President's Message

"Core" or "Total" Inflation: Which Is the Fed's Focus?

William Poole

PRESIDENT AND CEO,
FEDERAL RESERVE BANK OF ST. LOUIS

Some analysts assert that the Fed, in its role of maintaining price stability, mistakenly ignores the prices of certain items that are rising the fastest, such as today's energy prices. Here are the critical questions: Does the Fed focus on core inflation, which excludes food and energy prices, because policymakers do not care about these particular prices? Even worse, are policymakers cherry-picking the data to paint a prettier picture? Conversely, is the Fed's view a consequence of the fact that, historically, food and energy prices have been so volatile that they give a misleading signal about inflation fundamentals?

I believe the answer is clearly that policymakers concerned with low, stable long-run inflation have to attempt to see through short-run ebbs and flows of inflation in specific commodities. Food and energy prices are the most vexing. For me, the ultimate goal of policy is stability of the general price level, including all prices. The focus on core prices is an element of an effective strategy to achieve the ultimate goal.

Those who support the Fed's position argue that the Fed is right to ignore food and energy prices when forming policy because increases and decreases in these prices can be temporarily large compared with other price changes. Monetary policy has no direct influence over particular prices anyhow, these people add. Monetary policy affects the general level of prices over time and has no permanent effect on relative prices—the price of one good relative to prices of other goods. Moreover, they argue, the Fed would be in danger of pushing its federal funds target rate too high if it failed to allow for the fact that interest rate increases affect the economy with a lag. Policy that is too tight for too long might jeopardize the sustainability of the economic expansion without contributing constructively to greater price stability.

Market-based economies operate best when consumers and producers are not routinely surprised by changes in prices. Sometimes, these shocks are the unavoidable result of large changes in relative prices that are unanticipated. The hurricanes that disabled energy infrastructure in Louisiana and the Gulf of Mexico were a notable example of such shocks. Although unexpected energy price increases that arise from these events can harm the economy in the short run (by reducing the purchasing power of households), energy prices typically fall and overall inflation retreats as soon as production is restored and inventories are rebuilt.

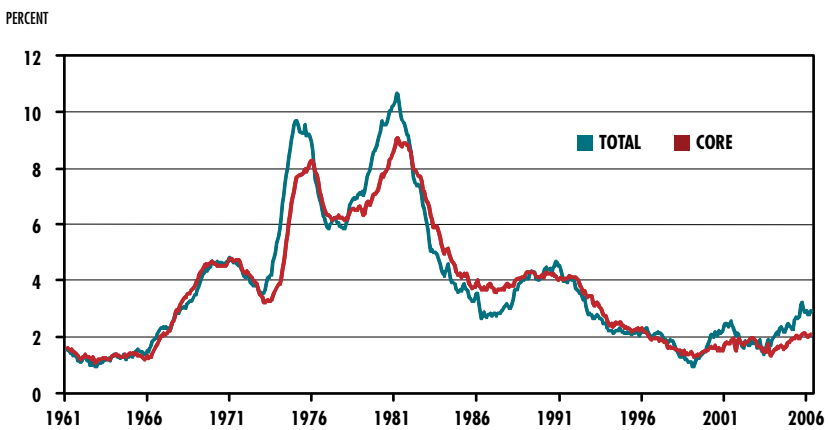
In these and other instances, monetary policymakers are correct to focus on core inflation because the temporary rise in energy prices would not be expected to flow through into the prices of nonfood and nonenergy goods and services, what economists call second-round effects. Moreover, any reasonable offsetting action that policymakers take would have no direct, short-run effect on energy prices and, if anything, would raise the risk of further destabilizing the economy. This was one of the key lessons learned from the 1970s.

Energy price increases and a lack of market confidence in price stability led to the severe recessions of 1973-75 and 1981-82.

The difficulty arises when energy price increases persist, as they have over the past few years. When this happens, total and core inflation can diverge, as the chart shows. Over time, though, the two price measures tend to increase at the same rate because energy prices cannot forever rise much more rapidly than other prices. If the Fed does its job right, any second-round effects will be modest and temporary so that both total and core inflation will retreat as energy prices stabilize or fall.

Thus, even though the Fed is focusing on core inflation as an essential element of its strategy of inflation control, market confidence in this strategy will stabilize expectations concerning overall inflation. As we can see in the chart, overall inflation and core inflation have diverged during certain periods; sharp energy price increases in the mid- and late 1970s and sharp energy price decreases in the mid-1980s left a clear imprint in the data, creating gaps between core and overall inflation. Thus, recent experience is not new. Moreover, currently the magnitude of the overall inflation and of the size of the discrepancy between overall and core inflation is below that experienced on several occasions in the 1970s. We should not let recent experience of a string of years of major energy price increases deflect us from a sensible and time-proven strategy.

Inflation Rates Over 24-Month Periods



NOTE: Total and core inflation calculated from the price index for personal consumption expenditures, which is published by the Bureau of Economic Analysis. Each observation is the annualized rate of change in the price index over the previous 24 months.

ELECTRICITY: The Next Energy Jolt?

By Kevin L. Kliesen

Nowadays, it's commonplace to associate the phrase "energy crisis" with sky-high petroleum and natural gas prices. But the electricity sector is not immune from crisis, as evidenced by the rolling blackouts in Texas in 2005 and the blackout that hit the upper Midwest, Northeast and part of Canada in 2003.

Widespread electricity outages usually are short and stem from either a weather-related cut in service or from demand beyond the capacity of utilities to produce.

This article will focus mostly on factors that have affected changes in the demand for and supply of electricity over time, rather than changes in quantity demanded. The distinction, while perhaps subtle to the noneconomist, is important. In addition, issues related to the transmission of electricity over the nation's electricity grid will be briefly discussed. Because imports of electricity are negligible and because electricity cannot be feasibly stored in mass quantities like petroleum products or other commodities, effective transmission from the producer to the consumer is a necessity if supplies are to be uninterrupted.

Although the United States has become much more energy-efficient over time, growth in electricity capacity has generally lagged well behind the growth of electricity demand over the past 25 years.[1] As a result, the gap—or margin—between production capacity and consumption during peak load periods has narrowed significantly. With some energy economists expecting the summertime safety margin to narrow even further in the coming decade, what are the prospects for electricity demand and supply over the next several years?

Factors Affecting Demand and Supply

As seen in Figure 1, U.S. electricity consumption and generation have grown at essentially the same rate over time because it is costly to store electricity and imports are negligible. Between 1980 and 2005, electricity generation has increased at an average annual rate of 2.3 percent, while electricity sales (consumption) have increased at a 2.4 percent annual rate.[2] Figure 1 also reveals that real electricity prices paid by consumers have remained roughly constant over time. After falling at a 1 percent annual rate from 1985 to 2000, real electricity prices have increased at about a 1.25 percent annual rate since 2000.

Over time, electricity consumption is influenced by several factors other than growth of the population. Technological change is among the most important. In 1900, electricity provided less than 10 percent of the mechanical power in American industry. By 1930, with the widespread use of the dynamo (electric generator), electricity provided more than 75 percent of the industry's mechanical power.[3]

Since the dynamo, other general purpose technologies have had far-reaching effects on the economy. The widespread adoption of central air conditioning after World War II is one example. More recently, there's been the semiconductor. Used in a myriad of computer, information and communications devices, the semiconductor seems to have spurred an increase in the demand for electricity by households and firms, thereby contributing to the growing gap between electricity generating capacity and consumption.[4]

One of the most important uses of the computer is to access the Internet—both as an information source and as a conduit of transactions between individuals and firms and between businesses. To many firms, a vital part of their business model is the call center. Reportedly, one large call center uses enough electricity to power a city of 30,000 to 40,000 residents. With such facilities being a key asset of firms like Microsoft, Dell, Hewlett-Packard and Yahoo, several high-tech firms have been attempting to secure lower-cost sources of electricity. These strategies include constructing their own power supplies or locating facilities near existing power plants to secure favorable pricing from the utility.[5]

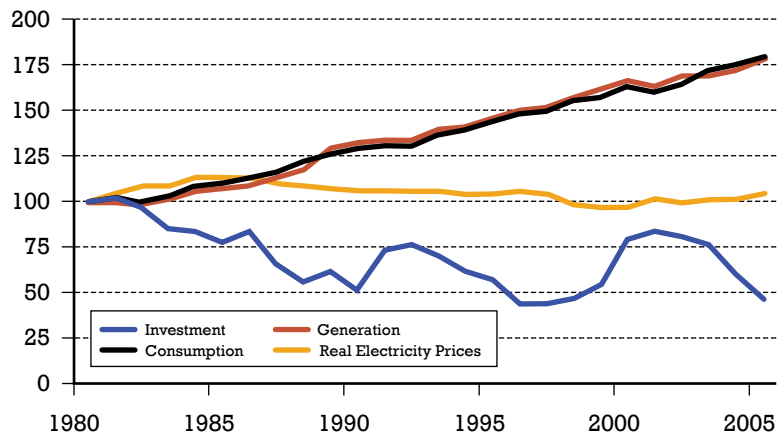
Another factor that has probably increased the demand for electricity over the past decade or so is the housing boom, and in particular, the increasing size of new homes. From 1970 to 1990, the average new home increased in size by nearly 39 percent, to 2,080 square feet from 1,500 square feet.[6] By 2004, the size of the average new home had increased by an additional 13 percent to about 2,350 square feet. With the housing boom continuing into 2005, it is conceivable that the average has increased even further. Moreover, 90 percent of all new homes in 2004 had central air conditioning vs. only 34 percent in 1970. Although today's homes and appliances are more energy-efficient, larger houses generally require more energy to cool and heat than do smaller houses.

The nation's supply of electricity depends not only on the raw materials used to produce electricity, but the number of power plants and their capacity. For an electricity-generating facility, several years can elapse between the planning and design stage to the operational stage. This is true for coal and, especially, nuclear power plants. Moreover, since electrical generation facilities have a fixed service life—that is, they wear out or become obsolete because of new technologies—net fixed investment rates have to be positive over time to meet the needs of a growing economy

FIGURE 1

Real Private Fixed Investment in Electrical Power Generation, and Electricity Consumption, Generation and Real Prices

Index, 1980=100

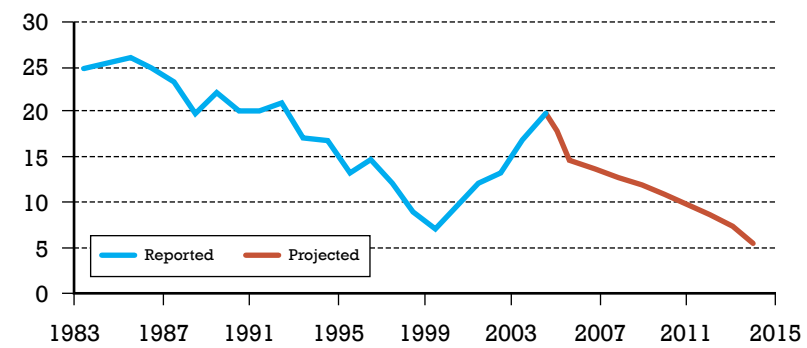


SOURCE: Energy Information Administration, Bureau of Economic Analysis, Bureau of Labor Statistics and author's calculations.

FIGURE 2

U.S. Summer Electricity Capacity Margins

Percent



NOTE: Capacity margin is based on the maximum non-coincident peak load, summer or winter, and the capacity at the time of the peak load.
SOURCE: Data are from NERC; calculations based on methodology used by Edison Electric Institute.

and populace. The short-run dynamics are different. During periods when the demand for electricity increases sharply, utilities employ unused capacity to meet increased demand. They must do this because it is economically unfeasible to store large amounts of electricity.[7]

Figure 1 also indicates that real, private, fixed investment in electricity generation remains below the level seen in 1980.[8] In fact, fixed investment in new electricity generation structures has declined at a 2.9 percent annual rate since 1980. Going forward, new investment will be necessary to offset retirement of existing facilities and to meet the increased demand associated with new technologies and increasing population. But by how much? The *2006 Annual Energy Outlook* (AEO), published by the U.S. Energy Information Administration (EIA), projects that electricity consumption will increase by 1.5 percent per year from 2005 to 2030, which is about three-quarters of a percentage point slower than the growth rate experienced from 1980 to 2005. According to the EIA, this slowing stems from increased energy efficiency and a slower rate of population growth.

Over the past 25 years, the combination of structural changes in the economy and negative real investment rates in electricity-producing structures have had consequences. One consequence was a narrowing margin between production capability (capacity) and summertime demand (peak load). Typically, the difference between peak-load capacity and demand is the smallest during the summer months, when homes and businesses use their air conditioners.[9] In fact, of the eight major North American power outages (blackouts) since 1984, six occurred during the summer months. Included in this list was the August 2003 blackout, which affected an estimated 50 million people in eight U.S. states and one Canadian province.[10]

Each year, the North American Electric Reliability Council (NERC) publishes its *Long-Term Reliability Assessment* (LTRA). This report discusses the reliability of the bulk electric systems (major electricity grids) in North America. The industry's summertime capacity margin is one of the indicators that the council monitors closely.

As seen in Figure 2, summer electricity capacity margins declined significantly from the early 1980s to the late 1990s. From 1985 to 1999, capacity margins fell from nearly 26 percent to 7 percent, a development that appears consistent with the investment trends seen in Figure 1. Although an upswing in fixed investment over the latter half of the 1990s boosted capacity margins to

Energy and Electricity in the U.S. Economy: An Overview

The United States consumed a little less than 100 quadrillion Btu of energy last year. On a per capita basis, this amounted to a little less than 1 million Btu a day, an amount unchanged since 1975.[14]

Petroleum is still the largest source of energy (including imports) consumed in the United States, accounting for about 40 percent of total consumption last year. This percentage was nearly double that derived from natural gas (23 percent). Electricity is also an important source of energy for the U.S. economy, but, unlike petroleum and natural gas, it must be produced from other sources, like coal, nuclear power or hydroelectric. Last year, nuclear electric power accounted for a little more than 8 percent of total energy consumption, but energy consumption derived from coal was 23 percent.

In terms of electricity generation, fossil fuel power plants garner the lion's share (roughly 72 percent) of the little more than 4 trillion kilowatt hours of electricity produced in 2005. The most important fuel in this regard is coal. Coal-fired power plants accounted for nearly 50 percent of total electricity generation in 2005. The next largest source of electricity generation was from nuclear power plants (19 percent), followed by natural-gas fired plants (18.6 percent). Electricity generated from renewable sources like hydroelectric and wind, while significant, accounted for only about 9 percent of the total electricity generated in 2005.

Since 1980, electricity produced by nuclear power has increased at a 4.6 percent annual rate, considerably more than that produced by natural gas (3.1 percent), coal (2.2 percent) and renewable sources (0.9 percent). Electricity generated from petroleum products, such as fuel oil, has fallen at a 3 percent annual rate since 1980, from a peak of about 17 percent of total electricity production in 1977, to 3 percent of the total last year.

According to the U.S. Energy Information Administration (EIA), the household sector is the largest end user of electricity. In 2005, sales to the residential sector accounted for 37 percent of total electricity sales. This share has increased only slightly since 1980, up from about 34 percent. The commercial sector was the next largest user (35 percent), followed by the industrial sector (28 percent).

Reflecting changes in the structure of the economy over the past 25 years, these last two shares have changed rather dramatically. From 1980 to 2005, the industrial sector's share of total annual electricity sales has declined from 39 percent to 28 percent, while the commercial sector's share has risen to 35 percent from about 27 percent. The commercial sector's rising share of total electricity sales probably reflects the increasing share of output produced by the services sector and the prevalence of information and communications technology equipment used in the production of those services.

an estimated 19.8 percent in 2004, long-term projections of U.S. summer capacity margins have been steadily marked down since 2002. Currently, as seen in Figure 2, margins by 2014 are expected to be down to about 5 percent, which would be below the record-low levels seen in 1999.

Is Enough Capacity Being Built?

The *Annual Energy Outlook* is a comprehensive overview of current trends in the supply of and demand for all types of energy consumed and produced by U.S. firms and households. A key aspect of each of the annual outlooks is the EIA's long-run projections (typically 20 years ahead) of U.S. domestic energy consumption and generation. To see how the industry's energy outlook can change over time in response to unforeseen developments, look at how the EIA's long-run electricity projections have changed over time using three AEO vintages—those from 1996, 2001 and 2006.

1996

The EIA projected that to meet growing demand and offset the retirement of obsolete plants, capacity additions totaling about 252 gigawatts (excluding cogeneration) would be needed by 2015. The agency assumes that an average new plant has a capacity of 300 megawatts; so, this amounts to 840 new plants. The EIA expected that about 75 percent of the new capacity would be natural gas-fired plants; coal-fired plants would make up an additional 20 percent. Coal-fired plants are usually more economical because the price of coal on an energy-equivalent basis is generally less than the price of natural gas. In 1999, according to the EIA, fuel costs represented nearly 80 percent of the total operating costs for a 300 megawatt coal-fired plant, but 98 percent for a comparable-sized natural-gas-fired generation plant.[11] Thus, the industry generally builds natural gas plants to ensure a reliable source of energy for the relatively few hours each day when electricity demand is high.[12]

2001

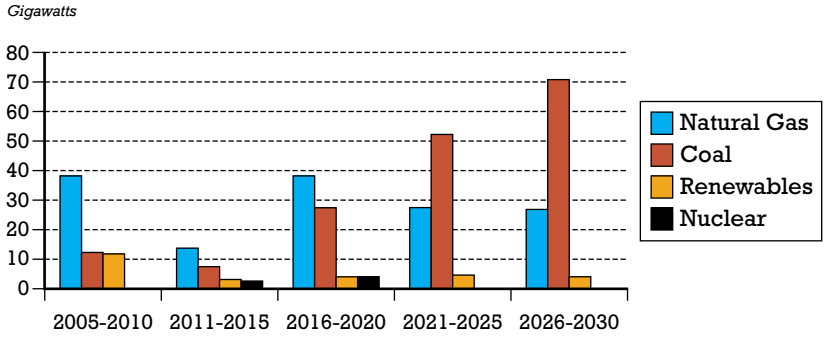
With capacity margins having dwindled to extremely low levels in recent years, the EIA was warning that the country would need to build a substantial number of new power plants over the next two decades to prevent widespread outages during peak usage. The EIA projected that 393 gigawatts of new capacity would be needed over the next 20 years, which was a 56 percent increase from the long-term projections published five years earlier. This total represented an increase of a little more than 1,300 new plants. Nearly all (approximately 92 percent) of the additional generating capacity that was projected to come on line by 2020 were natural gas-fired plants. Coal-fired generating capacity comprised most of the remaining 8 percent of the projected new generating capacity.

2006

Given the magnitude of the new generating capacity projected in the 2001 *Annual Energy Outlook*, it appears that the Energy Information Administration was surprised by the steep decline in capacity margins in the latter part of the 1990s. However, this projection error seems understandable given the technological innovations that occurred in the 1990s that appear to have increased the demand for electricity relative to the available supply.

According to the 2006 report, the EIA projects that U.S. electricity generating capacity will need to increase by about 347 gigawatts between 2005 and 2030, which is 12 percent less than its 2001 long-term projection. A little more than half of the total capacity (54 percent) is projected to come on line between 2021 and 2030. As seen in Figure 3, which details the current long-run projections in electricity generation capacity by fuel type, there has been a sharp departure in the fuel mix that was projected in 2001. Recall that in 1996 and 2001, the bulk of the new power plants to be built were expected to be natural gas-fired. Now, the EIA foresees that the majority of the new power plants in the latter part of the projection period are expected to be coal-fired. This could reflect two developments. First, utilities might be building relatively more capacity for the longer run rather than to meet peak load demand. Second, utilities could be

FIGURE 3
Electricity Generation Capacity Additions by Fuel Type, 2005-2030



NOTE: Includes combined heat and power.
SOURCE: Annual Energy Outlook, 2006; U.S. Energy Information Administration

expecting natural gas prices to remain permanently higher compared with the utilities' previous assumption.

However, coal prices have also risen sharply in recent years. From 1980 to 2000, the price of coal was essentially flat in nominal terms. From 2001 to 2005, coal prices rose by about 33 percent. The expected switch to coal-fired capacity over the longer run occurs even though the EIA has significantly raised its estimate of the real price of coal. In 1996, the EIA projected that real coal prices were expected to fall by 0.5 percent per year over the next 20 years. Currently, EIA projects that the real price of coal will increase by 0.3 percent per year over the next 20 years.

Changes in public policy also can affect generating capacity in the long run. For example, in response to the tax incentives that were incorporated into the Energy Policy Act of 2005 (EPACT), additional generating capacity from nuclear and renewable energy sources is expected to be built. By 2030, as shown in Figure 3, six gigawatts of nuclear and about 27 gigawatts of renewable energy facilities are expected to be operating.

Other Concerns

In its 2006 *Summer Assessment* issued in May, NERC had warned that the gap between expected demand and available supply was going to be "tighter than last summer across much of North America." But in a subsequent report issued in August, the agency noted that the power system performed "quite well" during the July heat waves in the United States. NERC also said in its May assessment that reduced coal deliveries to electric power generators from the Powder River Basin in Wyoming and southeastern Montana were a concern. This development, which is more of a short-run disturbance, stemmed from damage to rail lines in 2005 that arose from flooding and a train derailment. Although some utilities in the Midwest and Southwest have warned of the possibility of rolling blackouts due to short coal supplies, through May 2006 the EIA reported that total U.S. coal stocks held at electric utilities were up by 11 percent from a year earlier.[13]

In addition to longer-run concerns about capacity margins, NERC has warned that transmission capacity will begin to be a pressing issue going forward. The agency noted as much in its 2005 *Long-Term Reliability Assessment*:

> North American transmission systems are expected to meet reliability requirements in the near term. However, as customer demand increases and transmission systems experience increased power transfers, portions of these systems will be operated at or near their reliability limits more of the time (Page 5).

From 1989 to 2004, a little more than 14,000 high-voltage transmission circuit miles were added in the United States, which amounted to an increase of 0.6 percent per year. This increase was about one quarter of the roughly 2.25 percent annualized growth in electricity consumption over this period. Although the August 2003 blackout task force noted that no major electricity transmission circuit projects have occurred over the past 10 to 15 years, eroding the system's reliability, NERC nonetheless reports that actual circuit miles have exceeded projections for each year from 2000 to 2005. NERC projects that about 10,000 miles of high-voltage transmission lines will be added between 2005 and 2014. While significant, this is still a growth rate of only 0.6 percent per year. Moreover, this growth still lags the projected 1.75 percent annual growth of electricity sales over this period, according to the EIA.

Summary

Since 1980, growth in the consumption of electricity has outpaced the growth in investment in new generating facilities. As a result, peak-capacity margins dwindled to extremely low levels in the latter part of the 1990s, and, while they have recently rebounded, some energy economists expect even smaller margins by 2014. Still, the industry is expected to add a considerable amount of coal-fired generation capacity over the next 20 years and, partly in response to the Energy Policy Act of 2005, a significant amount of new capacity from nuclear and renewable energy sources. These projections, though, are based on a sizable slowing in the growth of electricity consumption that was seen from 1980 to 2005. Finally, some economists are concerned that industry is not adding enough to its capacity to deliver electricity over bulk transmission lines, potentially increasing the risk of supply disruptions.

Kevin L. Kliesen is an economist at the Federal Reserve Bank of St. Louis. Joshua A. Byrge provided research assistance.

ENDNOTES

1 The total amount of energy used to produce $1 of real final goods and services (GDP) has declined from a little more than 19,500 Btu in 1949 to about 9,000 Btu in 2005.

2 Since 1980, real GDP has increased at an average annual rate of 3.1 percent.

3 See Kliesen and Wheelock (2001).

4 See Anderson (2001).

5 See Delaney and Smith (2006).

6 See National Association of Homebuilders (2006).

7 Imports of electricity, mostly from Canada, are another potential source. However, the total amount imported in 2004 was only 0.8 percent of total net generation.

8 The dollar value of new construction of electrical generating facilities.

9 Capacity margin is measured as the difference between capacity at summer peak load and the summer non-coincident peak load, divided by the former and multiplied by 100.

10 See U.S.-Canada Power System Outage Task Force (2004).

11 See 2001 Annual Energy Outlook, p. 74.

12 See 2006 Annual Energy Outlook, p. 77.

13 See Hornaday (2006).

14 British Thermal Units is the U.S. measure of product's energy content. According to an online encyclopedia, "a pound (0.454 kilogram) of good coal when burned should yield 14,000 to 15,000 Btu; a pound of gasoline or other fuel oil, approximately 19,000 Btu." See www.answers.com/topic/british-thermal-unit.

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INCOME INEQUALITY

Time for Predatory Lending Laws?

By Yuliya Demyanyk

Income inequality, the gap between the rich and the poor, seems to indicate a higher probability of a predatory lending law being adopted. States that recently adopted predatory lending laws had higher than average levels of income inequality over the past 10 years than their nonadopting counterparts.

Predatory lending—an illegal activity by lenders or brokers leading to a further decrease of well-being of relatively poor individuals—could generate greater inequality between individuals in the U.S. economy. Predatory lending laws, the laws aimed at reducing fraudulent lending activity, may do the most good in reducing inequality in states where inequality is larger.

Between 1999 and last year, 24 states plus the District of Columbia adopted laws to combat predatory lending. The law in each state is designed to restrict origination of specific types of loans—mostly mortgages—and/or to require lenders to disclose details about those loans to state regulators.

Predatory lending, even though it lacks an exact definition, is most often associated with lending to relatively poor borrowers, to those who are uneducated about the lending process and to those whose credit scores are low. Borrowers with incomes and/or credit scores below a certain threshold are usually not able to obtain credit unless they pay higher prices for their loans. Such loans are called subprime or high-cost loans. Not all high-cost loans are predatory, though.

Lending is considered predatory, or fraudulent, when lenders or brokers:

- take advantage of borrowers by charging very high fees that are not justified by a risk factor;
- issue loans knowing they can never be repaid or would almost certainly lead to home losses and complete bankruptcy; or
- change the terms of a loan at closing, thus knowingly misleading borrowers.[1]

The relatively weak are both the easiest prey for predatory lenders and those most likely to suffer the greatest economic losses. If predatory lending—which tends to hurt poor people disproportionately more than those who are better off—is populated in an economy, then inequality may increase.

Income Inequality

Income inequality in the United States is greater than in any other developed country. Moreover, it has been increasing during the past 25 years.[2] Whatever the actual level of an individual's income, a person might be discouraged and unhappy if he or she is relatively poorer than many other people in society. Therefore, rising income inequality might be considered harmful to society not only because it represents a disparity between people, but also, as some research shows, because it can cause slower economic growth, an increase in crime, worse overall well-being, poor educational outcomes and even higher death rates, the same way a higher level of poverty (absolute, not relative) would.[3]

Besides predatory lending, there are a number of possible factors that can be responsible for inequality in a society. Differences in education and abilities create wage differentials leading to income differences; race, gender and cultural differences can give rise to discrimination in the labor market. Also, income inequality can rise if wealth circulates only among those who have the means to invest and to increase already existing wealth.

Several country-wide economic factors may affect inequality as well. For example, some research studies show that faster economic growth and greater economic development in an economy would benefit the rich and the poor equally. Because the "boats" of both would rise the same, however, the level of inequality would remain the same.[4]

Other studies show that countries with better-developed financial intermediaries experience faster declines in both inequality and poverty.[5] However, financial development that offers greater credit availability to previously left-out borrowers (those with lower credit scores and incomes) can also open the door for more fraudulent lending. The number and variety of loan products available on the market these days are reaching enormously large magnitudes. A single financial institution can offer more than 600 different types of mortgage loans, which can confuse borrowers regarding what product to choose and allow unscrupulous lenders to take advantage of not just the poor but all who don't know enough to protect themselves.

Such "development," once again, can increase income inequality.

If predatory lending leads to higher income inequality in an economy, then laws that restrict predatory activity would seem to be most needed in those states where inequality is relatively large. The analysis conducted for this article shows that predatory lending laws were indeed adopted in states where they might do the most good in reducing inequality.

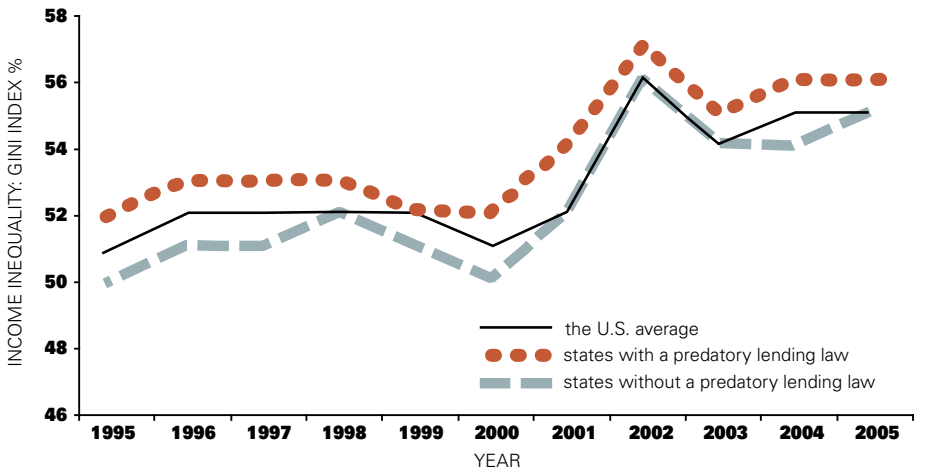
One conclusion that could be drawn from this finding is that the states which adopted predatory lending laws needed to do so to decrease the level of income inequality more than the states that did not adopt these laws.

Because states adopted these laws in different years, it is hard to tell whether higher inequality is associated with the higher need and probability of passing predatory lending laws. That relationship can be examined using a statistical model that estimates the probability of an event occurring, taking into account data from the past. Based on the estimated results, it appears that higher income inequality is associated with a higher probability of a predatory lending law being adopted.[8]

The model estimates that at the average value of income inequality and at the average values of all control factors over the past 10 years, the probability of a predatory lending law being adopted in each state is 47 percent. Also, holding other factors constant, in a given state, a 10 percent increase in inequality in a current period is associated with an 8 percent greater chance of having a predatory lending law adopted during the next period.

It is too early to formally test for any actual real effects that predatory lending laws have on states' economies and, in particular, whether these laws are really fighting income inequality. Future studies are needed to address this issue. In addition, more studies are needed to test whether there are factors that influence both predatory lending (and the probability a predatory lending law will be adopted) and income inequality at the same time.

INEQUALITY in states with vs. without predatory lending laws



SOURCE: Author's calculations based on data obtained from the Current Population Survey.

Income Inequality in States with Predatory Lending Laws

To examine a possible link between income inequality and predatory lending in the United States, an individual-level income inequality measure, a Gini index, is calculated separately for each state and year for the past 10 years.

The Gini index is one of the most widely used measures of income inequality. The Gini index would be zero in an economy in which everyone has the same income; the index would be 100 percent in an economy where one person has all the income and everybody else has zero income. The average income inequality across the U.S. states was about 50 percent in the year 2000.[6]

In the figure, the solid line shows that average inequality has been increasing over the past decade, with a peak during the recession in the early part of the 2000s.[7] Comparing income inequality for the group of 24 states plus the District of Columbia that adopted predatory lending laws with the group of 26 states that did not, an interesting finding emerges: The states that adopted predatory lending laws experienced a higher degree of income inequality over the past 10 years, while the states that did not adopt predatory lending laws averaged lower income inequality over the past decade.

Yuliya Demyanyk is an economist at the Federal Reserve Bank of St. Louis.

ENDNOTES

1 See www.hud.gov for more examples of predatory lending activities.

2 The U.S. Census Bureau publishes different historical income inequality measures at www.census.gov/hhes/income/histinc/ie6.html.

3 See Kennedy et al. (1996) and Kaplan et al. (1996).

4 For a list of references, see www.economist.com/inequality.

5 See Beck et al. (2004).

6 Author's calculations based on the data from the Current Population Survey.

7 This finding is consistent with the results of a growing body of economic research that shows there is a negative relationship between inequality and economic growth, i.e., inequality almost always rises in recessions. See Alesina and Rodrik (1994), Aghion et al. (1999) and Adams (2003), among others.

8 The model also takes into account several control factors: long-lasting differences that may exist between the states, such as size or geographical location, time trend, prevalence of individuals with lower income and prevalence of minorities in each state.

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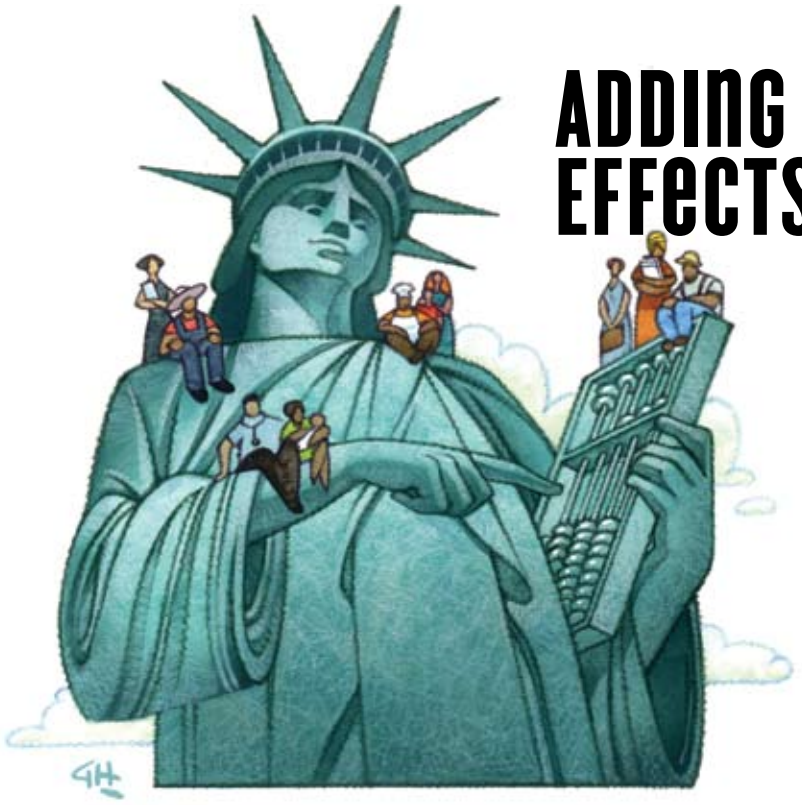


Adding Up the Economic Effects of Immigration

By Rubén Hernández-Murillo

In the past three decades, the percentage of foreign-born people in the United States has risen rapidly. In 1970, foreign-born people represented 5 percent of the population, compared with about 12 percent in 2003.[1] The percentage of foreign-born workers of total U.S. employment is even higher—about 14.8 percent as of last year.[2]

Overall, the flexibility of U.S. labor markets has allowed the economy to absorb the increased flow of immigrants, but the composition of recent immigrants (disproportionately biased toward low-skilled people) and the rapid increase in the number of undocumented immigrants have raised concerns about the impact on the wages and employment rates of U.S.-born workers and about the effect on the net tax burden for the U.S.-born population.

Costs and Benefits

The benefits from immigration stem mainly from the larger diversity of skills among foreign-born workers relative to the native work force. (For the most part, foreign-born workers have either low or high skills, whereas U.S. natives generally have intermediate skills.[3] The chart illustrates these differences in terms of levels of schooling.) First, the availability of low-skilled immigrants, earning lower wages, has allowed American firms to expand and to generate new jobs, increasing the production of goods and services while keeping prices down. Second, the disproportionate influx of low-skilled foreign-born workers has also increased the real wages of more-skilled U.S.-born workers (more on this later). Third, foreign-born workers with high levels of schooling have made important scientific and technological contributions to the U.S. economy.

On the other hand, there are many costs to rising immigration, including:

- the potentially adverse effects on the wages and employment rates of low-skilled U.S.-born workers, who face increased competition from low-skilled immigrants; and
- the increase in the consumption of publicly provided goods and services, such as public schools and health services, as well as the increased use of public assistance programs.

Finally, it is worth noting that, although the costs and benefits from immigration are commonly measured from the perspective of the U.S.-born population, immigration clearly benefits immigrants themselves, who enjoy an improved quality of life and higher earnings.

Labor Market Effects

About a decade ago, academics generally thought that the potentially adverse effect of immigration on the real wages and employment opportunities of U.S. natives was small.[4] Today, a lively debate among economists sustains two opposing views. One view, most notably of economist George Borjas, found large negative effects, particularly for low-skilled U.S.-born workers. Using data from the decennial U.S. censuses, Borjas found that, because of immigration, the real wages of U.S.-born workers declined by about 3 percent between 1980 and 2000 for the average worker and by almost 9 percent for workers without a high school diploma. A second view, by economist David Card, found only small effects. Card focused on the relative wage effects of immigrants using data from U.S. metropolitan areas, accounting for the internal migration of U.S. natives in response to the location choices of immigrants. He found small negative effects of immigration in the 1980s on the real wages of U.S.-born laborers and low-skilled service workers relative to the real wages of more-skilled U.S.-born workers—a reduction of up to 1 percentage point and by up to 3 percentage points in some high immigration cities.

In a recent paper, economists Gianmarco Ottaviano and Giovanni Peri presented yet another view, which appears to overturn some of the previous findings. Following a strategy similar to Borjas', they assumed that U.S. firms combine workers of different types and occupations with physical capital (e.g., plants and machinery), and that the production technology requires the combination of a balanced mix of labor types and capital. This implies that if, for example, a decline in the wages of blue-collar workers induces an increase in their employment, the production technology would require that the employment of other types of labor, say managers, increase as well, which, in turn, puts upward pressures on their wages. In contrast with Borjas' and other studies, which considered an invariable stock of physical capital, Ottaviano and Peri allow for adjustments in the stock of physical capital in response to the influx of immigrants (e.g., adding new machines or building new plants).

In this environment, an increase in immigration has three effects. First, within a given class of skills, an influx of immigrants puts downward pressure on the wages of U.S.-born workers in that class of skills because they compete for the same type of jobs. Second, an influx of immigrants in a given class of skills increases the productivity of workers in other classes (because the production technology requires that a balanced mix of labor types be main-

tained), putting upward pressure on real wages of these other workers. Finally, as a result of an influx of immigrants, the productivity of physical capital also increases, fostering its accumulation to maintain a constant return to capital over the long run; this mechanism, in turn, increases the productivity of all labor types and puts upward pressure on real wages. Borjas' study finds that the first effect is large and negative and argues that the second effect is negligible. Ottaviano and Peri also find that the first effect is negative, but it is outweighed by the other two large positive effects. The difference lies in the adjustment of physical capital in response to an increase in immigration.

Ottaviano and Peri found that, on average, real wages of U.S.-born workers increased by about 2 percent between 1980 and 2000. They also found a small decline of about 0.4 percent in the real wages of U.S.-born workers without a high school diploma.

The reason for the overall increase is that competition for jobs between immigrants and U.S.-born workers leads to losses for low-skilled and possibly high-skilled U.S. natives, but given the distribution of U.S.-born workers, the gains of those native workers with intermediate levels of schooling, especially college graduates, outweigh the losses of workers with low and high levels of schooling. Furthermore, the authors observe that, even among workers with similar educational attainment levels, foreign-born workers tend to work in very different occupations and industries than do U.S.-born workers, further attenuating competition for the jobs that U.S. workers seek. Also, U.S.-born workers, particularly those with low and high levels of schooling, possess characteristics that cannot be easily substituted by those of immigrant workers; so, their wages do not decline as much in response to the increase in the number of foreign-born workers.

Fiscal Effects

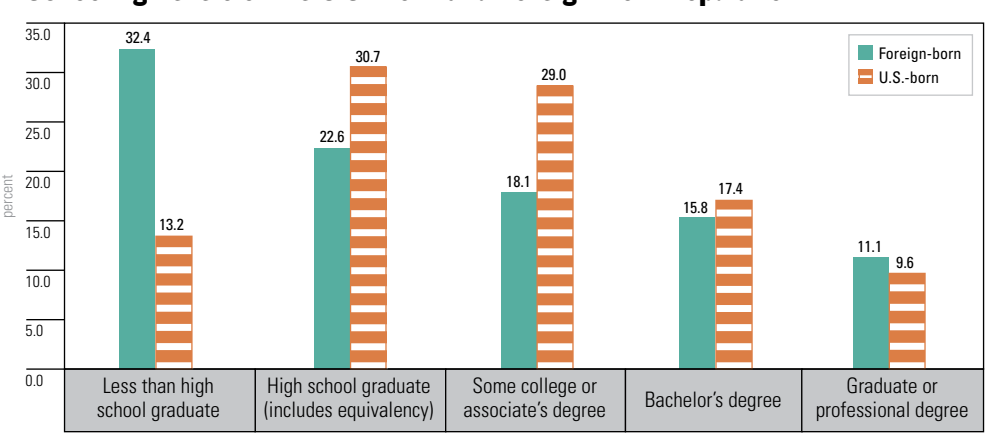
Other important characteristics of recent immigrants are that they tend to be younger than U.S. natives and have higher fertility rates.[5] These two characteristics have positive fiscal consequences as the baby-boom generation of U.S.-born workers retires. Borjas and Card also document that, on the other hand, low-skilled immigrant workers, on arrival, earn significantly lower wages than low-skilled U.S.-born workers and consequently pay lower taxes. Therefore, the net present value of the fiscal contribution of immigrants depends crucially on the economic success of their children and how quickly their skills and earnings catch up to those of U.S. natives. Recent evidence suggests that immigrants are assimilated (in terms of earnings and educational attainment relative to U.S. natives) at a reasonably rapid pace. A controversy among the two authors remains about the success and speed of assimilation of Mexican-born immigrants, who on entry to the United States possess by far the lowest levels of educational attainment relative to other immigrants.

Discussion

Increased immigration, particularly in the short run, can carry adjustment costs, both in terms of the labor market outcomes of U.S.-born workers as well as the net fiscal contribution of immigrants. Over the long run, whether the benefits of immigration exceed the costs depends on how quickly the children of immigrants can be assimilated into the native population. Further study of Mexican-born immigrants may prove useful to inform the debate over immigration, as their importance in terms of sheer numbers, skills and share of the undocumented immigrant population continues to increase.[6]

Rubén Hernández-Murillo is a senior economist at the Federal Reserve Bank of St. Louis.

Schooling Levels of the U.S.-Born and Foreign-Born Population



DATA: 2004 American Community Survey. Population 25 years of age and older.
NOTE: The U.S.-born shares include children born overseas to U.S.-born parents.

ENDNOTES

1 See the 2005 Economic Report of the President.

2 This share includes persons 16 and older. Source: U.S. Department of Labor.

3 The 2005 Economic Report of the President indicates that the skills characteristics of the foreign-born population are highly correlated with their country of origin. In particular, about 64 percent of male immigrants from Mexico or Central America had less than a high school education. In contrast, only 10 percent of Asian-born men failed to obtain a high school diploma. Total immigrants from Mexico and Central America represented 37 percent of about 35 million immigrants in 2003.

4 See Friedberg and Hunt (1995).

5 See the 2005 Economic Report of the President.

6 The 2005 Economic Report of the President estimates that more than half of about 10 million undocumented immigrants currently in the United States are from Mexico.

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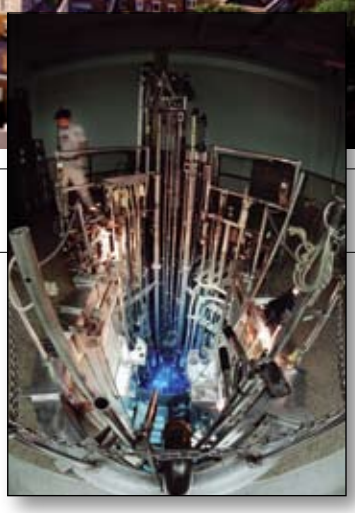
LIFE SCIENCES

Help College Town Evolve



The rotunda of Jesse Hall, the main administration building, towers over the center of the Mizzou campus. At right, the university's nuclear reactor. The university is one of the few in the country to have a reactor for research.

(Photos copyrighted by the Curators of the University of Missouri.)

By Laura J. Hopper

Founded in 1839 as the first public university west of the Mississippi River, the University of Missouri–Columbia is known for its rich history in fields ranging from journalism to law and medicine, as well as for being one of the few universities with a nuclear reactor for research.

In 1968, two biochemistry graduate students and their professor sowed the seeds for yet another specialty, one that is now playing a key role for the university and the Columbia region.

Dr. Charles Gehrke and graduate students Jim Ussary and David Stalling decided to put their ideas and experiments to the real-world test by forming their own company, Analytical Bio-Chemistry (ABC) Laboratories. They kept their venture here, adjacent to the city and in the shadows of Mizzou, as the university is known.

Almost 40 years later, ABC is a rapidly growing firm that helps pharmaceutical, biopharmaceutical, animal health and chemical companies ensure the safety and effectiveness of their products, as required by regulatory agencies. Nearly all of ABC's $25 million revenue comes from out-of-state firms.

The company is now on the verge of another major move. In about a year, it will become the first tenant of the university's Discovery Ridge Research Park. At ABC's new $15 million facility, it will employ 500 people—double the current total.

"If our presence here can help attract additional life sciences tenants, it will be a win-win situation that will benefit our company and the regional economy," says Byron Hill, the head of ABC.

It is also hoped that some of ABC's own research will spawn new firms that will locate at the new research park.

Boone County, home to Columbia, is showing its confidence in ABC by providing the company with a Chapter 100 bond incentive that could save the firm as much as $15 million in property taxes over the next 10 years. ABC is the first Boone County firm to receive incentives from the county in 30 years.

Mining Profit from Invention

The ABC expansion is only the latest way in which the university, city, county and business leaders are trying to transform the area into a hub of scientific innovation and biotechnology startups.

Another key building block was put in place in 2004 when Mizzou opened its $60 million Christopher S. Bond Life Sciences Center. Bond, a U.S. senator from Missouri, helped obtain a $30 million grant from the National Aeronautics and Space Administration for the project. The National Institutes of Health and Monsanto Corp., a St. Louis agricultural research and development firm, helped foot the rest of the bill.

The Life Sciences Center forms the foundation for the university's economic development strategy: hatch ideas, patent them and turn them into startup businesses that stay in the area and fuel regional economic growth. The expectation is that such an environment will, in turn, attract more faculty and students with the same innovative bent.

"The engine driving this deal is the university," says David Meyer, marketing director for Columbia's Regional Economic Development Inc. (REDI), a nonprofit, public-private agency. "They have recently made economic development one of their main priorities, and they are looking to mine some technology and innovation from their research dollars. Instead of licensing it to an out-of-state company, they're wanting to foster more innovation and entrepreneurship in Columbia."

In the past decade, 60 patents have been granted out of 150 filed by university researchers, according to campus officials, generating nearly $18 million in licensing revenue and spawning more than 20 startup companies. Of those startups,

three are successful, full-fledged companies that have relocated elsewhere, with two moving to California and another now located in Boston, says James Coleman, Mizzou's vice chancellor for research. The remaining startups are still in the early stages of getting their businesses up and running, he says.

"We are just now creating the programs and infrastructure to keep these new businesses in Columbia; so, we are very hopeful that some of these other startups will stay here," Coleman says. "It's an exciting time."

To keep the momentum going, Mizzou has joined forces with its Columbia neighbor, Stephens College, and with the city of Columbia to form a planning and development partnership and coordinate future land use around the boundaries that the city and the schools share. Mizzou and the city are each committing $50,000 to the partnership, with the initial funding slated for a land-use study.

In addition, Columbia economic development officials earlier this year formed Centennial Investors, a group of 35 "angel investors" who specialize in financing high-risk business startups.

"The hope is that the ideas the university researchers patent here will stay here," says Columbia Chamber of Commerce President Don Laird. "These investors may look at 50 to 70 ideas to come up with four or five good deals."

New companies that are formed will likely be housed at either Discovery Ridge or the Mid-Missouri Technology Business Incubator, an $8.7 million university-sponsored facility in the works. Columbia's biotechnology-related efforts are attracting national attention as well: Mizzou is one of 18 semifinalists from around the nation vying to house the U.S. Department of Homeland Security's planned $450 million Bio and Agro-Defense Facility. Mizzou's competitors for the facility—which would be used to investigate infectious diseases and bioterrorism threats—range from other universities to laboratories and bio-agro consortiums. A winner will be announced in early 2008.

Photo courtesy of *The Columbia Daily Tribune*

Analytical Bio-Chemistry Laboratories, seen in photos above, will move in about a year into the university's new Discovery Ridge Research Park. In larger photo is Byron Hill, president and CEO. ABC was founded almost 40 years ago by a university professor and two of his students. Below is the Christopher S. Bond Life Sciences Center, which opened in 2004.

Life as a College Town

Even without the new emphasis on high-tech and biotech, Mizzou is big business. With 28,000 students, the university generated $1.3 billion in revenue just in the past fiscal year.

"Think of us as a billion-dollar company with 12,000 employees," says Provost Brian Foster. "There aren't many of those in the state. We bring in revenue, collaborate with other firms and government enterprises in the state and prepare the work force of the future."

That mix goes a long way in explaining why Columbia routinely pops up on national lists of best places to live, in magazines ranging from *Forbes* to *Modern Maturity*.

The town is along Interstate 70 almost midway between St. Louis and Kansas City; only 30 minutes away is the state capital of Jefferson City. Columbia's population has grown slowly and steadily over the past two decades, about 1.5 percent to 2 percent per year, says Laird. "For the most part, our infrastructure has been able to keep up, and we haven't run into the logistical problems that cities can face with a sudden population influx," he says.

In addition to its focus on the university, the region has become a hub for insurance and health care. Shelter Insurance has its headquarters in Columbia, and State Farm has one of two regional offices there. Each insurance company employs more than 1,000 people in Columbia. The Missouri Farmers Association insurance co-op is also housed in Columbia, along with three other smaller insurance firms.

Health care is an even bigger industry, with five hospitals and 850-plus physicians in the area. While travelers from farther away may come to Columbia to visit Mizzou, mid-Missourians often focus their trips on a doctor visit and stay to spend money at restaurants and stores.

However, with three Wal-Marts and a Sam's Club (Wal-Mart founder Sam Walton attended Mizzou and several family members have roots in the region), Columbia isn't focusing on attracting more retail, says Geni Alexander, a spokeswoman for REDI. "We're trying to get businesses where people can earn a good living to spend money," she says. "Our feeling is that if we do that, the retail will come afterward."

Manufacturing isn't a major focus either, though firms such as 3M, Oscar-Meyer and Quaker Oats have facilities in Columbia.

"We're never going to be the type of city that, say, goes out and attracts an automobile plant," says Columbia City Manager Bill Watkins. "That's just not our strength and not our labor force. Biotechnology, plant science and animal science—that's where the jobs will be 10 or 20 years from now."

Laura Hopper is a senior editor at the Federal Reserve Bank of St. Louis.

Columbia, Mo.

BY THE NUMBERS

Population ..... Columbia 89,593 (2004)
Boone County 143,326 (2005)

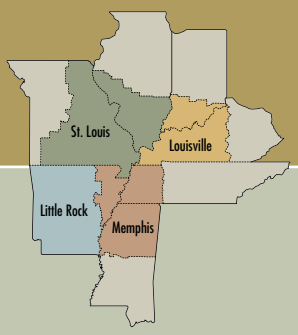
County Labor Force ..... 88,937 (May 2006)

County Unemployment Rate ..... 2.8 percent (May 2006)

County Per Capita Income $30,381 (2004)

Top Employers

University of Missouri-Columbia	12,143
University Hospital & Clinics	3,551
Columbia Public Schools	2,030
Boone Hospital Center	1,334
City of Columbia	1,187



Slow and Steady in St. Louis

By Kristie M. Engemann and Howard J. Wall

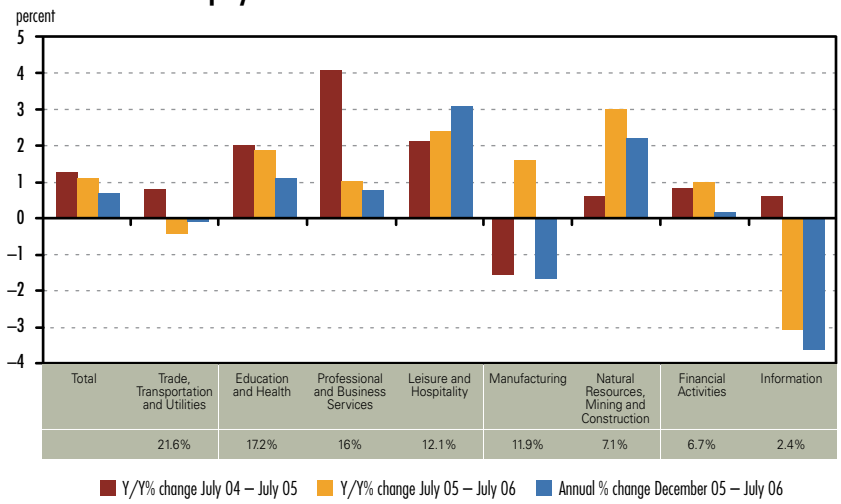
Employment in the St. Louis metro area grew slightly more slowly during the 12 months ending in July 2006 than it did during the preceding 12-month period.[1] Despite slowing, employment growth remained positive over the first seven months of 2006. The overall employment picture clouds a great deal of variation across sectors. In addition, other indicators suggest that the St. Louis economy is performing better than is indicated by the employment numbers.

The figure provides three different growth rates for total private nonfarm employment and for employment in eight sectors. The three growth rates are: percent change over the period July 2004-July 2005, percent change over the period July 2005-July 2006 and the annualized growth rate for the first seven months of 2006. The sectors are ordered by size, and their shares of the total as of July 2006 appear under the sector names.

From July 2005 to July 2006, employment in St. Louis grew by 1.1 percent, which was slightly smaller than the previous year's growth. In terms of the number of jobs, the July 2006 estimate indicated that the St. Louis metro area produced a net gain of about 12,900 private nonfarm jobs in the previous 12 months. This performance was slightly worse than what was seen at the national level: The analogous employment growth rate for the United States was just over 1.4 percent.

Six of the eight private sectors contributed positively to the employment growth in the year beginning in July 2005. The largest sector—trade, transportation and utilities—experienced a slight decrease in employment of one-half of a percent since July 2005, although its performance was nearly flat in the first seven months of 2006. The second-largest sector in St. Louis—education and health services—has had continual employment gains since July 2004, but the pace has slowed. The year-over-year growth rate dropped slightly from 2 percent in July 2005 to 1.9 percent this past July. Growth slowed even more in the first seven months of 2006, dropping to an annualized rate of 1.1 percent.

Private Nonfarm Employment



SOURCE: Bureau of Labor Statistics and authors' calculations; data are seasonally adjusted.
The percentage beneath each sector represents its share of employment.

Professional and business services—the area's third-largest sector—experienced a large slowdown in growth, second only to the information sector. In July 2005, the year-over-year growth rate was 4.1 percent, but it was only 1 percent in July 2006. In contrast, this sector performed better in the United States as a whole, posting a 2.8 percent growth rate between July 2005 and July 2006.

The leisure and hospitality sector has been the best-performing sector in St. Louis, being the only one with accelerating employment growth. Its most-recent year-over-year growth rate was 2.4 percent, compared with a 1.8 percent year-over-year growth rate for this sector nationwide. The manufacturing sector, in breaking its decades-long downward trend, saw a 1.6 percent increase in employment from July 2005 to July 2006. However, during the first seven months of 2006, growth was –1.7 percent, for an employment loss of 1,400. In contrast, U.S. manufacturing employment experienced a 0.1 percent gain since July 2005.

Although the payroll employment numbers suggest a weakening of the St. Louis economy, the picture provided by the unemployment rate shows a still-robust local economy. The seasonally adjusted unemployment rate for St. Louis was 4.7 percent in July 2006, having fallen from 5.5 percent for July 2005 and 6.1 percent for July 2004. For the most recent period, the St. Louis unemployment rate dipped below the U.S. unemployment rate, which was 4.8 percent. In contrast, the St. Louis unemployment rate was 0.5 percentage points higher in July 2005 and 0.6 percentage points higher in July 2004, relative to the U.S. rate.

A bright picture of the St. Louis economy is provided also by the Summer 2006 Business Climate Survey produced by the St. Louis Regional Chamber and Growth Association. Forty-six percent of survey respondents reported that they had increased their work force between May and July of this year, and only 5 percent had decreased their work force during the same period. Similarly, 55 percent of respondents reported that they plan to increase their work force in the next 12 months, while only 4 percent plan to reduce it.

Kristie M. Engemann is a senior research associate, and Howard J. Wall is an assistant vice president and economist, both at the Federal Reserve Bank of St. Louis.

ENDNOTES

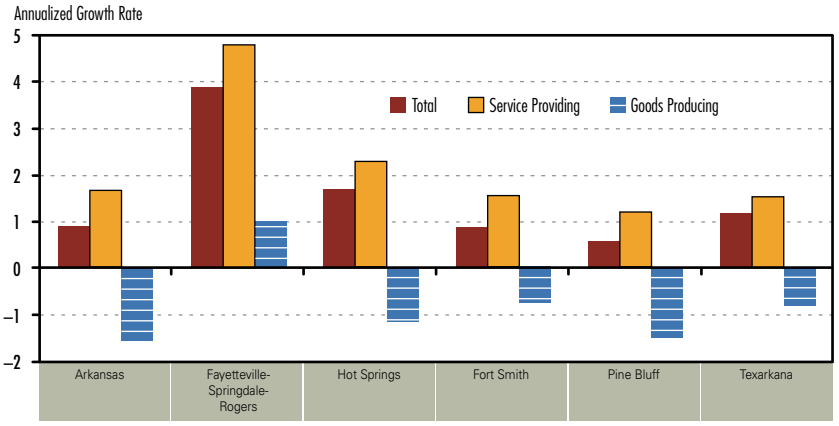
1 Throughout, "St. Louis metro area" and "St. Louis" refer to the entire 17-county St. Louis Metropolitan Statistical Area.

Uneven Employment Growth Reflects Differing Mixes of Jobs

By Joshua A. Byrge and Michael R. Pakko

From the beginning of the current expansion in November 2001 through July 2006, nonfarm payroll employment in Arkansas grew by 0.91 percent annually, slightly higher than the national average of 0.73 percent. Among five metropolitan statistical areas (MSAs) outside of Little Rock-North Little Rock, employment growth was mixed. Fayetteville-Springdale-Rogers and Hot Springs led the pack with annual growth rates of 3.89 percent and 1.71 percent, respectively. The Texarkana MSA experienced above-average growth of 1.17 percent. However, Texarkana's growth was largely bolstered by the public sector; private sector employment grew at an annual rate of only 0.61 percent. Of the MSAs that underperformed—Fort Smith (0.87 percent) and Pine Bluff (0.57 percent)—neither kept pace with the statewide transition from goods-producing to service-providing employment.

Nonfarm Employment Growth by Sector
Seasonally Adjusted Monthly Data, November 2001 through July 2006



SOURCE: Bureau of Labor Statistics/Haver and authors' calculations.

Over the course of the 1990s, U.S. employment followed a trend of reallocating from goods-producing sectors toward those offering services. Arkansas employment reflected this trend but retained its traditionally high concentration in goods-producing industries. In the early part of this decade, however, the shift in Arkansas employment accelerated, with the mix of jobs converging toward the national average. From 2000 through 2005, the share of employment in goods-producing industries in Arkansas fell from seven percentage points above the national average to 5.3 percentage points higher.

Those MSAs that exceeded Arkansas' employment growth between November 2001 and July 2006 were also those that followed the statewide trend toward service-sector employment. The Fayetteville area ended the period with virtually the same concentration of employment in both the goods-producing and the service-providing sectors as Arkansas overall. The Fayetteville MSA continued to benefit from the rapid growth of big-name companies in the area, including Tyson Foods and Wal-Mart. Indeed, the Fayetteville-Springdale-Rogers MSA was the only one in the state to display positive employment growth in the goods-producing sector.

In Hot Springs, the share of service-providing employment remained well above the Arkansas average. Furthermore, service-sector employment growth in Hot Springs (2.3 percent annually) outpaced the state's (1.67 percent).

Conversely, the MSAs with weak employment growth relative to the state's were those that deviated from the trend toward the service sector. Pine Bluff, for instance, moved in the opposite direction; while the share of goods-producing employment in Pine Bluff was nearly 20 percent less than the state's in 1990, these shares were roughly equal by July 2006. Perhaps more significant was the trend in Fort Smith, which employs roughly 10 percent of the total Arkansas labor force. Fort Smith remained relatively specialized in the goods-producing sector with over 30 percent more of its employees producing goods than the statewide average in July. Compared with the state's, the concentration of goods-producing employment in Fort Smith has increased since 1990—a trend that began to accelerate at the beginning of the current expansion.

Certainly, there is nothing inherently bad about specialization in goods production. From November 2001 through July 2006, both Fort Smith and Pine Bluff performed relatively well in goods-producing employment compared with the rest of the state. With annual employment declines of 0.74 percent and 1.52 percent, respectively, these two MSAs fared better than the average 1.57 percent decline in goods-producing employment statewide. Yet, if Fort Smith had begun this expansion with the same concentration of employment in both the goods-producing and service-providing sectors as was observed statewide, its total employment growth through July would have outpaced the state's. It is also important to note that goods-producing industries—particularly manufacturing—have generally experienced dramatic growth in labor productivity; thus, slow employment can be associated with rapid growth in output, sales and profits in these sectors.

Joshua Byrge is a research analyst and Michael Pakko is a research officer, both at the Federal Reserve Bank of St. Louis.

Soft or Hard Landing?

By Cletus C. Coughlin and Lesli S. Ott

For the past few years, the United States has enjoyed above-trend real gross domestic product (GDP) growth. This type of growth is not unusual following a recession (the last one having occurred from March to November 2001), but such growth is not sustainable in the long run. Once labor becomes fully employed and capital fully utilized, growth is limited to the rate at which productive capacity is increasing.

After a lengthy period of accommodative policy, the challenge faced by monetary authorities in recent years has been to remove monetary policy accommodation in a timely manner so that the economy slows to its potential growth rate. Excessive restraint increases the risk of an extended period of growth slower than potential, while insufficient restraint can produce high and accelerating inflation. The job of the monetary authorities is complicated by the fact that monetary policy actions operate with long and variable lags. Consequently, decision-makers operate under much uncertainty.

Prior to the Aug. 8 meeting of the Federal Open Market Committee (FOMC), policymakers had increased the federal funds rate target in 25 basis-point increments at each of 17 prior meetings. These adjustments left policymakers with three possibilities to ponder at the August meeting:

1) whether the culmination of their recent actions was helping to orchestrate a soft landing as the housing market tumbled and energy prices continued at high levels;

2) whether their actions, coupled with developing economic conditions, might slow growth more significantly and for a greater period of time than desired (i.e., a hard landing); or

3) whether inflationary pressures were persistent enough to warrant further tightening.

With one member dissenting because of inflation concerns, the FOMC decided to pause.

Recent Data

Since the meeting, incoming economic data can be characterized as a mix of good news and not-so-good news. July marked the fourth consecutive month of decreasing sales of existing single-family homes. Single-family housing starts and sales of new single-family homes continued to decline as well, and construction spending for July fell by a surprising 1.2 percent. Energy costs remained elevated, although oil prices as of early September moderated from August's peak. High energy costs likely factored into a 2.4 percent decline in factory orders for manufactured durable goods in July as demand for transportation equipment, such as aircraft and automobiles, decreased. Second-quarter real GDP growth, while revised upward to 2.9 percent from 2.5, remained well below the first-quarter rate of 5.6 percent—leaving no question that growth is slowing.

The slower pace of growth is reflected in the payroll employment numbers. During the first quarter, an average of 175,000 jobs were added each month. Since then, the biggest monthly increase has been 134,000, which occurred in June. In August, the increase was 128,000.

Meanwhile, personal income increased by 0.5 percent in July, personal spending increased by 0.8 percent and retail sales exceeded expectations with an increase of 1.4 percent. The increase in retail sales was the largest increase since January 2006. While consumers express concern over falling home prices and high gasoline costs, consumer spending—spending which accounts for two-thirds of gross domestic product—is not a cause for alarm.

Inflation Vigilance

According to minutes from the August FOMC meeting, "all members agreed that … inflation risks remained dominant and that, consequently, keeping policy unchanged at this meeting did not necessarily mark the end of the tightening cycle." Both the consumer price index (CPI) and the Fed's preferred measure of inflation, the core personal consumption expenditures (PCE) index, increased in July. The overall PCE showed a 3.4 percent increase from a year earlier, while the core PCE, which excludes food and direct energy costs, was up 2.4 percent from a year earlier. In the three months ended in July, the core PCE increased at an annual rate of 2.2 percent, which was less than the rate of 2.7 percent for the three months that ended in June. Without question, the increase in the core PCE was outside the Fed's comfort zone of 1 to 2 percent. Forecasts, which are subject to much uncertainty, call for the core PCE to moderate along with the deceleration of growth.

A Wait-and-See Approach

Data to be released over the upcoming months will help to shed light on whether the FOMC's current pause will continue or whether changes in the federal funds rate target are warranted. According to the minutes of the August meeting, most FOMC members anticipate that "the current stance of policy could well prove to be consistent with satisfactory economic performance."

Cletus Coughlin is deputy director of research and a vice president at the Federal Reserve Bank of St. Louis. Lesli Ott is a senior research associate.

National and District Data

SELECTED INDICATORS OF THE NATIONAL ECONOMY AND BANKING, AGRICULTURAL AND BUSINESS CONDITIONS IN THE EIGHTH FEDERAL RESERVE DISTRICT

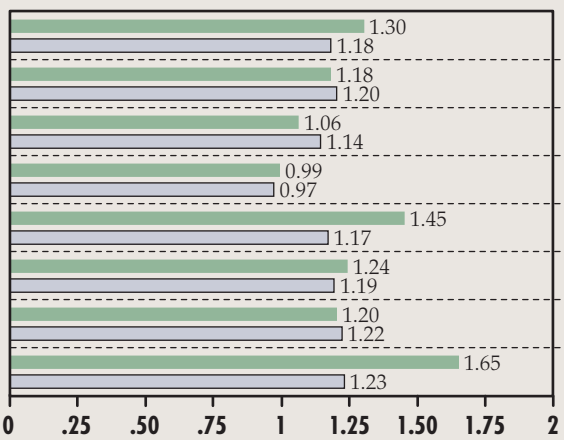
Commercial Bank Performance Ratios

SECOND QUARTER 2006

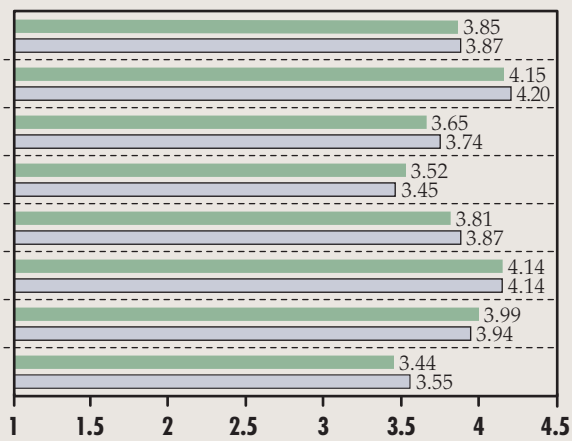
U.S. Banks by Asset Size

	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*	1.36	1.23	1.15	1.39	1.27	1.34	1.31	1.38
Net Interest Margin*	3.45	4.33	4.34	4.30	4.32	3.90	4.10	3.20
Nonperforming Loan Ratio	0.70	0.70	0.75	0.57	0.66	0.57	0.61	0.74
Loan Loss Reserve Ratio	1.23	1.25	1.29	1.24	1.26	1.24	1.25	1.22

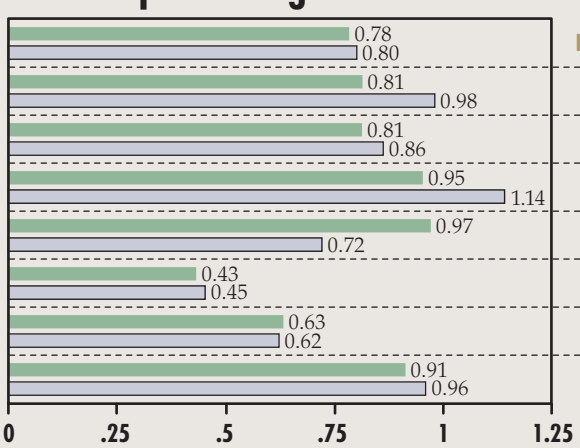
Return on Average Assets*



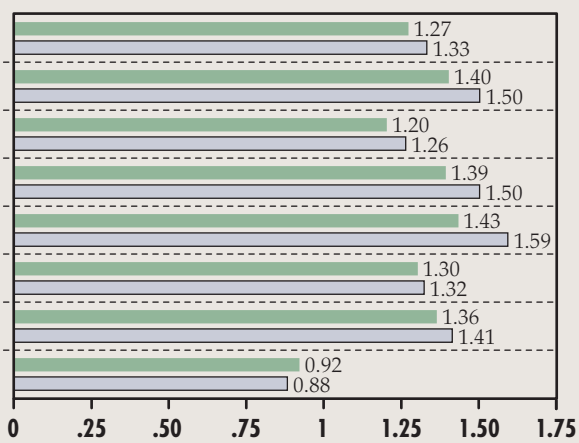
Net Interest Margin*



Nonperforming Loan Ratio



Loan Loss Reserve Ratio



Second Quarter 2006 Second Quarter 2005

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:
www.research.stlouisfed.org/fred2/

Regional Economic Indicators

Nonfarm Employment Growth*

YEAR-OVER-YEAR PERCENT CHANGE

	SECOND QUARTER 2006								
	UNITED STATES	EIGHTH DISTRICT	ARKANSAS	ILLINOIS	INDIANA	KENTUCKY	MISSISSIPPI	MISSOURI	TENNESSEE
Total Nonagricultural	1.4%	1.0%	1.2%	1.0%	0.7%	1.2%	0.0%	1.0%	1.2%
Natural Resources/Mining	8.6	4.3	3.3	2.0	1.0	9.4	4.2	–3.8	1.6
Construction	3.3	2.6	2.5	2.2	1.8	1.9	8.8	2.2	2.7
Manufacturing	0.0	–1.2	–2.0	–1.6	0.0	–1.0	–2.2	–1.9	–1.4
Trade/Transportation/Utilities	0.6	1.0	0.9	0.4	0.4	1.4	2.0	1.6	1.7
Information	–0.1	–1.1	1.2	–2.0	0.9	–0.3	–3.2	–2.5	0.3
Financial Activities	2.6	1.5	2.1	2.0	1.8	1.0	–0.7	1.7	0.7
Professional & Business Services	2.7	2.4	3.7	3.3	0.7	2.0	4.8	1.5	1.5
Education & Health Services	2.2	1.8	2.2	1.2	1.8	2.1	2.0	2.2	2.2
Leisure & Hospitality	1.7	1.4	1.4	2.8	1.2	2.6	–8.4	1.0	3.3
Other Services	0.3	0.5	1.5	1.1	0.2	–0.4	–0.6	–0.4	0.8
Government	0.7	0.5	1.9	–0.2	0.4	0.7	0.1	1.2	0.8

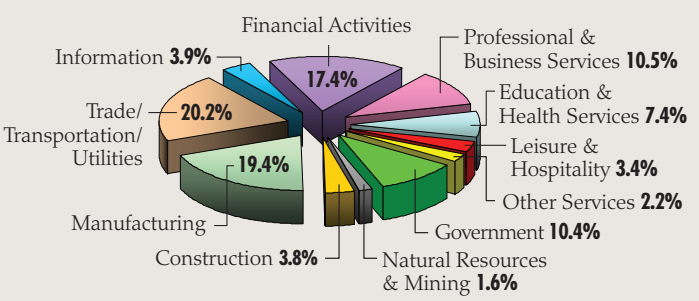
Unemployment Rates

PERCENT

	II/2006	I/2006	II/2005
United States	4.6%	4.7%	5.1%
Arkansas	5.2	4.6	4.9
Illinois	4.7	5.1	5.9
Indiana	5.0	4.9	5.3
Kentucky	5.8	6.2	6.0
Mississippi	7.4	8.2	7.1
Missouri	4.6	4.7	5.4
Tennessee	5.5	5.1	5.7

District Real Gross State Product

BY INDUSTRY–2004

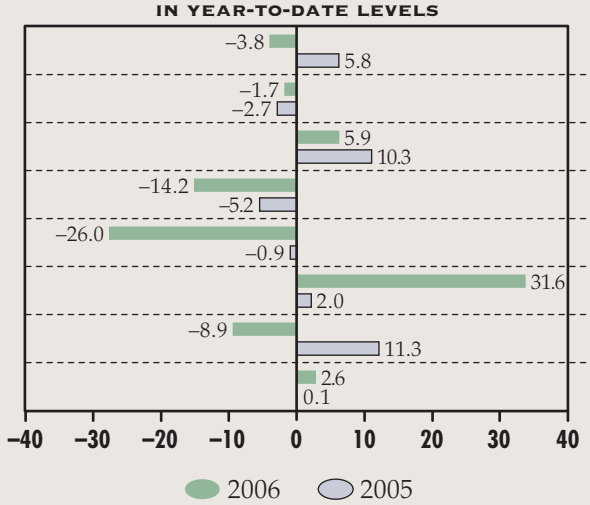


United States $10,662 Billion
District Total $1,354 Billion
Chained 2000 Dollars

SECOND QUARTER

Housing Permits

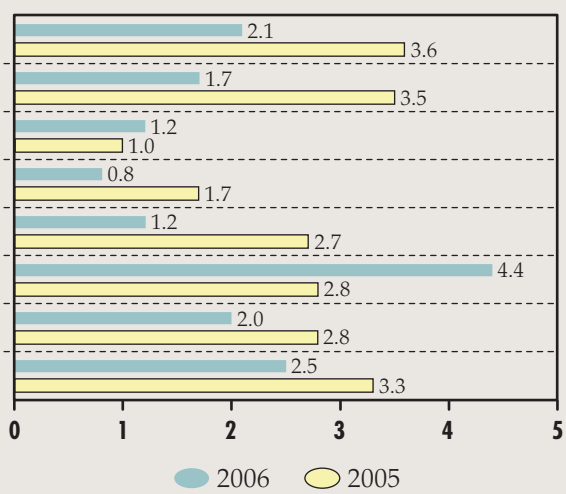
YEAR-OVER-YEAR PERCENT CHANGE IN YEAR-TO-DATE LEVELS



FIRST QUARTER

Real Personal Income‡

YEAR-OVER-YEAR PERCENT CHANGE



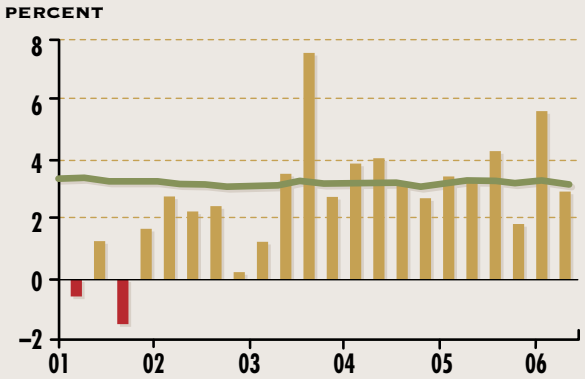
*NOTE: Data have been converted from the 1987 Standard Classification (SIC) system basis to a 2002 North American Industry Classification (NAICS) basis.

‡NOTE: Real personal income is personal income divided by the PCE chained price index.

Major Macroeconomic Indicators

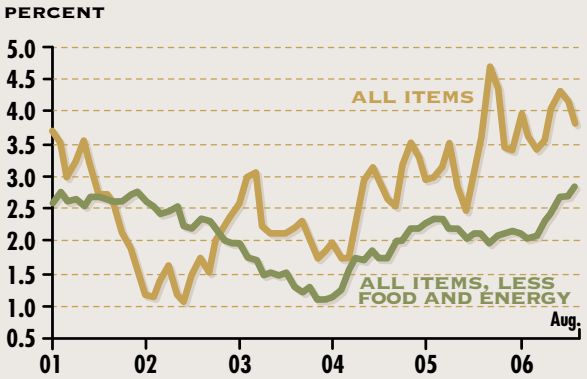
Additional charts can be found on the web version of *The Regional Economist*. Go to www.stlouisfed.org/publications/re/2006/d/pdf/10_06_data.pdf.

Real GDP Growth



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

Consumer Price Inflation

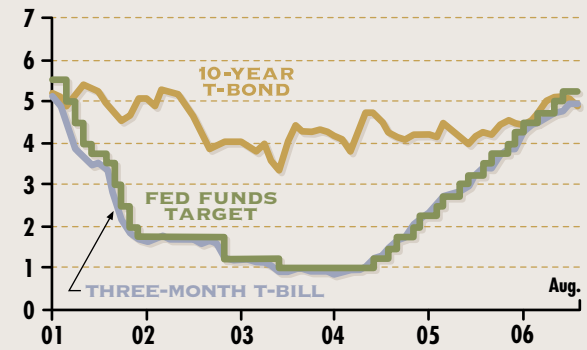


NOTE: Percent change from a year earlier

Civilian Unemployment Rate

NOTE: Beginning in January 2003, household data reflect revised population controls used in the Current Population Survey.

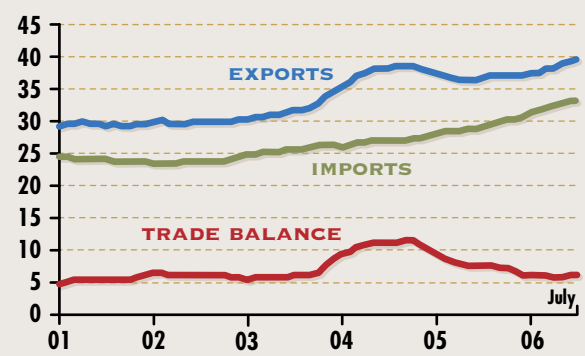
Interest Rates



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

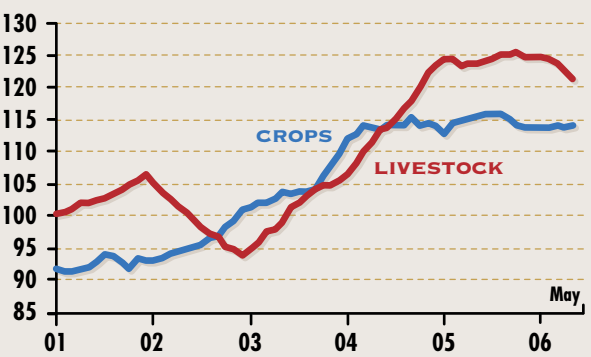
Farm Sector Indicators

U.S. Agricultural Trade



NOTE: Data are aggregated over the past 12 months.

Farming Cash Receipts



NOTE: Data are aggregated over the past 12 months.

U.S. Crop and Livestock Prices