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F E D E R A L R E S E R V E B A N K O F S A I N T L O U I S

The Regional Economist



Inflation's Economic Cost: How Large? How Certain?

*A Quarterly
Review of
Business and
Economic
Conditions*

SAVINGS

Low Rate Isn't Offset
by a Rise in Net Wealth

DEBT

Consumer Survey
Shows a 34 Percent Jump

COMMUNITY PROFILE

Dyersburg, Tenn., Hopes
I-69 Is Path to Prosperity

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Table of Contents

3 PRESIDENT'S MESSAGE

Housing Activity May Be Declining, but There's No Reason To Panic

4 INFLATION

Cost to the Economy: How Large? How Certain?

By Richard G. Anderson



Central bankers believe that low inflation and long-term economic growth go hand in hand. The evidence about the costs of inflation, however, is not as clear-cut as these beliefs. Nevertheless, because low inflation reinforces the public's confidence in policymakers, it is a prerequisite for attaining maximum long-run growth.

10 SAVINGS

Wealth Gains Don't Offset Decline in Saving

By William R. Emmons



Although the statistics show that household wealth is rising, we shouldn't be complacent about the flip side of the coin—that personal savings are in a nosedive. In the end, we aren't putting aside enough resources today to ensure growth in the future at a pace to which we have become accustomed.

12 SURVEY

Families Digging Deeper into Debt

By Kevin L. Kliesen



The Fed's triennial Survey of Consumer Finances found that median household debt rose almost 34 percent between 2001 and 2004, while net worth rose just 1.5 percent.

14 COMMUNITY PROFILE

Dyersburg, Tenn., Hopes I-69 Is Path to Prosperity

By Glen Sparks



The extension of the so-called NAFTA highway to this western Tennessee city is expected to bring more traffic and money. City officials are also optimistic about the construction of a port nearby on the Mississippi River.

16, 17 DISTRICT OVERVIEWS

Job Trends Differ in Memphis and Louisville Zones

In Memphis, the professional and business services sector is boosting the post-recession recovery. In the Louisville zone, Bowling Green and Elizabethtown have seen considerable job growth since 2001; Evansville and Owensboro haven't fared as well.

18 NATIONAL OVERVIEW

U.S. Economy Maneuvers through Choppy Waters

By Kevin L. Kliesen



GDP growth is expected to slow down from its impressive first-quarter pace. The housing market is losing steam. Inflation is creeping upward. Yet business capital spending remains strong. No matter the waves, the economy manages to keep buoyant.

19 MEASURING THE ECONOMY

National Data

Selected major macroeconomic and farm sector indicators.

President's Message



"Perhaps the slowdown isn't leading to disaster but returning the market to a state of normalcy after 10 years of increasing construction, sales and higher prices."

William Poole

PRESIDENT AND CEO,
FEDERAL RESERVE BANK OF ST. LOUIS

Slowdown in Housing Won't Shut Down Economic Growth

After years of press predictions that the hot housing market was about to cool down, the inevitable seems to be unfolding. Compared with the same period a year earlier, sales of new and existing homes slowed over the first four months of 2006, inventories of unsold new homes rose sharply and new and existing home prices softened. With mortgage interest rates creeping up, it is conceivable that housing may weaken further.

But there's no reason to think that the overall economy is threatened, as when stock prices did an about-face in 2000, helping to send the country into recession.

First, housing construction is not the large part of the economy that many believe. It accounts for about 6 percent of gross domestic product (GDP). In terms of real growth of GDP, the difference in housing's impact between a good year and bad one isn't huge. For example, from 2002 to 2005 (good years), real residential fixed investment (RFI) accounted for less than a half percentage point of real GDP growth per year on average. In the "down" years of 1988 to 1991, RFI detracted an average of a quarter point per year. These facts suggest that a downturn in housing would need to be extraordinarily large to drag down the economy. Such a collapse is unlikely, given current economic fundamentals, including rising employment and income and the expectation of low and stable inflation.

A second reason not to panic is that other sectors are taking up housing's slack. Nonresidential construction should rise 9 percent this year, its

biggest jump since 2000, according to forecasts by the Associated General Contractors of America. Office and industrial vacancies are falling, thanks to job growth and a lack of building over the past several years. Business capital spending, in general, has been growing briskly, and most forecasters anticipate a year of double-digit growth.

Third, even if housing sales fall as much as expected this year, they will still be the third best on record (after 2005 and 2004), according to the National Association of Realtors.

Perhaps the slowdown isn't leading to disaster but returning the market to a state of normalcy after 10 years of increasing construction, sales and higher prices.

Does the housing slowdown mean that the much-talked-about bubble has burst? I don't like to spend much time talking about a housing bubble—or a bubble of any kind—because it's impossible to determine when prices en masse have reversed course until long after the turning point. But, no doubt, some of the air has been released, at least along the coasts and other regional "hot" spots.

Keep in mind that what happens to housing in one part of the country doesn't necessarily happen elsewhere. For example, the St. Louis area, along with most of the Midwest, didn't see the astronomical price hikes that hit certain other parts of the country in recent years. Prices rose only 8 percent last year in St. Louis, compared with nearly 40 percent in Phoenix and 13 percent nationwide. Because prices

in St. Louis have risen only moderately, it's reasonable to expect they won't decline that much—if at all. (St. Louis hasn't had a nominal decline in housing prices since 1982.)

On balance, the probability of a generalized housing crash seems remote. The last one occurred in 1979-1982, when the economy was in the throes of the worst recession since the Great Depression. Mortgage interest rates hit the high teens then. Unemployment neared 11 percent. The rate of inflation was often almost as high. Growth in GDP averaged less than 1 percent a year then. Today's numbers are head-and-shoulders better.

A crash would occur today only if housing prices didn't just slip, but fell off the cliff. And that's highly unlikely, given that the national average market price of a new, single-family home has declined only twice since 1964, the last time being 15 years ago.

That said, I don't want to minimize the risks that have recently developed in the housing sector, which appears to be on a manageable descent following several years of climbing to levels few thought likely. This descent should remain manageable as long as the Federal Open Market Committee does its job—keeping underlying inflation low and stable—and as long as employment and income growth remain solid despite persistently high energy prices.



Inflation's Economic Cost: How Large? How Certain?

BY RICHARD G. ANDERSON

Among central bankers, the maintenance of low and stable inflation is widely regarded as a sign of overall good economic management. Economists today agree that economic growth, in and of itself, does not cause inflation—so long as the central bank adopts appropriate policy in a timely way to limit inflation.

Former Federal Reserve Chairman William McChesney Martin quipped that it was his job to remove the punch bowl before the party got out of hand—but, of course, not to prevent the party in the first place. But, what are the costs of failing to do so? That is, how strong is the evidence that inflation more rapid than price stability significantly reduces economic growth?

For policymakers, the measure of their success is price stability, often defined as an inflation rate that is sufficiently low, stable and predictable so as not to be a factor in private decisions. Policymakers usually equate low inflation to annual increases of 1 to 2 percent in a broad index of consumer prices, excluding food and energy, a rate that the current Fed chairman, Ben Bernanke, once dubbed the “optimal long-run inflation rate.” Such a rate, in part, acknowledges imperfections in adjustments to the prices of existing goods for quality improvements and to the prices of new goods not previously included in the price index. The rate also reflects, in part, a cushion against the risk that an adverse economic shock might corner policymakers against the zero lower bound on nominal interest rates.

The idea that price stability is a necessary condition for maximum sustained economic growth is a common theme among Federal Reserve officials. At the 2005 Federal Reserve Bank of Kansas City policy conference honoring his service and retirement, then-Chairman Alan Greenspan said, “I presume maximum sustainable economic growth will continue to be our goal, with price stability pursued as a necessary condition to promote that goal.” Bernanke has expressed similar views. At an October 2004 Federal Reserve Bank of

St. Louis conference, Bernanke, then a Federal Reserve governor, said, “The low-inflation era of the past two decades has seen not only significant improvements in economic growth and productivity but also a marked reduction in economic volatility, both in the United States and abroad.” He went on to say, “There is evidence for the view that improved control of inflation has contributed in important measure to this welcome change in the economy.”

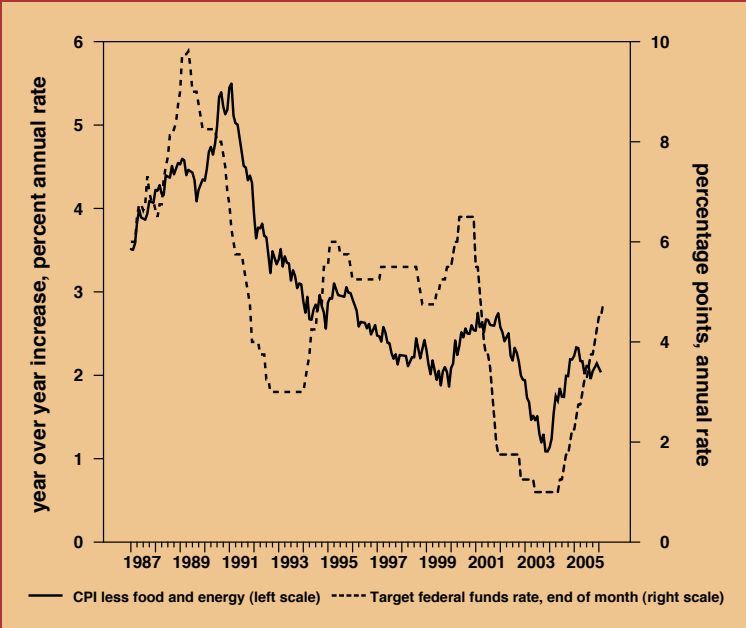
How Might Sustained Inflation Reduce Output Growth?

There are a number of mechanisms through which sustained inflation at a rate

inflation are fragile because they depend on the specifications of individual models.² Inflation, he argues as an example, confuses households and firms as they seek to disentangle changes in relative prices from movements in the overall price level and to distinguish temporary from permanent price changes—but models seldom include such costs. Two additional channels through which inflation is costly are the tax system and uncertainty regarding future interest rates. Former Federal Reserve Bank of St. Louis President Thomas Melzer aptly summarized the problem: “Higher inflation ... interacts with our nominally based tax system, especially with taxes on capital, to create large distortions. And higher

Fig. 1 The FOMC’s Target Federal Funds Rate and Core Inflation

Because it wishes to head off inflation before it takes hold, the Federal Open Market Committee (FOMC) tends to tighten monetary policy by increasing short-term interest rates during economic expansions even before incoming data suggest an increased rate of inflation. Through May of this year, the FOMC had increased its target level for the federal funds rate at 16 consecutive meetings. The figure at right compares the FOMC’s target level for the federal funds rate and the core inflation rate (measured as the year-over-year increase in the consumer price index [CPI] less food and energy) since 1987, the first year of Alan Greenspan’s tenure as chairman of the Federal Reserve. Both have trended downward, with changes in the FOMC’s federal funds target tending to precede changes in inflation. Further, the size of changes in the rate target (right scale) are much larger than changes in the inflation rate (left scale), a result of the FOMC’s seeking to temper inflationary pressures in advance of actual changes in inflation.



higher than Bernanke’s optimal long-run inflation rate can hamper economic growth. One is the *monetary cost of inflation*, which arises because inflation, by eroding the purchasing power of money, causes households and firms to incur additional costs to manage their money balances. Many authors have argued that such costs are small. Michael Dotsey and Peter Ireland, however, construct an example where the combined impact of a number of costs, each individually small, is large.¹ Other analysts have argued that inflation’s costs appear small only because traditional models are not rich enough to capture many of the costs of inflation. Otmar Issing, a member of the executive board of the European Central Bank and a former officer at the German central bank (the Bundesbank), has argued that economists’ estimates of the costs of sustained

inflation causes people and businesses to waste resources in trying to economize on their money holdings. A good deal of research suggests that these costs are substantial. To make matters worse, the risk of higher inflation creates uncertainty, which also exacts costs, including an inflation risk premium in interest rates.” A number of empirical studies have sought to measure the interactions between inflation and the nominal nature of the U.S. tax system. Most find the costs are large. Authors James Bullard and Steven Russell, for example, suggest approximately a 1 percent output loss for each 1 percent increase in inflation above price stability.³ Martin Feldstein has examined how interactions between inflation and the tax system discourage saving while increasing housing demand.⁴

continued on Page 8

BEFORE ANALYZING INFLATION, UNDERSTAND MONETARY THEORY

The starting point for evaluating the long-run costs and benefits of sustained low inflation is the quantity theory of money. The essence of the quantity theory is the concept of the long-run *neutrality* of money. This concept says that the behavior of households and firms depends entirely on the values of real, not nominal, variables. That is, it depends on variables from which the effects of inflation have been removed. If households and firms behave in this way, then their demands for all goods, services and assets (physical and monetary) must be functions only of real variables, including real income, real prices and real rates of return—all after removing the illusory effects of inflation.

Certainly, in the short-term, it can be difficult to separate real from nominal changes. A 3 percent increase in a person's hourly wage might be perceived as a real increase when anticipated inflation is 1 percent. But if actual inflation ends up being 3 percent or more, the person's real wage will not have increased at all. Modern economic analysis rests heavily, however, on the assertion that, in the long run, households' and firms' decisions are not tricked by inflation.

The long-run neutrality of money plays a very important role in the analysis of inflation. For simplicity, assume that there is no change over time in the amount of money that people wish to hold to make transactions (that is, to receive income from others and to purchase goods and services from others). If long-run neutrality holds, then the economy's long-run sustained inflation rate will be equal to the long-run growth rate of the money supply. In this case, the economy's long-run inflation rate will increase and decrease one-to-one with the growth rate of the supply of money.

It seems, therefore, that, according to the long-run neutrality of money, monetary policy is pretty straightforward: Pick a desired inflation rate and set the appropriate level of money growth to achieve it. Neutrality, alas, has proved of little use as a guide for the conduct of monetary policy because the quantity of money that the public desires to hold varies through time in ways that are difficult to capture in economic models. That is, the demand for money is simply too variable to permit the use of money as an operating policy variable. Today, few if any central banks seek to control inflation by forecasting and targeting the growth of money. But, for longer-term analyses of inflation and its costs, concepts of the quantity theory and the neutrality of money remain important.

A second important aspect of the quantity theory is the idea of the *superneutrality* of money and inflation. If long-run real output growth would be the same under two different sustained inflation rates, then the economy is said to display superneutrality. Superneutrality requires that short- and long-term real interest rates (that is, nominal interest rates minus expected inflation) be invariant to changes in the rate of inflation. Although stringent, this requirement seems consistent with U.S. economic data; a common estimate is that an increase in the inflation rate from zero to 5 percent would perhaps reduce U.S. real rates of interest by four-hundredths of one percentage point, a trivial amount.

The third important concept is the natural-rate hypothesis (NRH). The NRH argues that there is no path for the growth rate of inflation—even if it were to increase indefinitely and approach infinity—that can permanently keep output (or employment) above the “natural” values determined by the economy's human and physical resources.

Although sometimes confused, the concepts of neutrality, superneutrality and the NRH are separate and distinct aspects of the way inflation and money growth affect an economy.¹⁰ In the short run, the independence of the *level* of real GDP from the quantity of money is the concept of the neutrality of money. In terms of the long-run trend growth of the real economy, the independence of growth and the rate of inflation (and the growth rate of money) is the concept of superneutrality. The inability of inflation at any rate to sustain real output above some fundamental level is the NRH, often also referred to as the concept of a vertical long-run Phillips curve.

continued from Page 6

Our tax system imposes taxes on nominal earnings net of nominal deductions, rather than on real earnings net of real deductions. Similarly, nominal interest payments are tax deductible by businesses and taxable income by investors without adjustment for the effects of inflation. In these and other aspects, our tax system violates the quantity theory's requirements necessary for real output to be unaffected by the rate of inflation, that is, for money to be neutral. (See sidebar on the neutrality of money.)

Feldstein calculates that a one-time reduction in the inflation rate from 2 percentage points above price stability to price stability would cause the level of gross domestic product (GDP) to increase by approximately 1 percent. He concludes that the present value of the costs over time from the interaction of inflation and the nominal tax system equals approximately 30 percent of current-period GDP.

Darrel Cohen, Kevin Hassett and R. Glenn Hubbard have examined the interaction of inflation and taxes by examining the effect of inflation on businesses' cost of capital.⁵ They argue that inflation, even at very low levels, can significantly increase the cost of capital. A decrease in expected future inflation will reduce expected future user costs for capital and stimulate investment spending. Surprisingly, their

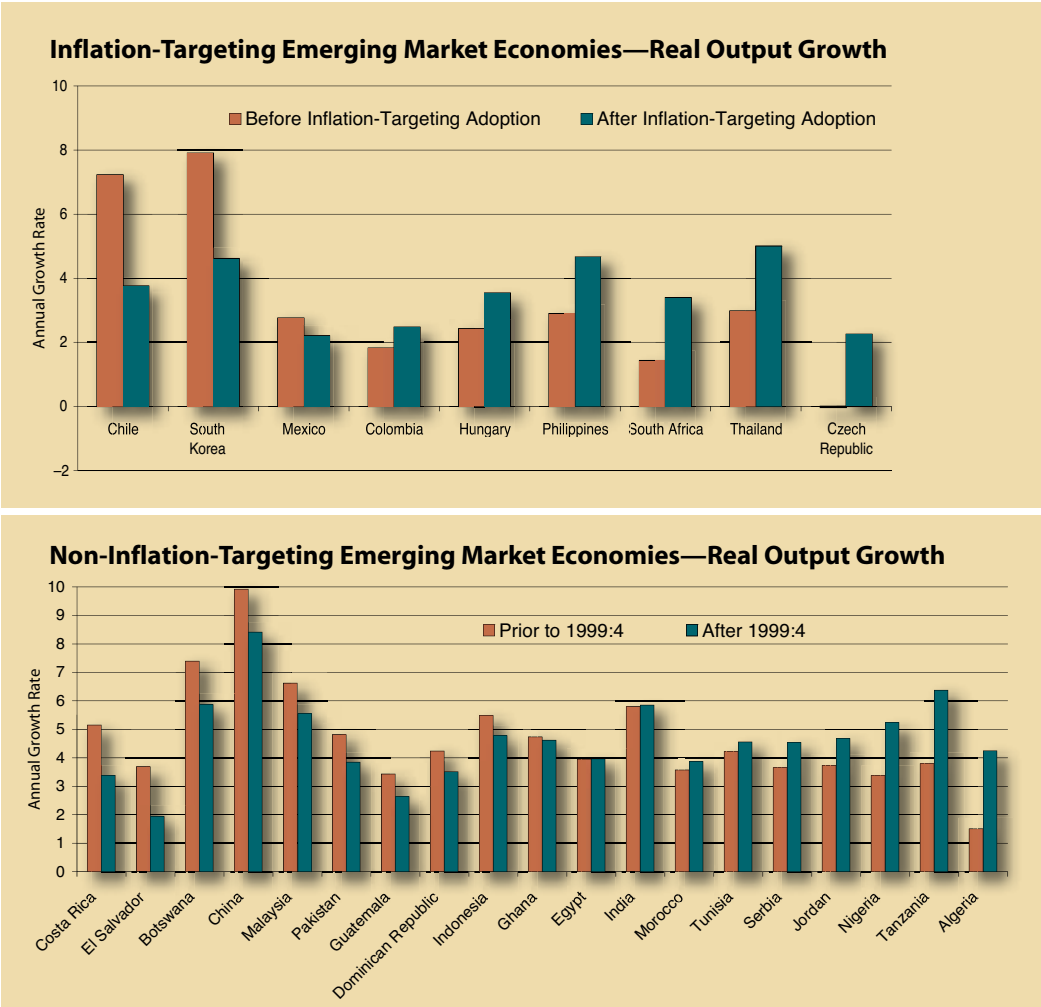
estimates suggest that this effect is most important at low inflation rates, that is, at the margin between inflation consistent with price stability and moderately higher inflation.

At high inflation rates, the tax benefit to the firm of depreciating capital equipment already has been greatly reduced, such that small changes in the inflation rate matter little. At moderately low inflation rates, however, the tax value of depreciation is substantial—and a small further reduction in inflation can significantly change the firm's cost of capital. Moreover, they find that this effect is larger for modern capital goods with rapid depreciation rates and shorter usable lifetimes, such as information and communications equipment.

Quantitative impacts from their model are substantial. In one version of their model, if the annual inflation rate were to be reduced from 4 percent to zero, the user cost of capital would decline by 8 percent. This decrease would increase business fixed investment by approximately 6.5 percent. In addition, output per worker would increase by approximately 2.2 percent, and consumption per worker by about 1.3 percent. Hence, the lower sustained inflation rate increases both aggregate output and productivity.

The studies above focus on distortions caused by higher inflation in the United

Fig. 2



SOURCE: International Monetary Fund

States. Do empirical studies find similar effects in other countries that may have very different financial structures, including different tax systems? In general, no. Two studies, one written by Robert Barro and the other by Michael Bruno and William Easterly, report no significant difference in growth rates across countries with annual inflation rates as rapid as 40 percent.⁶ Similarly, a recent study by the International Monetary Fund that examined the impact of inflation on economic growth in emerging-market economies (EME) reached a similar conclusion.⁷

The IMF study compares inflation and economic growth in 13 EMEs that adopted inflation targeting (IT) between 1998 and 2002 to a control group of 29 countries that did not. Countries that adopted IT subsequently experienced both a lower rate of inflation and reduced inflation volatility. The report suggests, however, that IT countries experienced only a modest boost in economic growth relative to the control group. Figure 2 compares the experience of the IT countries (upper panel) that had annual inflation rates below 40 percent when they adopted IT (9 of the 13), and the control-group countries (lower panel) that had annual inflation rates below 40 percent at the end of 1999 (19 of the 29).⁸ For the IT countries, 6 of 9 experienced more rapid growth after adopting IT; the median annual growth rate increased to 3.5 percent from 2.8 percent. For the control-group countries, 8 of 19 experienced more rapid growth; the median annual growth rate increased to 4.5 percent from 4.2 percent.

Is Higher Inflation Costless?

The empirical studies reviewed above suggest that little or no increase in economic output tends to follow reductions in inflation from a moderate, sustained pace to a slower pace near the rate defined as price stability. Does this imply that higher inflation is costless? No, not at all. First, as mentioned earlier, empirical studies often omit some of the more subtle and difficult-to-measure impacts of inflation. In the United States, tax-related distortions are relatively straightforward to measure while other distortions are less so. Other nations' tax systems may react quite differently to higher inflation, and, ironically, extensive tax evasion tends to blunt the interaction of a nominal tax system with inflation. Second, maintaining low, stable inflation tends to anchor the public's inflationary expectations. When inflation expectations are well-anchored, policymakers gain additional latitude to adopt aggressive policies when needed to offset large shocks to the economy without the risk of destabilizing the financial

system. Finally, a policy of maintaining low, stable inflation enhances both the government's credibility and the confidence of household and businesses in the economy, tending to boost investment and growth. This "insurance" aspect also often is omitted from models.

By itself, low and stable inflation cannot *cause* more rapid economic growth. An essential additional aspect is an institutional structure consistent with maintaining low, stable inflation. For most countries, fiscal discipline is the key. In their recent survey of inflation, Stanley Fischer, Ratna Sahay and Carlos Vegh note that Milton Friedman's dictum—inflation always and everywhere is a monetary phenomenon—while true, is only the "beginning of wisdom."⁹ Unsustainable fiscal policies—that is, the need of the government to borrow large sums—almost always is the fuel for increased sustained inflation. Excessive government deficits generate pressure on the central bank to create more money so as to provide to purchasers the wherewithal to buy increasing government debt. If the central bank refuses to do so—perhaps because of an inflation target—a fiscal and foreign-exchange crisis is likely to follow; examples include Mexico, Argentina, Turkey, Brazil, Thailand, South Korea, Indonesia and Russia. Absent public confidence in fiscal discipline, the adoption of inflation targeting (and subsequent lower inflation) should not be *expected* to increase growth. Despite lower current inflation, the costs associated with the older, more rapid inflation will continue until confidence in long-term fiscal responsibility is widespread.

The Answer Is Uncertain —or Is It Faith?

Among economists, the benefit of sustained low inflation as a precursor to maximum long-run economic growth is taken as an article of faith. Certainly, inflation can be costly, and creating lists of the ways in which inflation-related distortions can reduce growth is straightforward. Measuring the distortions has proved far more difficult, however; estimates of the costs of more rapid inflation remain highly uncertain. Despite the uncertainty, central bankers almost uniformly agree that sustained low inflation—at a rate no greater than that defined as price stability plus a small cushion to avoid the zero lower bound on nominal interest rates—is a prerequisite to sustaining the public's confidence in policymakers and, hence, to achieving maximum long-run economic growth.

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ENDNOTES

- ¹ See Dotsey and Ireland (1996).
- ² See Issing (2004).
- ³ See Bullard and Russell (2004).
- ⁴ See Feldstein (1997 and 1999).
- ⁵ See Cohen, Hassett and Hubbard (1999).
- ⁶ See Barro (1996); Bruno and Easterly (1996).
- ⁷ See International Monetary Fund (2005).
- ⁸ These countries correspond to those shown in Figure 4.2, p. 169, of International Monetary Fund (2005).
- ⁹ See Fischer, Sahay and Vegh (2002).
- ¹⁰ McCallum (2004) provides a clear discussion.

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As Household Asset Values Rise, Should We Still Worry about the Saving Rate?

The Commerce Department recently reported that the U.S. personal saving rate was -0.4 percent during 2005, continuing a long-term decline.¹

Broader measures of saving, such as the net national saving rate, show the same downward trend during recent decades.² (See chart.)

Meanwhile, the Federal Reserve reported that U.S. households' assets minus their liabilities increased by almost \$3.9 trillion during 2005.³ To put these reported wealth gains into perspective, disposable personal income was \$9.25 trillion during 2005; so, the increase in net assets was equivalent to almost 42 percent of disposable personal income during the year. In fact, the average increase in household net assets from 1995 to 2005 was more than 35 percent of annual disposable personal income despite the crash of the stock market during 2000-02. The net value of residential real estate—owners' equity, or the difference between residential real-estate values and the associated mortgage debt—increased by about \$6.8 trillion during 1995-2005, while households' total equity holdings increased by \$12.1 trillion.

Should we worry less about declining saving rates in the United States because measured household net assets have increased so much? The answer is no, for two reasons. First, these commonly cited measures of personal saving and personal finances, respectively, are not directly comparable. Second, both of these measures provide incomplete pictures of the prospects for the economy. When we focus on the national, rather than personal, saving rate and make adjustments to the household asset and liability measures to make them more comprehensive, the previously contradictory implications of the saving and financial indicators vanish. After extending and reconciling the two measures, their message is the

same—namely, that we do not appear, as a nation, to be putting aside enough resources today to ensure continued growth of prosperity at the pace to which we have become accustomed.⁴

Our current ability to borrow savings from abroad in order to invest domestically at a higher rate than otherwise would be possible does not change this conclusion, either. Borrowing today—whether by a household, a firm, the government or the nation as a whole—merely postpones and increases the need for saving in the future. Whether it takes place now or later, domestic saving ultimately is required to fund all of the domestic investment we undertake. If foreign savings are borrowed today, future domestic saving must be even higher in order to repay both principal and interest on the loans.

Reconciling the (Apparent) Conflict between Saving and Asset Trends

All measures of U.S. saving—household, business, government and national, as well as gross and net—generally have declined during the past few decades. Low or declining saving rates can harm future economic growth because fewer resources are being set aside for replacement and extension of the economy's capital stock.

Meanwhile, many measures of net assets have increased, particularly during the past decade. Taken at face value, this means that the value of future economic output that can be produced with the capital stock has increased.

To be comparable, the saving rate and total wealth should be measured on the same basis, namely, for the national economy as a whole. One

also must construct a comprehensive measure of wealth by extending the national balance sheet to capture explicit and implicit future transactions that are not usually incorporated.

Extending the scope of each measure to the national level eliminates several accounting inconsistencies. For example, the household saving rate does not capture changes in the economy's capital stock created by corporate saving, even though the household sector owns the corporate sector. Meanwhile, the household-wealth measure reflects households' ownership of the corporate sector (equity holdings), but it does not reflect the resulting zero-sum nature of debt securities *owned* by the household sector but which are *owed* to households by the business or government sectors. Households ultimately are responsible for repaying those debts (to themselves!) by virtue of their ownership of all businesses and by virtue of their obligation to pay all taxes, whether labeled personal or business.

The second reconciliation step requires both economic and accounting intuition. The basic issue is that common measures of household wealth, such as the household balance sheets contained in the Federal Reserve's flow of funds accounts, are incomplete and are a mixture of historical-cost and market-value accounting.⁵ The result is that the accounting statements are partly backward-looking and partly forward-looking, with some important assets and liabilities missing altogether.



For example, residential mortgage-backed securities (RMBS)—of which there were \$3.5 trillion in face value outstanding at the end of 2005⁶—appear as liabilities of the securitizing firms at book (historical) value, while they appear in the asset portfolios of financial firms and households at market (forward-looking) value. But the residential mortgages underlying the securities obviously are liabilities of households; so, a household that owes \$100,000 on a mortgage that has been securitized, while holding RMBS with face value of \$100,000 and market value of \$105,000, will show a completely spurious addition of \$5,000 to wealth resulting solely from the internally inconsistent accounting treatment. Indeed, much of the \$26 trillion of debt issued by domestic non-financial sectors is accounted for in this inconsistent way in most current frameworks.

The case of household tangible assets, such as residential real estate and automobiles, represents another instance of internally inconsistent accounting. As noted above, the recorded value of households' net housing assets increased by almost \$7 trillion during 1995–2005. At the same time, however, the cost of using that housing stock—what economists call the flow of future housing services—increased by precisely the same amount.⁷ In other words, on a comprehensive balance sheet that captures both the current value of the housing stock as an asset and the cost of purchasing the future flow of housing services it will provide as a liability, the net value of the housing stock on a national long-run basis is zero! The same is true for all other household tangible assets, as well.

Two other notable omissions from commonly cited measures of net wealth are “human capital,” or the present value of future earnings from work, and future outlays on a range of items including basic living expenses, discretionary purchases, insurance premiums and pension contributions, taxes and many more. It certainly is true that both human capital (a household asset) and future outlays (household liabilities) are difficult to measure with any precision. This does not justify excluding them from a comprehensive framework for analyzing financial resources and obligations, however.

As an example of a significant unrecorded future obligation, consider future taxes. The flow of funds accounts record almost \$40 trillion of financial assets at the end of 2005, but this number greatly overstates the amount of goods and services that households could purchase with these assets. This is because trillions of dollars of taxes will be paid as

the assets are distributed from retirement accounts, sold in the market or held as interest- or dividend-paying investments.

The Bottom Line: Rising Household Asset Values Do Not Substitute for Saving

So what about the reported increase in value of households' assets minus their liabilities—equivalent to 42 percent of disposable income during 2005? Much of this “wealth gain” was the result of incomplete accounting. For example, appreciated housing values actually are canceled by the *unrecorded*, but very real, increased cost of living in the houses. Another portion of increased household assets corresponds to changes in the prices of stocks, which go up and down much more from year to year than the underlying economic value of the capital stock they represent.⁸

The dismal conclusion of this exploration of saving and wealth concepts is that, while neither the personal saving rate nor the flow of funds measure of household net wealth is perfect, the long-run declining saving trend probably better represents the underlying economic reality. Rising household asset values by themselves provide an incomplete and misleading picture and should not encourage us to ignore the danger signal associated with low rates of saving and investment in our future prosperity.

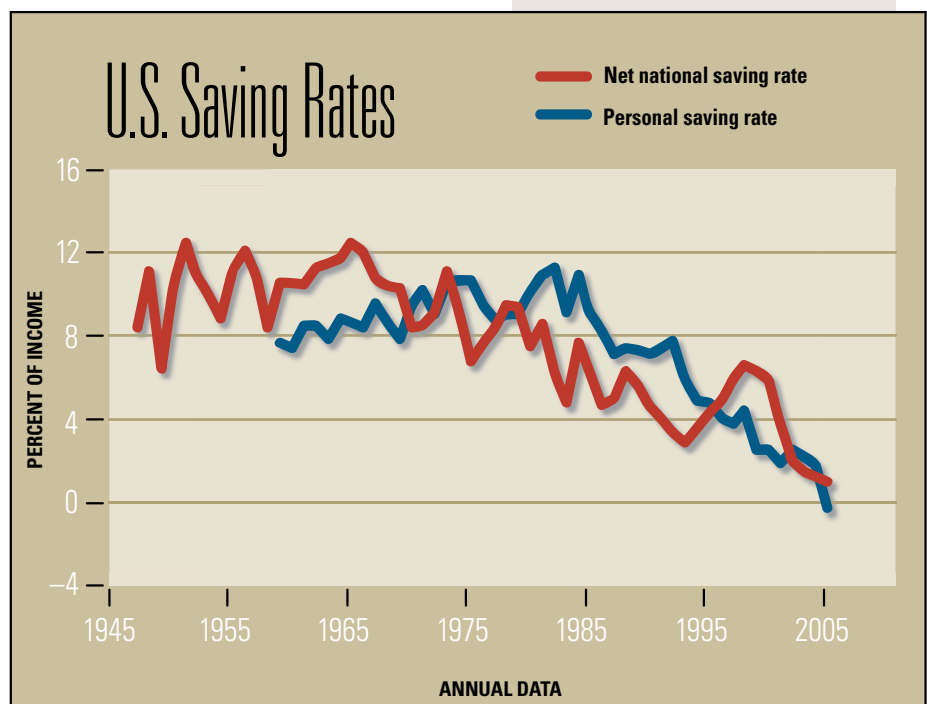
William R. Enmons is a senior economist in the Banking Supervision and Regulation division of the Federal Reserve Bank of St. Louis.

ENDNOTES

- ¹ The personal saving rate is defined as personal saving divided by disposable personal income.
- ² The net national saving rate is defined as net saving of all sectors divided by national income.
- ³ “Flow of Funds Accounts of the United States,” Federal Reserve Statistical Release Z.1, March 9, 2006.
- ⁴ See Kliesen (2005).
- ⁵ This criticism applies more broadly to Generally Accepted Accounting Principles (GAAP), not just to the flow of funds accounts. Indeed, a major focus of the Financial Accounting Standards Board (FASB) today is to explore the feasibility of converting GAAP to a full market-value basis (or what is more commonly termed “fair-value accounting,” because market prices are not always available or reliable).
- ⁶ “Flow of Funds Accounts of the United States,” March 9, 2006.
- ⁷ In an economic sense, the present value of an asset is the sum of the discounted future cash or service flows it is expected to provide.
- ⁸ See Shiller (1981).

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SOURCE: U.S. Commerce Dept.

Survey Says Families Are Digging Deeper into Debt

By Kevin L. Kliesen



Median household debt rose by almost 34 percent between 2001 and 2004, while net worth went up by just 1.5 percent, according to the latest Survey of Consumer Finances (SCF) report.

Every three years, the Federal Reserve Board of Governors publishes the survey, which focuses on the finances and key demographics of American families during that year. Economists, policymakers and financial experts use the report to assess changes in the financial health of the largest sector of the U.S. economy over the previous three years.¹ This article briefly describes the survey and highlights some noteworthy findings regarding recent trends in average household income and financial holdings.

The table provides the median values for several variables derived from the survey since 1989. Although the values for 2004 and the percentage changes between 2001 and 2004 are the most interesting, the data for previous years are useful for putting the more recent numbers into a broader context.

What Is the Survey of Consumer Finances?

The SCF sponsors and publishes its survey in conjunction with the U.S. Department of the Treasury and the National Organization for Research at the University of Chicago (NORC). In 2004, NORC spoke to approximately 4,500 families, representing a cross section of the country, about their incomes, balance sheets and other key financial and demographic characteristics.

One challenge that survey users face is the sheer volume of data that is available. For example, the SCF chart book is more than 800 pages long. Another challenge is deciding whether to focus on median responses as opposed to mean responses. The mean is the simple arithmetic average, while the median is the value for the household exactly in the middle of all households. When analyzing the survey data, it can make a big difference whether the median or the mean is used.

Between 2001 and 2004, the *mean* household income in real (inflation-adjusted) terms decreased by 2.3 percent, while real *median* household income rose by 1.6 percent. When the mean rises by more than the median does, it means that the top half of households saw larger percentage increases in their income. This article emphasizes median estimates because, as economists Brian Bucks, Arthur Kennickell and Kevin Moore emphasize, those estimates may be a better measure of the “typical” value of the indicator examined.

Household Income

In 2004, real median household income was \$43,200, which, as mentioned above, was 1.6 percent higher than three years earlier. The survey defines a household’s income as its cash income before taxes for the calendar year. For the majority of families, this is mostly wages, but it also may include self-employment or business income, capital gains and dividends, retirement account withdrawals such as a 401(k), or govern-

ment transfer payments such as food stamps, Social Security benefits and pension payments. The SCF measure of income does not, however, include the value of employer-provided benefits such as health insurance coverage or retirement contributions.

Economic theory says that real wages should grow at approximately the same rate as labor productivity growth. However, the 1.6 percent increase in real median household income from 2001 to 2004 was significantly less than the 5.6 percent increase in per capita real GDP over this period (a measure of productivity growth). One explanation for this is that non-cash benefits are becoming an increasingly larger percentage of a family’s income. For instance, over the same period, employee-benefit costs borne by private sector employers have increased roughly twice as fast as wages and salaries, which would account for most of the gap between income growth and productivity growth.

Ian Dew-Becker and Robert J. Gordon, in a paper written in 2005, offer an explanation that focuses on distributing real-income gains. The researchers found that between 1966 and 2001 only those within the top 10 percent of the income distribution saw a rate of increase in real incomes (excluding capital gains) that equaled or exceeded the rate of growth in economy-wide productivity. If this trend held for 2001-2004, we would expect per capita GDP to have grown faster than median income. This is because per capita GDP is a measure of mean productivity and is sensitive to changes in the distribution, while median household income is not.²

Household Balance Sheets

As mentioned, the real net worth of the median household rose by 1.5 percent between 2001 and 2004, to \$93,100.³ This increase was substantially less than the 2.8 percent average annual increase seen from 1989 to 2001. Underlying this change in net worth were changes in its two components—total financial assets and debt—both of which had roles in reducing the growth of real net worth.

Between 2001 and 2004, the median value of total financial assets for families that reported holding any kind of financial asset fell by 23 percent, to \$23,000. This decline followed a 15 percent increase from 1998 to 2001. Since the surge in financial assets between 1998 and 2001 happened against the back-

drop of the U.S. stock market boom, it is reasonable to conclude that the stock market bust that began in early 2000 was one reason for this decline in the real value of household financial assets.

A second reason for the decline in median family assets may directly reflect a reduced willingness to save. Between 2001 and 2004, the percentage of families that saved any of their income declined by 5.2 percent to 56.1 percent. From a longer-term perspective, this response was broadly consistent with the responses noted before 2001, and it suggests that nearly half the population might be financially ill-equipped for retirement. It also is possible that many families view the sharp appreciation in home prices as a substitute for saving. Thus, many families apparently look at their increased home equity as permanent saving and spend a greater percentage of their after-tax income.⁴ Families also are borrowing on their home equity to make discretionary purchases.

Ownership of tax-deferred retirement accounts are among the largest holdings of a family's financial assets, and they may represent a family's commitment to retirement savings. The survey showed that the real median value of these employer-sponsored retirement plans was an estimated \$35,200 in 2004, an increase of almost 14 percent from three years earlier.⁵ This increase suggests that even when the stock market declines, families want to diversify their retirement funds into assets such as corporate bonds or U.S. Treasury securities, which

increased in value from 2001 to 2004. As with the median value of all financial assets, the largest value of retirement account assets are with those in the top 20 percent of the income deciles.

The median value of debt held by families that reported any kind of debt in 2004 was \$55,300, an increase of almost 34 percent from three years earlier. In contrast, real family debt only increased by 7.3 percent per year from 1989 to 2001. During the more recent period, the sharp increase in real family debt stemmed from an increase in the value of mortgage debt secured by primary residence (e.g., home equity loans), which increased by 27.3 percent. Median home equity borrowing rose by more than 20 percent across all income groups, with those in the second highest decile rising the most (37.3 percent).⁶

Conclusion

The findings of the latest Survey of Consumer Finances show a modest slowing in the growth of real median household income and net worth from 2001 to 2004, compared with 1998 to 2001, but larger increases in the growth of household debt. At the same time, consistent with previous surveys, nearly half of all families did not save any portion of their income over the previous year. Over time, this is expected to become a serious liability for those families.

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

ENDNOTES

- ¹ The questionnaire has changed very little since 1989. Readers seeking a more detailed analysis of the 2004 SCF can read the paper by Brian Bucks, Arthur Kennickell and Kevin Moore of the Federal Reserve Board, which is the source for data presented in the table. The author wishes to thank them for helpful comments, but any errors are the responsibility of the author.
- ² Real median household income (MHI) for those in the top 10 percent of the distribution saw their real income rise by 2.3 percent from 2001 to 2004. By contrast, those in the bottom 60 percent (income percentiles less than 59.9 percent) rose by an average of 0.7 percent over the same period, while real MHI for those households in the 60 to 89.9 percentile saw their real median income fall by an average of 0.9 percent. These data are reported in Table 1 of Bucks, et al.
- ³ Median values of balance sheet items are based on the condition that the household reports, or owns, these assets and/or debts. In some instances, changes in ownership rates rather than a change in the value of the holdings may be the cause of the reported change in the median value.
- ⁴ Most economists believe that positive saving rates are necessary to support increases in living standards. See, for example, the article by William Emmons in this issue.
- ⁵ Although households in the top 10 percent (90th percentile) saw the value of their real median retirement holdings increase by 32 percent from 2001 to 2004, households in the lower percentiles also saw substantial increases. For example, households in the 20 to 59.9 percentile saw increases of roughly 18 percent.
- ⁶ Median borrowing by percentiles are reported in Table 11 of Bucks, et al.

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Dew-Becker, Ian; and Gordon, Robert J. "Where Did the Productivity Growth Go? Inflation Dynamics and the Distribution of Income." *Brookings Papers on Economic Activity*, 2005, No. 2, pp. 67-127.

Selected Findings from the 1989-2004 Surveys of Consumer Finances							
Thousands of 2004 Dollars except As Noted							
Median Value, All Families	1989	1992	1995	1998	2001	2004	% Change, 2001-2004
Income (before Tax)	37.7	35.1	37.8	38.8	42.5	43.2	1.6
Financial Assets	16.5	15.2	19.0	26.0	29.8	23.0	-22.8
Retirement Accounts	16.1	18.5	20.9	27.8	30.9	35.2	13.9
Nonfinancial Assets	99.0	91.0	102.3	113.3	120.9	147.8	22.2
Value of Primary Residence	102.6	105.4	110.8	115.9	131.0	160.0	22.1
Debt	22.0	22.6	26.6	37.7	41.3	55.3	33.9
Secured by Primary Residence	46.9	56.7	63.0	71.9	74.6	95.0	27.3
Credit Card Balances	1.3	1.3	1.8	2.0	2.0	2.2	10.0
Net Worth	68.8	65.2	70.8	83.1	91.7	93.1	1.5
Addenda (Percent)							
Families That Save	NA	57.1	55.2	55.9	59.2	56.1	-5.2
Per Capita Real GDP	\$28,220	\$28,555	\$30,128	\$32,832	\$34,659	\$36,592	5.6
SOURCES: All data from Bucks, Kennickell and Moore except for figures on per capita real GDP, which are from the Bureau of Economic Analysis. The per capita real GDP data are measured in 2000 dollars.							
NOTE: Median values are not additive. For questions on income, respondents were asked to base their answers on calendar year. For questions on saving, respondents were asked to base their answers on the 12 months preceding the interview.							

Dyersburg Hopes I-69 Is the

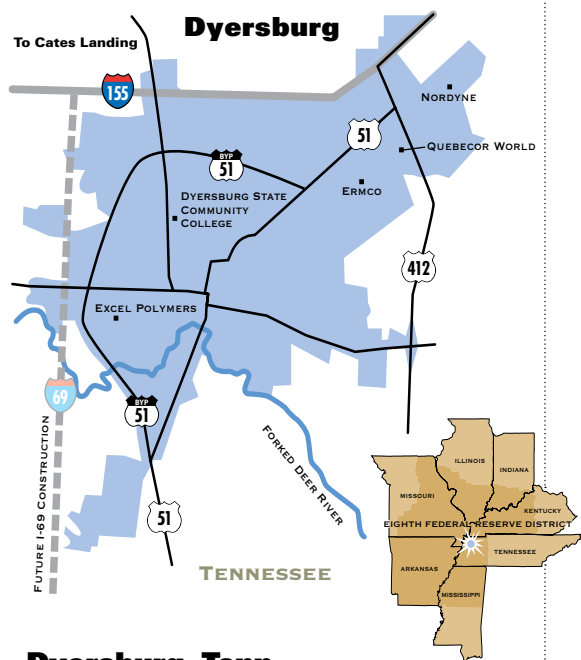
Community Profile

By Glen Sparks

Road to Prosperity

Interstate 69 is coming to Dyersburg, Tenn. Will additional traffic, hotels and restaurants follow? Dyersburg city officials hope so.

Quebecor World prints some of the nation's leading consumer magazines at its Dyersburg plant and then ships them by truck across the country.



Dyersburg, Tenn.

BY THE NUMBERS

Population	Dyersburg 17,406 (2004) Dyer County 37,829 (2005)
County Labor Force	16,910 (Feb. 2006)
County Unemployment Rate	6.6 percent (Feb. 2006)
County Per Capita Income	\$26,635 (2006)
Top Employers in City	
Quebecor World	1,000
Wal-Mart Supercenter	550
ERMCO	505
Excel Polymers	490
Nordyne	475

The NAFTA highway, as some people call I-69, will run from Canada to Mexico, the two biggest trading partners of the United States. The U.S. portion begins at Port Huron, Mich., and will end in the lower Rio Grande Valley of Texas, crossing eight states along the way.

Sixty-three percent of the nation's truck traffic between Canada and Mexico runs through this part of the country, according to a U.S. congressional report. U.S. trade with Mexico alone has more than doubled since the North American Free Trade Agreement went into effect in 1994.

Dyersburg officials say the road, especially the portion from their city to Memphis, finally will provide a high-speed route for shipping goods.

"The trucks take Highway 51 to Memphis from here, and it's very congested and you have a lot of stoplights," says Dyersburg Mayor Bill Revell. "Interstate 69 will make it easier and faster to ship goods from Dyersburg."

Although I-69 from Canada to Mexico will not be complete for at least a decade, the section from Dyersburg to Memphis may be finished in the next five or six years. The Tennessee Department of Transportation has decided to build I-69 through the western section of Dyersburg, much to the delight of most city and community officials.

The city's commercial corridor lies along the west. That is where the hotels are, along with many of the restaurants and major retailers such as J.C. Penney and Wal-Mart.

"This is going to be an economic engine for our community," says David Hayes, the president and CEO of Dyersburg-based Security Bank.

Katie Winchester, a former board member of the Memphis Branch of the St. Louis Fed and the CEO of First Citizens National Bank, also based in Dyersburg, says, "This will have more impact on Dyersburg than any other event in my lifetime."

Another major construction project is making city officials optimistic about Dyersburg's future. The U.S. Army Corps of Engineers is building a port about 25 miles northwest of Dyersburg, along the Mississippi River. To be called Cates Landing, the \$20 million port should be finished in 2008.

Local officials say the port will attract steel and other industries that use barges to haul goods throughout the mid-South. Cates Landing is the only spot on the Mississippi between Cairo, Ill., and Memphis that lies above the 100-year floodplain.

Revell, the Dyersburg mayor since 1979, says that construction of I-69 and the building of the port will be "two of the biggest things to ever happen around here."

Hot Off the Presses

Popular magazines like *Forbes*, *Motor Trend*, *Popular Mechanics* and *Cosmopolitan* roll off the presses at Quebecor World in Dyersburg. The city's largest employer prints about 2 million magazines and catalogs every day and then ships them on 18-wheelers to cities across the country.

Montreal-based Quebecor opened a 350,000-square-foot plant in Dyersburg in 1986, with about 200 employees. In the past 20 years, the plant has expanded twice, added dozens more magazines to its lineup and hired about 800 more employees. Today, the Quebecor plant is 940,000 square feet with presses that run 24 hours a day, seven days a week.

"We're in a good location here," says Alex Elliott, the plant manager. About 75 percent of the country is one 24-hour truck drive away. "I think this area also is attractive for manufacturing because of the low cost of doing business."

Quebecor, along with the other industries in Dyersburg, is non-union. Workers may find the area attractive, in part, because the average price for a 2,400-square-foot, three-bedroom, two-bath house in Dyer County is \$173,700, or about \$35,000 less than the national average. Utility costs, apartment rental costs and health care also are cheaper on average in Dyer County than in the country as a whole.

Made in Dyersburg

Just a few decades ago, agriculture dominated the Dyer County economy. The area remains a major producer of soybeans (No. 2 in the state), wheat (No. 4) and other crops. Farming is a \$61.1 million industry in Dyer County, but almost 40 percent of the county work force is employed in manufacturing.

Some of the other large employers in Dyersburg include: ERMCO (505 employees), which assembles distribution transformers and components; Excel Polymers (490), which makes plastic and rubber compounds; and Heckethorn Manufacturing (410), which produces exhaust clamps and other products for the auto industry.

Bekaert (277 employees) makes the steel cord that goes into most steel-belted tires manufactured in the United States. Workers at Caterpillar (174) assemble clutch housing and transmission parts for large construction equipment.

To recruit and maintain businesses, the city has enlisted the help of Dyersburg State Community College and the Tennessee Technology Center, in neighboring Newbern. Dyersburg State offers as many as 10,000 hours of customized training every year to assist local businesses and industries. The Tennessee Technology Center also provides customized vocational training classes, such as automotive technology, industrial maintenance and business systems technology. Local manufacturers pay for some of the training, while state grants pay for the rest.

Allen Hester, president and CEO of the Dyersburg/Dyer County Chamber of Commerce, says that towns like Dyersburg must work hard to prevent manufacturers from fleeing to low-wage countries such as China and Mexico.

"We love the manufacturing, and we want to keep all of the businesses, but, realistically, that may not happen," he says. "It's important to maintain a high level of education and work training here. That will help us grow."

Glen Sparks is an editor at the Federal Reserve Bank of St. Louis.

Dyersburg Area Recovering after Killer Twister



The tornadoes that hit Dyersburg in April damaged this house and hundreds more. The storms came almost three years after another set of twisters tore through town. The 2003 tornadoes damaged Dyersburg High School and several other buildings.

The tornado struck first in northeastern Arkansas, hurried into the Missouri Bootheel and then cut across the Mississippi River into Dyer County. It pummeled the outskirts of Dyersburg, Tenn., before it disappeared into the fields northeast of nearby Newbern.

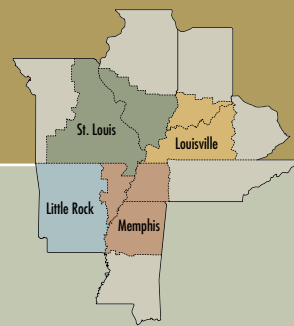
In 30 minutes on April 2, the twister destroyed 52 homes and damaged hundreds more, causing about \$15 million in damage. Sixteen people died in Dyer County. Eight more people died that night from storm-related injuries in outlying counties in Arkansas, western Tennessee, southern Illinois and southeastern Missouri.

Just hours after the tornado hit, the clean-up began. Now, the damaged houses are undergoing repair. Jason Harper, president of A-1 Construction in Dyersburg, says he has a long list of storm-battered houses that he is trying to put back together. He has hired four additional workers to his regular crew of 15 to repair damaged roofs, siding, framing and drywall.

Harper figures the repair work should take three to four months to complete. "We were blessed in that business was really good for us before the storms hit, but the storm gave a boost for everyone," says Harper, whose company handled much of the repair after a fierce tornado also hit Dyersburg in 2003. "I think work had been slowing down for some people."

Four local banks put together a plan to assist the tornado victims. First Citizens National Bank, First South Bank, First State Bank and Security Bank have offered construction loans to residents at a rate of 2.9 percent for six months. At the end of six months, the loans will be subject to the banks' normal rates. By early May, the banks had fielded just a handful of inquiries about the loan opportunities.

"Right now, it's still early and people are still deciding what they need to do," says David Hayes, the president and CEO of Security Bank. "We don't know how many people are going to take advantage of this program. The storm had more of an emotional impact than anything."



Professional and Business Services Bounce Back in Memphis

By Rubén Hernández-Murillo and Deborah Roisman

Total employment in the Memphis metropolitan area has been recovering steadily since the 2001 recession. Two sectors have led the way: educational and health services, followed by leisure and hospitality. More recently, however, the professional and business services sector has created a significant number of jobs as well. The largest sector in the Memphis economy—trade, transportation and utilities—has yet to return to its pre-recession employment level.

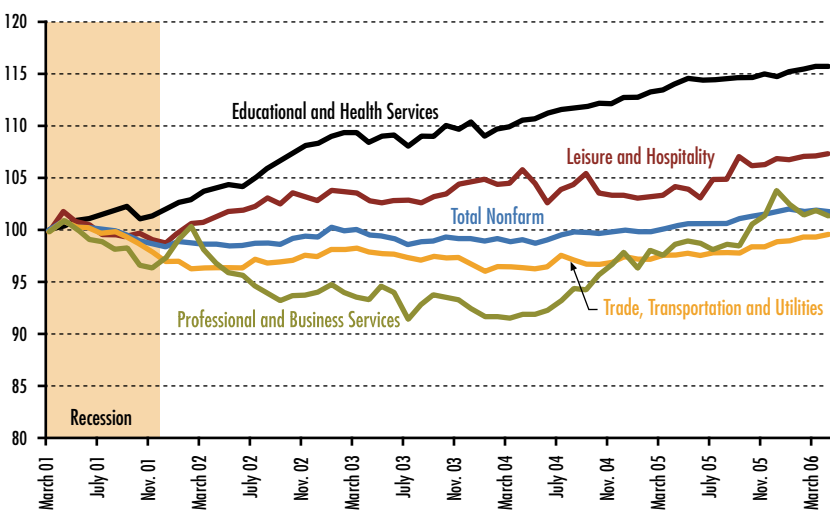
The recession, which lasted from March 2001 to November 2001, barely affected educational and health services employment. This sector, which represents about 12 percent of total nonfarm jobs in the Memphis area, actually added about 800 jobs (1.3 percent) during the recession. Between November 2001 and April 2006, this sector added about 9,300 jobs—1,100 of which were added since April 2005.

The leisure and hospitality sector, which represents about 11 percent of total nonfarm employment, also weathered the 2001 recession fairly well. Fewer than 600 jobs (1 percent) were lost during the recession. Between November 2001 and April 2006, this sector also did quite well, adding about 5,300 jobs—2,100 jobs of which were added since April 2005.

The professional and business services sector received one of the hardest blows during the recession. This sector, responsible for 12 percent of total nonfarm jobs, lost about 2,900 jobs (3.7 percent) during the 2001 recession and continued to lose jobs after the recession was over. Between November 2001 and March 2004, this sector lost an additional 3,700 jobs. Since then, employment has grown by a whopping 10.7 percent, a total of about 7,600 new jobs, which more than makes up for the total loss of about 6,600 jobs between March 2001 and March 2004. Many of the new jobs were in the professional, scientific and technical services sector, which includes the logistics and medical research industries. Both of these industries are thriving in Memphis.

Employment in the Memphis Metropolitan Area

March 2001=100, seasonally adjusted



SOURCE: Bureau of Labor Statistics

Employment in the manufacturing sector, which now comprises less than 9 percent of total nonfarm employment, started to decline in the late 1990s and took a serious tumble during the 2001 recession. This sector lost about 2,800 jobs (4.6 percent) during the recession and about 4,100 additional jobs between November 2001 and January 2004. This sector stabilized in the past two years, gaining about 800 jobs between January 2004 and April 2006.

The trade, transportation and utilities sector, the largest in the Memphis economy, has not fared well since the 2001 recession. As of April 2006, only about 74 percent of the jobs lost during the recession were recovered, as the sector grew by only 1.6 percent between November 2001 and April 2006. The performance of this sector reflects in part recent national trends in the costs of shipping, warehousing and demurrage, as well as a nationwide shortage of truck drivers. The Memphis economy is, however, more dependent on this sector than the nation as a whole. At the national level, this sector represents about 19 percent of nonfarm employment, compared with 28 percent in Memphis. At the national level, this sector

grew by 1.4 percent between November 2001 and April 2006 and recovered about 70 percent of the jobs lost during the recession.

Despite a lagging trade, transportation and utilities sector, employment in Memphis has been growing in the past two years. Over this period, the professional and business services sector, one of the more sluggish sectors in the aftermath of the recession, has become one of the three leading job-creating sectors in the Memphis economy.

Rubén Hernández-Murillo is a senior economist, and Deborah Roisman is a senior research associate, both at the Federal Reserve Bank of St. Louis.

Uneven City Job Trends Weigh on Kentucky's Recovery

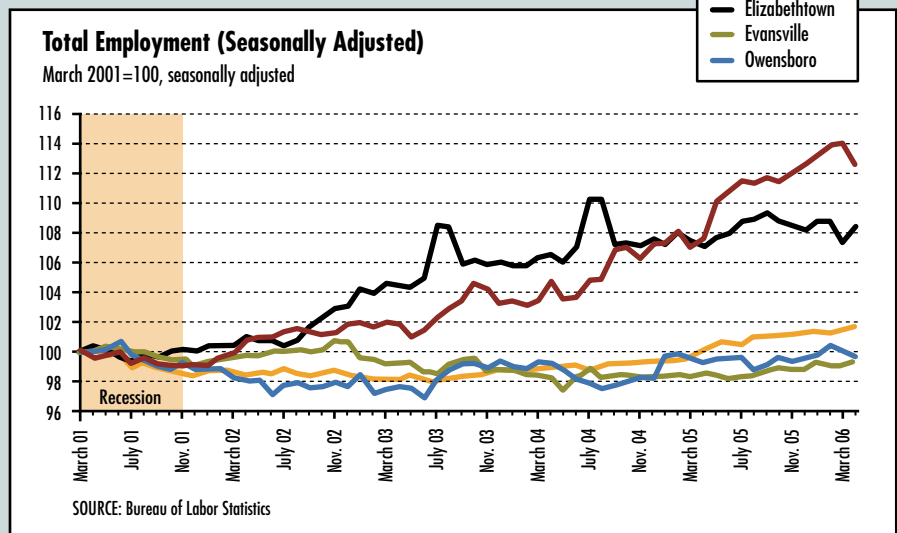
By Thomas A. Garrett and Lesli S. Ott

The metropolitan statistical areas (MSAs) of Bowling Green, Elizabethtown, Evansville and Owensboro all experienced a decline in payroll employment during the latest recession, which lasted from March 2001 to November 2001. Since the end of the recession, only two of those four MSAs have recovered from their recessionary job losses, though those two have experienced significant employment growth.

As seen in the chart, Bowling Green and Elizabethtown recovered their recessionary job losses within six months of the recession's end and have since experienced considerable employment growth. Employment in Evansville rebounded by July 2002 to its pre-recession level but then dropped below the recession level in January 2003 and remained below that level through April 2006 despite a modest increase in the past year. Owensboro's employment continued to fall after the recession until July 2003. Employment then started to rise, exceeding the pre-recession level for the first time in February 2006 but falling below pre-recessions levels again in April 2006.

Employment in the state of Kentucky rose above its pre-recession level in April 2005 and continued to increase through April 2006. Total employment in Kentucky in April 2006 was roughly 1.5 percent greater than its pre-recession level and nearly 3 percent greater than its recession level.

Of the four MSAs, **Bowling Green** has experienced the largest post-recession employment gain. From November 2001 to April 2006, total payroll employment increased by 13 percent. While one-fifth of Bowling Green's employment increase occurred from April 2005 to April 2006, its rate of total employment growth in those 12 months was half of its total employment growth in the previous 12 months. Despite a drop in April 2006, employment growth since April 2005 is attributed to a 5 percent increase in manufacturing employment, as well as a 5 percent increase in employment in professional and business services and a 6 percent increase in leisure and



hospitality over the same time period. While trade, transportation and utilities employment dropped 2.5 percent during this same period, this decline was tempered by a 1.5 percent increase in education and health services employment.

Elizabethtown has had notable post-recession growth as well. April 2006 employment was 8 percent greater than employment in November 2001. However, employment growth has been trending down since August 2005, and April 2006 employment remained virtually unchanged from April 2005 employment levels. Contributing to the stagnant employment growth are unchanged employment levels in manufacturing and the leisure and hospitality sector from April 2005 to April 2006. Employment in education and health services increased 2 percent over those 12 months after remaining unchanged in the previous 12 months, and trade, transportation and utilities employment rose 1 percent after a nearly 5 percent decline 12 months earlier. However, these improvements could not offset the slowing of the professional and business services sector to a 2.5 percent rate of growth after growing 14 percent in the previous 12 months.

After a period of steady decline, total employment in the border town of **Evansville, Ind.**, returned to its November 2001 level by March 2006. April 2006 employment stood less than 1 percent below its pre-recession

level. While Evansville's employment growth slowed from April 2005 to April 2006, employment remained on the rise. Evansville experienced a 2.5 percent increase in leisure and hospitality employment during those 12 months as well as a 3 percent increase in professional and business services employment. A 2 percent increase in employment in education and health services offset a less than 1 percent decrease in manufacturing. Employment in the trade, transportation and utilities sector remained unchanged.

Since November 2001, total employment in **Owensboro** has grown by a half-percent. In the 12 months starting April 2005, the growth rate also increased by a half-percent, placing the April 2006 level of total employment just below pre-recession levels. A majority of Owensboro's growth from April 2005 to April 2006 can be attributed to a 4 percent increase in employment in the leisure and hospitality sector. A 2 percent increase in employment in education and health services offset the 2 percent decline in manufacturing. Employment was unchanged in the professional and business services sector and in the trade, transportation and utilities sector.

Thomas A. Garrett is a research officer, and Lesli S. Ott is a research associate, both at the Federal Reserve Bank of St. Louis.

National Overview

U.S. Economy Maneuvers through Choppy Waters

By Kevin L. Klesen

Since late last year, the U.S. economy has experienced a period of weaker-than-expected growth followed by a period of stronger-than-expected growth. Meanwhile, energy and commodity prices have continued to rise, inflation and long-term interest rates have picked up, and the dollar has continued to fall. Through it all, forecasts for real gross domestic product (GDP) growth, consumer price index (CPI) inflation, the unemployment rate and long-term nominal interest rates for 2006 and 2007 are little changed from a year earlier: The expansion continues for the foreseeable future.

Economic Headwinds

Real GDP rose at an impressive 5.3 percent annual rate in the first quarter of this year. Like most forecasters, Federal Reserve policymakers expect this to be the high-water mark for the year. In its May 10 press release, the Federal Open Market Committee said that economic growth is “likely to moderate to a more sustainable pace, partly reflecting a gradual cooling of the housing market and the lagged effects of increases in interest rates and energy prices.” This view seems consistent with the Blue Chip Consensus, which expects real GDP growth to average 3.1 percent over the final three quarters of this year. If this moderation occurs, then average monthly payroll employment gains would also be expected to step down modestly. Over the first five months of this year, payrolls grew by an average of about 150,000 per month.

The incoming data are generally consistent with the consensus view. First and foremost, the housing market appears to be losing some steam. Single-family housing starts, new and existing home sales and the growth of home prices through the first four months of 2006 are off significantly from their pace of a year earlier.

Second, gains in consumer spending, whether because of the drag to income growth from higher energy prices or rising interest rates, have slowed from the rapid growth seen in the first quarter of 2006.

Some developments suggest a more favorable outlook. First, if current trends in the growth of labor productivity (about 2.5 percent) and hours worked (about 2.5 percent) hold, then GDP growth may surprise on the upside. Second, the outlook for business capital spending (nonresidential fixed investment) remains quite good, according to the Philadelphia Fed’s forecasting survey and other business surveys. Business capital spending is important because its share in GDP (11 percent) is nearly double that of housing (6.2 percent). Finally, the latest forecasts from the International Monetary Fund and the Organisation for Economic Co-operation and Development predict continued strong global growth this year and next. Bolstered by the depreciation of the U.S. dollar, this should help spur the growth of real exports.

Outcroppings of Higher Inflation Appear

One of the consequences of a depreciating currency is that it can exacerbate domestic price pressures. Thus, a weaker dollar could be significant when viewed against the increases in crude oil and commodity prices, which have helped to push up inflation rates. Through the first four months of this year, the personal consumption expenditures (PCE) price index rose at a 4.2 percent annual rate, about 0.5 percentage points faster than the same period last year. Similarly, core inflation (excluding food and energy prices)

increased at about a 2.75 percent annual rate over the first four months of the year, about 0.75 percentage points faster than a year earlier.

Although core PCE inflation has moved beyond the upper bound of Fed Chairman Ben Bernanke’s 1 to 2 percent comfort zone, forecasters and financial market participants remain convinced of the Fed’s commitment to long-run price stability. This commitment has helped keep long-run inflation expectations in check, and it has prevented long-term nominal interest rates from tacking noticeably higher, which is a common occurrence during inflation scares.

Energy prices remain a risk to the forecast—both as a potential brake on growth and as a threat to higher inflation. Whether because of continued geopolitical concerns, strong global economic growth or the government’s forecast of a “very active” hurricane season this year, considerable volatility remains in the energy markets. This volatility can temper business enthusiasm for investment, which remains a bright spot in the outlook. But if the economy continues to surprise on the upside, then firms may become more aggressive in passing along higher energy and other costs to consumers. Such a development would threaten the sustainability of the current expansion, now into its fifth year.

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



Major Macroeconomic Indicators

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Data to come later

The Next Energy Jolt

Nowadays, it's commonplace to associate the phrase "energy crisis" with sky-high prices of oil, gasoline and natural gas. Some energy experts, however, have been warning that the probability of a widespread electricity crisis is increasing. Are rolling blackouts, most recently seen in Texas, coming to a city near you? Find out in the next issue of *The Regional Economist*, arriving in your mailbox in early October.



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