

# Economic Trends

**April 2008**

(Covering March 13, 2008, to April 10, 2008)

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# February Price Statistics

03.25.08

Michael F. Bryan and Brent Meyer

## February Price Statistics

|                               | Percent change, last |                    |                    |        |                    | 2007 avg. |
|-------------------------------|----------------------|--------------------|--------------------|--------|--------------------|-----------|
|                               | 1 mo. <sup>a</sup>   | 3 mo. <sup>a</sup> | 6 mo. <sup>a</sup> | 12 mo. | 5 yr. <sup>a</sup> |           |
| <b>Consumer Price Index</b>   |                      |                    |                    |        |                    |           |
| All items                     | 0.3                  | 3.1                | 4.7                | 4.0    | 2.9                | 4.2       |
| Less food and energy          | 0.5                  | 2.3                | 2.5                | 2.3    | 2.1                | 2.4       |
| Median <sup>b</sup>           | 1.4                  | 3.0                | 3.2                | 3.0    | 2.6                | 3.1       |
| 16% trimmed mean <sup>b</sup> | 1.0                  | 2.7                | 3.0                | 2.8    | 2.4                | 2.8       |
| <b>Producer Price Index</b>   |                      |                    |                    |        |                    |           |
| Finished goods                | 4.2                  | 4.0                | 9.6                | 6.4    | 3.9                | 7.0       |
| Less food and energy          | 6.8                  | 4.8                | 3.2                | 2.4    | 1.9                | 2.1       |

a. Annualized.

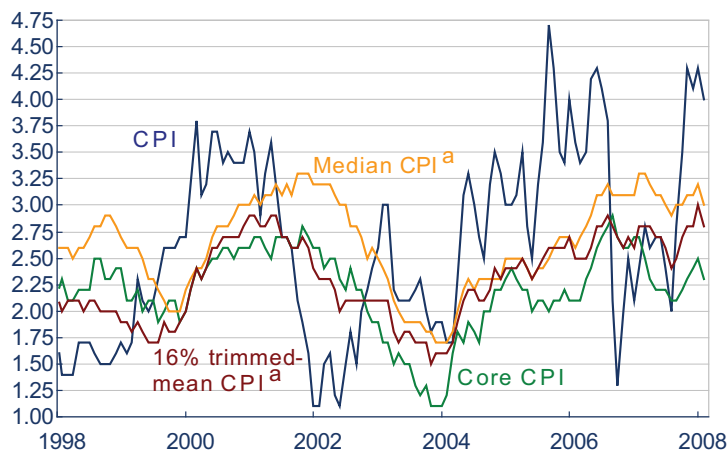
b. Calculated by the Federal Reserve Bank of Cleveland.

Sources: U.S. Department of Labor, Bureau of Labor Statistics; and Federal Reserve Bank of Cleveland.

The Consumer Price Index (CPI) was virtually unchanged from January, rising only 0.3 percent at an annualized rate in February. This moderation—from increases of 4.8 percent in January and 4.4 percent in December—resulted from a modest increase in food prices, which was offset by a decrease in energy prices, and a slowdown in price appreciation among all items less food and energy. The CPI excluding food and energy (core CPI) was flat, rising only 0.5 percent (at an annualized rate) during the month, compared to a 3.8 percent jump in January. The Median and 16 Percent Trimmed-Mean CPI measures rose 1.4 percent and 1.0 percent, respectively, in February. This stands in stark contrast to last month, when both measures of underlying inflation rose in excess of 4 percent. Producer prices remained elevated in February, as the Producer Price Index (PPI) for finished goods rose 4.2 percent and the PPI excluding food and energy surged 6.8 percent, outpacing all of its longer-term trends.

## CPI, Core CPI, and Trimmed-Mean CPI Measures

12-month percent change



a. Calculated by the Federal Reserve Bank of Cleveland.

Sources: U.S. Department of Labor, Bureau of Labor Statistics, and Federal Reserve Bank of Cleveland.

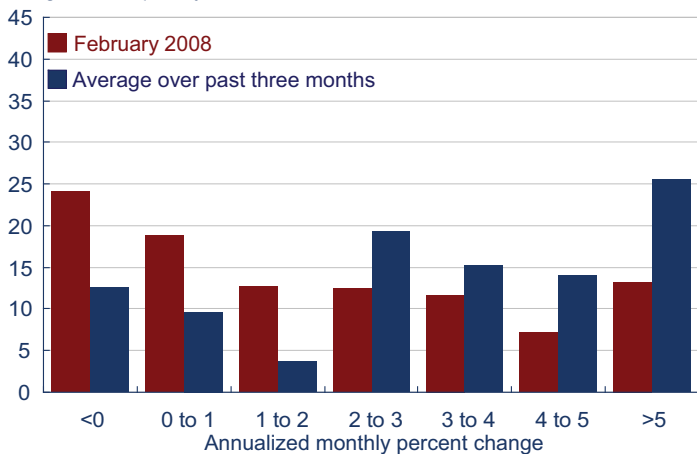
The 12-month growth rate in the CPI was 4.0 percent in February, down 0.3 percentage point from a month ago. The core CPI and trimmed-mean measures ticked down as well and are now ranging between 2.3 percent and 2.8 percent.

Over the past three months, nearly 55 percent of the components of the CPI rose in excess of 3.0 percent, compared to only 32 percent in February. Some relatively large components, such as lodging away from home and motor fuel prices, decreased during the month, after posting strong increases over the last quarter. However, components with strong responsiveness to commodity prices—like jewelry and watches—continued to show large price increases.

Core services prices rose just 1.0 percent in February, their smallest increase since May 2005. As a consequence, the 12-month growth rate in core services prices ticked down to 3.2 percent from

## CPI Component Price Change Distributions

Weighted Frequency



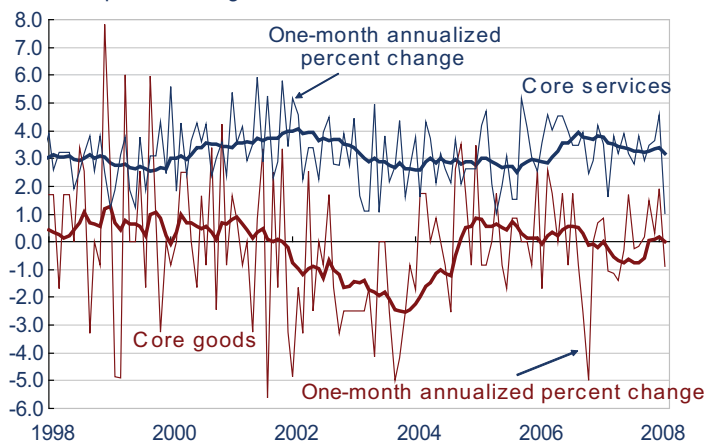
Sources: U.S. Department of Labor, Bureau of Labor Statistics.

3.4 percent in January. Core goods prices fell 0.9 percent during the month and have remained unchanged over the past 12 months.

According to the March preliminary Survey of Consumers (University of Michigan) near-term (one-year ahead) household inflation expectations jumped up from 3.9 percent in February to 4.6 percent. Expectations over the longer-term (5 to 10 years), however, actually ticked down to 3.3 percent.

## Core CPI Goods and Core CPI Services

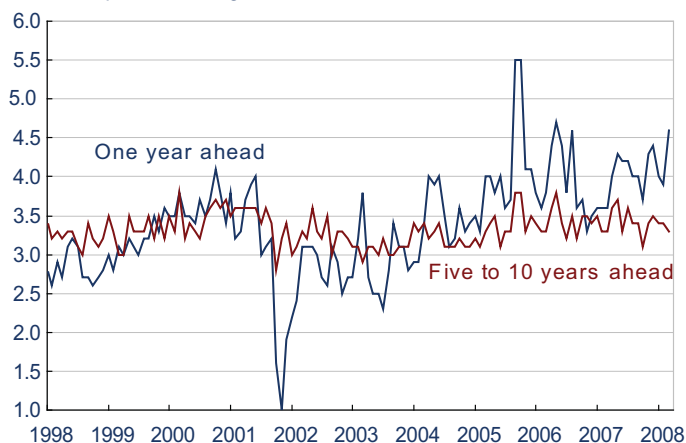
12-month percent change



Source: U.S. Department of Labor, Bureau of Labor Statistics.

## Household Inflation Expectations\*

12-month percent change



\*Mean expected change as measured by the University of Michigan's Survey of Consumers.

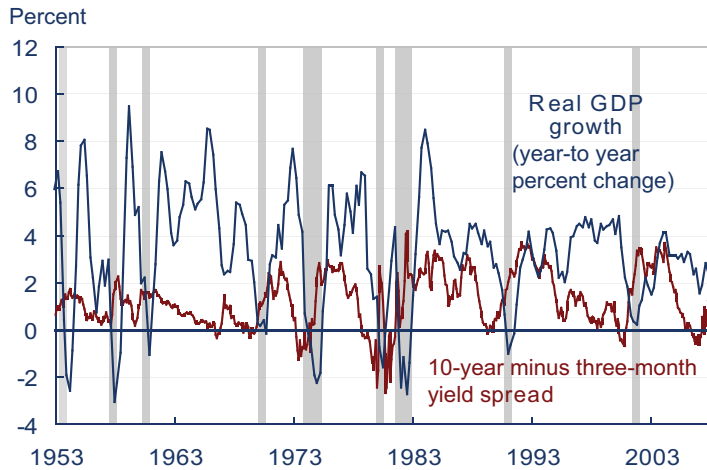
Sources: University of Michigan.

## What Is the Yield Curve Telling Us?

03.20.08

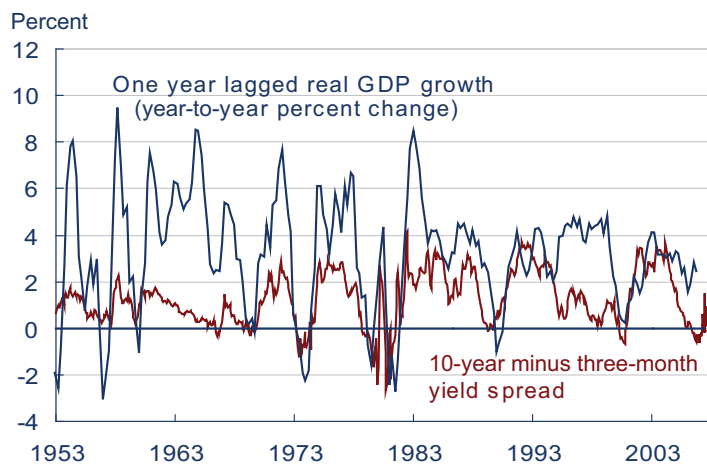
Joseph G. Haubrich and Katie Corcoran

### Yield Spread versus Real GDP Growth



Note: Shaded bars represent recessions.  
Sources: Bureau of Economic Analysis; Federal Reserve Board.

### Yield Spread versus One-Year-Lagged Real GDP Growth



Sources: Bureau of Economic Analysis; Federal Reserve Board.

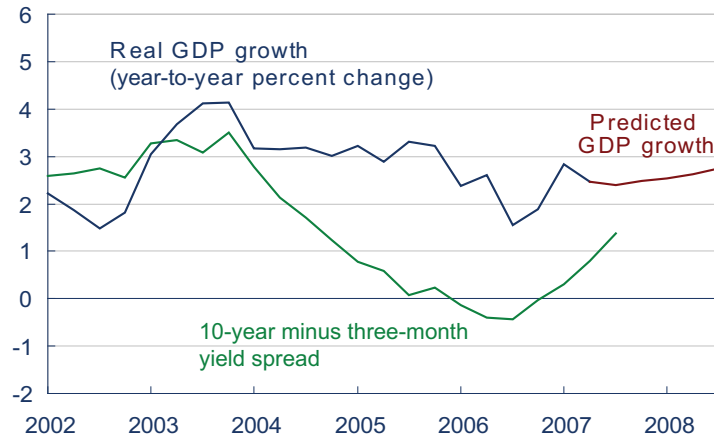
Since last month, the yield curve has gotten steeper, with long-term interest rates rising and short-term interest rates falling. One reason for noting this is that the slope of the yield curve has achieved some notoriety as a simple forecaster of economic growth. The rule of thumb is that an inverted yield curve (short rates above long rates) indicates a recession in about a year, and yield curve inversions have preceded each of the last six recessions (as defined by the NBER). Very flat yield curves preceded the previous two, and there have been two notable false positives: an inversion in late 1966 and a very flat curve in late 1998. More generally, though, a flat curve indicates weak growth, and conversely, a steep curve indicates strong growth. One measure of slope, the spread between 10-year bonds and 3-month Treasury bills, bears out this relation, particularly when real GDP growth is lagged a year to line up growth with the spread that predicts it.

The yield curve has continued to get steeper, with a slight drop in long rates overshadowed by the plunge in short rates. The spread remains positive, with the 10-year rate moving down to 3.51 percent while the 3-month rate dropped all the way to 1.37 percent (both for the week ending March 14). Standing at 214 basis points, the spread is well above February's 144 basis points, and January's 127 basis points. Projecting forward using past values of the spread and GDP growth suggests that real GDP will grow at about a 2.7 percent rate over the next year. This is on the high side of other forecasts.

While such an approach predicts when growth is above or below average, it does not do so well in predicting the actual number, especially in the case of recessions. Thus, it is sometimes preferable to focus on using the yield curve to predict a discrete event: whether or not the economy is in recession. Looking at that relationship, the expected chance of the economy being in a recession next March stands at 2.7 percent, down from February's 3.7

## Yield Spread versus Predicted GDP Growth

Percent



Sources: Bureau of Economic Analysis; Federal Reserve Board.

percent, and from January's already low 4.8 percent.

This probability of recession is below several recent estimates, and perhaps seems strange in the midst of the recent financial concerns, but one aspect of those concerns has been a flight to quality, which lowers Treasury yields. Also related to those concerns is the reduction of the federal funds target rate and the discount rate by the Federal Reserve, which tends to steepen the yield curve. Furthermore, the forecast is for where the economy will be next March, not earlier in the year.

On the other hand, a year ago, the yield curve was predicting a 46 percent chance that the US economy would be in a recession in March 2008, a number that seemed unreasonably high at the time.

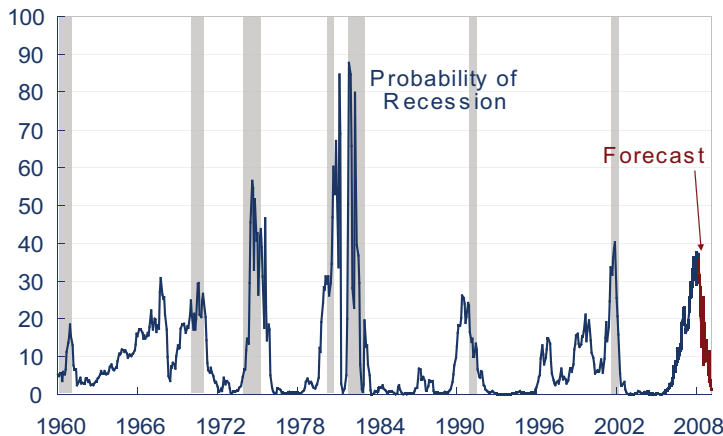
To compare the 2.7 percent probability of recession to some other probabilities and learn more about different techniques of predicting recessions, head on over to the Econbrowser blog.

Of course, it might not be advisable to take this number quite so literally, for two reasons. First, this probability is itself subject to error, as is the case with all statistical estimates. Second, other researchers have postulated that the underlying determinants of the yield spread today are materially different from the determinants that generated yield spreads during prior decades. Differences could arise from changes in international capital flows and inflation expectations, for example. The bottom line is that yield curves contain important information for business cycle analysis, but, like other indicators, they should be interpreted with caution.

For more detail on these and other issues related to using the yield curve to predict recessions, see the Commentary "Does the Yield Curve Signal Recession?"

## Probability of Recession Based on Yield Spread\*

Percent



\*Estimated using probit model

Note: Shaded bars represent recessions.

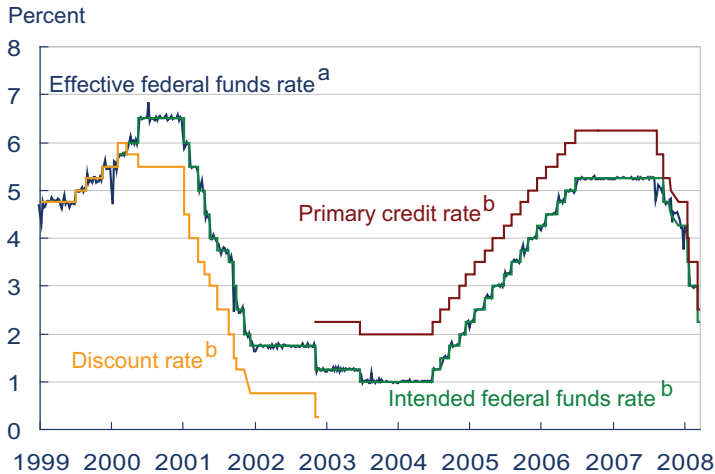
Sources: Bureau of Economic Analysis; Federal Reserve Board; and author's calculations.

## Down Another Seventy-Five

03.25.08

Charles T. Carlstrom and Sarah Wakefield

### Reserve Market Rates

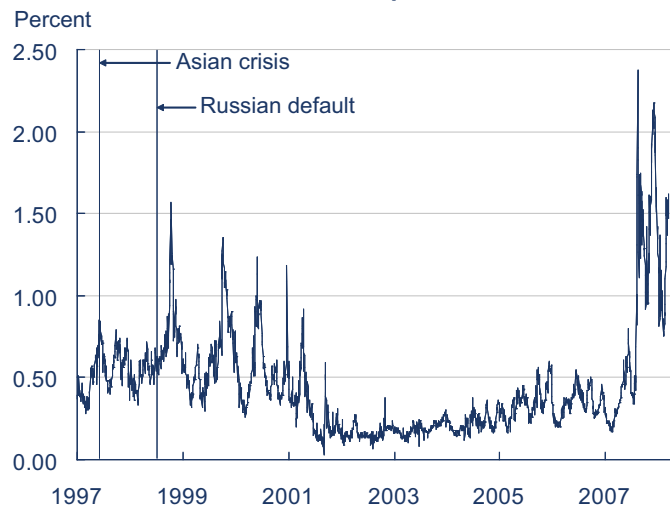


a. Weekly average of daily figures.

b. Daily observations.

Sources: Board of Governors of the Federal Reserve System, "Selected Interest Rates," Federal Reserve Statistical Releases, H.15.

### Three-Month LIBOR Spread



Note: Daily observations. LIBOR spread is the three-month LIBOR minus the three-month Treasury bill.

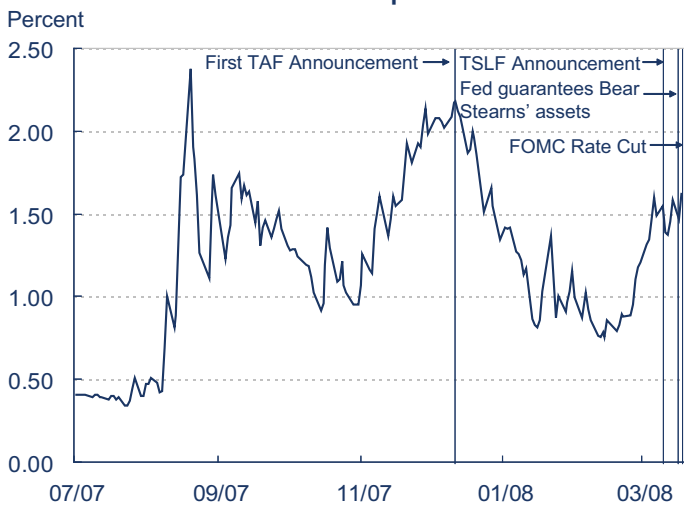
Sources: Bloomberg Financial Services; and Financial Times.

On March 18, 2008, the Federal Open Market Committee (FOMC) voted to lower its target for the federal funds rate by 75 basis points to 2.25 percent. In supporting the move, the committee noted that "Growth in consumer spending has slowed and labor markets have softened. Financial markets remain under considerable stress, and the tightening of credit conditions and the deepening of the housing contraction are likely to weigh on economic growth over the next few quarters." Despite these concerns, the committee noted that "Inflation has been elevated, and some indicators of inflation expectations have risen." Concerns about inflation were behind the two dissents recorded at the meeting. Those dissenting, Richard W. Fisher of Dallas and Charles I. Plosser of Philadelphia, "preferred less aggressive action at this meeting."

Since September 2007, the FOMC has cut its funds rate target 300 basis points. While the speed of the cuts has certainly been dramatic, it is useful to recognize that the overall quantity cut is not unprecedented. Just before the beginning of the 2001 recession, the FOMC began to cut rates and by the end of six months, it had cut them 275 basis points. From January 2001 to December 2001, rates were cut a whopping 475 basis points.

One indicator of the financial pressure mentioned in the committee's statement is the spread between the three-month LIBOR, the rate at which banks lend to each other in the wholesale London money market, and the rate on the comparable 90-day Treasury security, the rate at which the U.S. government borrows. A look at this spread shows that stress in financial markets has been quite elevated since July 2007. More alarming is that the spread is higher now than it was during the Russian default crisis or the Asian crisis. To address this stress, the Federal Reserve has not only cut the funds rate, but it has also created two new lending programs, the Term Auction Facility (TAF) and the Term Security Lending Facility (TSLF).

## Three-Month LIBOR Spread



Note: Daily observations. LIBOR spread is the three-month LIBOR minus the three-month Treasury bill.

Sources: Bloomberg Financial Services; and Financial Times.

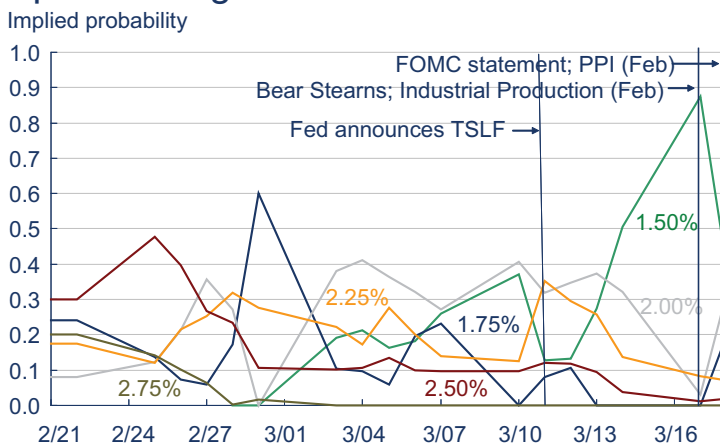
## Bond Spread



Note: The spread is between yields on AAA-rated securities and 10-year Treasury notes.

Source: Federal Reserve Board.

## April Meeting Outcomes



Note: Probabilities are calculated using trading-day closing prices from options on federal funds futures that trade on the Chicago Board of Trade.

Source: Chicago Board of Trade and Bloomberg Financial Services

The TAF was introduced in December to address “elevated pressures in short-term funding markets.” The TAF provides another means by which the Federal Reserve can inject liquidity into the banking system. Historically, the Fed did this with loans to financial institutions, but concern had arisen that such loans did not always adequately accommodate periods of financial stress. One reason for this shortcoming was thought to be financial institutions’ possible reluctance to borrow through the discount window for fear it would signal financial weakness. The TAF was instituted to overcome this stigma effect. In addition, it provides a 28-day loan rather than the overnight loans that were typically offered at the discount window.

In its March 11 announcement, the Fed affirmed that the TSLF facility was instituted “to promote liquidity in the financing markets for Treasury and other collateral and thus to foster the functioning of financial markets more generally.” It provides increased liquidity by dealing directly with a group of primary dealers (including some major non-depository investment banks, which do not have direct access through the TAF). It also accepts a wider range of assets as collateral than the TAF. In particular, the program allows these institutions to borrow Treasury securities backed by the pledge of Aaa-rated mortgaged-backed securities. These securities, however, were already allowed as collateral through the discount window. Like the TAF, the TSLF also provides loans with 28-day terms.

Besides short-term financial stresses, officials are concerned that longer-term credit is becoming harder to secure. The fear is that shorter-term liquidity issues can become longer-term credit problems. Should credit issues gain a hold, they cannot be attacked through the short-term funding arrangements offered by the Fed. Instead, broad cuts in the funds rate, as well as clear communication about the rate’s future path, will be needed to attack longer-term credit issues.

One measure of these longer-term credit problems is the spread between yields on Aaa-rated securities, the highest-quality corporate bond, and the comparable 10-year Treasury note. This measure of credit risks is clearly elevated but does remain below its

## April Meeting Probabilities (percent)

| Date      | 1.50% | 1.75% | 2.00% | 2.25% | 2.50% |
|-----------|-------|-------|-------|-------|-------|
| 3/3/2008  | 19.15 | 10.40 | 38.01 | 22.18 | 10.26 |
| 3/4/2008  | 21.38 | 9.58  | 41.22 | 17.28 | 10.53 |
| 3/5/2008  | 16.35 | 6.00  | 36.43 | 27.72 | 13.49 |
| 3/6/2008  | 18.22 | 19.54 | 32.22 | 20.04 | 9.97  |
| 3/7/2008  | 25.99 | 23.17 | 27.28 | 13.98 | 9.59  |
| 3/10/2008 | 37.07 | 0.00  | 40.60 | 12.52 | 9.81  |
| 3/11/2008 | 12.71 | 8.11  | 31.80 | 35.23 | 12.15 |
| 3/12/2008 | 12.24 | 10.65 | 34.75 | 29.61 | 11.76 |
| 3/13/2008 | 27.36 | 0.00  | 37.42 | 25.74 | 9.48  |
| 3/14/2008 | 50.52 | 0.00  | 32.15 | 13.64 | 3.69  |
| 3/17/2008 | 87.36 | 0.00  | 3.11  | 8.33  | 1.20  |
| 3/18/2007 | 39.64 | 19.72 | 31.56 | 7.16  | 1.92  |

Note: Probabilities are calculated using trading-day closing prices from options on federal funds futures that trade on the Chicago Board of Trade.

Source: Chicago Board of Trade and Bloomberg Financial Services.

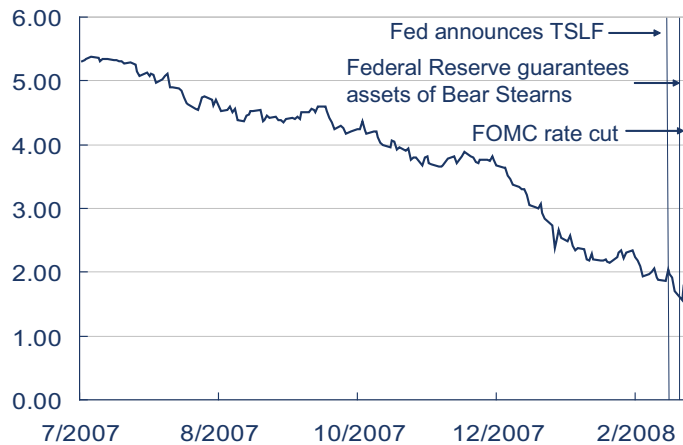
levels during the 2001 recession. More alarming to some is that since July, it has increased more than 125 basis points—a six-month movement beyond anything witnessed in recent history.

While acknowledging the risks to inflation, the committee indicated that these risks were outweighed by risks to the real economy by stating, “However, downside risks to growth remain.” The markets interpreted this statement as evidence that more rate cuts are almost certain to occur. Over 90 percent of participants in the fed funds futures market expect at least a 25 basis point cut at or before the next scheduled meeting, April 29–30. Nearly 60 percent of participants are betting on a cut of at least 50 basis points.

While fed funds futures provide a sense of where the funds rate is expected to head in the immediate future, the one-year Overnight Index Swap rate (OIS) provides a measure of what the funds rate is expected to average over the next year. A look at this rate suggests that the funds rate will average 50 basis points lower than the current funds rate, and thus that by next year, more than another 50 basis points will be cut.

## One-Year Overnight Index Swap

Percent



Note: Daily observations.

Source: Bloomberg Financial Services.



## Should the Fed Prop Up the Buck?

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04.09.08

by Owen F. Humpage and Michael Shenk

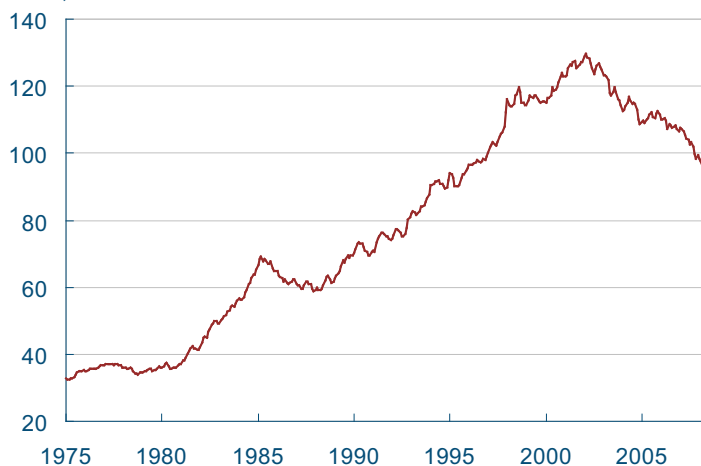
Congress mandates the Federal Reserve “to promote effectively the goals of maximum employment, stable prices, and moderate long-term interest rates.” Maintaining price stability over the long term is, of course, absolutely indispensable for achieving the other objectives. Recently, some observers have suggested that the Federal Reserve pay more attention to the dollar, but adding an exchange-rate objective to the existing menu could greatly complicate the Fed’s ability to hit its key domestic objectives. A lot depends on what the reasons behind the dollar’s depreciation are.

If, for example, the Federal Reserve were supplying more money than the public wanted to hold, the dollar would depreciate and inflation in the United States would start to rise. In such a situation, the dollar might actually depreciate in response to the excessive monetary policy even before goods prices started to move. In this case, tightening monetary policy to slow the dollar’s depreciation would be consistent with price stability, but simply focusing monetary policy on price stability and ignoring the dollar would achieve the desired outcome. At best, the Federal Reserve might keep an eye on the dollar, along with the other data that it monitors, as an indicator of potential inflation pressures, but it would not need to treat exchange rates as an objective.

If, however, the dollar were depreciating because foreign investors were diversifying their portfolios away from dollar-denominated assets, then targeting monetary policy on the exchange rate could easily interfere with price stability. In this case, tightening monetary policy would moderate and eventually reverse the dollar’s depreciation, but it also would slow the pace of economic growth and pull inflation below an acceptable level. Generally, any time factors other than domestic monetary policy are causing dollar exchange rates to move, targeting an exchange rate with monetary policy is a bad idea.

## Nominal Broad Dollar Index

Index, Jan 1997=100



Source: Board of Governors of the Federal Reserve System.

Since its recent peak in February 2002, the U.S. dollar has depreciated nearly 25 percent on average against our major trading partners. Initially, the dollar depreciation seemed to reflect the expansion of U.S. aggregate demand after the 2001 recession. Monetary policy was fairly accommodative, particularly between mid-2003 and mid-2004. Inflation and inflation expectations rose somewhat, but inflation in the United States was, on balance, only a bit higher than the average rate of inflation among our trading partners.

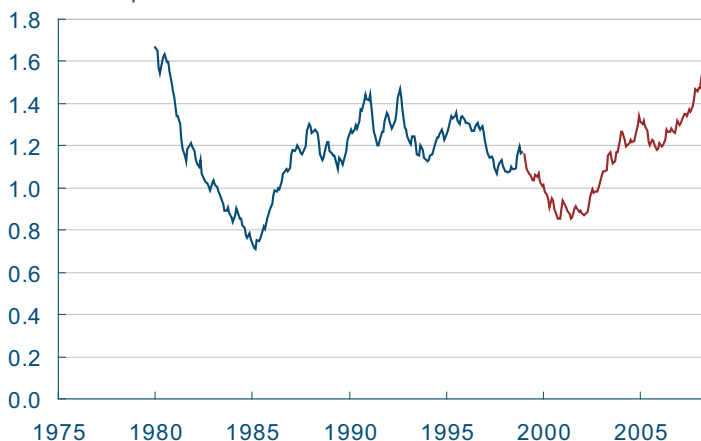
Since the end of 2005—at least through the end of last year—the dollar depreciation seemed to reflect portfolio shifts. Global investors are not overtly dumping dollars, but they seem reluctant to add dollars to their portfolios as fast as they are adding euros, which puts downward pressure on dollar exchange rates. Since August of last year, the Federal Reserve has cut the federal funds rate target by 300 basis points in an effort to ease liquidity problems in financial markets and to head off a recession. The easing of policy appears to have hastened the pace of diversification, but inflation expectations still seem fairly well contained. Inflation does not seem to be driving the dollar's decline.

Admittedly, we are a bit uncertain about what factors have dominated the dollar's dive in recent months, but that just reinforces our point. At any particular time, central banks may be uncertain about exactly which fundamentals are causing exchange rates to change. If a central bank guesses wrong, using the exchange rate as a target for monetary policy can have serious implications for achieving its domestic goals, so most central banks simply eschew exchange-rate objectives. The conflict between domestic objectives and exchange-rate targets ended the perennially beleaguered Bretton Woods fixed-exchange-rate system and initiated generalized floating in 1973.

Some observers suggest that the United States, ideally in conjunction with the Bank of Japan and the European Central Bank, undertake sterilized intervention to prevent further dollar depreciation. Sterilized interventions refer to purchases or sales of foreign exchange that are not allowed to affect the amount of dollar reserves in the banking system.

## U.S. Dollar-to-Euro Exchange Rate

U.S. dollars per euro

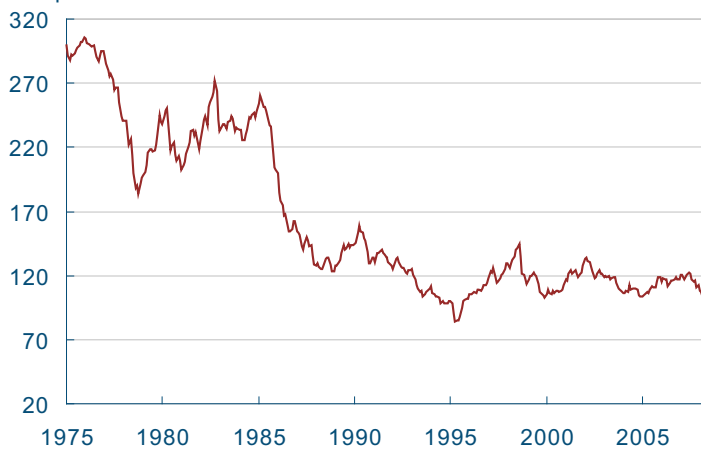


Note: Prior to 1999 the dollar exchange rate is calculated using a synthetic euro based on 1997 GDP weights.

Source: Board of Governors of the Federal Reserve System.

## Japanese Yen-to-Dollar Exchange Rate

Yen per U.S. dollar



Source: Board of Governors of the Federal Reserve System.

Hence sterilized intervention cannot interfere with a central bank's domestic mandates. The United States and other central banks that operate with an over-night interest-rate target routinely sterilize their interventions because they do not allow them to interfere with achieving the interest rate target.

Sterilized intervention can affect exchange rates in the desired direction, but it is a hit-or-miss proposition. The odds of success seem to increase if the intervention is large, conducted infrequently, and coordinated among central banks. Nevertheless, sterilized intervention does not change any fundamental determinants of exchange rates, so while it may give exchange rates an occasional nudge, it is of little lasting consequence.

Against this limited effectiveness central banks must weigh one final problem: Sterilized intervention may confuse markets about monetary policy. Suppose, for example, that a central bank is easing policy to achieve a domestic object, but is simultaneously buying its currency through sterilized foreign-exchange operations. Even though the intervention is sterilized, the domestic and exchange-market operations may appear to be at cross purposes. They may leave markets unsure about the central bank's commitment to its domestic objectives. As such, they are not conducive to policy transparency.

It took central banks nearly 30 years to learn that intervention often conflicted with good monetary policy. Hopefully, the lessons will not be lost.

## Economic Activity

# Does the Recent Trend in Labor Demand Presage Recession?

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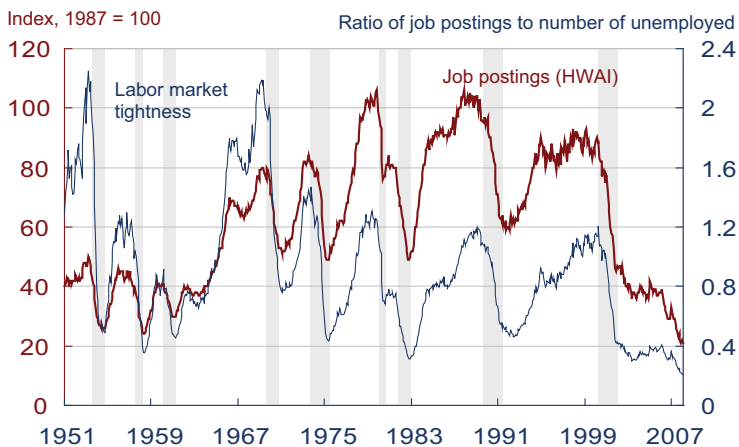
03.24.08

Murat Tasci and Beth Mowry

The number of job openings or vacancies posted by employers constitutes a good measure of unmet labor demand. Assuming employers spend some time and resources to recruit workers, this measure could give us a nice clue about their expectations of future labor market conditions.

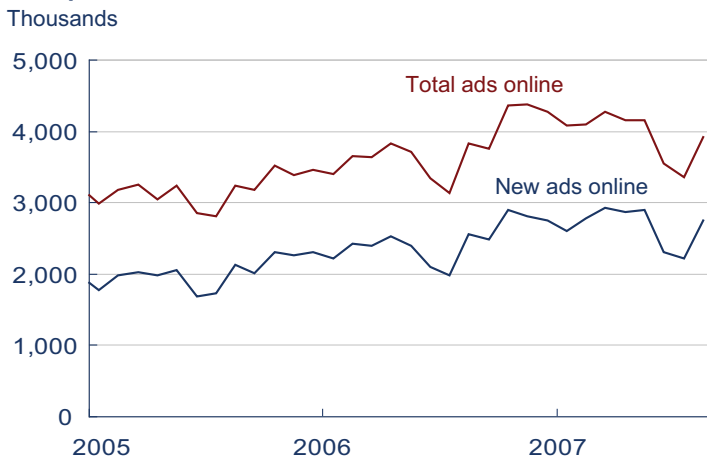
The longest time series of vacancies that we have is the Help-Wanted Advertising Index (HWAI)

## Job Postings and Labor Market Tightness



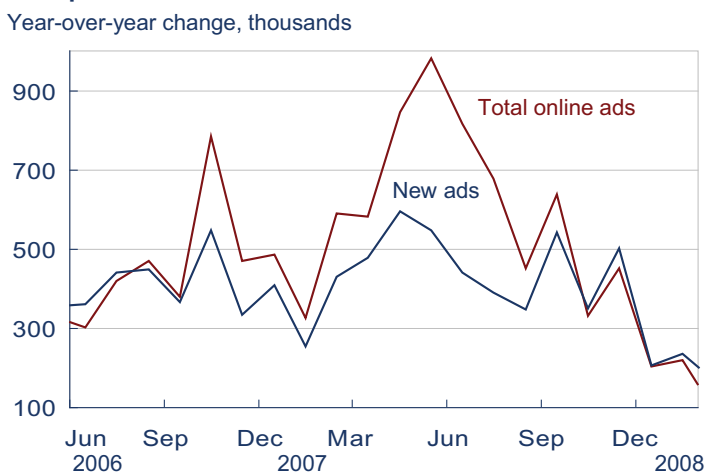
a. HWAI is the Help-wanted Ads in Newspapers Index.  
 b. This series is the ratio of help wanted ads in newspapers to the number of unemployed workers.  
 Note: all numbers are seasonally-adjusted. Shaded bars represent recessions.  
 Source: The Conference Board.

## Help-Wanted Ads Online



Note: Data are national and not seasonally adjusted.  
 Source: The Conference Board Help-Wanted Online Data Series.

## Help-Wanted Ads Online



Source: The Conference Board Help-Wanted Online Data Series.

provided by the Conference Board. This index is monthly and tracks help-wanted ads in more than 50 major metro area newspapers. HWAI is normalized to 100 for 1987. A higher index value indicates higher numbers of help-wanted ads are appearing in newspapers.

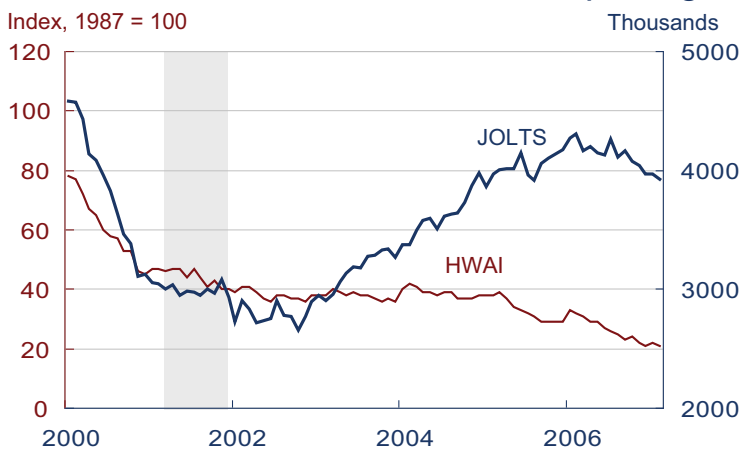
The HWAI experienced sharp declines in every postwar recession. More interestingly, every decline in the index has been accompanied by a recession, with the exception of the mid-1960s. After hovering in the 40s for most of the 2003–2005 period, the index started to fall gradually at the beginning of 2006. In January 2008, the index hit 21, its all-time low.

Ironically, the index by itself may not be very informative about the difficulty employers have in filling positions, because that difficulty depends not just on how many vacancies there are, but also on the number of workers who are looking for jobs. For instance, the index could be low (indicating few vacancies), but employers could expect to fill vacant positions relatively easily if many unemployed people are searching for work.

In order to assess employers' difficulty in finding workers, we need measure of market tightness, which we have in the ratio of help-wanted newspapers ads to the number of unemployed workers. Movements in this ratio closely follow those of the HWAI. During expansions, both market tightness and the HWAI rise, and during recessions, they both decline. Recent labor market conditions, according to this measure, have been exceptionally slack. Currently, the ratio stands at 0.205, the lowest it has ever been.

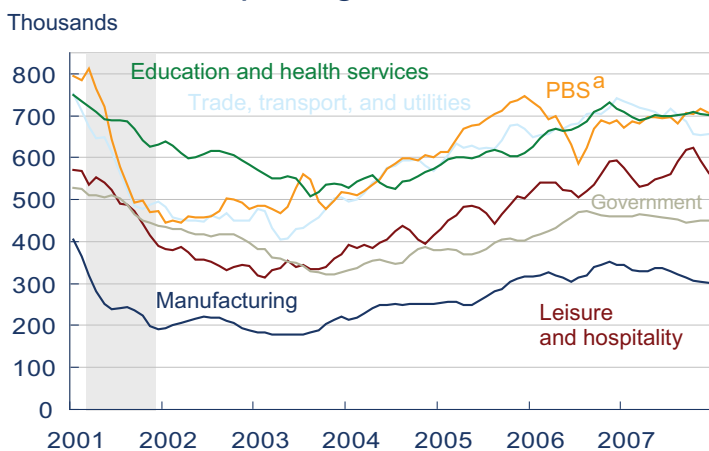
However, the declining trend in these measures might be related to factors independent of labor market conditions. In particular, a shift toward posting vacancies online rather than in newspapers could be responsible for it. The Conference Board started to gather and report data on online help-wanted ads in May 2005. Although this series is not long enough to cover a full business cycle, we still see that vacancies, as measured by online ads, have grown from about 3.1 million to more than 4.3 million in two years (May 2005–May 2007). These numbers suggest that the HWAI might be

## HWAI And JOLTS Views of Job Openings



Note: Data are seasonally adjusted. Bar indicates a recession.  
Sources: The Conference Board; and the Bureau of Labor Statistics.

## JOLTS Job Openings



a. PBS is professional business services (professional, scientific, and technical services, management of companies and enterprises, administrative and support, and waste management and remediation services).  
Note: Data are seasonally adjusted, three-month moving averages. Shaded bar indicates a recession.  
Source: Bureau of Labor Statistics.

understating the true availability of jobs in the labor market. In addition to tracking the number of help-wanted ads posted online, the Conference Board also tracks how many of those postings are new. It would be fair to assume that movements in total help-wanted ads are driven by the new postings every month. However, the raw data captures a lot of seasonal movements. When we look at year-over-year changes in online ads to remove this seasonality, we see an increasing trend in job postings until mid-2007, after which postings decline. In February 2008, total new ads increased by only 103,000 relative to February 2007, the smallest year-over-year increase since May 2006.

One other major source of data on job availability, and one that is more comprehensive than the HWAI, is the Job Openings and Labor Turnover Survey (JOLTS) published by Bureau of Labor Statistics. It samples from the same universe as the Current Employment Survey, and each establishment in the Survey provides data on job openings in a given month.

The picture painted by JOLTS data confirms the view that the HWAI might be understating the actual availability of jobs. According to JOLTS, employers were creating more and more vacancies every month up until mid-2007. Since then, the trend seems to have reversed. According to the most recent data, there were about 3,925,000 job openings in January 2008.

Four industries accounted for almost two-thirds of the total monthly job openings on average—education and health services; professional and business services; trade, transportation, and utilities; and leisure and hospitality. All sectors roughly follow a similar pattern over time, although three sectors experienced larger declines in response to the last economic downturn: professional and business services; manufacturing; and trade, transportation, and utilities. Even though job openings have leveled off recently in these sectors, we have not observed a decline similar enough to the one observed at the onset of the last recession to indicate a significant slowdown in the labor market.

Overall, different measures of job availability all suggest that the number of new job vacancies ad-

vertised might be falling. Total job openings are still far from their pre-recession peak of 4,580,000 (in December 2000), which is consistent with the last recovery's designation as a "jobless" one.

## Economic Activity

# Real GDP: Fourth-Quarter 2007 Final Estimate

03.31.08

Brent Meyer

## Real GDP and Components

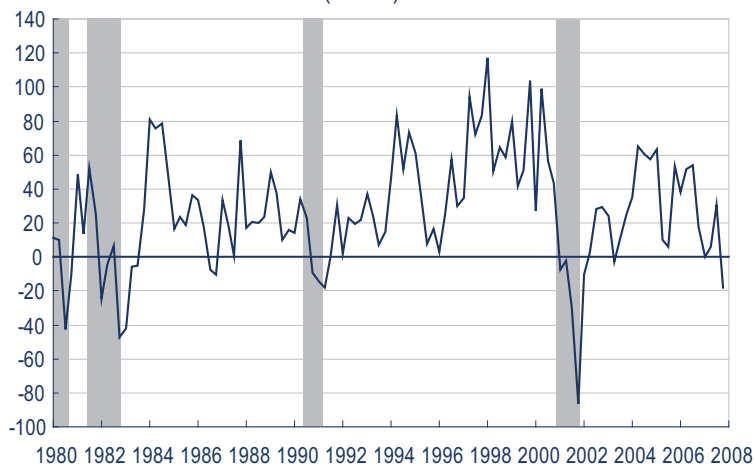
|                                | Quarterly change<br>(billions of 2000\$) | Annualized percent change, last: |               |
|--------------------------------|--|----------------------------------|---------------|
|                                |  | Quarter                          | Four quarters |
| Real GDP                       | 16.8                                     | 0.6                              | 2.5           |
| Personal consumption           | 46.9                                     | 2.3                              | 2.6           |
| Durables                       | 6.2                                      | 2.0                              | 4.2           |
| Nondurables                    | 7.4                                      | 1.2                              | 1.5           |
| Services                       | 32.9                                     | 2.8                              | 2.8           |
| Business fixed investment      | 20.5                                     | 6.0                              | 7.1           |
| Equipment                      | 8.2                                      | 3.1                              | 3.6           |
| Structures                     | 9.2                                      | 12.4                             | 15.1          |
| Residential investment         | -32.4                                    | -25.2                            | -18.6         |
| Government spending            | 9.8                                      | 1.9                              | 2.3           |
| National defense               | -0.7                                     | -0.5                             | 1.5           |
| Net exports                    | 29.9                                     | —                                | —             |
| Exports                        | 22.9                                     | 6.5                              | 8.4           |
| Imports                        | -7                                       | -1.4                             | 1.0           |
| Change in business inventories | -48.9                                    | —                                | —             |

Source: Bureau of Labor Statistics.

Real GDP, according to the final estimate by the Bureau of Economic Analysis (BEA), was unchanged from both the preliminary and advance estimates, rising at an annualized rate of 0.6 percent in the fourth quarter. While the overall growth rate in GDP remained identical to the advance estimate, the performance of its underlying components changed. Personal consumption was revised up from the 2.0 percent of the advance release to 2.3 percent in the final. After incorporating more complete information about the fourth quarter, net exports improved as well. Imports (which subtract from GDP) fell from 0.3 percent in the advance release to -1.4 percent in the final. Final exports rose 6.5 percent, an upward adjustment of 2.6 percentage points over the advance estimate. Offsetting these improvements to growth, both business and residential investment deteriorated with the revisions. Business fixed investment was adjusted down from 7.5 percent to 6.0 percent in the fourth quarter. Also, residential investment worsened, according to the final estimate, from -23.9 percent to -25.2 percent.

## Change in Business Inventories

Billions of chained 2000 dollars (SAAR)

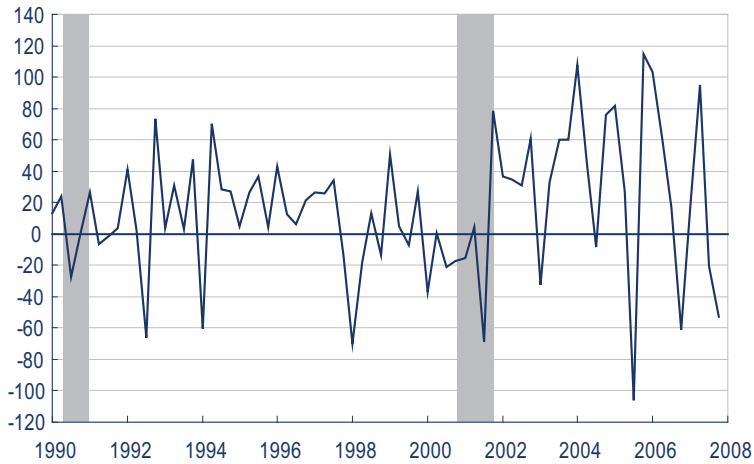


Source: Bureau of Economic Analysis.

Fourth-quarter corporate profits were released along with the final GDP estimate. Nominal pretax corporate profits decreased \$52.9 billion during the quarter, following a \$20.5 billion loss in the third quarter, the first back-to-back decrease since the fourth quarter of 2000 and the first quarter of 2001. Profits in the financial sector fell \$74.4 billion, their largest nominal quarterly loss ever, even without factoring in recent subprime write-downs. According to the BEA release, "asset write-downs and loan-loss provisions...are not expensed in current-production profits in the National Income and Product Accounts."

## Change in Corporate Profits\*

Billions of dollars (SAAR)

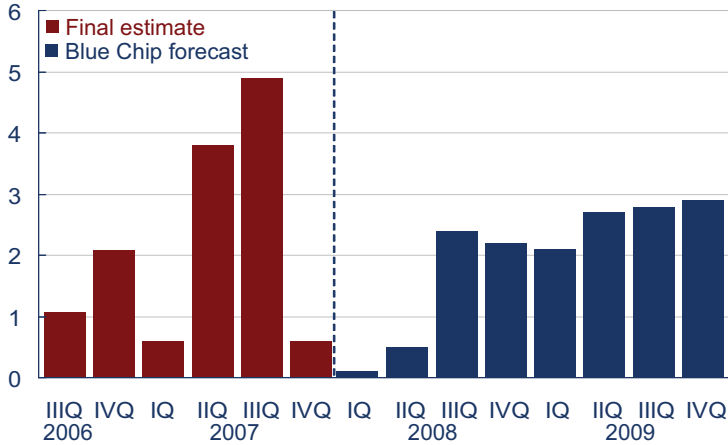


\*Nominal corporate profits before tax with inventory valuation and capital consumption adjustments.

Source: Bureau of Economic Analysis

## Real GDP Growth

Annualized quarterly percent change



Source: Blue Chip Economic Indicators, March 2008; Bureau of Economic Analysis.

Real private inventories decreased \$18.3 billion in the fourth quarter, according to the final estimate, following an accumulation of \$30.6 billion last quarter. Initially, the advance release pegged the loss at \$3.4 billion. Falling inventories could be taken as a sign that businesses see weaker demand in the near future and do not want to be stuck with stockrooms filled with unsold products. While this may not bode well for the near term, stark inventories help in the recovery process. As consumer demand returns, companies respond by ramping up production at a quicker pace than they would if their warehouses were full.

Looking forward, the Blue Chip panel of economists continues to trim its growth forecasts over the near term. The panel currently (as of March 10, 2008) expects first-quarter GDP to grow at an annualized rate of 0.1 percent. Four months ago, the consensus estimate was for 1.9 percent growth in the first quarter. Snapback, aided by the fiscal stimulus package, occurs in the third quarter of 2008, and GDP growth starts to return to trend by the end of 2009.

## Recession: Are We or Aren't We?

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03.31.08

Paul W. Bauer and Katie Corcoran

Living in an age when we expect access to virtually all goods and services 24/7 and real-time reporting on even minor news events, many people have little patience with economists who cannot say for sure whether we are currently in a recession or not. Given the financial headlines and carnage in the housing markets, how could there be any uncertainty?

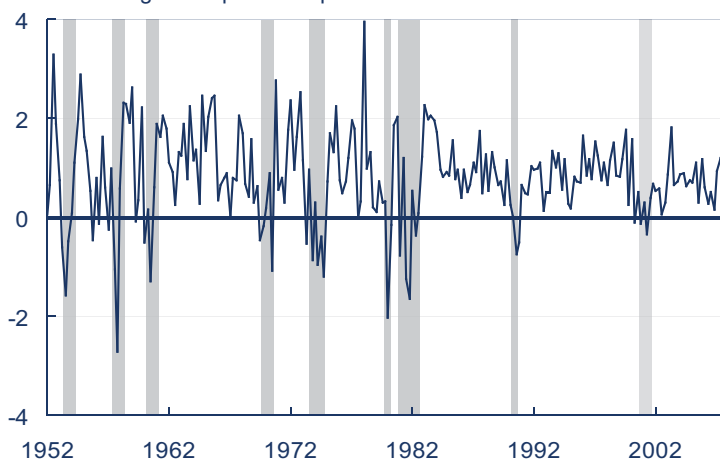
No one is arguing, economically speaking, that these are “the best of times,” but weak economic growth is not the same thing as a recession. As defined by the Business Cycle Dating Committee of the National Bureau of Economic Research, “A recession is a significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in real GDP, real income, employment, industrial production, and wholesale–retail sales.” This is an intentionally broad definition designed more for academic studies of business cycle dynamics than feeding the 24-hour news channels. The March 2001 peak of the last business cycle was not announced until November 26, 2001, while the November 2001 trough was not called until July 17, 2002. You can do pretty well without the Dating Committee with the rough rule of thumb that a recession is two consecutive quarters of negative GDP growth, but even this measure leaves us waiting at least two full quarters for an answer.

With any definition of recession, there is going to be a delay due to the time it takes the various statistical agencies to collect and publish the data. For example, estimates of GDP are made on a quarterly basis, and although we get preliminary estimates within one month after the end of a quarter, those figures face significant revision over the next two months, as additional data become available. It might be possible to reduce the time to get initial estimates and the magnitude of subsequent estimates, but timely, accurate data is costly—and real (inflation-adjusted) federal appropriations for eco-



## GDP

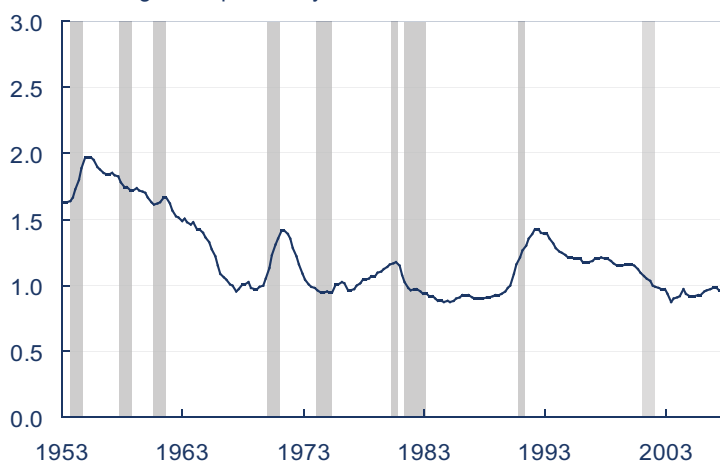
Percent change from previous quarter



Sources: S&P and Federal Reserve Board.

## Population

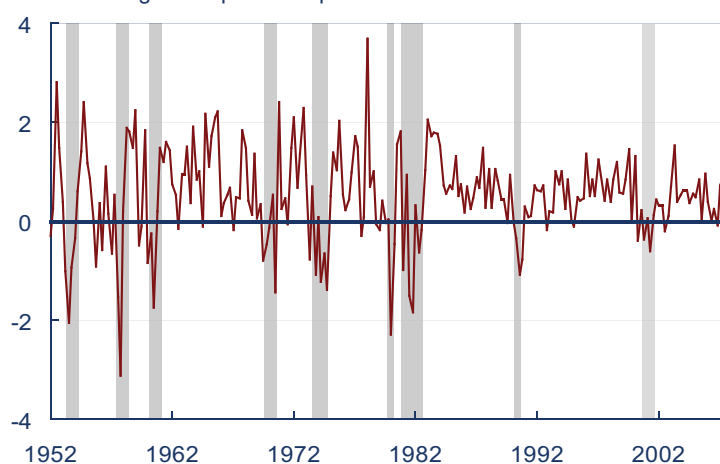
Percent change from previous year



Sources: S&P and Federal Reserve Board.

## GDP Per Capita

Percent change from previous quarter



Sources: S&P and Federal Reserve Board.

economic statistics have been largely flat over the past decade, even as the size of the economy has nearly doubled.

Of course, one does not have to wait for a formal decision on whether the economy is officially in a recession or not to know that the U.S. economy is not firing on all cylinders. Even though the final estimate for real GDP in the fourth quarter of 2007 remained positive at 0.6 percent (we are still a month away from the advance estimate for the first quarter of 2008), that is still a very weak growth rate.

How weak? Because the U.S. population grew nearly 1 percent, real GDP per capita, a widely employed measure of a country's ability to provide for the material well-being of its population, actually fell last quarter.

Looking at this series over time, we see that there have been a number of quarters in which economic growth has not kept up with population growth, and yet the economy was not formally in a recession. That is, while most of the time, when GDP per capita is negative, the economy is in recession, it is not always the case. Besides the fourth quarter of 2007, we have had two such quarters just in this last cycle—the fourth quarter of 2002 and the first quarter of 2007.

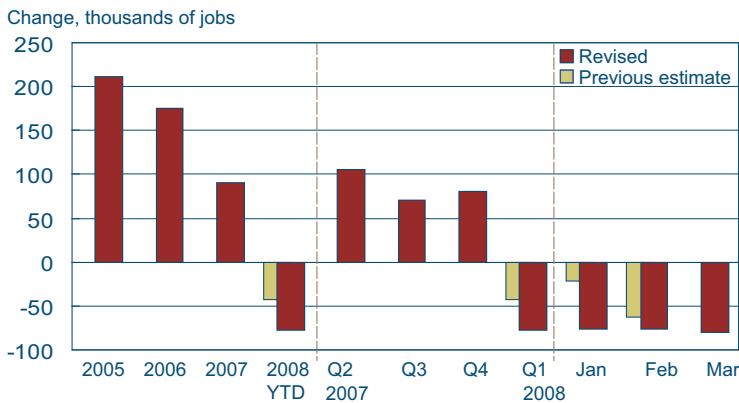
How strong should growth be going forward? Population growth has varied from nearly 2 percent in the early 1950s at the peak of the baby boom to a bit under 1 percent, about where we are now. Consequently, a 1 percent real GDP growth rate is currently needed just to maintain our current living standards. However, a healthy growth rate would be more like 2.7 percent, the sum of the expected population rate (and thus roughly the growth rate of the labor force) and long-run trend in labor productivity growth (how much more output each worker is able to produce, which the Social Security Administration estimates to be about 1.7 percent, as measured by GDP per hour worked by all workers). If the Blue Chip Forecast is correct, the U.S. economy will be back to this growth rate in the third quarter of 2008.

# The Employment Situation

04.07.08

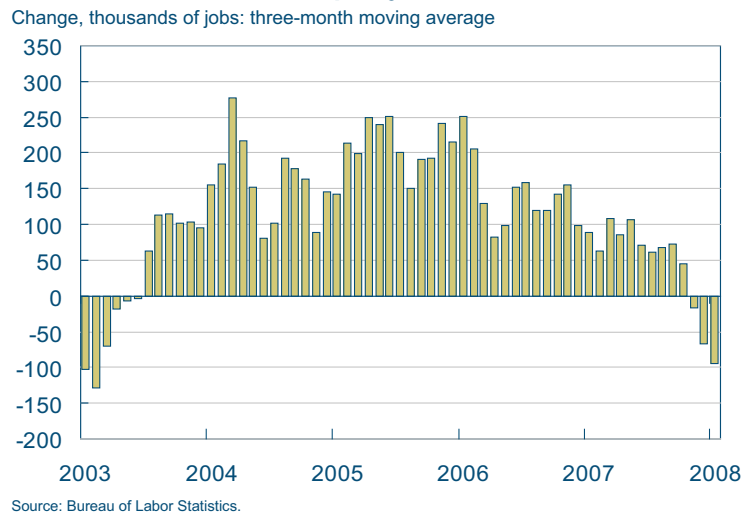
Murat Tasci and Beth Mowry

## Average Nonfarm Employment Change



Total nonfarm payroll employment declined by 80,000 in March to 137,846, according to the initial estimate released by the Bureau of Labor Statistics (BLS) today. The BLS also published its revisions for January and February 2008. The revisions suggest that payroll employment declined more in each month than initially reported; in January, 22,000 more job losses were added to the original estimate, bringing the month's total to 76,000, and in February 63,000 more job losses were added, bringing the month's total also to 76,000. Overall these numbers indicate a quarterly decline in payroll employment of 232,000 (an average of 77,000 each month), the lowest employment growth since the first quarter of 2003.

## Private Sector Employment Growth



Job losses in March were quite broad-based, affecting most goods-producing industries as well as several service-providing industries. The construction sector lost the most jobs in March with 51,000, followed by manufacturing with 48,000. Most of the decline in construction employment was in residential construction (-31,000), another manifestation of housing market troubles. Nonresidential construction employment also experienced a decline of 15,400 jobs in March. The manufacturing sector lost around 48,000 jobs, with 35,000 of them in durable goods manufacturing and the rest in nondurable goods production. This was the twenty-first straight month of employment decline in the manufacturing sector, indicating that a declining trend in manufacturing employment was exacerbated by recent business-cycle factors.

Perhaps the most important reason for the significant employment decline in the first quarter was the relatively low performance of the service sector. Services added only 13,000 jobs this month, due mostly to education and health services, which in the previous month had contributed more than 40,000 jobs. Service industries managed to add a mere 12,000 jobs in the first quarter, which is the worst performance for the sector since the first quarter of 2003. Professional and business services,

## Labor Market Conditions

|                                   | Average monthly change<br>(thousands of employees, NAICS) |      |      |             |               |
|-----------------------------------|---|------|------|-------------|---------------|
|                                   | 2005  | 2006 | 2007 | YTD<br>2008 | March<br>2008 |
| Payroll employment                | 211   | 175  | 91   | -77         | -80           |
| Goods-producing                   | 32  | 3    | -38  | -81         | -93           |
| Construction                      | 35  | 13   | -19  | -42         | -51           |
| Heavy and civil engineering       | 4   | 3    | -1   | -7          | -5.1          |
| Residential <sup>a</sup>          | 11  | -2   | -10  | -30         | -31           |
| Nonresidential <sup>b</sup>       | 4   | 7    | 1    | -5          | -15.4         |
| Manufacturing                     | -7  | -14  | -22  | -46         | -48           |
| Durable goods                     | 2   | -4   | -16  | -29         | -35           |
| Nondurable goods                  | -8  | -10  | -6   | -14         | -13           |
| Service-providing                 | 179   | 172  | 130  | 4           | 13            |
| Retail trade                      | 19  | 5    | 6    | -25         | -12.4         |
| Financial activities <sup>c</sup> | 14  | 9    | -9   | -8          | -5            |
| PBS <sup>d</sup>                  | 56  | 46   | 26   | -32         | -35           |
| Temporary help services           | 17  | 1    | -7   | -20         | -21.6         |
| Education and health svcs.        | 36  | 39   | 44   | 44          | 42            |
| Leisure and hospitality           | 23  | 32   | 29   | 16          | 18            |
| Government                        | 14  | 16   | 21   | 18          | 18            |
| Local educational services        | 6   | 6    | 5    | 6           | 6.1           |
|                                   | Average for period (percent)                              |      |      |             |               |
| Civilian unemployment rate        | 5.1   | 4.6  | 4.6  | 4.9         | 5.1           |

a. Includes construction of residential buildings and residential specialty trade contractors.

b. Includes construction of nonresidential buildings and nonresidential specialty trade contractors.

c. Includes the finance, insurance, and real estate sector and the rental and leasing sector.

d. PBS is professional business services (professional, scientific, and technical services, management of companies and enterprises, administrative and support, and waste management and remediation services).

Source: Bureau of Labor Statistics.

which has led employment growth for some time, reported a decline of 35,000. If we compare service-sector employment figures for March and the first quarter of 2008 with those of the past three years, we see that several service industries—education and health services, leisure and hospitality, and government—have continued to create jobs, while professional and business services and retail trade have started to report major declines.

The three-month moving average of private sector employment growth shows a definite declining trend over the past year, and even more broadly over the past three months. Currently, the three-month moving average of private sector employment growth stands at -95,000, its lowest value since April 2003.

The BLS also reported that the unemployment rate rose 0.3 percentage point in March to 5.1 percent, from 4.8 percent in February. Most of this increase was accounted for by an increase in the labor force (410,000) and not by a significant decline in employment numbers (-24,000).

These numbers all point to a weak labor market in March, with many sectors losing jobs relative to the previous month. The job loss reported in March combined with the downward revisions for January and February indicate that the labor market might have started to experience a downward cyclical turn in the first quarter of 2008. This is consistent with the observed downward trend in job openings we started to experience starting at the end of 2007 and which we discussed in an earlier Trends article. Payroll numbers for February and March are subject to revision in the next report.

## Labor Market Conditions and Revisions

Average monthly change  
(thousands of employees, NAICS)

|                                   | Jan<br>current | Revision<br>to Jan | Feb<br>current | Revision<br>to Feb | Mar<br>2008 |
|-----------------------------------|----------------|--------------------|----------------|--------------------|-------------|
| Payroll employment                | -76            | -54                | -76            | -13                | -80         |
| Goods-producing                   | -69            | -15                | -82            | 7                  | -93         |
| Construction                      | -39            | -14                | -37            | 2                  | -51         |
| Heavy and civil engineering       | -9.2           | -4                 | -7             | -2                 | -5          |
| Residential <sup>a</sup>          | -35            | -5                 | -25            | 1                  | -31         |
| Nonresidential <sup>b</sup>       | 5.2            | -5                 | -4             | 4                  | -15         |
| Manufacturing                     | -35            | -4                 | -46            | 6                  | -48         |
| Durable goods                     | -21            | -2                 | -30            | 10                 | -35         |
| Nondurable goods                  | -14            | -2                 | -16            | -4                 | -13         |
| Service-providing                 | -7             | -39                | 6              | -20                | 13          |
| Retail trade                      | -16            | -15                | -47            | -13                | -12         |
| Financial activities <sup>c</sup> | -8             | 0                  | -11            | 1                  | -5          |
| PBS <sup>d</sup>                  | -30            | -21                | -30            | -10                | -35         |
| Temporary help services           | -4             | 7                  | -34            | -6                 | -22         |
| Education and health services     | 49             | 0                  | 40             | 10                 | 42          |
| Leisure and hospitality           | 9              | -2                 | 20             | -1                 | 18          |
| Government                        | 3              | -1                 | 33             | -5                 | 18          |
| Local educational services        | 2              | 1                  | 10             | -1                 | 6           |

a. Includes construction of residential buildings and residential specialty trade contractors.

b. Includes construction of nonresidential buildings and nonresidential specialty trade contractors.

c. Includes the finance, insurance, and real estate sector and the rental and leasing sector.

d. PBS is professional business services (professional, scientific, and technical services, management of companies and enterprises, administrative and support, and waste management and remediation services-

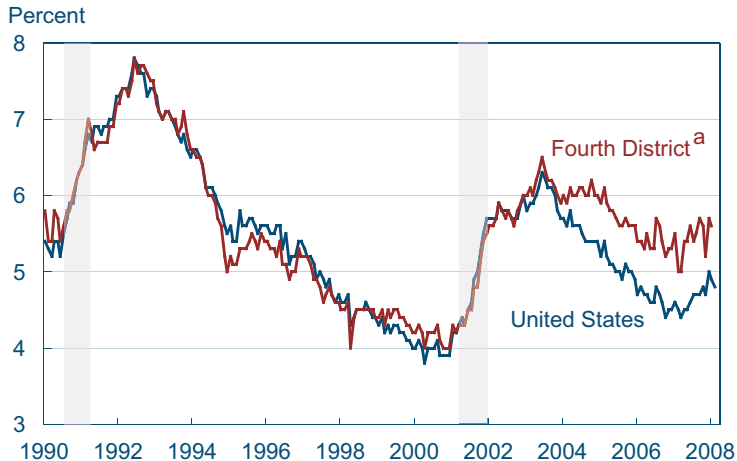
Source: Bureau of Labor Statistics.

# Fourth District Employment Conditions

04.08.08

By Tim Dunne and Kyle Fee

## Unemployment Rates



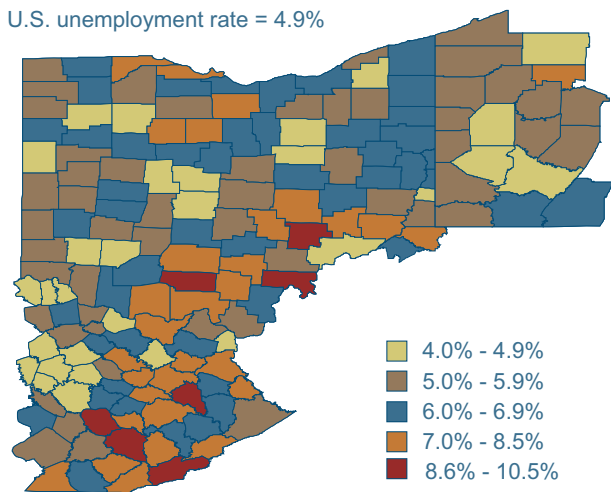
Notes: Shaded bars represent recessions; some data reflect revised inputs, reestimation, and new statewide controls. For more information, see <http://www.bls.gov/lau/launews1.htm>.  
 a. Data are seasonally adjusted using the Census Bureau's X-11 procedure.  
 Source: U.S. Department of Labor, Bureau of Labor Statistics.

The district's unemployment rate dropped 0.1 percent to 5.6 percent for the month of January. Since this same time last year, the Fourth District's unemployment rate increased 0.1 percentage point, while the national rate rose 0.3 percentage point.

The district's unemployment rate dropped 0.1 percent to 5.6 percent for the month of January. The decrease in the unemployment rate can be attributed to decreases in the number of people unemployed (-1.6 percent) and the labor force (-0.2 percent) as well as an increase in the number of people employed (0.1 percent). The district's unemployment rate has been consistently higher than the nation's since early 2004, and January, with the rate 0.7 percent higher in the district, was no exception. Since this same time last year, the Fourth District's unemployment rate increased 0.1 percentage point, while the national rate rose 0.3 percentage point.

## County Unemployment Rates

U.S. unemployment rate = 4.9%



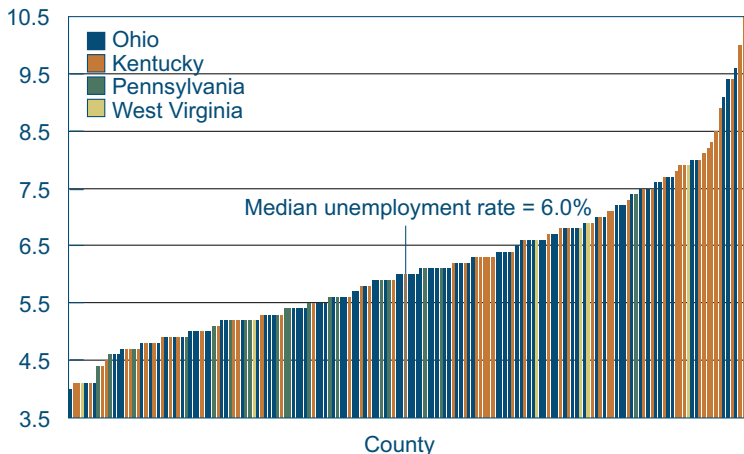
Note: Data are seasonally adjusted using the Census Bureau's X-11 procedure.  
 Source: U.S. Department of Labor, Bureau of Labor Statistics.

County-level unemployment rates vary throughout the district. Of the 169 counties in the Fourth District, 28 had an unemployment rate below the national average in January, and 141 had a higher rate. Rural Appalachian counties continue to experience higher levels of unemployment.

The distribution of unemployment rates across Fourth District counties ranges from 4.0 percent to 10.5 percent, with the median county unemployment rate at 6.0 percent. Pennsylvania counties populate the middle to lower half of the distribution while, Ohio and Kentucky counties cut across the entire range. Four of West Virginia's six Fourth District counties fall in the upper half of the distribution.

# County Unemployment Rates

Percent



Note: Data are seasonally adjusted using the Census Bureau's X-11 procedure.  
Source: U.S. Department of Labor, Bureau of Labor Statistics.

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