

THE REGIONAL ECONOMIST

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THE FEDERAL RESERVE BANK OF ST. LOUIS
CENTRAL TO AMERICA'S ECONOMY®

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and Unclaimed Benefits

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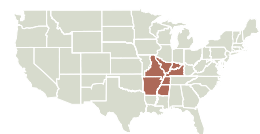
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Joni Williams

Please direct your comments to Subhayu Bandyopadhyay at 314-444-7425 or by e-mail at subhayu.bandyopadhyay@stls.frb.org. You can also write to him at the address below. Submission of a letter to the editor gives us the right to post it to our web site and/or publish it in *The Regional Economist* unless the writer states otherwise. We reserve the right to edit letters for clarity and length.

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The Eighth Federal Reserve District includes all of Arkansas, eastern Missouri, southern Illinois and Indiana, western Kentucky and Tennessee, and northern Mississippi. The Eighth District offices are in Little Rock, Louisville, Memphis and St. Louis.



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Economy's Slow Growth Could Be New Normal

By Kevin L. Kliesen

If labor productivity growth continues to decline while the employment-to-population ratio stabilizes at its current position, America's economy might have a new normal: Real GDP growth could hover around 2 percent rather than 3 percent. See www.stlouisfed.org/publications/re

James Bullard, President and CEO
Federal Reserve Bank of St. Louis



The Fed Is Not "Missing on the Dual Mandate"¹

It has become commonplace in monetary policy discussions in the U.S. to say that the Fed is "missing on both sides of its dual mandate." This is often taken to imply that current Fed policy is necessarily far away from an ideal or optimal policy. I do not think that such an inference necessarily follows. The notion that one can easily infer something about the sub-optimality of policy by observing current levels of inflation and unemployment is imprecise. In fact, observing that the Fed is "missing on both sides of the mandate" says little or nothing about the appropriateness of current policy.

The Fed famously has a directive that calls for it to maintain stable prices as well as maximum employment, along with moderate long-term interest rates. Since unemployment in the U.S. is currently high by historical standards, at 8.1 percent in August, many observers argue that the Fed must not be "maximizing employment." In addition, as of July, the personal consumption expenditures price index has increased by about 1.3 percent in the past year. Since the Fed's stated inflation target is 2 percent, then, by the numbers, the Fed is "missing on both sides of the mandate." Many then argue that this observation necessarily means that current monetary policy is sub-optimal, or worse, badly off track. The argument is that, under a proper monetary policy, when unemployment is above the natural rate, inflation should be *above* the policymaker's inflation target, not below.

I disagree with this view, as I do not think there is much in the macroeconomic adjustment literature to support it. Here is my story: The U.S. economy was hit by a large shock in 2008 and 2009. This large shock lowered output and employment far below historical trend levels while also reducing inflation substantially below 2 percent. The key question is: How do we expect these variables to return to their long-run or targeted values under

appropriate monetary policy?

The answer from the macroeconomic literature is that it is reasonable to believe that output, employment and inflation will return to their long-run or targeted values *slowly and steadily*. We refer to this type of convergence process as being "monotonic": The shock knocks key variables off their long-run values, and the variables gradually return after the shock, assuming the policymaker runs a reasonable monetary policy. Other dynamics would be disconcerting. We would not want or expect key variables to move wildly about their long-run values under an appropriate monetary policy.

Given this type of adjustment, then, it is clear that the Fed could be "missing on both sides of its mandate" during the *entire time* it takes the economy to return to normal, even when the monetary policy in place is very good. In fact, missing on both sides of the mandate is exactly what one would expect under an appropriate monetary policy. Furthermore, the literature suggests that the adjustment times are quite long.

The belief that convergence should be monotonic is supported by results from the medium-sized macroeconomic framework of Frank Smets and Raf Wouters.² This is an important benchmark quantitative model for monetary policy.³

To argue against monotonic convergence in the current environment would imply that when unemployment is *above* the natural rate, monetary policy can only be appropriate if inflation is above the policymaker's inflation target, not below. On the face of it, this does not completely make sense, since the U.S. has actually experienced periods when both inflation and unemployment were above desirable levels. In the 1970s, this phenomenon was dubbed stagflation, and monetary policy has been regarded as exceptionally poor during that period.

Some may argue that real output and employment in the U.S. have not returned to

the pre-crisis path that seemed to prevail in the mid-2000s. Indeed, total nonfarm payroll employment today remains about 4.7 million less than the peak in January 2008. I have argued that this is also to be expected because, as the work of Carmen Reinhart and Kenneth Rogoff has documented, recoveries in the aftermath of financial crises tend to be especially protracted.⁴ The financial crisis and the collapse of the housing bubble likely did some permanent damage to the U.S. economy.

There are, of course, some important caveats to my argument. In reality, unlike the models, other shocks occur during the long adjustment process—this tends to muddy the waters as to what adjustments are actually occurring. Furthermore, current U.S. monetary policy has unconventional features that have not been present in the past. But still, many estimated macroeconomic models do suggest that key variables adjust to shocks in a monotonic way even under very good monetary policy. This indicates to me that current monetary policy in the U.S. remains broadly appropriate: It has produced the basic pattern of adjustment that we should expect based on available research. 

ENDNOTES

- ¹ This column is adapted from my *Financial Times* op-ed, "Patience Needed for Fed's Dual Mandate," Sept. 19, 2012.
- ² See Smets, Frank; and Wouters, Rafael. "Shocks and Frictions in U.S. Business Cycles: A Bayesian DSGE Approach." *American Economic Review*, June 2007, Vol. 97, No. 3, pp. 586-606.
- ³ For a description of the model, see my *Economic Synopses* essay (2012, forthcoming) at <http://research.stlouisfed.org/publications/es/>
- ⁴ See Reinhart, Carmen M.; and Rogoff, Kenneth S. *This Time Is Different: Eight Centuries of Financial Folly*. Princeton University Press, 2009.



Measuring the Effect of School Choice on Economic Outcomes

By Michael T. Owyang and E. Katarina Vermann

When measuring the returns to education, economists tend to focus on attainment, typically using the number of years of schooling. Most people, however, would concede that the quality of the schooling also matters. In this article, we focus on the labor market outcomes associated with characteristics of different types of high schools and consider whether school type indicates school quality. In particular, we examine whether students attending different types of high schools—for example, suburban or urban public, religious or nondenominational private—have systematically different economic outcomes.

Using this information, we look at the relationships between earnings eight years after graduation and school type, school geography, school dropout rate, percentage of students in remedial courses and teacher base salary.

What Defines School Quality?

Economists define school quality in three ways: resource-based, environment-based and match-based. The resource-based view proposes that school quality can be measured by tangible resources, such as student-teacher ratios, term length and teacher salaries. In a 1992 study of the return to education for men born between 1920 and 1949, economists David Card and Alan Krueger found that those educated in public schools with more teachers per student, longer average term lengths, higher teacher salaries, better-educated teachers and more female teachers earn higher economic returns to schooling. A separate 1996 study, by economists Joseph Altonji and Thomas Dunn, also supports these findings: Higher salaries for teachers and expenditures per student increase their students' wages by 10.6 percent and by 5.6 percent, respectively, upon graduation. However, these wage effects decline with additional years of schooling, implying that high school quality matters just for those who only earn a high school degree. In contrast, other studies, such as economist Julian Betts' 1995 study of white males in the National Longitudinal Survey of Youth, show that traditional measures of school quality—class size, expenditures, teachers' salaries and teachers' level of education—are not significantly related to earnings.

Although these measurable qualities may matter, others argue that a school's environment contributes to students' academic and economic outcomes more than its resources. This view supports the notion that higher-performing schools have students and teachers who are more motivated. This type of achievement-oriented environment is thought to foster both higher expectations and better performance.¹ A 2011 study of New York City charter schools by economists Will Dobbie and Roland Fryer found that traditional measures of school quality—such as class size, expenditures per student, and teachers with certifications and advanced degrees—are not correlated with school effectiveness. However, teacher feedback, data-driven instruction, increased instructional time and extreme focus on academic achievement explain almost half of the variation in school effectiveness.

A third measure of school quality is the fit between the school and the student. "Match quality" is a more subjective measure that takes into account how well students' needs and learning styles fit with the culture of their school. The more choices that students and their families have for a high school, the better the match of the school for a particular student. Based on this theory, then, attending the "best" school may not necessarily result in the best outcome for a particular student.

Can School Type Be a Proxy for School Quality?

In a 1992 analysis of data from the High School and Beyond survey,² political scientist John Witte found that students who attend private and parochial schools are more likely to take advanced courses, to take more academic courses, to have higher expectations of achievement, to have more homework, to face higher levels of discipline, to experience less school violence, to experience more school spirit and to be more involved in school activities. Essentially, the elements that define a productive school atmosphere may be more likely to be present at these schools.

Studies like Witte's suggest that school type may be an effective proxy for school quality, implying that there is some long-run benefit to paying for private school. We use data from the National Education Longitudinal Study (NELS) to examine the relationships among high school characteristics, school type and wages.³ This data set tracks a nationally representative group of students who started high school in 1988 through their mid-20s. In addition to surveying the students, the NELS surveyed each participant's parents, high school teachers and high school administrators. As such, the survey provides information on each student's academic life, social life/behavior, school environment, family environment and achievement.⁴ Using this information, we look at the relationships between earnings eight years after graduation⁵ and school type, school geography, school dropout rate, percentage of students in remedial courses and teacher base salary.

How Do Individuals in the NELS Do?

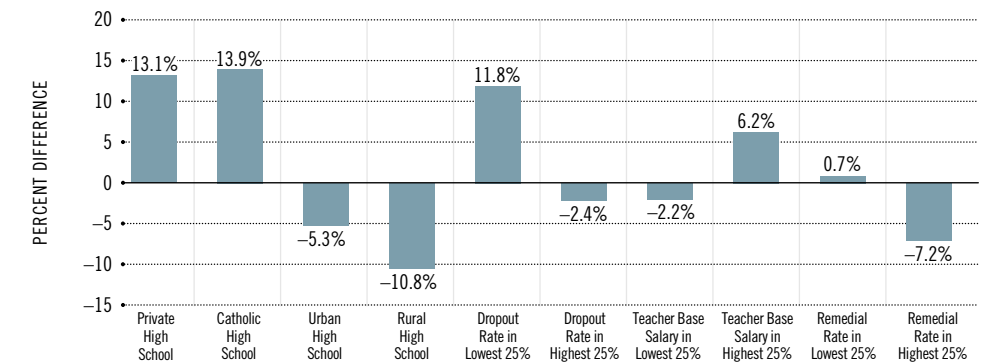
One way to assess the differences in the economic outcomes of individuals in our sample is with descriptive statistics. Figure 1 shows how the relative incomes of individuals vary depending on the traits of their schools. The height of each bar represents the percent difference in average earnings between students who attended schools with various characteristics. The first two bars compare the average income of individuals who attended private or Catholic schools with the incomes of those attending public schools. The next two bars compare all the urban and rural students with all the suburban students. The final six bars compare schools with different quantitative measures of school quality (dropout rate, teacher base salary and percentage of students in remedial courses); the bars compare the average earnings of students who attended schools in either the lowest or highest 25 percent of each measure with the average earnings of students in the middle 50 percent of the study.

The graph shows that students who attended private and Catholic schools earned 13.1 percent and 13.9 percent more, respectively, than those who attended public schools. Students who attended urban schools earned 5.3 percent less than those who attended suburban schools, while those who attended rural schools earned 10.8 percent less than those who attended suburban schools. When looking at school-level factors, we found that students from schools with the lowest dropout rates and the lowest percentage of students in remedial courses earned 11.8 and 0.7 percent more, respectively, than those attending schools with average rates; students at schools with the lowest teacher base salaries earned 2.2 percent less than those at schools with average teacher salaries. Overall, one can extrapolate from the figure that individuals who attended suburban Catholic high schools with few dropouts, few students in remedial courses and higher teacher base salaries had the highest earnings. These findings support both the resource- and environment-based theories of school quality.

Unfortunately, this descriptive analysis may not conclusively determine whether these school factors matter for three reasons. First, these statistics do not control for

FIGURE 1

Relative Income Based on School Characteristics



SOURCE: National Education Longitudinal Study.

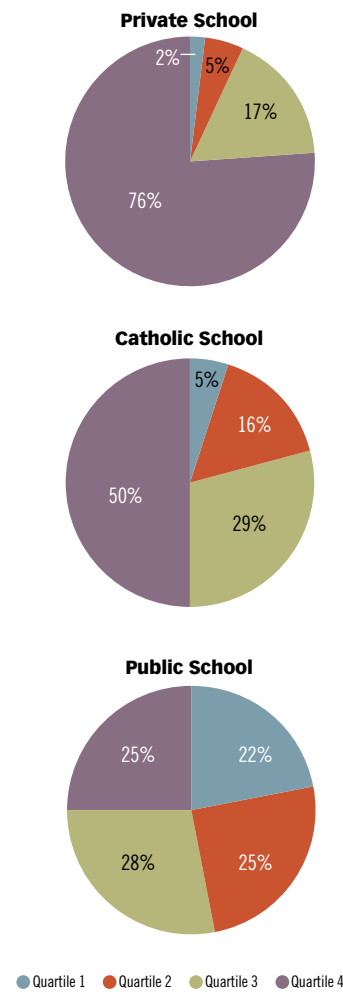
NOTES: The height of each bar represents the percent difference in average earnings approximately eight years after high school graduation between students who attended schools with various characteristics. For example, eight years after graduation, those who attended private high schools earned 13.1 percent more than those who attended public high schools. The sample used in our analysis is restricted to NELS participants who graduated from high school and have a job. School traits can be compared only with those in the same category.

additional factors—for example, individual-level characteristics, industry, occupation and educational attainment—that could influence wages. Because wages vary systematically with these factors, simply attending a certain type of school does not guarantee a significant difference in earnings.

Second, the survey demographics may not paint an accurate picture of actual U.S. demographics. For example, the survey contains a disproportionate number of college graduates. According to the 2000 census, individuals with at least a bachelor's degree represented 25 percent of the population; within the NELS, 45 percent of respondents had at least a bachelor's degree. Since approximately 97 percent of the Catholic and private school graduates enrolled in some form of higher education (versus approximately 82 percent of public school graduates),⁶ the estimates of average earnings could reflect wage premiums due to higher education rather than to quality of the high school. Thus, simple statistics may not apply to the entire population.

Third, the descriptive analysis does not account for factors that may influence or relate to differences between students at different types of schools. For example, individuals from high-income families may be less likely to attend inner-city public schools, while individuals from lower-income families may be less likely to attend expensive college preparatory schools.

FIGURE 2
Socioeconomic Status and School Type



SOURCE: National Education Longitudinal Study.

NOTES: Each chart compares the socioeconomic composition of students at each type of school. Quartiles are in ascending order (i.e., quartile 4 represents those with the highest socioeconomic status). The sample used in our analysis is restricted to NELS participants who graduated from high school and have a job. The socioeconomic quartiles were calculated by the National Center for Education Statistics for all NELS respondents; its methodology takes into account both family income and family background.

Figure 2 compares the socioeconomic composition of students in our sample for each type of school. The figure shows that socioeconomic status varies dramatically across school types. For example, 25 percent of students who attended public schools were raised in families in the top socioeconomic quartile (quartile 4). On the other hand, 50 percent of those who attended Catholic schools and 76 percent of those who attended private schools were raised in families with the highest levels of socioeconomic status.

Revisiting the Effect of School Type

To address the issues that arise from looking at simple averages, we attempt to control for differences in student backgrounds—differences such as race, sex and socioeconomic status—as well as industry of employment and occupation. The blue bars in Figure 3 depict the percent difference in earnings between graduates of various types of schools after controlling for other factors that influence wages. According to our estimates, the wage premium associated with attending a private high school is much smaller than the summary statistics in the previous section suggest. After controlling for individual and job characteristics, private high school graduates earn 2.6 percent more than their public school counterparts. This increase, however, is not statistically significant. In contrast, Catholic high school graduates earn a statistically significant 13.6 percent wage premium, comparable to that in Figure 1. This result could indicate that there are significant differences in unquantifiable aspects of school quality that could affect earnings later in life.

Our estimates for school-level factors are also much smaller after controlling for individual-level differences in those surveyed. School geography (urban, rural, etc.), the high dropout rate and the average percentage of students in remedial courses are not significantly related to wages; starting teacher salaries, on the other hand, are related to long-run outcomes.⁷ Graduates of schools with higher base salaries for teachers experienced a 2.3 percent increase in earnings. Thus, investing in high-quality teachers appears to have an economic return for students regardless of school type. Though the bars for urban and rural schools each show a greater percentage difference

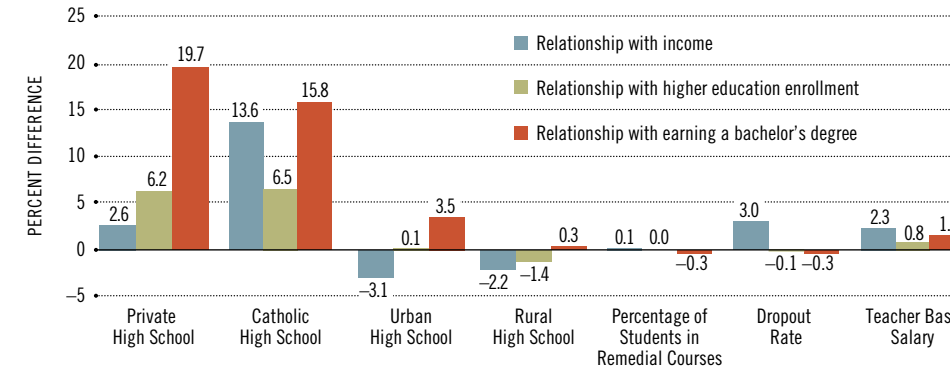
in wages, these values are not statistically significant. In other words, they are not statistically different from zero.

Our results suggest that the type of school one attends does not always translate directly to a change in future wages. Does this mean that paying the tuition for a private high school is a waste of money? Economist Wayne Strayer argues that studies should consider estimating the direct (that is, wage) effects and the indirect effects (that is, the chance of graduating from high school, enrolling in higher education or completing a bachelor's degree) to fully understand the effects of school quality. Specifically, he argues that students from higher-quality high schools are more likely to graduate and to attend college. Therefore, it is important to consider the relationship between the high school one attends and the chance of both attending college and of earning a postsecondary degree.

Other studies support Strayer's position that the type of high school one attends is correlated with the likelihood of getting into and attending college. For example, economists William Evans and Robert Schwab compare the effectiveness of public and Catholic schools using individual-level data from the High School and Beyond survey. They found that, after controlling for family background and individual traits, graduates of Catholic high schools are 13 percent more likely to enroll in a four-year college than public school students are.

Using this information, we estimated the relationship among high school type, college enrollment and completion of a four-year college. These results are depicted in the gold and red bars in Figure 3, respectively. The results indicate that graduates of private and Catholic high schools are 6.2 percent and 6.5 percent more likely, respectively, to enroll in higher education than are graduates of public high schools. Further, the students who attend private and Catholic schools are 19.7 percent and 15.8 percent more likely, respectively, than graduates of public schools to earn a bachelor's degree. Since individuals with at least a bachelor's degree in our data set earn approximately 35 percent more than those with only a high school diploma, one can argue that attending a parochial or private school increases the chances of a student getting the college

FIGURE 3
The Relationship between High School Characteristics and Student Outcomes



SOURCE: National Education Longitudinal Study.

NOTES: The bars depict the relationship between earnings and long-term outcomes after controlling for differences in student backgrounds and other factors that would influence wages. For example, private high school graduates earned 2.6 percent more than their public school counterparts, were 6.2 percent more likely to attend college and were 19.7 percent more likely to earn a bachelor's degree. The sample used in our analysis is restricted to NELS participants who graduated from high school and have a job.

wage premium in the future.

At the same time, students who attend high schools with higher teacher base salaries are 0.8 percent more likely to enroll in college and 1.4 percent more likely to earn a bachelor's degree. Students from schools with higher percentages of students in remedial courses are 0.3 percent less likely to earn a bachelor's degree, but are marginally less likely to enroll in higher education. There is no significant relationship between a school's dropout rate or school location and a student's secondary college enrollment or achievement. Hence, our findings indicate that school type indirectly influences future earnings by creating the opportunity for higher earnings.

Should I Send My Child to an Expensive School?

Although our findings suggest that attending parochial and private high schools may have long-run economic benefits, it is important to keep in mind that students who attend Catholic and private schools come from a nonrandom sample. Students at these schools may have traits that contribute to their academic and economic achievement. Economists call this "selection bias," and its presence can negate causality in a relationship. Thus, the observed correlation between school type and economic outcomes may arise because students who attend private schools are inherently more likely to succeed regardless of where they

are educated.

As a result, the returns to the type of high school a student attends may be a better indicator of a student's ability or family finances rather than the school's effect.⁸ This issue provides evidence for the match-quality measure of school type, assuming individuals who choose the school in which they enroll are selecting the school based on unquantifiable aspects of fit, such as values. As a parent, what matters may be simply focusing on a child's education regardless of the school a child attends. ■

Michael T. Owyang is an economist and E. Katarina Vermann is a research associate, both at the Federal Reserve Bank of St. Louis. See <http://research.stlouisfed.org/econ/owyang/> for more on Owyang's work.

ENDNOTES

- See Hanushek, Kain, Markman and Rivkin.
- The High School and Beyond survey is a National Center for Education Statistics survey tracking the 1980 senior and sophomore classes through 1992. More information can be found at <http://nces.ed.gov/surveys/hsb>
- See <http://nces.ed.gov/surveys/nels88/>
- Unfortunately, these data may limit our ability to apply these results to the current, technology-driven economic climate. Additionally, the cohort is not old enough to identify more long-run effects.
- This assumes that the members of the survey finished high school within four years (that is, in 1992). For those who were held back, the income figure would simply represent their income in the year 2000.
- Also, only 40 percent of public school graduates have a degree from a four-year college, while 80 percent of private school graduates and 67 percent of Catholic school graduates have a degree from a four-year college.
- Teacher base salaries are measured using an ordinal variable. Further tests also indicated that urban and rural schools are not statistically different from each other.
- See Figlio and Stone.

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Too Big To Fail: The Pros and Cons of Breaking Up Big Banks

By David C. Wheelock

Are the nation's biggest banks too big? Many people think so. Some economists and policymakers have called for breaking up the largest banks and strictly limiting how large banks can become.¹

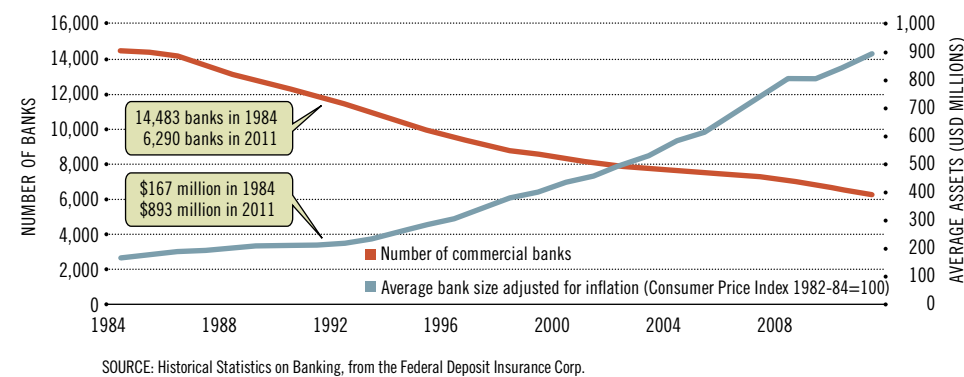
U.S. banks, on average, have grown increasingly larger over time, while the total number of banks has declined. As the chart shows, the average inflation-adjusted total assets of U.S. commercial banks rose from \$167 million in 1984 to \$893 million in 2011, while the number of banks fell by more than 50 percent.² (The number of banks reached its post-World War II peak in 1984.) Moreover, the share of total banking system assets held by the very largest banks has continued to rise. For example, in 2001, the five largest commercial banks held 30 percent of total U.S. banking system assets, topped by Bank of America, which had \$552 billion of assets. By contrast, in 2011, the five largest banks held 48 percent of total system assets. Four banks had total assets in excess of \$1 trillion, and the largest commercial bank—JPMorgan Chase Bank—had \$1.8 trillion of assets, equal to 14 percent of the total assets of all U.S. commercial banks.

Proponents of limiting the size of banks argue that large banks—and the government policies that have implicitly backstopped these banks—pose serious risks to the financial system and potentially catastrophic consequences for the broader economy. On the surface, the latest financial crisis and recession seemed to bear this out, as four of the nation's 10 largest depository institutions—Bank of America, Citibank, Wachovia Bank and Washington Mutual Bank—either failed or received government assistance to stay afloat, while only about 6 percent of smaller banks failed.³

Systemic Risk and Too Big To Fail

The financial crisis revealed how closely connected many of the world's largest financial institutions are through a web of short-term loans, credit guarantees and other financial contracts. These connections pose systemic risk in that the failure of one large,

Number of Banks Falls as Average Assets Rise



complex financial institution could bring down others and threaten the broader financial system. Indeed, as the latest financial crisis developed, doubts about the ability of individual financial firms to repay their loans or meet other contractual obligations caused a widespread pullback in lending as banks and other financial firms sought to protect themselves by moving their funds into safe assets, such as U.S. Treasury securities and cash reserves. The bankruptcy of Lehman Brothers, a medium-sized investment bank, in September 2008 reinforced these fears; the bank's collapse intensified the rush for safe, liquid assets while increasing pressures on money market mutual funds, the commercial paper market and other segments of the financial system that depend on a continuous flow of credit.

The potential for the collapse of a large bank to impose significant losses on other firms or seriously impede the functioning of the financial system, and the consequent risks to the broader economy, have made governments generally unwilling to let large banks fail. As a result, governments have

often treated large banks as too big to fail (TBTF) and have committed public funds to ensure payment of a large bank's debts when it would otherwise default. Although treating large banks as TBTF mitigates systemic risk, TBTF has a dark side, known as moral hazard. Moral hazard is the tendency for insurance to encourage risk-taking and, thereby, make an insurance payout more likely. For example, a government guarantee that protects a bank's creditors from loss enables the bank to borrow on more favorable terms and operate with greater leverage—and, thereby, have a greater chance of failing—than it would without the government backstop. Federal deposit insurance is one example of a guarantee that can encourage greater risk-taking. However, coverage limits, risk-based insurance premiums, minimum capital

requirements and government supervision all discourage or prevent excessive risk-taking.

Treating a bank as TBTF extends *unlimited* protection to *all* of the bank's creditors, not just depositors, which gives the bank a funding advantage and more incentive to take on risk than other banks have. The Dodd-Frank Act of 2010 imposes new rules and oversight over banks and other financial firms in an effort to control risk-taking. It also aims to end TBTF by creating a new process for resolving failures of large financial firms in a way that subjects the creditors of such firms to losses. However, critics contend that the only definitive way to end TBTF and the associated moral hazard problem is to enforce strict limits on the size of individual financial institutions.

But Size Limits Might Be Costly

Although size limits could, in principle, end TBTF, some research suggests that they could also raise the cost of providing banking services by preventing banks from exploiting economies of scale. A production process is characterized by economies of scale if the cost of producing one unit of output falls with an increase in the amount produced. By contrast, there are *diseconomies* of scale if the cost of producing one unit of output rises with an increase in production. There are neither economies nor diseconomies of scale if the cost of producing one unit of output does not change with an increase in production.

Bankers often point to scale economies to justify bank acquisitions and mergers, though policymakers have expressed doubts.⁴ Most research published before 2000 found that banks exhaust scale economies at roughly \$300-\$500 million of assets. However, some newer studies have detected potential scale economies for banks with \$1 trillion of assets or more.⁵

As in many industries, recent advances in information processing and communications technologies have revolutionized banking. For example, small and medium-size banks traditionally enjoyed an advantage in lending to small businesses and other borrowers where close proximity and personal relationships were important for evaluating credit risks and monitoring borrowers. However, new information-processing technologies have reduced the costs of acquiring quantifiable

information about potential borrowers and eroded some of the benefits of close proximity and personal relationships for small-business lending and, thereby, have tilted the pendulum more in favor of large banks.

The same technological changes have likely increased the fixed costs of providing banking services, costs that larger banks can spread over more customers. Further-

Research to date suggests that size limits could increase the resource costs of providing banking services.

more, recent changes in regulation, such as a loosening of branching restrictions, and the fixed costs of complying with new consumer protection and other regulations have also likely given larger banks a cost advantage over their smaller competitors. Thus, technological advances and changes in regulation might explain why some newer studies find evidence of economies of scale for large banks when older studies did not.⁶

Conceivably, the treatment of large banks as TBTF could also generate scale economies by lowering the risk premiums demanded by creditors of large banks, thereby giving them a funding advantage over smaller banks. The case for mandating limits on bank size might be stronger if TBTF policies, rather than the fundamental technology of banking, are the source of scale economies for very large banks.⁷ More research is needed to identify the sources of scale economies in banking, to the extent they exist. Nonetheless, research to date suggests that size limits could increase the resource costs of providing banking services and, thus, supports the conclusion of researchers Gary Stern and Ron Feldman, authors of the book *Too Big To Fail: The Hazards of Bank Bailouts*, that "policymakers will have to consider the loss of scale benefits when they determine the net benefits of breaking up firms in the first place."⁸

David C. Wheelock is an economist at the Federal Reserve Bank of St. Louis. See <http://research.stlouisfed.org/econ/wheelock/> for more of his work. David Lopez, a senior research associate, provided research assistance.

ENDNOTES

- See Fisher, Rosenblum, Reich and O'Driscoll for examples.
- In nominal terms, that is, without adjustment for inflation, average bank assets increased from \$173 million in 1984 to \$2 billion in 2011.
- See DeYoung for more information.
- See Haldane and Greenspan for examples.
- These studies include Hughes, Mester and Moon (2001), Feng and Serletis, and Wheelock and Wilson.
- Not all recent studies find significant scale economies in banking. See Mester (2005) and DeYoung for discussion.
- However, at least one study (Hughes and Mester, 2011) concludes that TBTF policies do not explain economies of scale for large banks.
- See Stern and Feldman.

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Unemployment Insurance: Payments, Overpayments and Unclaimed Benefits

By David L. Fuller, B. Ravikumar and Yuzhe Zhang



Overpayments in the U.S. unemployment insurance system have received increasing attention of late. For example, CNN.com cited a recent study by the Department of Labor in reporting that 11 percent of all unemployment benefits were overpaid.¹ Vice President Joe Biden, charged with leading the Campaign to Cut Waste, said: “Unemployment checks are going to people in prison. Unemployment checks are going to graveyards.”

In this article, we examine the U.S. unemployment insurance system’s expenditures over a longer horizon. We begin by illustrating the benefits paid from 1989 to 2011. Next, we take a look at the overpayments. Finally, we discuss a fact that is less well-known: Not everyone who is eligible for unemployment benefits actually collects them. Over the longer horizon, these unclaimed benefits are much larger than the overpayments that have received recent attention.

Unemployment Insurance

Unemployment insurance programs insure workers against the risk of lost income if they lose their job through no fault of their own. In the U.S., the program is run at the state level. Each state sets its benefit level and eligibility criteria, and finances these benefits through payroll taxes.²

Typically, the unemployment benefits last for a maximum of 26 weeks. These regular unemployment benefits paid by the states increased sharply during the recent recession. Measured in 2005 dollars, these benefits more than doubled, from \$31 billion in 2007 to almost \$72 billion in 2009. Since 2009, these regular benefits have decreased to levels below what they were after the previous recession: In 2011, the unemployment

insurance program spent less than \$42 billion on regular benefits, while the corresponding figure in 2002 was more than \$46 billion.³

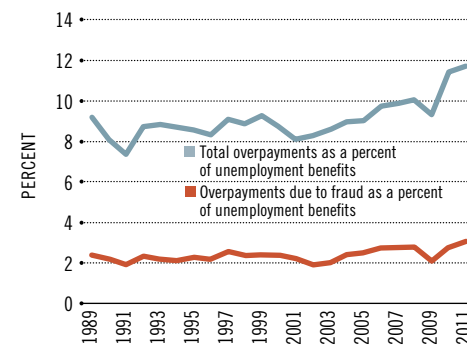
In periods of high unemployment, benefits may be continued for additional weeks beyond the regular cap of 26. Most states offer an additional 13 weeks of benefits when the unemployment rate in that state remains above a certain threshold. The federal government may also finance more benefits. For example, the federal government recently provided financing to some states to extend their benefits to a maximum of 99 weeks. During the early 1990s, the extended benefits added 60 percent to the regular benefits. During the past two years, the extended benefits have added more than 125 percent.

Overpayments and Fraud

Some of the unemployment benefit payments were indeed overpayments, as recent newspaper reports suggest. Figure 1 illustrates the amounts overpaid. As a fraction of benefits, the average overpayment during 2007-2011 was 11 percent. During the middle of the recent recession, in 2008, the unemployment benefits amounted to \$40 billion and the overpayment was \$4 billion (both amounts in 2005 dollars).

The overpayments could stem from simple typographical errors on one extreme to outright fraud on the other extreme. For example, an individual’s benefit may be inadvertently set too high because the wrong formula was applied. This represents a simple error. Fraud, on the other hand, is a deliberate act. During 2007-2011, the overpayments due to all 28 categories of fraud accounted for 3 percent of the benefits on average; see Figure 1.⁴ Put differently, the overpayments due to fraud were roughly a fourth of the total overpayments.

FIGURE 1
Overpayments and Fraud



SOURCES: Benefit Accuracy Measurement (BAM) program, U.S. Department of Labor; authors’ calculations.

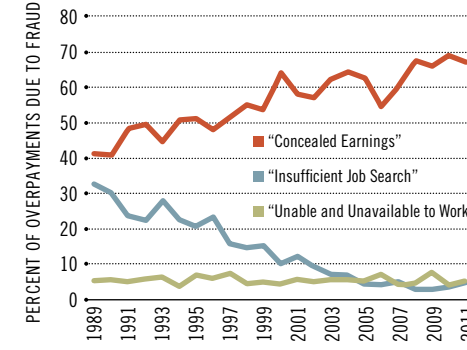
NOTES: The fractions reported by the blue line are the total dollar amount of overpayments in a calendar year divided by the total dollar amount of benefits paid in the same year. Both amounts were obtained directly from the BAM sample and include only the payments by states for the standard 26 weeks. A similar calculation was used to compute the fraction reported by the red line.

The dominant form of unemployment insurance fraud in recent years is what’s classified as “Concealed Earnings” fraud: collection of unemployment benefits by individuals who are gainfully employed. As Figure 2 illustrates, overpayments from Concealed Earnings fraud have been steadily rising over the past 22 years and were almost 70 percent of the overpayments due to fraud in recent years.⁵

Meanwhile, overpayments due to “Insufficient Job Search” (cases where the unemployed individual did not meet the mandatory work search requirement, such as minimum number of job applications to be filed each week) have been declining and are down to less than 5 percent of fraud.

Recent headlines on prisoners collecting unemployment benefits fall under “Unable and Unavailable to Work” fraud.⁶ This category includes cases where an unemployed person is not healthy enough to work or is in

FIGURE 2
Overpayments due to Fraud by Cause



SOURCES: Benefit Accuracy Measurement (BAM) program, U.S. Department of Labor; authors’ calculations.

NOTES: The calculations use dollar amounts, not number of cases. To calculate the numbers in the figure, we first sum up the dollar amounts of overpayments due to all 28 types of fraud. Then, for each of the three forms of fraud discussed in the article, we calculate the total dollar amount of overpayments from the category. The numbers reported in the figure are the latter amount divided by the former.

school, for example. Overpayments due to the entire Unable and Unavailable to Work category amounted to barely 5 percent of fraud in 2011. For the states in the Eighth District of the Federal Reserve (based in St. Louis), this category accounted for 2 percent of fraud in 2011.

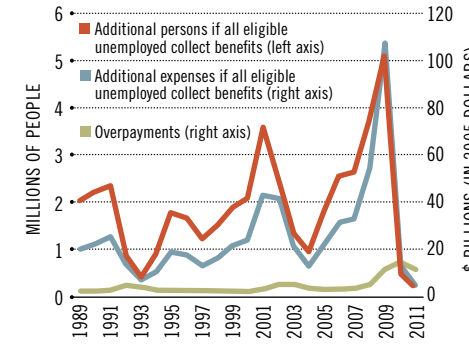
Some Don’t Seek Benefits

Although overpayments have grabbed recent headlines, only 35 percent of the unemployed have been collecting benefits over the past 22 years on average. Not all of these people are eligible to collect benefits, however. For instance, the typical duration of unemployment benefits is 26 weeks, and a person who continues to be unemployed past 26 weeks is not eligible. But not all of those who are eligible to collect unemployment benefits actually collect the benefits.

During the recent recession (2007-2009), roughly 50 percent of those eligible were collecting benefits. The fraction increased to 95 percent in 2011. In Figure 3, we illustrate the number of people who could have collected unemployment benefits but chose not to do so.

Figure 3 also illustrates a back-of-the-envelope calculation. If all of those who are eligible to collect unemployment benefits were to indeed collect the benefits, what would be the additional expenditures for the unemployment insurance program? The additional expenditures in 2009, toward the end of the recent recession, would have been

FIGURE 3
Overpayments and Potential Uncollected Benefits



SOURCES: Overpayments: Benefit Accuracy Measurement (BAM) program, U.S. Department of Labor; authors’ calculations.

NOTES: We calculate the numbers for the gold line by multiplying the overpayment rate in Figure 1 by the amount of total unemployment benefits paid (that is, including extended benefits) reported by the Department of Labor. To obtain how many additional people could collect benefits, we use the calculations in Auray, Fuller and Lkhagvasuren. They compute the fraction of eligible unemployed who are collecting benefits by using Current Population Survey data and details on eligibility requirements for all U.S. states. We increase their fraction to 100 percent (as if all eligible unemployed collect benefits) and calculate the additional number of unemployed who could legitimately collect benefits. Additional expenses are calculated as follows: We divide the total unemployment benefit expenditures each year by the number of unemployed people collecting benefits in that year to obtain a benefit amount per person. Both of these numbers are tabulated by the U.S. Department of Labor; see www.doleta.gov/unemploy/chartbook.cfm. We then multiply the additional number of people by the benefit/person to obtain “Additional expenses if all eligible unemployed collect benefits.”

a whopping \$108 billion (in 2005 dollars). As Figure 3 illustrates, the overpayments in 2009 were \$11 billion. On average, the unclaimed benefits are much larger than the more frequently discussed overpayments.

Looking at the unemployment insurance program over the longer horizon, overpayments are less than one-tenth of the benefits paid, overpayments due to fraud are less than 3 percent of the benefits paid and unclaimed benefits are nearly seven times the overpayments. Although reducing the overpayments would clearly help reduce the expenditures for the unemployment insurance program, a higher fraction of eligible people choosing to collect unemployment benefits would significantly increase the expenditures for the program. [Q](#)

David L. Fuller is an economics professor at Concordia University, B. Ravikumar is an economist at the Federal Reserve Bank of St. Louis and Yuzhe Zhang is an economics professor at Texas A&M University. For more on Ravikumar’s work, see <http://research.stlouisfed.org/econ/ravikumar/>

ENDNOTES

- 1 See <http://money.cnn.com/2012/07/09/news/economy/overpaid-unemployment-benefits/index.htm>. The Department of Labor study can be found at https://ows.doleta.gov/unemploy/pdf/StrategicPlan_Impro_Pay.pdf
- 2 There are three primary criteria for eligibility. First, the individual must have accumulated enough earnings or worked a minimum number of weeks during the previous year. Second, only those who lost their job through no fault of their own are eligible; thus, people who quit their job or are fired because of poor performance are not eligible. Finally, the duration of benefits is limited.
- 3 We obtain the nominal actual outlays from the Department of Labor, www.doleta.gov/unemploy/chartbook.cfm, and convert them to 2005 dollars using the GDP deflator in the FRED database, <http://research.stlouisfed.org/fred2/>
- 4 These data are obtained from the Benefit Accuracy Measurement (BAM) program run by the U.S. Department of Labor. BAM lists 28 possible categories of fraud. The stated goal of BAM is to audit the paid benefits. The BAM program chooses a random sample of weekly unemployment insurance claims, and BAM investigators audit these claims to determine their accuracy. The investigators also interview some claimants if necessary. BAM investigators calculate statistics of the unemployment insurance program (see BAM State Operations Handbook ET No. 495, 4th Edition). Fraud investigators, on the other hand, look to recapture overpayments.
- 5 Fuller, Ravikumar and Zhang examine how to provide benefits and monitor individuals to deter Concealed Earnings fraud.
- 6 See www.azcentral.com/news/articles/2012/07/17/20120717des-targets-ill-gotten-arizona-benefits.html for a recent article regarding unemployment benefits collected by prison inmates.

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Manufacturing and Construction Decline in the Ranks of Top 10 Employers

By Rubén Hernández-Murillo and Elise Marifian



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More than three years have passed since the official end of the Great Recession. Unemployment rates remain stubbornly high, and economic output has fallen short of desired levels. As economists try to understand the forces behind the current economic situation, an interesting topic to consider is the changing composition of employment across industries, both at the national level and at the level of the Eighth Federal Reserve District, based in St. Louis. These changes are noteworthy because the trend of an increasing employment share in the services sector, accompanied by a declining employment share in the manufacturing sector, is likely to continue even after the recovery picks up more strength.

In this article, we analyze changes that occurred in the Eighth District and the United States between 2007 and 2010, specifically with respect to the distribution of employment and establishment size across broad industry categories. Because the Eighth District comprises one complete state and parts of six others, statewide data cannot be used, and we must instead analyze data at the county level.¹ The most useful data for this purpose are the County Business Patterns statistics from the Census Bureau. This data set contains annual statistics on employment, payrolls and the number of establishments by different industry classifications at the national, state, county and ZIP code levels.²

Perhaps not surprisingly, we found various similarities between the District and the U.S., particularly in the distribution of employment across industries and in the evolution of the manufacturing employment share relative to the services share. Interesting differences arise, however, when we examine

two specific aspects of manufacturing: the share of employment in the manufacturing sector, and the average size of manufacturing establishments. Both of these numbers are larger for the District than for the nation.

Industry Distribution in the District and the U.S.

The tables present the distribution of employment for the 10 largest two-digit industry classifications in the District and the U.S. for 2007 and 2010.³ The tables also provide average establishment sizes for each industry category.⁴ The industry classifications follow the North American Industry Classification System (NAICS).⁵

The five largest industries in terms of employment share are health care and social assistance (NAICS 62), retail trade (NAICS 44), manufacturing (NAICS 31), accommodation and food services (NAICS 72), and administrative and support and waste management and remediation services (NAICS 56). Other prominent industries common to both the District and the U.S. include construction (NAICS 23), wholesale trade (NAICS 42), other services (NAICS 81), and finance and insurance (NAICS 52).⁶ In the District, transportation and warehousing (NAICS 48) is also among the top 10, but it is not included in the nation's top 10. Conversely, the professional, scientific and technical services industry (NAICS 54) is among the top 10 in the nation, but not in the District.

Between 2007 and 2010, most industries maintained their relative rankings in both the District and the U.S., except for the manufacturing and construction sectors: Manufacturing dropped from third to fourth place in the nation and from first to third place in the District. Meanwhile, construction fell

from seventh to ninth place in the nation and from sixth to eighth place in the District. Clearly, as manufacturing and construction fell in the rankings, other industries rose, but their 2007 relative rankings were preserved.

Over the past several decades, the composition of industry at the national level has shifted away from manufacturing and toward services. Over the 2007-2010 period, this trend continued in both the District and the U.S. (although the manufacturing share has remained larger in the District compared with the nation).⁷ The aggregate employment share for the services sector in the U.S. increased from 81.7 percent to 84.2 percent, while the share of manufacturing employment declined from 11 percent to 9.7 percent. Similarly, the share of services employment in the District increased from 77.2 percent to 80.2 percent, while the manufacturing share declined from 15.9 percent to 13.5 percent.

Not only is the share of manufacturing employment larger in the District relative to the U.S., but manufacturing establishments are also larger in the District. The tables indicate that the typical size of a representative establishment (the number of employees divided by the number of establishments) in most of the top 10 industries is very similar for the District and the nation, except in manufacturing. In 2007, for example, the typical size of a manufacturing establishment in the U.S. was about 40 employees, while District manufacturing establishments had, on average, about 54 employees, a difference of 14 employees. In contrast, the absolute difference in average establishment size between any of the other common top industries in the District and the U.S. was fewer than four employees. By March 2010, about three quarters after the end of the recession, the

average size of establishments in manufacturing had declined considerably for both the District and the nation (from 40 to 36 in the nation and from 54 to 47 in the District); the District's manufacturing establishments continued to be larger than the nation's, by about 11 employees, on average.

Interestingly, the average size of establishments in nonmanufacturing industries changed very little between 2007 and 2010 for either the District or the nation, and the differences between the District and the nation also remained small in 2010.

Distribution across District's Counties

The County Business Patterns data also allow us to examine differences across counties in the District. Among the Eighth District's 339 counties, the distribution of manufacturing employment relative to employment in service industries varies considerably. According to the 2010 data, while the service share of total county employment was evenly distributed across the District counties, the manufacturing share of county employment was relatively more concentrated in a small number of counties. The average share of manufacturing employment in the District's counties was 19.4 percent. The bottom 25 percent of counties had a manufacturing employment share between 0 percent and 9.6 percent. In fact, the bottom half of counties had less than a 16.5 percent manufacturing share, while the top quarter of counties had a manufacturing share between 26.7 percent and 71.2 percent.

Furthermore, manufacturing employment was more concentrated in rural counties in 2010. The average manufacturing share in rural counties was about 21.8 percent, while in urban counties, the average was 17.2 percent. In contrast, the share of total employment in services averaged 74.3 percent across all District counties. The bottom quarter of counties had between 23.9 percent and 65.9 percent, while the top 50 percent of counties had more than a 75.8 percent services share. In the top quarter of counties, between 84.2 percent and 98.1 percent of workers were employed in service industries.

From 2007 to 2010, most counties saw a decline in the share of manufacturing employment and, equivalently, an increase

Eighth Federal Reserve District Employment Shares and Establishment Sizes by NAICS Industry

| Rank 2007 | Rank 2010 | NAICS Code | Industry | 2007 Share of Total Employment | 2010 Share of Total Employment | 2007 Average Establishment Size (in employees) | 2010 Average Establishment Size (in employees) |
|----------------------|-----------|------------|--|--------------------------------|--------------------------------|--|--|
| 1 | 3 | 31 | Manufacturing | 15.9% | 13.5% | 54.4 | 47.4 |
| 2 | 1 | 62 | Health Care and Social Assistance | 15.0 | 16.9 | 22.7 | 23.2 |
| 3 | 2 | 44 | Retail Trade | 13.5 | 13.8 | 12.9 | 12.9 |
| 4 | 4 | 72 | Accommodation and Food Services | 9.9 | 10.1 | 19.6 | 18.7 |
| 5 | 5 | 56 | Administrative and Support and Waste Management and Remediation Services | 6.1 | 6.0 | 22.5 | 20.6 |
| 6 | 8 | 23 | Construction | 5.6 | 4.7 | 8.9 | 8.2 |
| 7 | 6 | 48 | Transportation and Warehousing | 5.0 | 5.0 | 22.1 | 21.7 |
| 8 | 7 | 81 | Other Services (except Public Administration) | 4.8 | 4.8 | 7.0 | 6.8 |
| 9 | 9 | 42 | Wholesale Trade | 4.7 | 4.7 | 14.1 | 13.9 |
| 10 | 10 | 52 | Finance and Insurance | 4.4 | 4.6 | 9.8 | 9.8 |
| Top 10 | | | | 84.9 | 84.1 | 16.7 | 16.1 |
| Total 2-digit | | | | 100.0 | 100.0 | 15.9 | 15.3 |
| | | | | 2007 Employment | 2010 Employment | 2007 Establishments | 2010 Establishments |
| Totals | | | | 5,432,844 | 5,061,860 | 342,017 | 330,802 |

U.S. Employment Shares and Establishment Sizes by NAICS Industry

| Rank 2007 | Rank 2010 | NAICS Code | Industry | 2007 Share of Total Employment | 2010 Share of Total Employment | 2007 Average Establishment Size (in employees) | 2010 Average Establishment Size (in employees) |
|----------------------|-----------|------------|--|--------------------------------|--------------------------------|--|--|
| 1 | 1 | 62 | Health Care and Social Assistance | 13.9% | 15.9% | 21.4 | 21.9 |
| 2 | 2 | 44 | Retail Trade | 13.1 | 12.9 | 14.0 | 13.6 |
| 3 | 4 | 31 | Manufacturing | 11.0 | 9.7 | 40.2 | 36.2 |
| 4 | 3 | 72 | Accommodation and Food Services | 9.6 | 10.1 | 18.3 | 17.6 |
| 5 | 5 | 56 | Administrative and Support and Waste Management and Remediation Services | 8.3 | 8.0 | 26.0 | 23.5 |
| 6 | 6 | 54 | Professional, Scientific and Technical Services | 6.8 | 7.0 | 9.4 | 9.2 |
| 7 | 9 | 23 | Construction | 6.0 | 4.8 | 9.0 | 7.9 |
| 8 | 7 | 52 | Finance and Insurance | 5.4 | 5.3 | 12.9 | 12.5 |
| 9 | 8 | 42 | Wholesale Trade | 4.9 | 5.0 | 13.7 | 13.5 |
| 10 | 10 | 81 | Other Services (except Public Administration) | 4.6 | 4.6 | 7.4 | 7.2 |
| Top 10 | | | | 83.7 | 83.4 | 15.2 | 14.7 |
| Total 2-digit | | | | 100.0 | 100.0 | 15.7 | 15.1 |
| | | | | 2007 Employment | 2010 Employment | 2007 Establishments | 2010 Establishments |
| Totals | | | | 120,604,265 | 111,970,095 | 7,705,018 | 7,396,628 |

SOURCES: U.S. Census Bureau's County Business Patterns 2007 and 2010, 2007 NAICS.

NOTE: In the case of missing employment data, values were imputed. Components may not add to totals due to imputation and rounding. NAICS stands for North American Industry Classification System.

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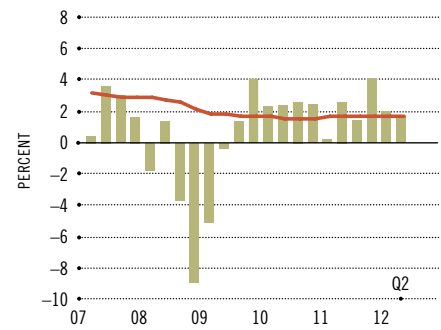
in the share of services employment. Over this period, about 75 percent of counties also experienced a decline in average manufacturing establishment size, with an average decline of about eight employees per establishment across all counties. In contrast, fewer than 25 percent of counties experienced a decline in average service establishment size, but across all counties, the change in the number of employees per establishment was essentially zero on average. ■

Rubén Hernández-Murillo is an economist and Elise Marifian is a research analyst, both at the Federal Reserve Bank of St. Louis. For more on Hernández-Murillo's work, see <http://research.stlouisfed.org/econ/hernandez/>

ECONOMY AT A GLANCE

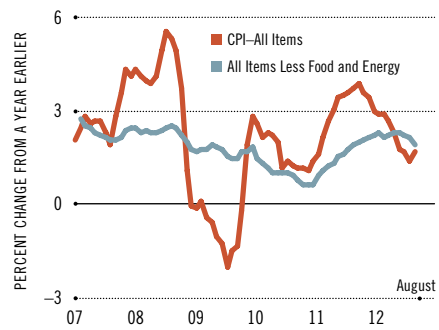
Eleven more charts are available on the web version of this issue. Among the areas they cover are agriculture, commercial banking, housing permits, income and jobs. Much of the data is specific to the Eighth District. To see these charts, go to stlouisfed.org/economyataglance

REAL GDP GROWTH

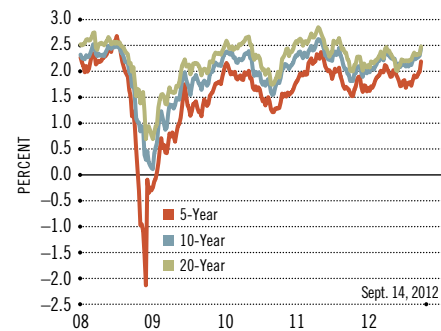


NOTE: Each bar is a one-quarter growth rate (annualized); the red line is the 10-year growth rate.

CONSUMER PRICE INDEX

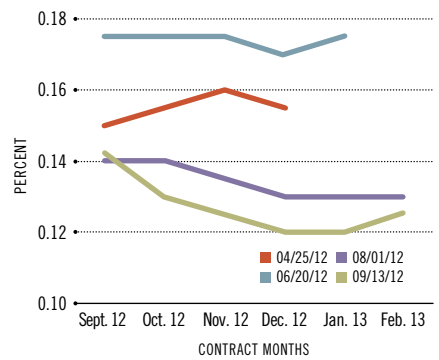


INFLATION-INDEXED TREASURY YIELD SPREADS

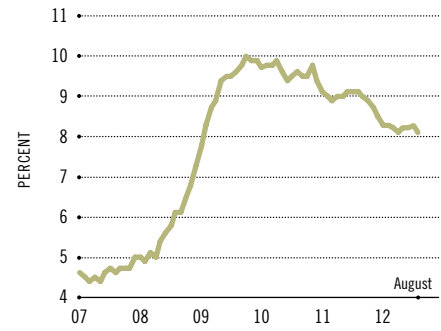


NOTE: Weekly data.

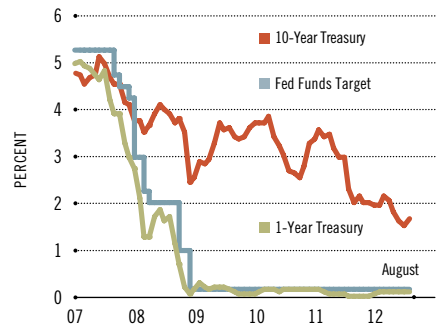
RATES ON FEDERAL FUNDS FUTURES ON SELECTED DATES



CIVILIAN UNEMPLOYMENT RATE

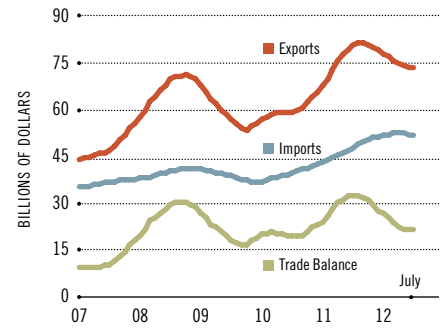


INTEREST RATES



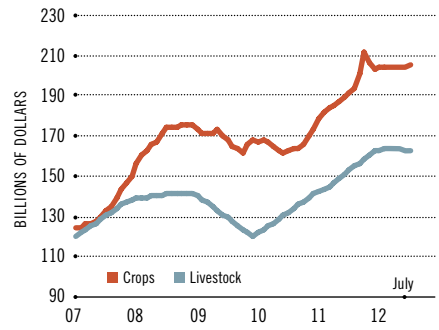
NOTE: On Dec. 16, 2008, the FOMC set a target range for the federal funds rate of 0 to 0.25 percent. The observations plotted since then are the midpoint of the range (0.125 percent).

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.

ENDNOTES

¹ The Eighth Federal Reserve District contains the entire state of Arkansas, as well as parts of six other states: Illinois, Indiana, Kentucky, Mississippi, Missouri and Tennessee.

² The U.S. Census Bureau defines an establishment as: "a single physical location at which business is conducted or services or industrial operations are performed. It is not necessarily identical with a company or enterprise, which may consist of one or more establishments. When two or more activities are carried on at a single location under a single ownership, all activities generally are grouped together as a single establishment. The entire establishment is classified on the basis of its major activity, and all data are included in that classification. Establishment counts represent the number of locations with paid employees any time during the year."

³ The data are paid employees for March 2007 and March 2010.

⁴ The District data are obtained by aggregating county data. The county employment totals for two- and, especially, three-digit industries are often suppressed to prevent identity disclosures, but the establishment counts by size class are always provided. In the case of data suppression, the employment totals were imputed using the establishment data.

⁵ For more details, see www.census.gov/eos/www/naics/

⁶ Total employment computed in the County Business Patterns data may differ from the more commonly known payroll employment numbers from the Current Employment Statistics provided by the Bureau of Labor Statistics.

⁷ We define the services sector as the sum of industries with NAICS codes 42 to 81.

COMMUNITY PROFILE



PHOTO BY SUSAN C. THOMSON

Kentucky Town Seeks To Build On Bourbon and "Most Beautiful" Titles

By Susan C. Thomson

The self-proclaimed "Bourbon Capital of the World" just gained a new claim to fame. In July, Rand McNally and *USA Today* proclaimed Bardstown, Ky., the "Most Beautiful Small Town in America."

A yards-wide banner to that effect hangs on the city's dominant building—the red-brick, Victorian visitors center, which was once the courthouse for Nelson County. The visitors center looks out on a downtown that is vibrant with popular shops and eateries—a pretty vista, made all the more so by new landscaping, crosswalks, sidewalks, benches and lamps. Federal stimulus funds paid the lion's share of the \$3 million cost.

The scene is the postcard-worthy centerpiece of a 26-square-block district on the National Register of Historic Places. Its 279 commercial and residential properties, some dating to the late 18th century, are impeccably kept, thanks to strict local regulations.

A mile or so beyond stands an architectural treasure all its own, My Old Kentucky

Home, where Stephen Foster supposedly wrote the song of that title in 1852. The restored Federal-style mansion anchors My Old Kentucky Home State Park, 235 manicured acres where a musical celebrating the composer's life and music plays five nights a week during the summer.

For packing in the crowds, though, nothing in Bardstown beats its annual bourbon festival, held for six days each September. Bourbon-themed games, demonstrations, tastings and other activities typically draw 50,000 people from 30-some states and about a dozen foreign countries, says Dawn Przystal, vice president for tourism marketing and expansion with the Bardstown-Nelson County Tourist and Convention Commission.

The festival celebrates the whiskey that is synonymous with its native state, which the Kentucky Distillers Association says still accounts for 95 percent of the world's production of bourbon. U.S. output rose 17.5



Bardstown/Nelson County, Ky. by the numbers

| | CITY | COUNTY |
|----------------------------|--------|-------------|
| Population | 11,839 | 43,974* |
| Labor Force | NA | 21,542** |
| Unemployment Rate | NA | 8.7%** |
| Per Capita Personal Income | NA | \$31,677*** |

* U.S. Census Bureau, 2011 estimate.
** BLS/Haver, July 2012, seasonally adjusted.
*** BEA/Haver, 2010.

LARGEST EMPLOYERS

| | |
|-------------------------------|---------|
| Nelson County School District | 665 † |
| Tower Automotive | 550 †† |
| American Greetings Corp. | 531 ††† |
| American Fuji Seal Inc. | 500 ††† |
| Heaven Hill Distilleries Inc. | 420 †† |
| Flaget Memorial Hospital | 340 † |

† Self-reported in full-time equivalents
†† Self-reported
††† SOURCE: Nelson County Economic Development Agency



PHOTO BY SUSAN C. THOMSON



PHOTO COURTESY OF FLOWERS FOODS INC.

Above, Bardstown's visitors center houses the local economic development and tourism organizations and Chamber of Commerce. The three agencies cooperate with one another to advance the area and are highlighting the "most beautiful" award in their current promotions.

Below, Terry Young, production technician at Flowers Baking Co., checks the quality of hamburger buns as they come out of the oven. The bakery can produce up to 72,000 buns an hour.

percent from 2002 to 2010, according to the Distilled Spirits Council of the United States.

Kentucky's 20 or so distilleries are booming. Of these, Bardstown is home to four, all of which have expanded capacity or built new visitors centers in the past several years, says Frank Wilson, chief executive of Bardstown's Wilson & Muir Bank & Trust Co. In doing so, the distilleries have been "keeping contractors busy" during a down time for home building, Wilson says.

Heaven Hill, Bardstown's largest distillery, added two bottling lines and built two of its 42 Nelson County warehouses in the past two years. Lynne Grant, director of guest services, says the company is on track to welcome 100,000 visitors to its exhibits, tastings and tours this year.

Przystal credits "bourbon tourism" for several years of increases in overall tourism. Last year, for instance, visitors spent \$48.7 million in Nelson County, 9.2 percent more than in 2010, according to the Kentucky Department of Travel and Tourism.

Bardstown, a 45-minute drive south of Louisville by interstate, used to be tobacco and dairy country. But agriculture has gradually given way to manufacturing, which Wilson says now accounts for 26 percent of county jobs. He counts 1,000 distillery employees in that category, which also includes about 1,200 workers in the county's auto parts industry.

The auto parts industry here consists of six companies, five of them Japanese-owned and four of those new to town since 1988, when Toyota opened its first U.S. plant 65 miles away in Georgetown, Ky. Bardstown is also home to two other Japanese companies, both making packaging products. In having seven Japanese companies, Bardstown is hardly unusual in a state that boasts more than 150 of these.

Wilson says he worries about the economic risks inherent in Bardstown's dependence on bourbon and auto parts. His concern was borne out in 2008 when one parts maker, a joint U.S.-Japanese venture, folded and put 150 people out of work. Kim Huston, president of the Nelson County Economic Development Agency, says there were layoffs in the remaining auto companies, the result of recession and the subsequent supply-disrupting tsunami in Japan. Through it all, however, American Greetings remained "a solid presence in Bardstown with only

seasonal layoffs each year," despite competition from electronic greeting cards, she adds.

As Nelson County's unemployment rate was spiking at 15.1 percent in February 2010, two promising job-creating enterprises new to town the year before were gearing up. One was call-center operator Sykes Enterprises of Tampa, Fla., which opened a unit in shopping-center space vacated by a supermarket. The other was Flowers Baking Co., a unit of Flowers Foods Inc. of Thomasville, Ga.

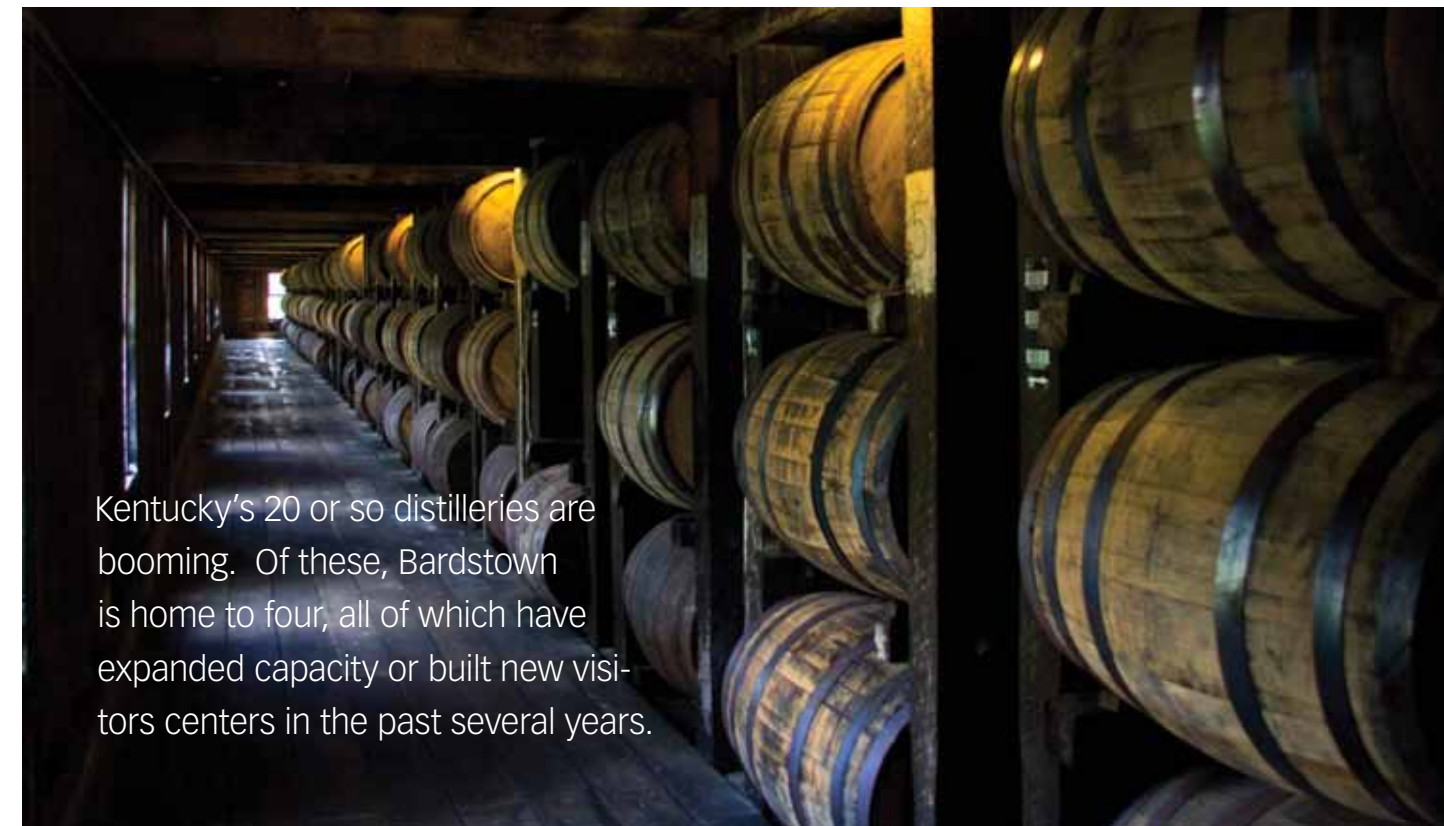
Because Sykes was leasing space, it was ineligible for state or local incentives. Flowers, by contrast, qualified for \$2.4 million in state tax incentives tied to job creation plus an improved plot in a new county industrial park and five years of local property tax rebates. Billy Donaldson, manager of the \$57 million, 200,000-square-foot facility, says the expanding parent company chose Kentucky for its generous incentives and Bardstown in particular for its "comfortable" small-town feeling. With its every function from ingredient storage to shipping automated to the extent possible, this is "the most state-of-the-art bakery in the United States," he says. It makes bread at a rate of 10,000 loaves an hour and also makes fast work of the hot dog and hamburger buns it bakes.

As Sykes and Flowers were creating about 450 jobs combined and were bringing welcome economic diversification to Bardstown and Nelson County, the local auto parts industry was bounding back, most obviously at Tower Automotive.

Tower is the area's largest and only U.S.-based parts maker. It turns out structural steel components for the U.S. plants of several foreign automakers, chiefly Toyota.

During a Chapter 11 bankruptcy, finished in 2007, parent Tower International of Livonia, Mich., closed 11 of its North American manufacturing sites. The 329,000-square-foot Bardstown plant was one of the 12 survivors; it also gained some of the work from the shuttered locations. Although sales were off 20 percent during the downturn, they have the potential to increase 20 percent over the next couple of years, plant manager Shawn Callahan says. In addition to its regular work, the plant is taking a small, tentative step into the manufacturing of components for solar mirror systems.

Huston counts Tower among the "four to five companies" that, at any given time, have been



Kentucky's 20 or so distilleries are booming. Of these, Bardstown is home to four, all of which have expanded capacity or built new visitors centers in the past several years.

hiring in recent months. Others have included Sykes, Heaven Hill and American Fuji Seal.

In June 2012, the state of Kentucky approved American Fuji Seal for up to \$1.5 million in tax credits. These are linked to a plan for a \$10 million expansion that has the potential of creating 45 jobs. The plant, which makes labels for consumer products, is the North American headquarters for its Japanese owner.

The county's two largest nonprofit employers have spent even greater sums of late on building projects. The Nelson County School District opened a \$26 million high school this past summer, the latest of a total of \$45-\$50 million worth of renovations and new construction done in the past five years.

Fifty-two-bed Flaget Memorial Hospital moved into a new \$38 million facility in 2005 and added a medical office building to the premises two years later. The hospital plans to break ground late this fall on a second, \$7.2 million satellite building, which will include physician offices and new medical services.

Nelson County's unemployment rate has tumbled steeply this past year to a level more in line with the nation's. Now, says Mayor Bill Sheckles, "Most of the people who want to work are working."

Above, bourbon ages for two to three years in oak barrels in one of Heaven Hill Distilleries' 42 warehouses in Nelson County. The whiskey is riding a wave of popularity, and the company is one of the county's leading employers.

Right, at Tower Automotive employees Rosemary May (left) and Annie Skaggs inspect stamped components for a Nissan Altima door. The plant, Bardstown's largest, has bounced back from a slump in U.S. auto production and is on track to increase sales by an estimated 20 percent over the next two or so years.



PHOTOS BY SUSAN C. THOMSON

He likes what he sees in his hometown—a place, he says, where even the public housing is attractive. Still, he doesn't envision Bardstown resting on its current bourbon-and-beauty laurels.

He's not alone in lamenting that the city has just 14 bed and breakfasts and 10 motels and hotels, only two of them newer with interior corridors. Bardstown's greatest need now is a "convention-type hotel" with about 100 guest rooms plus meeting rooms and perhaps a full-service restaurant, Sheckles says. "That's the one thing that's lacking in this community." ■

Susan C. Thomson is a freelance writer and photographer.

Read More about Bardstown's New Claim to Fame

Find out how Bardstown prepared to take advantage of being named "Most Beautiful Small Town in America" and what it expects to net from its marketing efforts. Go online to www.stlouisfed.org/re to read this part of the town's story.



Household Financial Stress Declines in the Eighth District

By Yang Liu and Rajdeep Sengupta

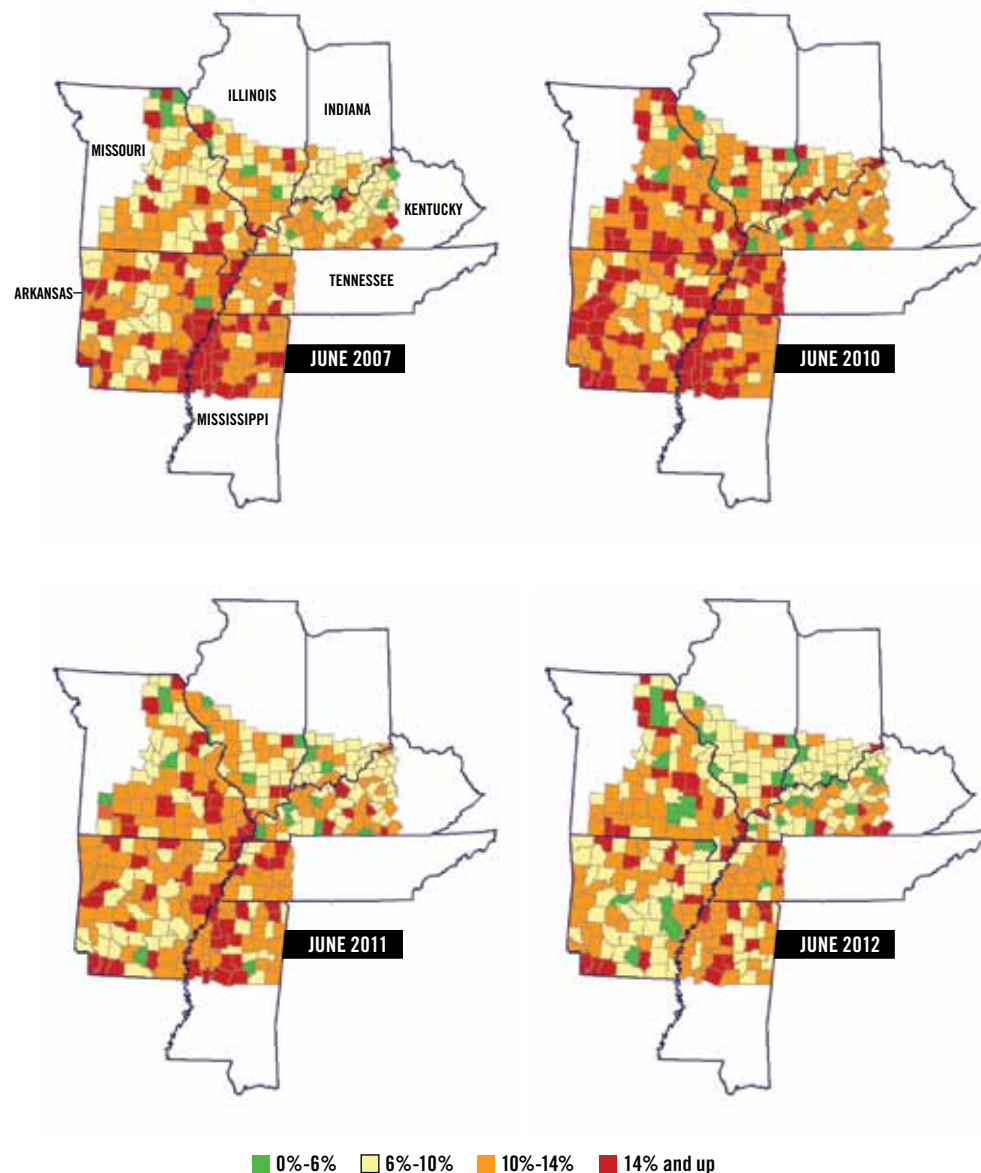


Recent data on consumer debt—particularly credit card loans, consumer finance loans and retail loans—suggest that more households in the Eighth Federal Reserve District are paying their debts on time. A measure of financial stress that is typically used in the consumer debt segment is the portion of consumer debt balance that is delinquent for at least 90 days, also known as the serious delinquency (SD) rate. In June 2012, this rate in the District fell to 9.94 percent, moderately lower than the 11.97 percent national average. Moreover, the District’s rate not only recovered from its peak of 12.29 percent in March 2010, but also dropped below its prerecession level of 10.18 percent in June 2007.

Figure 1 shows how the delinquency rates across states in the District have witnessed a recovery.¹ In 2007, Mississippi had the highest SD rate—13.58 percent. This rate dropped to 13.31 percent in June 2010 and dropped further to 10.75 percent in June 2012. The SD rate for Tennessee was 12.28 percent in 2007; it rose to 14.14 percent in June 2010, the highest among District states then. Although the SD rate in Tennessee recovered to 12.09 percent as of June 2012, it remains the highest among the District’s states.

The SD rates for Arkansas, Illinois and Kentucky have also recovered; the rates currently are 9.63, 8.77 and 8.82 percent, respectively—below both their June 2010 and prerecession levels. In contrast, SD rates in Indiana and Missouri remain above their prerecession levels, although they are lower than their June 2010 peaks. They are currently at 8.58 percent and 10.44 percent, respectively.

FIGURE 1
Evolution of the Serious Delinquency (SD) Rate



SOURCE: Federal Reserve Bank of New York Consumer Credit Panel/Equifax.
 NOTE: “Serious delinquency” refers to consumer debt that is at least 90 days past due.

Personal Bankruptcies

Trends in nonbusiness bankruptcy filings offer another indicator of financial stress for consumers. The most common forms of nonbusiness bankruptcy filings are either under Chapter 7 (straight liquidation) or under Chapter 13 (repayment plan) of the U.S. Bankruptcy Code. A Chapter 7 bankruptcy results in the liquidation of a debtor’s nonexempt assets and the elimination of any unsecured debt, thus giving the debtor a fresh start. In contrast, a Chapter 13 bankruptcy offers a repayment plan and conditionally protects the debtor’s properties. Such a petitioner can only become debt-free after fulfilling the terms and conditions set out in the repayment plan. (This usually involves repayment of a portion of the original debt within 3-5 years.)

During the late 1990s and early 2000s, bankruptcy filings under Chapter 7 witnessed a sharp increase, prompting creditors to lobby Congress for legal changes.² Under the new Bankruptcy Abuse Prevention and Consumer Protection Act of 2005, petitioners filing under Chapter 7 are required to (i) have monthly income less than or equal to the applicable state median income; or (ii) pass a means test.³ A debtor who does not qualify is still eligible to file under Chapter 13. Moreover, some debtors who initially declare bankruptcy under Chapter 13 can become eligible to file under Chapter 7 at a later date if their financial situation worsens.

Since factors such as state median income, local cost of living, family size and individual characteristics all affect the bankruptcy eligibility, the bankruptcy filings per capita vary across the metropolitan statistical areas (MSAs) of the Eighth District. Bankruptcy filing rates (per 1,000 people) under Chapter 7 and 13 for selected MSAs in the Eighth District are given in the table. The Texarkana, Pine Bluff, Jackson and Jefferson City MSAs had the lowest Chapter 7 bankruptcy rates in 2011: below 2.5. Jonesboro with 7.75 and St. Louis, Bowling Green and Evansville with about four bankruptcies per 1,000 people were the MSAs with the highest Chapter 7 filing rates last year. Among other major District MSAs, Little Rock had 2.72, Louisville had 3.65 and Memphis had 3.49 Chapter 7 bankruptcies per 1,000 people. Out of a total of 19 MSAs in the Eighth District, the Chapter 7 bankruptcy rate last

year in 14 MSAs had dropped from the 2010 levels but remained above the prerecession (2007) levels.

For Chapter 13 filings, the Owensboro, Bowling Green, Springfield and Columbia MSAs had the lowest rates in 2011. They all had one or fewer filings per 1,000 people. On the other hand, Little Rock, Jackson, Pine Bluff and Memphis were among the MSAs with the highest Chapter 13 filing rates, those being 3.40, 5.49, 6.39 and 8.41 per 1,000 people. Among other major District MSAs, filings in Louisville and St. Louis totaled 2.04 and 1.76 per 1,000 people, respectively, last year. In 12 out of the 19 District MSAs, the Chapter 13 bankruptcy filings last year dropped below the prerecession levels.

TABLE 1
Bankruptcy Filings in Eighth District Metropolitan Areas

| | Chapter 7 filings per 1,000 people | | | Chapter 13 filings per 1,000 people | | | |
|---------------------------|------------------------------------|-------|------|-------------------------------------|------|------|------|
| | 2007 | 2010 | 2011 | 2007 | 2010 | 2011 | |
| MSAs with lowest filings | | | | | | | |
| Texarkana, Ark. | 1.87 | 2.16 | 1.90 | Owensboro, Ky. | 0.71 | 0.76 | 0.57 |
| Pine Bluff, Ark. | 2.61 | 2.49 | 2.12 | Bowling Green, Ky. | 0.87 | 0.74 | 0.71 |
| Jackson, Tenn. | 2.07 | 2.92 | 2.48 | Springfield, Mo. | 0.79 | 1.18 | 0.87 |
| Jefferson City, Mo. | 2.66 | 2.90 | 2.49 | Columbia, Mo. | 1.14 | 1.46 | 1.00 |
| MSAs with highest filings | | | | | | | |
| St. Louis | 2.16 | 4.20 | 3.88 | Little Rock | 2.81 | 3.59 | 3.40 |
| Bowling Green, Ky. | 3.37 | 3.81 | 3.93 | Jackson, Tenn. | 6.65 | 6.14 | 5.49 |
| Evansville, Ind. | 3.22 | 4.48 | 4.03 | Pine Bluff, Ark. | 6.24 | 6.65 | 6.39 |
| Jonesboro, Ark. | 6.76 | 10.08 | 7.75 | Memphis | 9.00 | 8.45 | 8.41 |
| Largest four MSAs | | | | | | | |
| Little Rock | 2.22 | 3.00 | 2.72 | Little Rock | 2.81 | 3.59 | 3.40 |
| Louisville | 2.82 | 3.89 | 3.65 | Louisville | 1.87 | 2.35 | 2.04 |
| Memphis | 2.50 | 3.96 | 3.49 | Memphis | 9.00 | 8.45 | 8.41 |
| St. Louis | 2.16 | 4.20 | 3.88 | St. Louis | 1.82 | 2.05 | 1.76 |

SOURCE: Administrative Office of the U.S. Courts/Haver Analytics.

Interestingly, the Pine Bluff and Jackson MSAs are among the MSAs with the highest filing rates under Chapter 13 but also among MSAs with the lowest filing rates under Chapter 7. While the overall bankruptcies for these two MSAs are more or less in line with District-wide rates, their composition is widely different. It is possible that filings under Chapter 13 are high because most households declaring bankruptcies in these MSAs do not qualify to file under Chapter 7 under the new law. Similarly, Memphis had a Chapter 13 filing rate of 8.41 per 1,000 people last year but its Chapter 7 filing rate was only 3.49 then. On the other hand, the

ENDNOTES

- All data on states and metropolitan statistical areas (MSAs) here refer to the portions that lie within the Eighth District.
- See White.
- A means test determines whether the debtor can repay a portion of the unsecured debt defaulted upon with his or her current monthly income (less a set of allowed deductions stipulated by the IRS). If the debtor is unable to repay, he or she is deemed to have passed the means test.

REFERENCE

White, Michelle J. “Bankruptcy Reform and Credit Cards.” *Journal of Economic Perspectives*, Vol. 21, No. 4, 2007, pp. 175–200.

Bowling Green MSA had a high Chapter 7 filing rate but a low Chapter 13 filing rate—possibly because most residents are eligible under the new law.

Overall, despite the slow recovery nationwide, bankruptcy filing rates for most of the MSAs in the Eighth District are on the decline.

Rajdeep Sengupta is an economist and Yang Liu is a senior research associate, both at the Federal Reserve Bank of St. Louis. For more on Sengupta’s work, see <http://research.stlouisfed.org/econ/sengupta/>

Economy Still Growing albeit at a Tepid Pace

By Kevin L. Kliesen

The U.S. economy continued to grow in the second quarter of 2012, but its growth remained lackluster. After increasing at a 2 percent annual rate in the first quarter, real (inflation-adjusted) GDP rose at an anemic 1.7 percent rate in the second. This slowdown affected labor markets. In the second quarter, job growth slowed considerably, and the unemployment rate began to inch upward after falling to a three-year low of 8.1 percent in April. But there are pockets of good news. Housing is on the mend, stock prices are rising, employment gains in July and August are tracking above their second-quarter average, and inflation is easing. On net, though, forecasters generally expect relatively weak real GDP growth and a stubbornly high unemployment rate to persist for the remainder of this year and into most of next year.

Reading the Tea Leaves

When attempting to gauge the direction of the economy over the next few quarters, economists often perform three assessments. First, is the economy's momentum slowing or accelerating? Second, how are current developments affecting this momentum, and how long might they persist? Finally, what are the risks to the outlook, that is, what could happen to produce either faster- or slower-than-expected growth or inflation?

Based on this exercise, what is the near-term outlook for the economy?

Slo-mo

The economy's momentum has been fairly weak during this expansion. Since the beginning of the recovery in the third quarter of 2009, real GDP growth has averaged about 2.25 percent per quarter. The current expansion is the weakest during the post-World War II period. This performance is perhaps even more remarkable given the ultra-expansionary monetary and fiscal

policies enacted over the past few years.

Extended periods of weakness raise questions about the economy's underlying growth. In response, businesses can become more reluctant to expand operations. Similarly, consumers become more cautious—a product of weak growth of real incomes and elevated uncertainty about future job prospects. A myriad of other effects occur. Loan demand becomes sluggish, and banks worry more about the creditworthiness of borrowers. Finally, government expenditures on income-transfer payments remain elevated and tax revenue lags, exacerbating government finances. Eventually, though, the economy will return to its natural (or underlying) rate of growth.¹

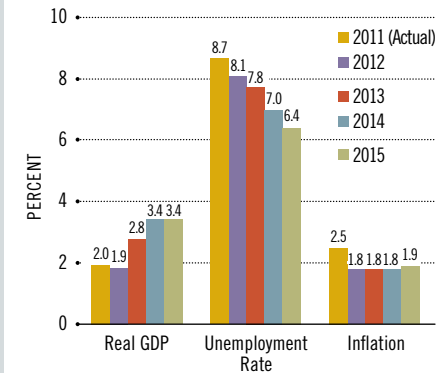
Recent Developments

Ongoing developments in the economy can keep the economy growing either above or below its underlying trend. Over the past two years, Europe's sovereign debt crisis and, more recently, a sluggish Chinese economy have triggered considerable volatility in U.S. and global stock markets and have tempered the outlook for the global economy. Rising crude oil prices from 2009 to early 2012 have also been a drag on growth. More recently, as noted in minutes of meetings of the Federal Open Market Committee (FOMC), uncertainty about future tax and regulatory policies may have also caused businesses to delay investment projects.

Despite these hiccups, there are parts of the economy that look decent. First, manufacturing growth has been relatively strong during this expansion—particularly in the Midwest. Second, exceptionally low interest rates and a modest upward drift in home prices have pushed many buyers off the fence. In September 2012, homebuilder confidence was at its highest level in more than six years. Finally, inflation pressures have eased over the past few months because of the sharp drop in crude oil prices from early May to late June. They have since rebounded modestly.

The retreat of inflation was a silver lining of the recent slowing in the U.S. and global economy. From July 2011 to July 2012, the Consumer Price Index increased by only 1.4 percent. Although faster U.S. and global growth will likely begin to put upward pressure on oil prices and, thus, inflation,

FOMC Sept. 2012 Economic Projections for 2012-2015



NOTE: Projections are the midpoints of the central tendencies. The unemployment rate is the average for the fourth quarter of the year indicated.

forecasters still generally see inflation coming in about 2 percent in 2013.

Risks to the Outlook

Forecasters regularly attempt to identify threats to their forecasts. In the current environment, a few come to mind. The first is if the European crisis drags on or worsens. A second risk is the possibility of a huge tax increase on Jan. 1, 2013; this would occur if numerous tax cuts are allowed to expire Dec. 31, 2012. Some forecasters believe that this would trigger a U.S. recession in 2013. A third risk concerns the possibility of higher food price inflation because of the U.S. drought. Finally, an opposite risk is that the economy begins to accelerate rapidly. While welcome, this might lead to a rise in inflation and inflation expectations because of the extremely large amount of monetary stimulus currently in place. Of course, the FOMC would be expected to prevent such an outcome by normalizing the stance of monetary policy in a timely fashion. [Q](#)

Kevin L. Kliesen is an economist at the Federal Reserve Bank of St. Louis. See <http://research.stlouisfed.org/econ/kliesen/> for more on his work.

ENDNOTE

¹ An online-only article accompanying this issue describes the economy's growth process in more detail and offers some explanation for the economy's relatively weak growth during the current expansion. See www.stlouisfed.org/publications/re

ASK AN ECONOMIST

David Andolfatto is an economist and vice president in the Research division. He joined the St. Louis Fed in 2009 after teaching economics at Simon Fraser University in Vancouver and at other universities in Canada. He has been a visiting scholar in such varied places as Tehran, Budapest, Tokyo, Bogota and Cleveland. His areas of interest at work include macroeconomics, labor markets and monetary theory. In his spare time, he punishes his body with insanity workouts and soccer scrimmages. For more on his work, see <http://research.stlouisfed.org/econ/andolfatto/>



Q. Why doesn't the U.S. return to the gold standard so that the Fed can't "create money out of thin air"?

A. The phrase "create money out of thin air" refers to the Fed's ability to create money at virtually zero resource cost. It is frequently asserted that such an ability necessarily leads to "too much" price inflation. Under a gold standard, the temptation to overinflate is allegedly absent, that is, gold cannot be "created out of thin air." It would follow that a return to a gold standard would be the only way to guarantee price-level stability.

Unfortunately, a gold standard is not a guarantee of price stability. It is simply a promise made "out of thin air" to keep the supply of money anchored to the supply of gold. To consider how tenuous such a promise can be, consider the following example. On April 5, 1933, President Franklin D. Roosevelt ordered all gold coins and certificates of denominations in excess of \$100 turned in for other money by May 1 at a set price of \$20.67 per ounce. Two months later, a joint resolution of Congress abrogated the gold clauses in many public and private obligations that required the debtor to repay the creditor in gold dollars of the same weight and fineness as those borrowed. In 1934, the government price of gold was increased to \$35 per ounce, effectively increasing the dollar value of gold on the Federal Reserve's balance sheet by almost 70 percent. This action allowed the Federal Reserve to increase the money supply by a corresponding amount and, subsequently, led to significant price inflation.

This historical example demonstrates that the gold standard is no guarantee of price stability. Moreover, the fact that price inflation in the U.S. has remained low and stable over the past 30 years demonstrates that the gold standard is not necessary for price stability. Price stability evidently depends less on whether money is "created out of thin air" and more on the credibility of the monetary authority to manage the economy's money supply in a responsible manner.

Submit your question in a letter to the editor. Do so online at www.stlouisfed.org/re/letter or mail it to Subhayu Bandyopadhyay, editor, *The Regional Economist*, Federal Reserve Bank of St. Louis, Box 442, St. Louis, MO 63166.

LETTER TO THE EDITOR

This is in response to the "Ask an Economist" column in the July issue of *The Regional Economist*. The question was: Is the large and persistent U.S. trade deficit a concern? The question was answered by St. Louis Fed economist YiLi Chien.

Dear Editor:

Apparently, YiLi Chien's greater interest and concern are for banking rather than wage-earning households. USA's global trade deficit has a leveraged effect upon our GDP. Trade deficits are detrimental to the GDP and the median wage. The net effect of a nation's global trade products is reflected within the nation's total GDP, but prices of individual products are dependent upon the products' producers' costs. Producers often receive reduced cost production support from nonprofit entities. Governments often facilitate infrastructure and police security for producers at reduced-costs. Similarly, universities often provide research for individual producers or their entire industries at reduced costs. (The sum of net costs to both the producers of goods and the nonprofit entities is fully reflected within the producing nations' GDPs.) The total value, rather than the understated value of USA's trade deficit, fully benefited the exporting nations rather than the USA. All economic differences between domestic and imported goods occur prior to the goods reaching a domestic producer's shipping platform or a USA port of entry. New Zealand lambs were nurtured, butchered, packed and shipped from New Zealand. USA's purchasers helped pay New Zealand's taxes, their roads, their schools, their veterinarian colleges' research and development programs and many other of their enterprises' overhead expenses. We contributed to their knowledge and experience because they (not us) were employed to perform all of those tasks. Today, we don't produce goods; tomorrow, we'll be unable to produce goods? Refer to: www.USA-Trade-Deficit.blogspot.com and http://en.wikipedia.org/wiki/Import_Certificates

Bernard Belitsky, retiree in Fort Lee, N.J.

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New Publication Focuses on Ag Credit

Agricultural Finance Monitor, a new online-only quarterly publication from the Federal Reserve Bank of St. Louis, addresses agricultural credit conditions in the Eighth Federal Reserve District. The publication is a result of the regular surveying of agricultural banks in the District. The article and tables in each issue feature the surveyed banks' takes on farm income and expenditures, land values, cash rents, lending conditions and more. The data are also broken down into the District's four zones, which are centered around St. Louis, Little Rock, Louisville and Memphis. The next issue comes out in early November. See <http://research.stlouisfed.org/publications/afm/>

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