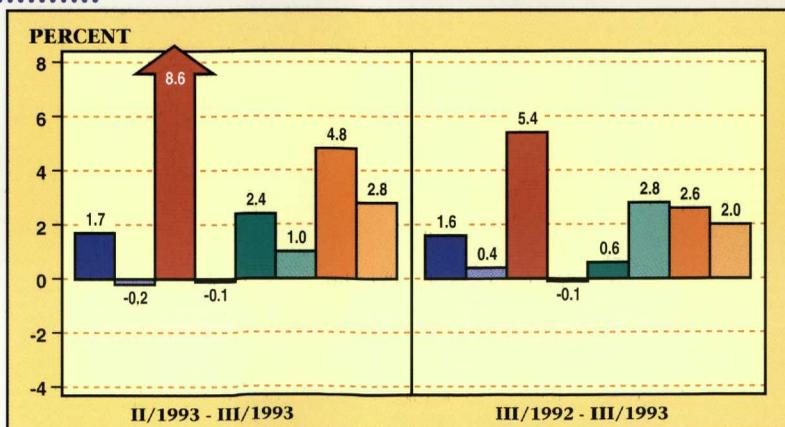
## Missouri

|   | III/1993 | II/1993 | III/1992 |
|---|----------|---------|----------|
| Labor force<br>(in thousands)                         | 2,699.1  | 2,632.8 | 2,684.4  |
| Total nonagricultural<br>employment<br>(in thousands) | 2,333.1  | 2,341.2 | 2,318.4  |
| Unemployment rate                                     | 5.9%     | 6.6%    | 5.9%     |
|   | II/1993  | I/1993  | II/1992  |
| Real personal income*<br>(in billions)                | \$71.2   | \$70.4  | \$70.2   |



## Tennessee

|   | III/1993 | II/1993 | III/1992 |
|---|----------|---------|----------|
| Labor force<br>(in thousands)                         | 2,479.4  | 2,448.2 | 2,448.1  |
| Total nonagricultural<br>employment<br>(in thousands) | 2,273.0  | 2,263.4 | 2,236.2  |
| Unemployment rate                                     | 5.6%     | 6.3%    | 6.4%     |
|   | II/1993  | I/1993  | II/1992  |
| Real personal income*<br>(in billions)                | \$65.1   | \$63.9  | \$62.6   |



NOTE: All data are seasonally adjusted. The nonagricultural employment data reflect the 1992 benchmark revision.  
\* Annual rate. Data deflated by CPI, 1982-84=100.