



REGIONAL ECONOMIST | APRIL 2001

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# President's Message: Recession Fears May Be Overstated

William Poole

Every day I am struck by how quickly our Information Age society tends to jump to conclusions. I'm speaking of the recent predictions of economic recession.

While each of us has our own definition of recession, a popular rule of thumb is two consecutive quarters of negative real GDP growth. But since most everyone uses the business cycle chronology established by the National Bureau of Research (NBER), let's go with its definition: "a significant decline in activity spread across the economy, lasting more than a few months."

Such definitions, of course, don't sway the person who has recently been laid off, or whose 401(k) just plummeted. Indeed, if economic growth drops from a 4 percent rate to a 1 percent rate, we may all be excused for feeling like we're in a recession—even as the economy continues to grow.

Although economic conditions appeared to deteriorate quickly, some factors were already working to slow growth from its unsustainable pace of late 1999 and early 2000. One key factor was ballooning energy prices. In about one year's time, energy prices nearly tripled, causing consumers (and firms) to shift more of their expenditures toward home heating and gasoline. With the vibrancy of domestic demand sapped, sales waned and unwanted inventory buildups occurred, particularly in automobiles, leading firms to start slashing costs, including payrolls. As profit opportunities dwindled, stock market valuations, mainly in the information technology sector, headed downward. In response, firms cut back their capital investment spending significantly, especially in computer and other high-tech equipment, which had been an important driver in our record-setting expansion. Expenditures on computers and other high-tech equipment were further weakened by the dot.com shakeout.

Not all the news has been bad, however. Nonfarm payrolls actually rose 343,000 during the first quarter, and energy prices have abated recently. Based on this evidence, can I predict with certainty that our economy won't head into recession? The graveyards of economists who claimed they could predict the onset of recessions are numerous, and I'm not quite ready to join them. The NBER primarily looks at industrial production and employment in determining the beginning and end of economic expansions. In my book, though, two other things make me confident that recession fears are overstated: the housing market and monetary policy.

Monetary policy has been quite expansionary. The two aggregates I watch most closely, M2 and MZM, grew at estimated rates of 11.2 percent and 19.9 percent, respectively, in the first quarter. Meanwhile, the Federal Open Market Committee has reduced its target federal funds rate by 200 basis points since January. While falling interest rates should boost interest-sensitive sectors of the economy, some of these sectors, like housing, are already doing reasonably well. For example, sales of existing homes, as well as housing starts and permits, are all performing at or above fourth-quarter 2000 levels.

So if we're headed for recession, it's going to be one that breaks the mold.



REGIONAL ECONOMIST | APRIL 2001

<https://www.stlouisfed.org/publications/regional-economist/april-2001/how-much-of-the-gender-wage-gap-is-due-to-discrimination>

## How Much of the Gender Wage Gap Is Due to Discrimination?

Howard J. Wall , Alyson Reed

The response to economist Howard Wall's October 2000 article on the gender wage gap prompted some spirited feedback from readers. Among those we heard from was Alyson Reed, director of the National Committee on Pay Equity, who asked if we would consider publishing an alternative view. The following is a summary of Wall's original remarks, Reed's response and Wall's rebuttal.

### The Gender Wage Gap and Wage Discrimination: Illusion or Reality?

**Howard Wall:**

Despite laws to prevent wage discrimination in the workplace, the median weekly earnings for full-time female workers in 1999 was only 76.5 percent that of their male counterparts. A close analysis, however, reveals that much of this gap is due to non-discriminatory factors:

- Weekly vs. hourly wages. Women typically work fewer hours a week than men. When you compare hourly wages, almost one-third of the gap disappears.
- Education, experience, occupation, union status. A 1997 study shows that men's educational and experience levels are currently greater than women's and that men gravitate toward industries and occupations that are higher-paying than women, including union jobs. These factors reduce the remaining wage gap by 62 percent.

The remaining 6.2 cents of the gap, which is unexplained, is the maximum that can be attributed to wage discrimination. Some of this unexplained portion might be due to the difficulties involved in accounting for the effects of childbearing on women's wages. For example, women aged 27 to 33 who have never had children earn a median hourly wage that is 98 percent of men's.

If it is flawed as a measure of wage discrimination, what do we make of the gender wage gap? Perhaps it is best used to indicate the underlying expectations and social norms that drive our career and workforce decisions, which themselves may be affected by other types of gender discrimination.

### Whatever You Call It, It's Still Discrimination and It Still Affects Women's Wages

**Alyson Reed:**

As Howard Wall notes in his article, the relationship between wage discrimination and the gender wage gap is complicated. As the national nonprofit coalition that has worked on this issue exclusively for more than 20

years, the National Committee on Pay Equity has tracked the debate, collected the facts and talked with women across the country about their experiences with discrimination on the job. This long-term involvement in pay equity issues informs our understanding of the complexities surrounding the wage gap and its use as an indicator of workplace equality.

I agree with Wall that not all of the wage gap is attributable to outright wage discrimination. He notes that differences in experience, training and occupation all contribute to the wage gap. I agree. However, it is important to understand whether the differences in experience, training and occupation themselves reflect larger workplace and societal discrimination. Indeed, Wall's point that other types of discrimination may have played a part in creating human capital and other differences between men and women is right on target.

The issue of occupational differences between men and women, and how the occupational segregation of these groups contributes to wage disparities, has been a focus of pay equity research. These differences may not constitute wage discrimination per se, but the disparities do reflect sex discrimination that limits the economic opportunities of many women. The issue of occupational segregation is a significant component of the wage gap because studies have shown that the more women are represented in a particular occupation, the less money it is likely to be paid. In other words, in a sexist society, the work of women tends to be undervalued.

The issues of experience and training are also significant. If women have less workplace experience than men do, it is typically because they have taken time out for family care-giving. In today's economy, women are still expected to bear the brunt of this responsibility. Furthermore, given their lower earnings, women are usually the parent in dual-income families who takes time off to raise small children. In this sense, the wage gap can become a self-fulfilling prophecy. Given the fact that the creation of an educated and secure workforce is one of the most important investments we can make for a strong economy in the future, it would be short-sighted for our economic system to penalize women for building the human capital of our youth.

Career preparation and training are also affected by gender norms. Women are encouraged to pursue certain types of work and discouraged from pursuing others. These gender role expectations can be very subtle, such as when the mass media stereotypes what is considered appropriate behavior for women, or they can be profound, such as when women enter traditionally male-dominated fields and encounter hostile work environments. Recent legal settlements indicate that women at Home Depot were discouraged from floor sales positions and steered toward cashier jobs, while male technicians at CBS were more likely to be offered lucrative overtime assignments than women. This hostility and subtler forms of resistance discourage women from pursuing non-traditional work opportunities. Recently, nine Ivy League universities acknowledged that women face barriers in the fields of science and engineering and pledged to remove those barriers.

It is also important to critique the notion that occupational differences merely reflect women's "choices." While some women may prefer teaching over police work, or a clerical job over a construction site, many women end up in jobs without making well-planned "career" choices in high school or college. The notion that most women look for job flexibility and "slow job skill deterioration" does not really apply to the vast majority of women in low wage or minimum wage jobs.

Although Wall's article did not address the racial wage gap, for women of color the intersection of both gender and racial discrimination in the workplace can be profound. For example, Hispanic women earn just 52 cents on the dollar compared with white men. While a portion of the gender wage gap is frequently attributed to women's occupational and lifestyle choices, this argument does not account for the wider wage gap experienced by women of color.

In the final analysis, wage disparities are just another indicator of the larger economic disparities between those with greater economic opportunities and those with fewer. Unfortunately, gender continues to be a

significant factor in determining those opportunities. Until we have eradicated all vestiges of sexism in our society, the wage gap will persist.

### **But Discrimination Is Hardly the Whole Story**

#### **Howard Wall:**

Alyson Reed and I seem to agree that wage discrimination explains little of the gender wage gap. Instead, most of the gap can be explained by differences between men and women in average levels of various human capital measures—training, experience, occupation, etc. We also seem to agree that differences in these human capital variables could be affected by other types of discrimination that women may face at various stages of their lives and careers. Unfortunately, because of childbearing and child-rearing, it is difficult to separate the effects of discrimination from the effects of rational choices that women make about their work lives. In her response, Reed highlights these difficulties.

Reed mentions the negative correlation between the share of women in an occupation and the occupation's average wage, and, if my reading is correct, she implies that the causality flows from the former to the latter. The difficulty with much social science research, however, is that it is almost always impossible to draw such a causal conclusion from a simple statistical correlation.

This is what makes the determinants of the gender wage gap so hard to pin down. For example, women, for whatever reason, tend to bear a greater share of child care duties. Because of this, they might be more willing than men to trade wages for time flexibility, or to select occupations in which skills and wages erode relatively slowly in the event of an extended absence from the labor force. This means that jobs with relatively low wages but lots of time flexibility are more attractive to women than to men, and that there will be some relatively low-paying occupations with disproportionate shares of women. While my article does not espouse "the notion that occupational differences merely reflect women's 'choices,'" it does say that discrimination is by no means the only explanation.

One might argue that the fact that mothers are expected to bear a greater share of child care duties is itself a form of societal gender discrimination. While this is probably true, it is also probably true that other factors are important. For example, single-parent families are disproportionately ones in which the mother is present and the father is absent, meaning that the mother has no option but to assume the main role in child care and to bear the resulting labor market consequences. Similarly, because many babies are breast-fed, there are simple biological reasons for the mother to be more heavily relied upon. Finally, because husbands tend to be older than their wives, they will also tend to have more labor market experience and, therefore, higher wages. So, even if a husband and wife are in the same occupation and the wife faces no wage discrimination, the wife would have the lower wage and, because of this, might end up bearing more of the child care duties.

My original article concluded that, even if gender discrimination were eliminated, a gender wage gap of some unknown size—but smaller than the current one—would persist because it is determined partly by things other than discrimination. Reed appears to disagree with this in her final point, but this depends on what she means by "sexism." Nevertheless, I find ample evidence to support my original conclusion.



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## How Healthy is the Banking System? Funneling Financial Data into Failure Probabilities

R. Alton Gilbert , Andrew P. Meyer , Mark D. Vaughan

Along with most of the rest of us, U.S. commercial banks enjoyed the good economic times of the 1990s. Since 1992, the banking sector's average return on assets has easily topped the 1 percent benchmark that banking analysts apply to individual institutions as an indicator of healthy earnings. Recently, however, several indicators have pointed toward emerging weakness. For example, Standard & Poor's composite index of bank stocks has not kept pace with the S&P 500, meaning that publicly traded banks have not been performing as well as other publicly traded businesses. In addition, the yields on bank subordinated debt have risen relative to the yields on similarly rated corporate bonds, meaning that holders of sub debt perceive an increase in the likelihood of default. Finally, the business press has begun to note loan quality problems at large banks.<sup>1</sup>

Problems in the banking sector are not just a concern for bankers. Healthy banks are essential to the smooth operation of the economy. Commercial banks enhance economic efficiency by channeling surplus funds from household savers to business investors. Banks also serve as a key link in the chain that runs from the Federal Reserve to the macroeconomy. The Fed changes the level of bank reserves by buying and selling Treasury securities in the open market. Banks respond to changes in the level of their reserves by expanding or contracting their loan portfolios. A weak banking sector can limit the impact of monetary policy actions on the supply of credit and hamper the ability of bank-dependent firms to get credit. Indeed, in the early 1930s, nearly 9,000 banks failed, leading to a sharp contraction of the money supply and to a virtual dry-up of bank credit.<sup>2</sup>

### Getting a Handle on Banking Conditions

Measuring the overall condition of the banking sector can be tricky. Because only large banks issue stock or subordinated debt that is actively traded in financial markets, trends in the prices of bank securities say little about the condition of small banks. Moreover, looking at accounting ratios—such as returns on assets or loan delinquency rates—can sometimes provide misleading signals because of the trade-off between bank risk and return. For example, a bank may choose to specialize in making high risk loans, meaning that it will suffer from a high number of bad loans, but will also enjoy high interest income. Looking at interest income or delinquencies in isolation does not, therefore, provide a complete picture of the bank's condition. To gauge the overall condition of the bank, it is necessary to combine various measures of risk and profitability into one measure. Summarizing these measures across the entire banking sector would then shed some light on overall banking conditions.

Statistical models are typically used in bank supervision to generate measures of overall bank conditions. Bank supervisors use these models to monitor the condition of individual banks between visits by bank examiners. The typical model incorporates accounting measures of credit risk, liquidity risk, capital protection and earnings strength to estimate the likelihood that a bank will fail in the coming years. Because failure prediction models have such a strong track record of detecting emerging problems, supervisors use them to increase exam

frequency at selected banks and to plan regularly scheduled exams.<sup>3</sup> Failure probabilities from these models can be summarized either by taking the average of all individual bank failure probabilities—the mean probability—or by selecting the middle number from a rank ordering of individual bank failure probabilities—the median probability. The accompanying chart tracks the mean and median failure probabilities since 1984.

## Looking Back

The trends in mean and median failure probabilities suggest that banking conditions have been quite good for several years now. The mean failure probability rose to almost 8 percent in 1986 but has remained below 1 percent since 1994. In 1986, the median failure probability reached 0.36 percent but has stayed below 0.05 percent since 1992. The improvement in banking conditions since the early 1990s can be traced to several factors. For one thing, the U.S. economy enjoyed a long, robust expansion during the 1990s. Record economic growth and low unemployment kept mean and median failure probabilities down by boosting loan demand and interest income without increasing nonperforming loans. Another factor behind the low failure probabilities is the major shake-out that took place in the banking industry during the last decade when thousands of inefficient or poorly performing banks either exited the market or merged with larger, healthier institutions. In fact, the total number of U.S. commercial banks dropped steadily from 14,426 at year-end 1983 to 8,302 banks in the third quarter of 2000.

## Where Do We Go from Here?

Although banking conditions appear strong by historical standards, the banking sector is still not immune to the effects of a weakening economy. If the economy continues to soften—as many forecasters predict—the downward trend in bank risk could easily reverse itself. During the 1990-91 recession, for example, the mean failure probability rose from 3.73 percent in the second quarter of 1990 to 4.08 percent in the first quarter of 1991. That said, banking conditions today are much stronger than they were prior to the 1990-91 recession. Indeed, the same 35 basis point increase in failure probabilities would bump today's mean probability to only 1.00 percent, which is still quite low by historical standards.

In short, despite some evidence of emerging weakness in banks and the prospect of an economic slow-down or outright recession, the banking sector as a whole seems much better equipped to weather adverse shocks than at almost any time in recent history.

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Chart 1

## How Has the Safety of the Banking System Evolved?

### Casino Revenue Growth

This graph charts the mean and median failure probability for all U.S. banks from 1984 to 2000. By these measures, the risk of failure peaked in the first quarter of 1986 and has fallen dramatically since then.

SOURCE: Board of Governors, System for the Estimation of Examination Ratings (SEER).

[\[back to text\]](#)

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Judith Hazen and Thomas A. Pollmann provided research assistance.

## Endnotes

1. See Kwan (2000) for more details on recent trends in bank performance and Matthews (2000) for an example of concerns about loan quality in the business press. [back to text]
2. Bernanke (1983) describes the impact of the banking crises of the 1930s on access to credit. Friedman and Schwartz (1963) chronicle the link between bank failures and the contraction of the money supply between 1930 and 1933. [back to text]
3. See Gilbert, Meyer, and Vaughan (1999) for a detailed comparison of econometric models and individual measures of bank risk and profitability. [back to text]

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## National and District Overview: Will the U.S. Economy Gain A Second Wind?

Kevin L. Kliesen

After increasing at a 5.2 percent annual rate during the first half of 2000, real GDP grew at a 1.6 percent annual rate during the second half of the year. Indeed, fourth-quarter growth was the weakest since the second quarter of 1995. Although the proximate cause of this slowdown is difficult to pinpoint, the Federal Reserve's efforts to curtail mounting inflationary pressures in 1999 and into the first half of 2000, and the sharp run-up in energy prices are surely significant.

### Poised on the Precipice?

Most forecasters expect real GDP growth to decline a bit more during the first quarter and remain relatively weak into the second quarter. Still, at least three signs hint that growth might turn out better than expected. First, 343,000 jobs were added during the first three months of the year, about 50 percent more new jobs than were added over the last six months of 2000. Second, light vehicles (passenger cars and light trucks) sold much better than expected in the first quarter, averaging 17.2 million units (annualized). Third, in January, real construction spending, existing home sales and housing permits also posted healthy increases, while the index of leading economic indicators registered its largest increase in more than two years.

Other indicators are not so bright. For example, most manufacturers are still paring production to trim inventory buildups. This production slowdown has resulted in sizable declines in measures of manufacturing production and capacity utilization during the last three months of 2000 and first two months of 2001. Financial turmoil has added to the uncertainty: Recent declines in equity prices have put a dent in household wealth and, perhaps, tempered the growth of real consumer outlays and eroded measures of consumer confidence. A plethora of earnings warnings during the first three months of 2001—mostly from the tech sector—suggests that the near-term outlook for equities is not particularly bright. While some stresses will take longer than others to work through, however, most forecasters still expect the economy to grow by roughly 2.5 to 3 percent during the second half of the year.

Paralleling the contours of the nation's performance, the pace of Eighth District economic activity slowed noticeably in early 2001, with "little or no employment growth and slowing demand" (for goods and services), as reported in the latest *Beige Book*. This is unsurprising since the District economy does not typically deviate from the nation's performance. That said, parts of the District are doing better than others. Through January 2001, payroll employment growth in the Louisville and Memphis metropolitan statistical areas (MSA) was above the nation's; employment growth in the Little Rock MSA was roughly equal to the nation's, while in the St. Louis MSA, job growth continues to be about half the national level. On average, state and MSA unemployment rates are about equal to the U.S. rate of 4.3 percent. Still, unemployment rates in early 2001 remained below 4 percent in the Little Rock and Louisville MSAs and in the states of Indiana and Missouri.

### Where's Inflation Headed?

Unlike previous energy price shocks, core price pressures and inflation expectations *appear* tamer this time around. Although year-to-year inflation in the consumer price index (CPI) is running at 3.5 percent, which is pretty worrisome, the CPI that strips out the volatile but temporary direct effects of higher energy prices shows much less acceleration (see National & District Data). But when the prices of more than just consumer goods and services are included, such as prices of investment goods, government services and imports, aggregate core price inflation has actually decelerated from a 2.2 percent rate during the first half of 2000 to a 1.5 percent rate during the second half of last year.

Measures of inflation expectations suggest that consumers and financial markets remain confident that the Fed will douse any nascent inflationary embers. This confidence, which keys off the Fed's commitment to price stability, has given the FOMC considerably more latitude to adjust policy in response to the evolving pattern of slowing growth of sales and employment. Thus, in conjunction with the steady decline in crude oil prices so far in 2001, most forecasters expect consumer price inflation to retreat to about 2.5 percent by the end of the year. Of course, they said this a year ago.

Thomas A. Pollmann provided research assistance.

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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](#)

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# Community Profile: Storming Forward After Terrifying Tornado, Fort Smith, Ark., Continues to Rebuild

Stephen P. Greene

Excuse the people of Fort Smith, Ark., if they were not camped out at the box office in May 1996 anxiously awaiting the opening of the movie "Twister." Just a few weeks earlier, Mother Nature provided residents with a most unwelcome sneak preview. The reaction from local critics? "Thumbs down, and lighten up on the special effects, please."

It was April 21 when a tornado touched down on this northwestern Arkansas community of 76,000, cutting a five-mile swath through downtown and the northern residential areas. The aftermath revealed damage, much of it severe, to more than 200 businesses and 3,000 homes--in total, more than \$500 million in damage to Fort Smith and nearby towns in Sebastian and Crawford counties.

Although the tornado threw a huge scare into the state's second-largest city, Fort Smith five years later continues its economic revival, which began even before the storm hit. Nevertheless, the worst tornado to strike the area since 1898 will not soon be forgotten.

"We sit on the edge of Tornado Alley, so we are fortunate that this type of thing hasn't happened more often," says Sam Sicard, president of First National Bank.

## "God Can Put Asunder"

Remarkably, only two people were killed during the tornado.

"It could have been much worse as far as human life is concerned," Sicard says.

The town is lucky that the tornado occurred late on a Sunday night, Sicard says, given that the storm swept right through the downtown business district, including heavily commercial Garrison Avenue.

Buddy Spradlin, president and CEO of Riverside Furniture Corp., agrees. His company lost an 80,000-square-foot upholstery plant that employed 50.

"It was a real eye-opener," Spradlin says. "One thing I learned is that you need to have reinforced concrete shelters to protect your employees in case something like this happens."

Riverside, which employs more than 1,300 people in Fort Smith, rebuilt the upholstery plant on its sprawling manufacturing and distribution complex near downtown. Spradlin says that the company lost \$2 million as a result of the natural disaster.

Garrison Avenue businesses near the Arkansas River were particularly ravaged. Where historic four- and five-story buildings once stood, empty lots now exist.

But on one of the hardest-hit blocks, downtown almost witnessed an immediate payoff when Beverly Enterprises Inc., the nation's largest nursing home operator, bought the land with the intention of demolishing the buildings and constructing a 10-story headquarters on it. Beverly had been leasing office space in more than 20 locations throughout the city. Ultimately, the company decided it needed more space than the downtown location could offer; so it moved its 900 local employees to a new campus on the south side of Fort Smith. As for that land downtown, Beverly donated it back to the city, which is converting it into a park that will connect to the national historic site just to the south.

One of the many businesses that suffered the twister's wrath was Griffin Properties, which saw 13 of its commercial and residential sites ruined. The naked facade that remains from one of the company's Garrison Avenue buildings is a striking testament to the storm's fury.

"What man maketh, God can put asunder," says Rick Griffin, manager of the properties. "We spent the next year as a company trying to get back to where we were the day before the tornado."

Of the three buildings that Griffin Properties lost downtown, one burned down two days after the tornado when the electricity was turned back on. The company had only recently purchased the buildings and was preparing to renovate them.

"We had big plans for all three of those downtown properties, but the tornado changed those plans completely," he says. "We'd like to have had those properties back. They were well-situated and well-constructed buildings."

## New Opportunities

Like everyone here, Chamber of Commerce President Billy Dooly wishes that the tornado never happened. As it is, he prefers to look toward the positives that resulted from the storm.

"We have opportunities that would not have been presented to us if not for the tornado," Dooly says.

One of those opportunities materialized when voters passed a half-cent sales tax hike in 1999 to fund four major projects: an addition to the city's convention center; a new building for the main library and for three branch libraries; a riverfront redevelopment plan that includes a new amphitheater; and Garrison Avenue streetscape improvements. All of these projects are nearing completion.

Dr. Jerry Stewart, chairman of the chamber board of directors, partly attributes the renewed civic pride to a change in attitude after the tornado.

"Over the years, Fort Smith has been pretty conservative and anti-tax," Stewart says. "These new projects will have a significant economic impact on the area."

## A Promising Road



In the wake of the 1996 tornado that rendered several buildings obsolete, ground was recently broken for a new park along Fort Smith's main street, Garrison Avenue.



A riverfront amphitheater, one of several civic projects under development, will be completed this summer.

Fort Smith economic development leaders are pegging much of the city's future success to the completion of Interstate 49. The chamber is working with other cities in Arkansas, Louisiana and Missouri to finalize funding and construction of the highway, which, when finished, will stretch from southern Louisiana to Kansas City. Drivers will be able to link to other interstates at each end to form a new mid-continent interstate link between Canada and Mexico. The highway is being completed one section at a time in broken stretches. Congress recently appropriated money for completing the portion between Texarkana, Ark., and the Louisiana border.

"Our goal is to be driving on this road within 10 years," Dooly says.

I-540, which currently runs from Fort Smith to nearly the Missouri border, would become part of I-49. A new south-bound interstate will need to be constructed to connect Fort Smith with Texarkana to complete this NAFTA trade corridor.

Part of that new highway will pass through Fort Chaffee, a 72,000-acre Army base on the southeastern end of town that was closed in 1995. In late 2000, the Department of Defense transferred 7,000 acres to a local public trust primarily for commercial redevelopment. The Arkansas National Guard uses 62,000 acres of the rest of the base for training. The public trust has funding to make road, water and sewerage infrastructure improvements to the land it received and hopes these steps will help woo new industries to the base. Phil Reeves, executive director of the Fort Chaffee Public Trust, says residential housing on the base is also in the works.

"But our prime objective is to create new jobs," Reeves says. "And we want to show significant progress by 2003."

That is the year of the next round of base closings. At that time, Reeves hopes the Pentagon, which still maintains overall responsibility for Fort Chaffee, will grant the trust additional land for redevelopment.

Not far from Fort Chaffee is the Walker Industrial Park, the part of town that enables Fort Smith to stake its claim as the manufacturing capital of Arkansas. The park boasts an excellent supply of natural gas and electricity with access to rail lines and close proximity to the port of Fort Smith. On almost a thousand acres, the park is the home of the area's leading manufacturer, Whirlpool, as well as plants for companies like Hiram Walker, MacSteel, Owens-Corning, Planters Peanuts and Rheem-Ruud. Businesses at the park help account for what the chamber estimates as 1,200 new or expanded industries over the last 15 years in all of Fort Smith for a total of more than 20,000 jobs.

Recently, one park tenant, TransKrit, closed its plant. The maker of business forms employed 180 people. At about the same time, however, MacSteel announced a \$26 million expansion, the ninth straight year the company has expanded.

This kind of counterbalance allows Fort Smith to hedge itself against any deep economic downturn, Dooly says. "We're not 100 percent dependent on the mill at the end of the road like some towns are."

Keeping the same positive outlook that he had after the tornado, Dooly quips, "If a recession is coming, we may just choose not to participate in it."

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## Fort Smith, Ark., by the numbers

Population	193,000
Labor Force	97,700
Unemployment Rate	3%
Per Capita Personal Income	\$21,257

### Top Five Employers

Whirlpool Corp.	4,575
OK Industries	4,500
Sparks Health Systems	2,800
Baldor Electric	1,711
St. Edward Mercy Medical Center	1,703

Figures reflect the Fort Smith Metropolitan Statistical Area (Sebastian and Crawford counties in Arkansas and Sequoyah County in Oklahoma). The population of the city of Fort Smith is 76,000.

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## Should Cities Pay for Sports Facilities?

Adam M. Zaretsky

"We play the Star-Spangled Banner before every game—you want us to pay taxes, too?"

—Bill Veeck

Americans love sports. Watching the home team in any of the four major sports—baseball, football, basketball and hockey—march to victory in the World Series, Super Bowl, NBA Finals or Stanley Cup Finals arguably generates more excitement and local pride in a town than any other event. Fans love when the hometown boys win. But even when they don't, fans stick by their teams. By and large, so do the cities these teams play in. In fact, cities with home teams are often willing to go to great lengths to ensure they stay home. And cities without home teams are often willing to dangle many carrots to entice teams to move. In either case, the most visible way cities do this is by building new stadiums and arenas.

Between 1987 and 1999, 55 stadiums and arenas were refurbished or built in the United States at a cost of more than \$8.7 billion.<sup>1</sup> This figure, however, includes only the direct costs involved in the construction or refurbishment of the facilities, not the indirect costs—such as money cities might spend on improving or adding to the infrastructure needed to support the facilities. Of the \$8.7 billion in direct costs, about 57 percent—around \$5 billion—was financed with taxpayer money. Since 1999, other stadiums have been constructed or are in the pipeline (see table below for some examples), much of the cost of which will also be supported with tax dollars. Between \$14 billion and \$16 billion is expected to be spent on these post-'99 stadiums and arenas, with somewhere between \$9 billion and \$11 billion of this amount coming from public coffers. The use of public funds to lure or keep teams begs several questions, the foremost of which is, "Are these good investments for cities?"

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Table 1

## In the Pipeline: Plans for new stadiums often count on taxpayers' support

Estimated Cost and Contribution (millions of dollars)

Team or City	Total	Public Dollars	Percent Public
Cincinnati Reds	280	280	100
Seattle Seahawks	430	300	70
St. Louis Cardinals	370	250	68
San Diego Padres	411	275	67
Chicago Bears	587	387	66
Houston (new NFL)	310	195	63
Philadelphia Eagles	395	234	59
Philadelphia Phillies	345	174	50
Boston Red Sox	550	200	36
New England Patriots	325	0	0

SOURCE: Teams and local newspapers

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The short answer to this question is "No." When studying this issue, almost all economists and development specialists (at least those who work independently and not for a chamber of commerce or similar organization) conclude that the rate of return a city or metropolitan area receives for its investment is generally below that of alternative projects. In addition, evidence suggests that cities and metro areas that have invested heavily in sports stadiums and arenas have, on average, experienced slower income growth than those that have not.

Why, then, would cities engage in such activities? This question is actually harder to answer than the former one because, more often than not, the reasons cited are not quantifiable. In other words, the reasons are not as easily measured as, say, costs, because they include many intangible variables, such as civic pride and political self-interest. Moreover, cities generally justify these decisions—and convince taxpayers of their virtue—with analyses that many economists consider suspect because the studies generally overlook some basic economic realities.

## Not Always Built with Tax Dollars...

In 1862, William Cammeyer enclosed the Union Club Grounds in Brooklyn, N.Y., and began charging admission, making it the first recorded baseball "stadium" in the United States. The facility was quite attractive to the fledgling sport of baseball because it enabled the exclusion of non-paying spectators and impressed the up-and-coming players, for whom teams were beginning to compete. By the time the National Association was formed in 1871, owners of such enclosed ballparks had a distinct advantage in the competition for teams.

In many ways, not much has changed since then. Teams today are still attracted by modern facilities, and cities go out of their way to provide them. In other ways, though, much has changed. Nowadays, facilities are not usually owned privately by individuals, but, rather, publicly by a government agency. And even though

public financing of stadiums is a more common practice today, cities did pony up for a few of the older, well-known stadiums in times past.

Some prime examples of government-owned stadiums from yesteryear are the Los Angeles Coliseum and Soldier Field, both of which are still in use today. Other famous venues, such as Fenway Park, Ebbets Field, Wrigley Field, Yankee Stadium and the original Comiskey Park, were all privately financed and owned. In fact, prior to World War II, of the 28 major league sports facilities that were built—for which data are available—only five were paid for in part or whole with taxpayer dollars.<sup>2</sup> Since World War II, however, of the roughly 140 sports facilities that have been built or refurbished, only 14 did *not* use taxpayer dollars.

## **...But When They Are, Are They Worth It?**

The dollars being invested in sports facilities are quite substantial considering the overall contribution the industry makes to the economy. In testimony before the U.S. Congress, economist Robert Baade said that Chicago's professional sports industry—which includes five teams—accounted for less than one-tenth of 1 percent of Chicago's 1995 personal income.<sup>3</sup> Baade further commented that even when compared with the revenue of other industries, professional sports teams contribute small amounts to the economy. He noted, for example, that "the sales revenue of Fruit of the Loom exceed[ed] that for all of Major League Baseball (MLB), while the sales revenue of Sears [was] about thirty times larger than that of all MLB revenues."

Still, cities are driven by the idea that playing host to professional sports teams builds civic pride and increases local tax receipts from the team-related sales and salaries. When it comes to salaries, however, economist Mark Rosentraub noted in a 1997 article that there is no U.S. county where professional sports accounts for more than 1 percent of the county's private-sector payroll.

Although sports facilities certainly generate tax revenues from their sales, the pertinent question is whether these revenues are above and beyond what would have occurred in the region anyway. To address this question, city proposals to use taxpayer money to finance sports facilities are routinely accompanied by "economic impact studies." These studies, which are often commissioned by franchise owners and conducted by an accounting firm or local chamber of commerce, generally use spurious economic techniques to demonstrate the number of new jobs and additional tax revenues that will be generated by the project. The assumptions that are made in these studies—such as how much of the newly generated income will stay in the region and how many "secondary" jobs will be created—often cannot be substantiated by economic theory.

Estimates of income that will be generated and, hence, spent in the region are often overstated. Most of the "big" money in sports goes to the owners and players, who may or may not spend the money in the hometown since many live in other cities. And because athletic careers are usually short-lived, much of the players' income is invested. Moreover, league rules often require ticket revenues be shared with franchise owners in other cities as a way to subsidize teams in smaller markets. In the case of the National Football League, every visiting team leaves town with 34 percent of the gate receipts from each game.

On top of all this, the value of the subsidy a team receives when a city foots the bill for a new stadium or arena often shows up as a higher team resale price, which then ends up in the owner's pocket. For example, Eli Jacobs bought the Baltimore Orioles for \$70 million in 1989, just after the team had convinced the state of Maryland to build it a new \$200 million ballpark from lottery revenues. The enormously popular Oriole Park at Camden Yards opened in 1992. The following year, Jacobs sold the Orioles for \$173 million. The sale netted Jacobs an almost 150 percent return, with no money out-of-pocket for the new ballpark.<sup>4</sup>

## **And the Dollars Keep Turning Over**

Economic impact studies also tend to focus on the increased tax revenues cities expect to receive in return for their investments. The studies, however, often gloss over, or outright ignore, that these facilities usually do not bring new revenues into a city or metropolitan area. Instead, the revenues raised are usually just substitutes for those that would have been raised by other activities. Any student of economics knows that households have budget constraints that are binding, which means that families have only so much money to spend, particularly on entertainment. If the family chooses to spend the money at the ballpark, for example, then those funds cannot be spent on other activities. Thus, no new revenues are actually being generated.

Public funds used for a stadium or arena can generate new revenues for a city only if one of the following situations occurs: 1) the funds generate new spending by people from outside the area who otherwise would not have come to town; 2) the funds cause area residents to spend money locally that would not have been spent there otherwise; or 3) the funds keep turning over locally, thereby "creating" new spending.

Very little evidence exists to suggest that sporting events are better at attracting tourism dollars to a city than other activities. More often than not, tourists who attend a baseball or hockey game, for example, are in town on business or are visiting family and would have spent the money on another activity if the sports outlet were not available.<sup>5</sup>

Economists Roger Noll and Andrew Zimbalist have examined the issue in depth and argued that, as a general rule, sports facilities attract neither tourists nor new industry. A good example, once again, is Oriole Park at Camden Yards. This ballpark is probably the most successful at attracting outsiders since it is only 40 miles from the nation's capital, where there is no major league baseball team. About a third of the crowd at every game comes from outside the Baltimore area. Noll and Zimbalist point out that, "Even so, the net gain to Baltimore's economy in terms of new jobs and incremental tax revenues is only about \$3 million a year—not much of a return on a \$200 million investment."<sup>6</sup>

The claim that sporting facilities cause residents to spend more money in town than they would otherwise is harder to substantiate. To prove such a claim, the agency performing the analysis would need for its report both detailed information about the spending patterns of households *and* the ability to ferret out the information about their spending in other regions, which, at best, is extremely difficult and may even be impossible. Without such information, the report's authors could back into this claim only with some fancy footwork and shaky assertions. That is, they would have to contend that residents are spending more in town because of higher incomes that enable households to devote more of their entertainment budgets toward local sporting events. Then, the authors would have to demonstrate that incomes are up *because* money was spent on the stadium. If they can't, the argument falls apart since the only conclusion is that incomes rose for unrelated reasons; throwing tax dollars at the stadium did not affect households' spending patterns.

## **Multipliers: A Stadium Promoter's Friend**

Of the three circumstances described that purportedly generate new revenues, the third—funds keep turning over locally, thereby "creating" new spending—is probably the most spurious from an economist's viewpoint. Such a claim relies on what are called *multipliers*. Multipliers are factors that are used as a way of predicting the "total" effect the creation of an additional job or the spending of an additional dollar will have on a community's economy. It works something like this: A stadium is built, which creates new jobs in the region. Because more people are working, they spend money in the area (for lunch, parking, etc.), which in turn requires local businesses to hire additional workers to support the increased demand. These extra workers further increase demand for goods and services in the area, requiring more new jobs...and so on. That is, the dollars keep turning over locally. The story is the same for fans spending money at the arena, which provides income for arena workers, who then spend the money, generating incomes for other workers...and so on.

On their faces, these are compelling arguments. Some researchers have even attempted to quantify these effects, developing precise multipliers that tell analysts how much the new spending or job creation should be "multiplied" by to arrive at the "total effect" the spending or job creation will have on the local economy. These multipliers are often specific enough to distinguish between various industries, occupations and locations. Thus, economic development specialists and planners will generally latch onto multipliers and confidently proclaim that the 1,000 new jobs created by this industry will actually create 4,355 new jobs and generate \$5.5 million in new revenue in the community when all is said and done.<sup>7</sup> Makes for great headlines, but are such outcomes believable?

Probably not. As Mark Twain once said: "It's not what we don't know that hurts. It's what we know that just ain't true." For one thing, these new jobs most likely just lure workers away from other jobs in town and do not actually lead to a net change in jobs in the area. For another, many of the jobs are low-paying, part-time and needed only on game days. Moreover, authors of these economic impact studies often choose multipliers arbitrarily or with clients' wishes in mind to get the desired outcome. As economist William Hunter has pointed out, multiplier analysis can be used to justify any public works project because "even the smallest multiplier will guarantee community income growth in excess of public expenditures."<sup>8</sup>

Even if economic impact studies are taken at face value, however, the cost of creating these jobs is usually out of the ballpark. In Cincinnati, for example, when two new stadiums were proposed to keep the NFL Bengals and the MLB Reds in town, the economic impact study claimed that 7,645 jobs would be created or saved because of the stadium investment. Since the project was estimated at \$520 million, each new or saved job was reported to cost about \$68,000.

When economists John Blair and David Swindell examined the \$68,000 figure a bit closer, though, they discovered it was too low because the study's estimate of 7,645 new or saved jobs was too high. Blair and Swindell then re-evaluated the report, corrected for double-counting and other problems, and concluded that only 3,530 jobs would be created or saved if the stadium proposal passed. Thus, the cost per job was actually going to run more than \$147,000. In contrast, state economic development programs spend about \$6,250 per job to create new jobs.<sup>9</sup>

## Those Old Economic Saws

Another glaring omission from these economic impact studies is the value of the next-best investment alternative—what economists call the *opportunity cost*. "There's no such thing as a free lunch" is a favorite economist expression because it sums up exactly what opportunity cost means: When making a choice, something always has to be given up. The value of the "losing" choice must be considered when making the decision *and* when calculating the value, or return, of the "winning" choice. In other words, when a city chooses to use taxpayer dollars to finance a sports stadium, the city's leaders must consider not only what the alternative uses of those funds could be—such as schools, police, roads, etc.—but they must also figure what return the city would receive from these other ventures. Then, the return from the city's next-best alternative (for example, schools) must be subtracted from the total return of the "winning" choice to arrive at the "actual" return of the stadium investment. This adjusted calculation, though, is almost always missing from sports stadium impact studies. Why? Because in just about every case, the adjusted calculation would show that the next-best alternative was actually the better alternative.

Has financing sports stadiums ever been the best alternative? Research shows "No." In their book, Noll and Zimbalist—along with 15 other collaborators—examined the local economic development argument from a wide variety of angles. In every case, the conclusions were the same. "A new sports facility had an extremely small (perhaps even negative) effect on overall economic activity and employment. No recent facility appears

to have earned anything approaching a reasonable rate of return on investment. No recent facility has been self-financing in terms of its impact on net tax revenues. Regardless of whether the unit of analysis is a local neighborhood, a city, or an entire metropolitan area, the economic benefits of sports facilities are de minimus.<sup>10</sup>

In fact, research has shown that subsidizing sports facilities usually does not affect a city's growth and, in some cases, may even hurt growth since funds are being diverted from alternatives with higher returns. In a 1994 study that examined economic growth over a 30-year period in 48 metropolitan areas, Robert Baade found that of the 32 metro areas that had a change in the number of sports teams, only two showed a significant relationship between the presence of a sports team and real per-capita personal income growth. These cities were Indianapolis, which saw a positive relationship, and Baltimore, which had a negative relationship.

Moreover, Baade found that of the 30 metro areas where the stadium or arena was built or refurbished in the previous 10 years, only three areas showed a significant relationship between the presence of a stadium and real per-capita personal income growth. And in all three cases—St. Louis, San Francisco/Oakland and Washington, D.C.—the relationship was *negative*.

## The "Build It and They Will Come" Syndrome

Cities go to great lengths to lure a new team to town or to keep the home team home. They feel compelled to compete with other cities that offer new or updated facilities; otherwise, the home team might make good on its threat to leave. The weight of economic evidence, however, shows that taxpayers spend a lot of money and ultimately don't get much back. And when this paltry return is compared with other potential uses of the funds, the investment, almost always, seems unwise. Still, cities eagerly propose spending the funds, and taxpayers willingly support the proposals. Why? Because home teams strike an emotional chord with the community—that intangible "civic pride" is evidently a powerful force. Thus, attacks on stadium proposals, no matter how persuasive, likely fall on deaf ears. More-convincing arguments would spell out the civic initiatives—education, housing and transportation, for example—that are passed over or forgotten in favor of a new stadium.

Paige M. Skiba and Abigail J. Chiodo provided research assistance.

### Endnotes

1. This sum is about \$10.7 billion in 2000 dollars. These data are from Keating (1999). [back to text]
2. See Table 1 in Keating (1999) for a complete list of these facilities.[back to text]
3. See Roberts, et. al. (1995).[back to text]
4. See Lane (1994). [back to text]
5. See Noll and Zimbalist (1997a), chapters 2 and 15. [back to text]
6. See Noll and Zimbalist (1997b). [back to text]
7. This example is hypothetical and solely for expository purposes. [back to text]
8. See Hunter (1988). [back to text]
9. See Noll and Zimbalist (1997a), chapter 9 (Blair and Swindell) for details. [back to text]
10. See Noll and Zimbalist (1997b). [back to text]

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# National and District Data

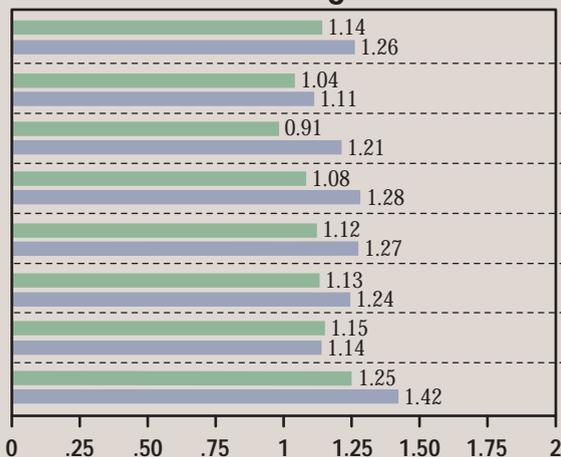
Selected indicators of the national economy and banking, agricultural and business conditions in the Eighth Federal Reserve District

## Commercial Bank Performance Ratios

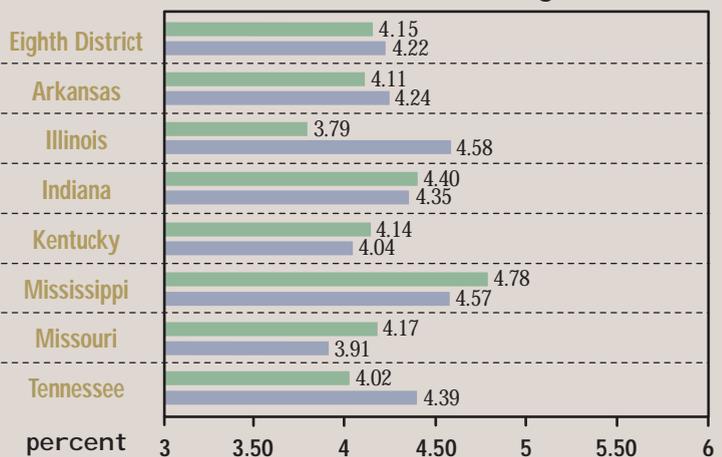
fourth quarter 2000

U.S. Banks by Asset Size	Fourth Quarter 2000							
	ALL	\$100 million- \$300 million	less than \$300 million	\$300 million- \$1 billion	less than \$1 billion	\$1 billion- \$15 billion	less than \$15 billion	More than \$15 billion
Return on Average Assets*	1.22	1.22	1.16	1.36	1.24	1.44	1.34	1.15
Net Interest Margin*	3.93	4.66	4.63	4.62	4.63	4.65	4.64	3.54
Nonperforming Loan Ratio	1.12	0.82	0.84	0.77	0.81	1.08	0.96	1.22
Loan Loss Reserve Ratio	1.67	1.33	1.35	1.46	1.39	1.96	1.69	1.66

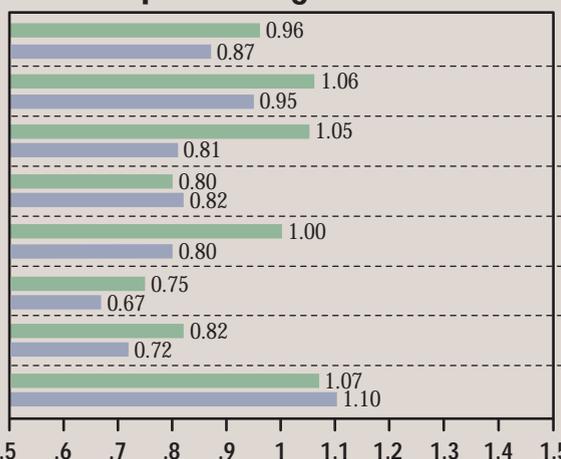
Return on Average Assets\*



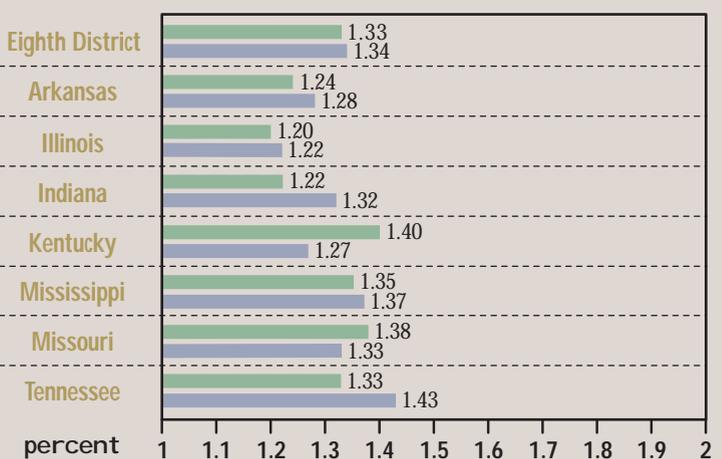
Net Interest Margin\*



Nonperforming Loan Ratio



Loan Loss Reserve Ratio



● Fourth Quarter 2000

● Fourth Quarter 1999

NOTE: Data include only that portion of the state within Eighth District boundaries.  
SOURCE: FFIEC Reports of Condition and Income for all Insured U.S. Commercial Banks  
\*Annualized data

For additional banking and regional data, visit our web site at:  
<http://www.stls.frb.org/fred/data/regional.html>

# Regional Economic Indicators

## Nonfarm Employment Growth year-over-year percent change

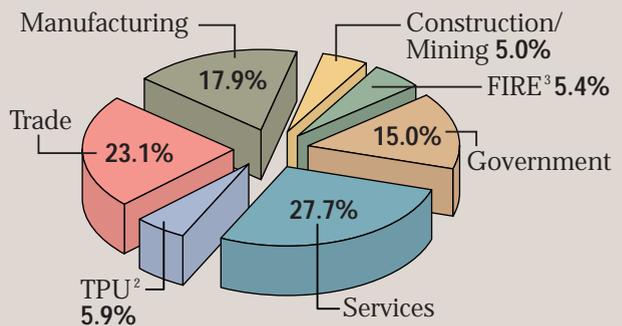
	fourth quarter 2000							
	total	Goods Producing		Service Producing				
		mfg	cons <sup>1</sup>	govt	tpu <sup>2</sup>	fire <sup>3</sup>	services	trade
United States	1.6%	-0.7%	3.4%	0.8%	2.5%	0.6%	2.9%	1.4%
Arkansas	1.4	-0.9	4.4	1.4	1.7	0.1	2.5	1.8
Illinois	0.5	-1.2	0.2	-0.7	2.5	-0.4	1.3	1.2
Indiana	0.6	-1.6	0.0	1.3	1.0	-1.0	2.3	0.9
Kentucky	1.1	-1.0	-2.8	1.9	2.2	7.4	1.9	1.1
Mississippi	-0.2	-4.8	-1.9	3.5	0.1	-1.7	1.1	0.2
Missouri	0.6	-1.8	-1.7	-0.3	4.9	1.2	1.9	0.6
Tennessee	1.7	-1.3	1.4	1.9	2.5	0.2	3.2	2.4

## Unemployment Rates percent

	IV/2000	III/2000	IV/1999
United States*	4.0%	4.0%	4.1%
Arkansas	4.1	4.4	4.3
Illinois	4.5	4.4	4.2
Indiana	2.8	3.1	3.4
Kentucky	4.1	4.1	4.3
Mississippi	5.4	5.5	5.5
Missouri	3.5	3.5	3.2
Tennessee	4.2	4.0	3.9

\* The national unemployment rate for the first quarter of 2001 was 4.2 percent. First-quarter rates for individual states weren't available.

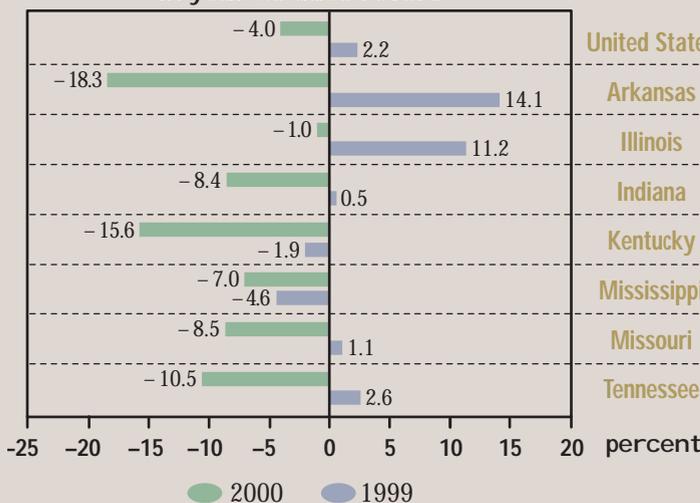
## Eighth District Payroll Employment by Industry—2000



## fourth quarter

### Housing Permits

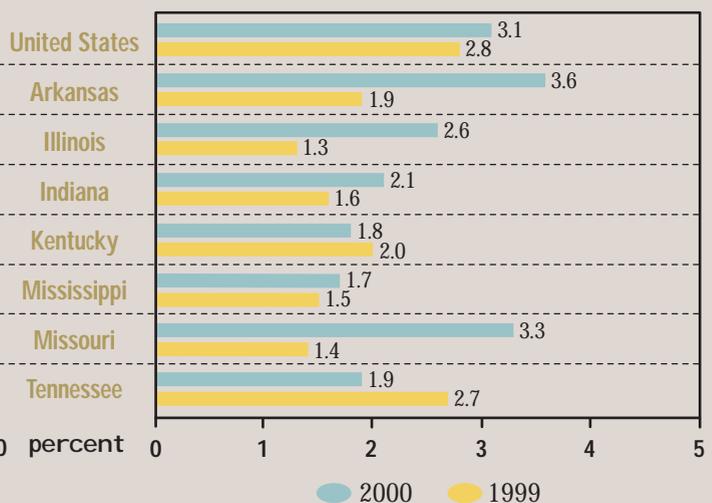
year-over-year percent change in year-to-date levels



## third quarter

### Real Personal Income

year-over-year percent change

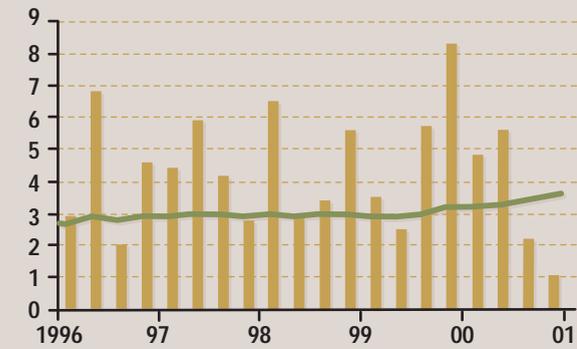


<sup>1</sup> Construction <sup>2</sup> Transportation and Public Utilities <sup>3</sup> Finance, Insurance and Real Estate

All data are seasonally adjusted.

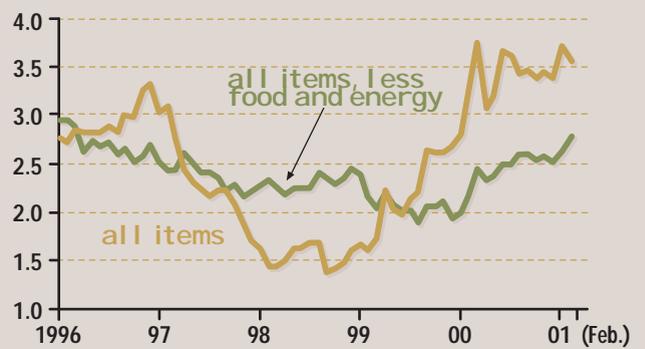
# Major Macroeconomic Indicators

**Real GDP Growth**  
percent



NOTE: Each bar is a one-quarter growth rate (annualized); the green line is the 10-year growth rate.

**Consumer Price Inflation**  
percent

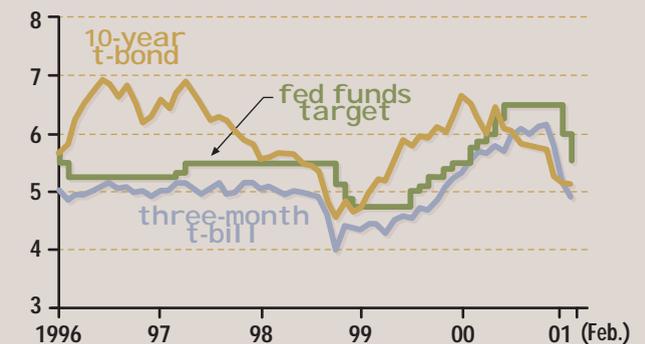


NOTE: Percent change from a year earlier

**Civilian Unemployment Rate**  
percent



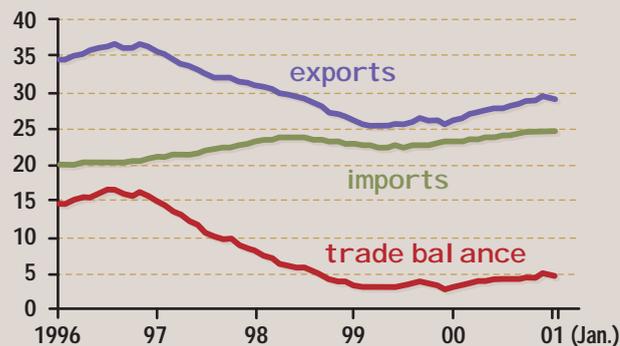
**Interest Rates**  
percent



NOTE: Except for the fed funds target, which is end-of-period, data are monthly averages of daily data.

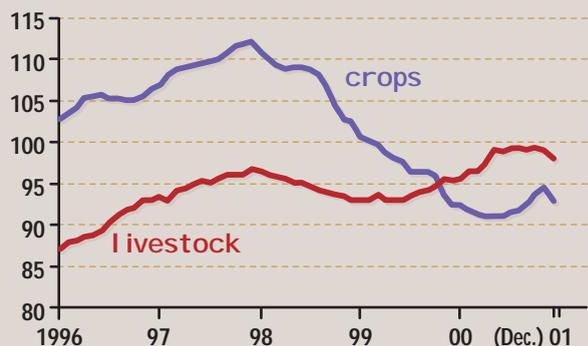
# Farm Sector Indicators

**U.S. Agricultural Trade**  
billions of dollars



NOTE: Data are aggregated over the past 12 months. Beginning with December 1999 data, series are based on the new NAICS product codes.

**Farming Cash Receipts**  
billions of dollars



NOTE: Data are aggregated over the past 12 months.

**U.S. Crop and Livestock Prices**  
index 1990-92=100

