March 2009 (February 13, 2009 to March 12, 2009)

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### **January Price Statistics**

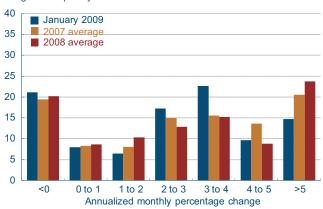
### **January Price Statistics**

		P	ercent ch	ange, las	t	
	1mo.a	3mo.a	6mo.a	12mo.	5yr.a	2007 average
Consumer Price Index						
All items	3.4	-8.4	-5.8	0.0	2.7	0.3
Less food and energy	2.1	0.9	1.0	1.7	2.2	1.8
Median <sup>b</sup>	2.7	2.0	2.4	2.7	2.8	2.9
16% trimmed mean <sup>b</sup>	2.0	1.0	1.1	2.5	2.6	2.7
Producer Price Index						
Finished goods	10.4	-13.3	-13.0	3.2	0.2	0.2
Less food and energy	5.0	2.9	4.0	4.2	2.5	4.3

a. Annualized.

### **CPI Component Price Change Distributions**

Weighted frequency



Source: Bureau of Labor Statistics.

# 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, Federal Reserve Bank of Cleveland. 02.26.09 by Brent Meyer

The CPI rose at an annualized rate of 3.4 percent in January, reversing course after three consecutive monthly declines and outpacing all of its longerterm trends. Energy prices increased for the first time in six months, rising 22.9 percent (annualized rate), though much of that increase was driven by a rise in motor fuel (up 85.6 percent annualized rate). Household energy prices continued their downtrend (-10.6 percent). The CPI excluding food and energy (core CPI) rose 2.1 percent during the month, compared to an annualized growth rate of 0.9 percent over the three months prior. The Federal Reserve Bank of Cleveland's measures of underlying inflation trends, the median CPI and the 16 percent trimmed-mean CPI, increased 2.7 percent and 2.0 percent, respectively.

Producer prices reversed course as well, with the Producer Price Index (PPI) rising 10.4 percent (annualized rate) in January after its fifth consecutive decrease. January's increase was led by a 55.1 percent jump in the prices of energy goods, following a 68.3 percent decrease in December. The PPI excluding food and energy (core PPI) increased 5.0 percent during the month, compared to a 2.9 percent increase in December and a 4.2 percent gain over the past 12 months. Further back on the line of production, core intermediate goods prices continued to decline—albeit at a slower rate—falling 12.2 percent. Core crude goods prices actually posted a slight increase after five consecutive monthly decreases, rising 1.1 percent in January.

The price-change distribution was about as close to a "normal" distribution that we have seen in quite some time. Only 29 percent of the index (by expenditure weight) exhibited price changes less than 1.0 percent, compared to 48 percent in December. On the other end of the price-change distribution, 47 percent of the index increased at rates exceeding 3.0 percent, much closer to the 10-year average of 44 percent than in December, when only 25 percent of the index rose at rates greater than 3.0

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.

#### **Consumer Price Index Forecast**

Annualized quarterly percent change



Source: Blue Chip Economic Indicators, February 2009; Bureau of Economic Analysis.

#### percent.

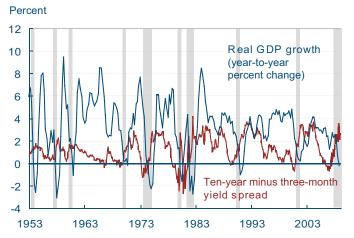
That said, there were a couple of odd occurrences in this month's report. The price index for new vehicles increased 3.4 percent after five consecutive decreases. Moreover, leased car and truck prices jumped 29.5 percent in January after being relatively stable for a few months. Also, some apparel prices jumped during the month. Men's and boy's apparel prices jumped 20.3 percent, while infants' and toddlers' apparel prices rose 5.9 percent. These price moves should explain away some of the curious strength that was exhibited in their respective categories in January's retail sales report.

The longer-term trend (12-month percent change) in the CPI ticked down 0.1 percentage point to 0.0 percent in January, its lowest reading since August of 1995. However, the 12-month growth rate in the median and trimmed-mean measures stand at 2.7 percent and 2.5 percent, respectively. Also, over the past 12 months the core CPI has risen 1.7 percent.

The consensus estimate from the Blue Chip panel of forecasters is for consumer prices to continue to decrease in the first quarter of 2009, though the near-term outlook seems to be relatively uncertain given the 5.9 percentage point disparity between the top-10 average and the bottom-ten average. However, by the beginning of 2010, the consensus estimate is for the CPI to increase at an annualized rate of 1.9 percent, and the difference between the top-10 average and the bottom-10 average shrinks to 2.5 percentage points.

### The Yield Curve, February 2009

### Yield Spread and Real GDP Growth



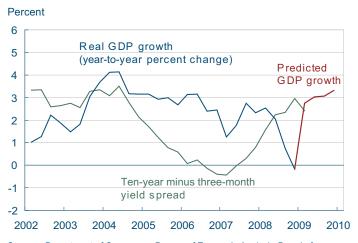
Note: Shaded bars represent recessions. Sources: Bureau of Economic Analysis; Federal Reserve Board.

# Yield Spread and One-Year Lagged Real GDP Growth

Percent 12 One year lagged real GDP growth 10 (year-over-year percent change) 8 6 4 2 0 Ten-vear minus three-month yield spread -4 1953 1963 1973 1983 1993

Sources: Department of Commerce; Bureau of Economic Analysis; Board of Governors of the Federal Reserve Board.

### Predicted GDP Growth and Yield Spread



Sources: Department of Commerce; Bureau of Economic Analysis; Board of Governors of the Federal Reserve Board, author's calculations.

02.20.09

by Joseph G. Haubrich and Kent Cherny

In the midst of all the depressing news about the economy, the yield curve still might provide a slice of optimism. The yield curve has gotten steeper since last month, with long rates rising more than short rates, and the difference between them remains strongly positive.

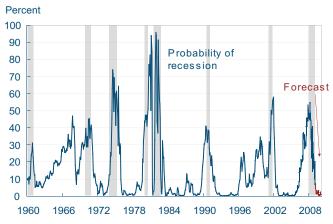
This difference, the slope of the yield curve, has achieved some notoriety as a simple forecaster of economic growth. The rule of thumb is that an inverted yield curve (short rates above long rates) indicates a recession in about a year, and yield curve inversions have preceded each of the last seven recessions (as defined by the NBER). In particular, the yield curve inverted in August 2006, a bit more than a year before the current recession started in December, 2007. There have been two notable false positives: an inversion in late 1966 and a very flat curve in late 1998.

More generally, a flat curve indicates weak growth, and conversely, a steep curve indicates strong growth. One measure of slope, the spread between 10-year Treasury 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.

Since last month, the 3-month rate edged up from a tiny 0.11 percent to a still low 0.30 percent (for the week ending February 13). The 10-year rate increased from 2.67 percent to 2.88. This increased the slope to 258 basis points, up from January's 237 basis points, but down a bit from December's.

The flight to quality, the zero bound, and the turmoil in the financial markets may impact the reliability of the yield curve as an indicator, but projecting forward using past values of the spread and GDP growth suggests that real GDP will grow at about a 3.3 percent rate over the next year. This remains on the high side of other forecasts, many of which are predicting reductions in real GDP.

# Probability of Recession Based on the Yield Spread



Note: Estimated using probit model; Shaded bars indicate recessions. Sources: Department of Commerce; Bureau of Economic Analysis; Board of Governors of the Federal Reserve Board, author's calculations.

To read more on other forecasts: http://www.econbrowser.com/archives/2008/11/gdp\_mean\_estima.html

For the *Wall Street Journal* survey: http://online.wsj.com/article/SB123445757254678091.html

For Paul Krugman's column: http://krugman.blogs.nytimes.com/2008/12/27/the-yield-curve-wonkish/

"Does the Yield Curve Yield Signal Recession?," by Joseph G. Haubrich. 2006. Federal Reserve Bank of Cleveland, *Economic Commentary* is available at: http://www.clevelandfed.org/Research/Commentary/2006/0415.pdf

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 February stands at 0.98 percent, down slightly from January's 1.11 percent.

The probability of recession coming out of the yield curve is very low, and may seem strange in the midst of recent financial news, but one aspect of those concerns has been the flight to quality, which lowers Treasury yields. Furthermore, both the federal funds target rate and the discount rate have remained low, which tends to result in a steep yield curve. Remember that the forecast is for where the economy will be in a year, not where it is now, and consider that in the spring of 2007, the yield curve was predicting a 40 percent chance of a recession in 2008, something that looked out of step with other forecasters at the time.

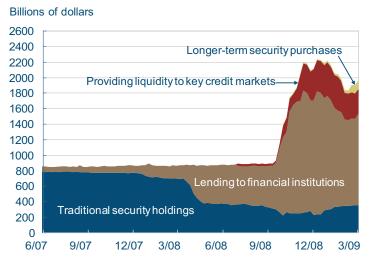
To compare the 0.97 percent to what some other economists are predicting, head on over to the Wall Street Journal survey.

Of course, it might not be advisable to take this number quite so literally, for two reasons. (Not even counting Paul Krugman's concerns). 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, 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?"

### The Impact of Credit Easing So Far

### **Credit Easing Policy Tools**



Note: Traditional security holdings is equal to securities held outright, less securities lent to dealers, less longer-term securities.

Source: Federal Reserve Board.

03.10.09 by John Carlson and Sarah Wakefield

Although credit market conditions have improved some in recent weeks, liquidity strains remain. Accordingly, monetary policy continues to focus on restoring financial stability. In a recentEconomic Trends article we describe a framework for understanding the new policy tools that have been created and employed by the Federal Reserve to support credit markets and restore their functioning. These tools, as Chairman Bernanke has pointed out, enable the Fed to respond aggressively to the crisis even though the federal funds rate stands near zero.

One common feature of the new tools is that "They all make use of the asset side of the Federal Reserve's balance sheet. That is, each involves the Fed's authorities to extend credit or purchase securities." In this way, the Fed can supplement its traditional monetary policy tools by changing the mix of the financial assets it holds, stimulating specific troubled markets in the process. Chairman Bernanke calls the approach "credit-easing." (Our website provides data on each of the new tools.)

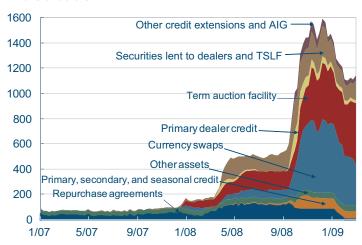
While many new, seemingly diverse credit-easing tools have been introduced, Bernanke divides them into three groups: lending to financial institutions, providing liquidity to key credit markets, and purchasing longer-term securities. Most of the tools are an extension of the Fed's traditional role as lender of last resort, the purpose of which is to ensure that healthy financial institutions have access to sufficient short-term credit, particularly during times of financial stress. The use of each of the new lending facilities is monitored by analysts to assess whether conditions in the corresponding private markets are improving.

#### **Lending to Financial Institutions**

Lending to financial institutions represents the largest share of the credit-easing tools, accounting for 58 percent of the Federal Reserve's portfolio as

### Lending to Financial Institutions

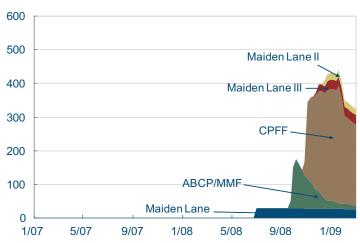
Billions of dollars



Source: Federal Reserve Board

### Providing Liquidity to Key Credit Markets

Billions of dollars



Source: Federal Reserve Board.

of March 2009. This class of tools is most closely related to the Federal Reserve's lender-of-last-resort responsibility. The category includes repurchase agreements, primary credit, foreign currency swaps, the Term Auction Facility (TAF), the Primary Dealer Credit Facility (PDCF), securities lent to dealers (including the Term Securities Lending Facility or TSLF), and credit extended to AIG.

After peaking in late December, lending to financial institutions dropped substantially, largely as a consequence of a decline foreign currency swaps. Currency swap lines provide foreign central banks with dollars, which they can use to supply liquidity to credit markets in their jurisdictions that are based on dollars. The decline in currency swaps indicates that dollar liquidity conditions abroad have improved.

#### **Providing Liquidity to Key Credit Markets**

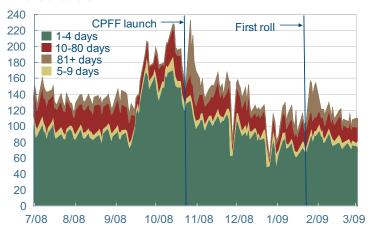
Providing liquidity to key credit markets, representing the second-largest share of the credit-easing policy tools, currently accounts for 17 percent of the Fed's balance sheet. Of the different programs in this category, the Asset-Backed Commercial Paper/ Money Market Mutual Fund Facility (ABCP/ MMF) is perhaps the furthest along in accomplishing the restoration of a key credit market. This facility was created to help restore confidence in money market funds at the peak of the financial crisis in September. The facility appears to be working well, as money funds are growing—a sign of increased confidence in this instrument.

The net portfolio holdings of the Commercial Paper Funding Facility (CPFF) continue to decline, leaving it well off its peak of \$351 billion in late January. After the collapse of Lehman Brothers, the term commercial paper market essentially shut down. Creditworthy issuers could obtain funds only over very short terms and at extremely high rates of interest.

The CPFF was created to allow the Fed to acquire new, private issues of tier-1 (highest quality) commercial paper with maturities of 90 days. The facility thus provided some assurance to potential issuers of commercial paper that the market would remain a reliable source of funding over terms of

### Commercial Paper Issuance by Term

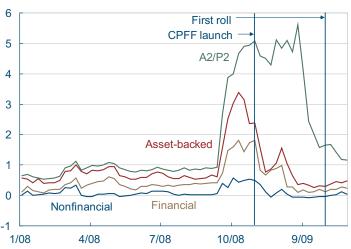
Billions of dollars



Source: Federal Reserve Board

### Top Tier 1 Month CP-OIS Spreads





Source: Federal Reserve Board, Bloomberg.

several months, thereby reducing the risk that issuers would not be able to roll over their debt if funding needs persisted.

The issuance of very short-term paper dropped dramatically with the new source of longer-term funding and stayed low as the longer-term issues held began to roll over in late January. About 60 percent of the paper held by the CPFF was reissued by the CPFF, indicating some continued market impairment. Moreover, some of maturing paper was neither rolled over in the CPFF nor issued to the market. Issuers that did not reissue to the CPFF or place commercial paper in the market employed several alternative funding strategies, including prefunding earlier in the month, issuing Temporary Lending Guarantee Program (TLGP) debt, funding through intercompany loans, or retiring paper as firms reduced their short-term funding needs.

While issuers' reduced reliance on the facility is a positive signal, money markets have not demonstrated sufficient risk tolerance to absorb a substantial quantity of paper. Numerous challenges to issuers in securing term financing in the commercial paper market indicate that the market remains unreliable. Only the most reputable issuers were able to place paper at desired rates and maturities, while most struggling institutions and the conduits for asset-backed commercial paper could only place in the overnight to two-week range, as investors were reluctant to take on additional credit risk.

Despite concerns of rate spikes due to an oversupply of paper in late January, average rates did not widen. Nevertheless, rate spreads over risk-free term rates like the overnight index swap rate (OIS) seem to indicate the continuing, though lessened, need for support from the CPFF.

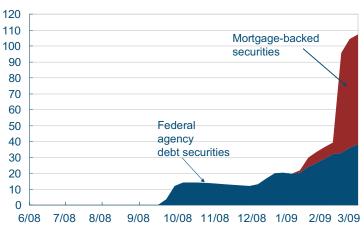
### **Purchasing Longer-Term Securities**

In addition to lending to financial institutions and providing liquidity directly to key financial markets, the Federal Reserve employed a third set of policy tools aimed at improving conditions in private credit markets. These tools involve the purchase of long-term securities in these markets.

In January 2009, the Federal Reserve began pur-

### **Buying Longer-Term Securities**

#### Billions of dollars



Source: Federal Reserve Board

chasing mortgage-backed securities. Purchases up to \$100 billion in government-sponsored-enterprise (GSE) obligations and \$500 billion in non-GSE mortgage-backed securities are expected to take place over several quarters. The mortgage market has responded favorably to the Federal Reserve's program. Indeed, immediately after the announcement of the intended purchases, mortgage rates fell and have stayed low.

Over the past year or so, the Federal Reserve has introduced a number of new tools for dealing with the financial crisis. Increasing market attention has been given to these instruments, especially after the federal funds rate reached its lower bound. While it is too early to judge the overall effectiveness of credit easing, conditions in many financial markets have improved to near-normal levels. Given the great uncertainty surrounding the state of the economy, it is critical that credit markets be given the support necessary to continue to function.

To read the original credit easing Economic Trends article: http://www.clevelandfed.org/research/trends/2009/0209/02monpol. cfm

For the Federal Reserve Bank of Cleveland's credit easing policy tools website:

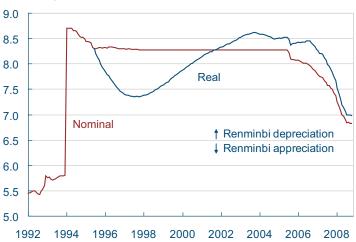
http://www.clevelandfed.org/research/data/credit\_easing/index.cfm

To read more on the Temporary Liquidity Guarantee Program: http://www.fdic.gov/regulations/resources/tlgp/index.html

### Renminbi 101

### Renminbi-Dollar Exchange Rate

Renminbi per U.S. dollar



Source: International Monetary Fund, International Financial Statistics, January 2009.

#### **Inflation Rates**

12-month percent change



Source: International Monetary Fund, International Financial Statistics, January 2009.

03.04.09

by Owen F. Humpage and Michael Shenk

China manages the renminbi-dollar exchange rate closely. Between mid-1995 and July 2005, the People's Bank of China pegged the renminbi at approximately 8.3 per U.S. dollar. Since then, the People's Bank has loosened its reigns, allowing the renminbi to appreciate to 6.8 per dollar. Many people claim, however, that China still manipulates the rate in an unfair bid to encourage large trade surpluses with the United States and to attract hefty inflows of investment funds. Such claims are not strictly correct. Nevertheless, China has never given the exchange-rate-adjustment mechanism free reign.

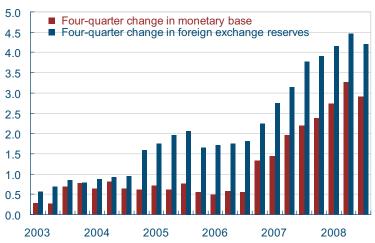
The above-mentioned exchange rates—called nominal in econ speak—have little to do with trade. What matters more than the nominal renminbidollar rate for China's long-term competitive advantage vis-à-vis the United States is the real renminbi-dollar rate. Basically, a real renminbidollar exchange rate incorporates the inflation rates of both China and the United States in its calculation. Between 1995 and 1998, the renminbi appreciated on a real basis against the dollar, despite a fixed nominal peg, because China's inflation rate exceeded the U.S. inflation rate. Between 1998 and 2004, however, the situation reversed. The renminbi depreciated against the dollar on a real basis, as inflation in China fell below inflation in the United States. Since 2004, and especially since China eliminated the peg, the renminbi has again appreciated against the dollar on a real basis.

While countries can control a nominal exchange rate fairly easily, managing a real exchange rate is a whole other—and difficult—ballgame. If, as the claim against China asserts, a country sets the nominal rate to gain a trade and investment advantage, inflation should eventually result and offset any temporary gain that the nominal exchange rate provided.

This process has unfolded to some degree in China.

#### Sterilization of Reserve Flows

#### Trillions of renminbi



Source: International Monetary Fund, International Financial Statistics, January 2009.

China limits the ability of its residents to reinvest the dollars that they acquire through trade and investment. Instead of being permitted to invest as many of these dollars as they choose outside of the country, they must exchange most of them with the People's Bank for renminbi. The strategy has contributed to China's acquisition of a huge official portfolio of dollar assets.

When Chinese residents exchange dollars for renminbi, the renminbi monetary base—a narrow measure of money—expands. For many years this was not a problem. China's economy grew quickly, and the expanding monetary base accommodated that growth. If anything, money growth seemed too slow between 1998 and 2003 when prices in China frequently fell. By 2003, however, China's reserve accumulation started to accelerate, and inflation began warming up.

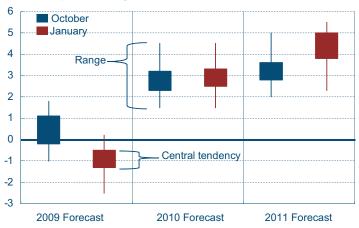
In 2003, the People's Bank started to offset—or sterilize—the expansionary effects of its official reserve accumulation on its monetary base by selling renminbi bonds to the banking system. The bond sales drained away part of the renminbis created when the People's Bank bought dollars. Since then, the People's Bank has sterilized nearly one-half of the effect of its reserve accumulation on the monetary base. Undertaking sterilization to limit the inflation caused by an accumulation of dollar reserves, however, is tantamount to limiting the real appreciation of the renminbi against the dollar.

Complaining about China's nominal exchange-rate choice seems unfair; it is not important for trade. Criticizing China's controls on financial flows and its persistent sterilization is another matter. These actions can affect the country's trading position.

### **Economic Projections from the January FOMC Meeting**

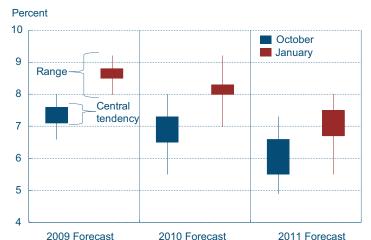
### FOMC Projections: Real GDP

Annualized percent change



Source: Federal Reserve Board.

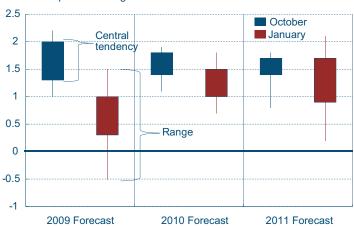
### FOMC Projections: Unemployment Rate



Source: Federal Reserve Board.

### FOMC Projections: PCE Inflation

Annualized percent change



Source: Federal Reserve Board.

02.18.09 by Brent Meyer

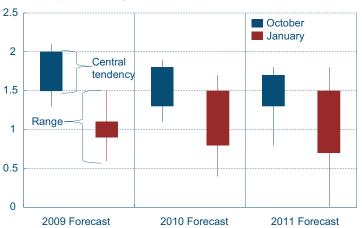
The economic projections of the FOMC (Federal Open Market Committee) are released in conjunction with the meeting minutes four times a year (January, April, June, and October). The projections are made by the participants of the FOMC meeting and are based on all pertinent information available at the time, each participant's assumptions about the economic factors affecting the outlook, and each participant's view of appropriate monetary policy. "Appropriate monetary policy," according to the press release for the January 2009 meeting, "is defined as the future policy that, based on current information, is deemed most likely to foster outcomes for economic activity and inflation that best satisfy the participant's interpretation of the Federal Reserve's dual objectives of maximum employment and price stability."

Economic conditions between the release of the October and January projections have deteriorated considerably. The credit crisis intensified, the employment situation darkened, the NBER announced that we are indeed officially in a recession, and virtually every indicator of economic health worsened. At its October 2008 meeting, the FOMC cut the federal funds rate target by 50 basis points, lowering it to 1.5 percent. By December, the Committee had slashed the target rate to a range of 0.0 percent to 0.25 percent and embarked on an aggressive and unprecedented path of monetary policy called "credit-easing."

The weaker near-term outlook is reflected in the FOMC's projections for economic growth in 2009. The Committee's central tendency is now for the economy to contract in 2009 between -0.5 percent and -1.3 percent, compared to October's central tendency of -0.2 percent to 1.1 percent. Even more striking is the fact that the most optimistic projection (the top end of the range) in 2009 is for real GDP to eke out a 0.2 percent gain.

### FOMC Projections: Core PCE Inflation

Annualized percent change



Source: Federal Reserve Board

## FOMC: Longer-Run Projections

	tendency	Range		
Real GDP growth	2.0	1.1		
Unemployment rate	2.6	1.0		
Total PCE inflation	2.4	-0.3		

Source: Federal Reserve Board.

The central view is for aggregate output to decline throughout the first half of the year, likely driven by further declines in consumer spending, as individuals struggle with labor market weakness, tight credit markets, and deteriorating asset prices. Meeting participants also anticipated some form of fiscal stimulus as well as other measures that would help support a return to normally functioning credit markets. At the time the projections were generated, however, the details of such measures were not complete. Now that they are known, further revisions may result, but these will be reflected in the next forecast period. Furthermore, most of the participants regarded the uncertainty around this forecast to be greater than historical norms and judged the risks to growth to be weighted to the downside.

Nonfarm payrolls have been slashed by roughly 1.8 million in the past three months (November, December, and January), and the Committee now expects labor market weakness to continue throughout 2009. Reflecting the speed at which the employment situation has deteriorated, the low end of the range in January's projections for unemployment rose to 8.0 percent from October's projections, equal to the Committee's most pessimistic forecast in October. Most participants now expect that the unemployment rate will rise to between 8.5 percent and 8.8 percent in 2009, and given that most participants' projections for economic growth are not appreciably above the longer-run trend, the unemployment rate is expected only to decline slightly in 2010. Even "absent further shocks," most participants judge that the unemployment rate will remain stubbornly above its "longer-run sustainable rate" through 2011.

After reaching a 17-year high in July 2008, the 12-month growth rate in the CPI fell to 0.1 percent in December 2008, driven in large part by rapidly decreasing energy and commodity prices. According to the minutes of the December FOMC meeting, the speed of the price declines came as somewhat of a surprise to the meeting participants, prompting them to further revise down their projections for near-term inflation. Moreover, expected weakness in consumer spending and a substantial amount of resource slack that will be generated from the

near-term decrease in aggregate output is serving to dampen participants' projections of price pressures throughout the forecast period.

It is clear that uncertainty surrounding the inflation projections has increased. The January projections of PCE inflation for 2011 range from 0.2 percent to 2.1 percent, compared to 0.8 percent to 1.8 percent in October. Also, the range on core PCE inflation widened to 0.0 percent to 1.8 percent in the January projections. In the minutes of January's FOMC meeting, the participants noted that the uncertainty in their inflation projections was higher than historical norms, and that some of that uncertainty was due to the uncertain paths of commodity and energy prices, which in turn were due to the increasingly unclear prospects for global growth.

There was some disagreement about the balance of inflation risks, as the minutes indicate that a "slight majority" assessed the risks as balances, while the remainder viewed them to the downside. That said, the uncertainty surrounding the participants' inflation projections is most likely coupled to the elevated uncertainty surrounding their output growth projections.

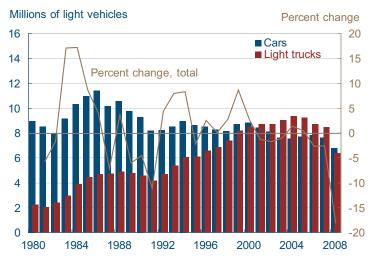
There is an interesting innovation in the release of January's minutes, and that is the inclusion of a longer-run forecast (5-6 years out). The central tendency of the participants' projections is for the longer-run trend in real GDP to increase between 2.5 percent and 2.7 percent and the unemployment rate to fall to between 4.8 percent and 5.0 percent. Also, the FOMC meeting participants judge that total PCE inflation will range between 1.5 percent and 2.0 percent, with a central tendency of 1.7 percent to 2.0 percent in the longer run. These forecasts are made with the assumptions of "appropriate monetary policy" and no further economic shocks. Accordingly, the estimates can be viewed as what the participants assume for longer-run sustainable economic growth and unemployment, as well as an inflation rate that is consistent with price stability.

For the Board of Governors' press release for the January 2009 meeting:

http://www.clevelandfed.org/research/trends/2009/0309/01ecoact

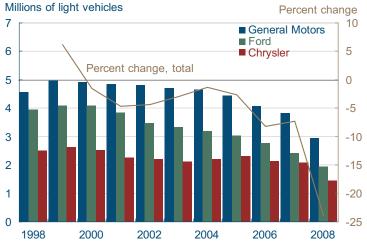
### The U.S. Auto Industry

### **Light Vehicle Sales**



Source: Ward's AutoInfoBank.

### "Big Three" Light Vehicle Sales



Source: Ward's AutoInfoBank.

02.23.09 by Michael Shenk

Much has been made about the difficulties the auto industry has faced this year. Ford, GM, and Chrysler have struggled for some time, but last fall their situations dramatically worsened. After the auto manufacturers pleaded their cases in December, Congress agreed to extend loans to Chrysler and GM in order to help keep the two companies alive.

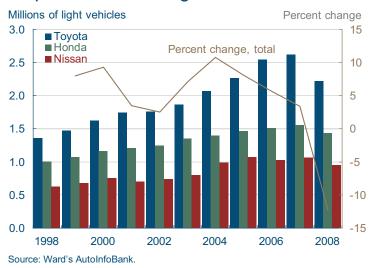
One big reason they needed the funds, the automakers argued, was the economic downturn and its effect on their sales. With sales data for 2008 available, we can see to some degree what the auto companies were talking about. Total light vehicle sales declined 18.0 percent in 2008, as sales for both cars and light trucks (which include SUVs) declined over the year. That now makes three consecutive years in which light vehicle sales have declined, after declines of roughly 2.5 percent in both 2006 and 2007.

Sales at Ford, GM, and Chrysler (the big three) have been declining steadily since 2000. These three automakers were especially hurt in 2008 when sales declined nearly 25 percent. The three major Japanese automakers have also been affected by the current economic downturn. Their sales declined a combined 12.3 percent in 2008, breaking a trend of steady sales growth.

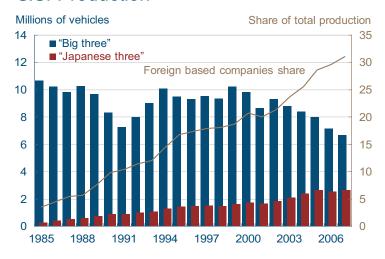
As sales have declined, Ford, GM, and Chrysler have cut their U.S.-based production in an attempt to adjust to the decreased demand for their vehicles. Production data for 2008 has not yet been released, but it's a pretty safe bet to assume that production declined during the year, as in recent years.

The major Japanese automakers have, however, been increasing their production in the United States steadily over the past 20-plus years. Including production from other foreign- owned companies. A full 30 percent of automobiles produced in the United States in 2007 were made by companies headquartered outside of the country. These auto-

### "Japanese Three" Light Vehicle Sales



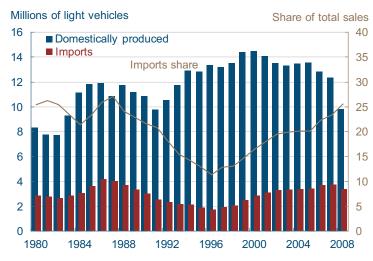
#### U.S. Production



Notes: Includes trucks; Production data from the joint venture between Toyota and GM can not be disaggregated and was excluded in all calculations.

Source: Ward's AutoInfoBank

### **Light Vehicle Sales**



Source: Ward's AutoInfoBank.

mobiles are not just assembled in the United States, they are also most often built from parts made by U.S. companies. The use of parts manufactured in the U.S. by foreign-based brands has led many people to reconsider what exactly constitutes an "American" car. In some cases, the domestic content of foreign-based models is actually higher than that of their U.S.-based rivals.

Even with the increased production of foreign nameplates on U.S. soil, a significant portion of U.S. light vehicle sales are still imported. In 2008 just over 25 percent of all light vehicles sold in the United States were produced outside of North America. The recent run up in this series isn't primarily related to an increase in the number of vehicle imported, though that figure has increased in recent years, but more so to a decline in domestic production, as the big three have been restructuring and trying to cut their production capacity.

### The Recent Increase in the Volatility of Economic Indicators

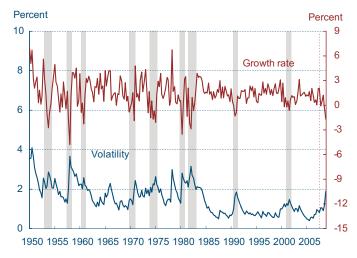
### CBOE Volatility Index (VIX)



Notes: Shaded bars indicate recessions; The dashed red line indicates the onset of the current recession.

Source: Wall Street Journal

#### Real GDP



Notes: Shaded bars indicate recessions. The dashed red line indicates the onset of the current recession. Volatility is computed using deviations of the GDP growth rate from a constant mean and a GARCH (1,1) with a 0.729 first-order serial correlation. Sources: Bureau of Economic Analysis; authors' calculations.

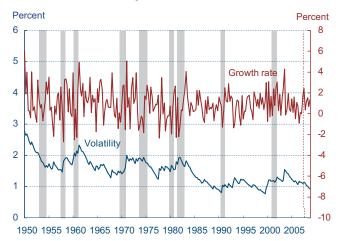
02.27.09 by Kyle Fee and Filippo Occhino

In recent months, we have seen a staggering increase in stock market volatility. One popular measure of market volatility, the Chicago Board Options Exchange's Volatility Index (VIX), jumped to 62.6 in November 2008, higher than it's ever been. The VIX is computed from the S&P500 stock index option prices, and higher numbers imply that investors expect more volatile movements in the S&P index in the near term. (Numbers correspond to the annualized percentage point change expected over the next 30 days). The index has since dropped to 44.7 for January 2009, but this is still very high.

Is there a corresponding increase in volatility of macroeconomic variables? To answer this question, we focused on four main economic indicators, GDP growth, employment growth, productivity growth, and inflation. We obtained their volatilities by calculating their deviations from long-run trends. When an indicator is far from its long-run trend, regardless of whether it is above or below, its volatility is higher. More precisely, we computed the current volatility of an indicator as a weighted average of its past volatility and its deviation from its historic mean (in the case of GDP, employment, and productivity) or its two-year moving average (in the case of inflation).

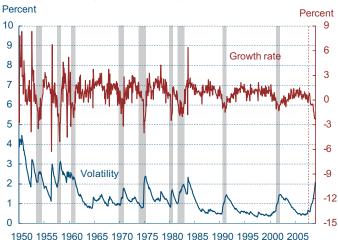
Plotting the growth rate of GDP and its volatility from 1950 to the present, we can easily see what is commonly referred to as the "great moderation," the long-run decrease in the volatility of GDP growth (and other variables) that started in the 1980s. Averaging 2.0 percent during the 1950–1984 period, the volatility of GDP growth fell to 0.9 percent after 1984. A variety of explanations for the great moderation have been proposed, including a change in the structure of the economy due to advances in information technology, increased resilience of the economy to oil shocks, increased access to financial markets, changes in financial market regulation, improvements in the conduct of monetary policy, a reduction in the size of domestic and

#### **Labor Productivity**



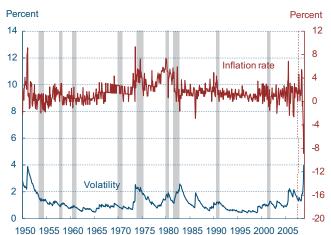
Notes: Shaded bars indicate recessions. The dashed red line indicates the onset of the current recession. Volatility is computed using deviations of the productivity growth rate from a constant mean and a GARCH (1,1) with a 0.9 first-order serial correlation. Sources: Bureau of Bureau of Labor Statistics; authors' calculations.

### Nonfarm Payroll Employment



Notes: Shaded bars indicate recessions. The dashed red line indicates the onset of the current recession. Volatility is computed using deviations of the employment growth rate from a constant mean and a GARCH (1,1) with a 0.9 first-order serial correlation. Sources: Bureau of Labor Statistics; authors' calculations.

#### Consumer Price Index



Notes: Shaded bars indicate recessions. The dashed red line indicates the onset of the current recession. Volatility is computed using deviations of the inflation rate from a two-year moving average and a GARCH (1,1) with a 0.9 first-order serial correlation.

Sources: Bureau of Labor Statistics; authors' calculations.

international shocks (see "Why has output become less volatile" and "The Great Moderation: Good Luck, Good Policy, or Less Oil Dependence?").

Our graph shows that the volatility of GDP growth has increased during the current recession. However, volatility also increased during the 1991 and 2001 recessions. As we will see, the volatility of other economic indicators also exhibits this cyclical pattern, increasing during recessions and then falling back. Indeed, the asymmetry of the business cycle may account for part of the increase in measured volatility during recessions. Because expansions last longer than contractions, the historic mean of a variable lies closer to the values it reaches during expansions. As a result, deviations of the variable from its mean are larger during contractions than during expansions. Taking this cyclical pattern into account, there is no evidence of a longrun increase in the volatility of GDP growth.

The chart at left shows the similar pattern followed by the volatility of nonfarm payroll employment growth. Note that the severity of the current recession is reflected in that the latest spike in volatility is already higher than those of the previous two recessions.

While labor productivity growth also shows clear evidence of participating in the great moderation, it does not exhibit the same cyclical pattern as GDP growth and employment growth. Consequently, it should not be surprising that its volatility shows absolutely no sign of increasing in this downturn.

Inflation volatility spiked recently to a level surpassing the peaks reached during the 1970s. The recent high level of volatility is due to very low readings of inflation (even deflation) rather than high levels of inflation, as was the case during the 1970s. It is hard to judge how much of the recent increase in inflation volatility can be attributed to cyclical factors. First, the pattern of cyclical volatility is less pronounced in the case of inflation. Also, after its sizeable decrease during the 1980s, inflation volatility has drifted up since the late 1990s.

In summary, the volatility of most macroeconomic variables has recently increased. Except for the case of inflation, the high levels of volatility seem to be

mainly due to cyclical factors, and there seems to be no evidence of any long-run increase in volatility.

"Why Has Output Become Less Volatile?" by Bharat Trehan. Federal Rerserve Bank of San Francisco Economic Letter Number 2005-24, September 16, 2005.

"The Great Moderation: Good Luck, Good Policy, or Less Oil Dependence?" by Andrea Pescatori. Federal Reserve Bank of Cleveland, Economic Commentary, March 2008. <a href="http://www.clevelandfed.org/Research/commentary/2008/0308.cfm">http://www.clevelandfed.org/Research/commentary/2008/0308.cfm</a>

#### **Economic Activity**

### The Latest S&P Case-Shiller Housing Price Indexes

03.02.09 by Paul W. Bauer and Michael Shenk

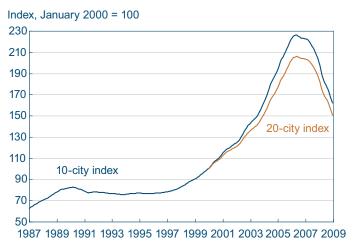
Declining U.S. home prices led the way into the current worldwide economic crisis, and one sign that the crisis is abating will be when these prices begin to stabilize. More stable home prices would indicate that prices are at a point where buyers can be found and that credit is available.

The December 2008 S&P Case-Shiller Home Price Indexes (released February 24, 2009) offered no evidence that this is happening yet. Over the past year, the 20-city index fell 18.5 percent and the 10-city index fell 19.2 percent. The seasonally adjusted annualized rate of declines for December were 21.3 percent and 19.8 percent, respectively.

The only Fourth District region tracked by the Case-Shiller indexes is the Cleveland-Elyria-Mentor metropolitan statistical area (MSA), which includes at least portions of Cuyahoga, Geauga, Lake, Lorain, and Medina counties. Over the past year, the decline in Cleveland home prices, 6.1 percent, was smaller than in every other MSA included in the indexes except for two, Dallas (down 4.2 percent) and Denver (down 4.0 percent).

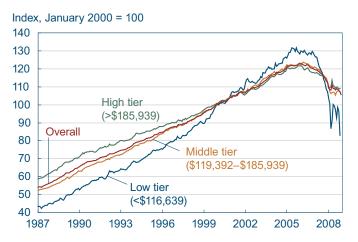
Cleveland's aggregate index masks some extreme volatility in its lowest housing tier (homes valued under \$116, 639 in November of 2008). In 2008 the index for this particular tier saw annualized monthly percent changes of 223.6 percent, 104.5 percent, 75 percent, -83.1 percent, and -82.9 percent. The absolute value of the index's annual-

#### Case-Shiller Home Price Indexes



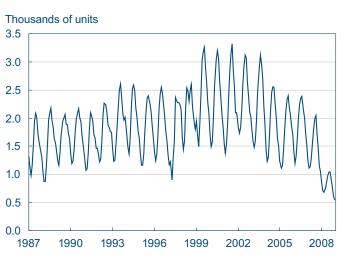
Source: S&P, Fiserv, and MacroMarkets, LLC.

### Case-Shiller Tiered Home-Price Indexes: Cleveland



Source: S&P, Fiserv, and MacroMarkets, LLC.

### Case-Shiller Sale-Pair Counts: Cleveland



Source: S&P, Fiserv, and MacroMarkets, LLC

ized growth rate has been less than 20 percent only twice in the past 12 months. In fact, Cleveland's tiered-price indexes were not even included in the latest report because they were considered too statistically unreliable. A footnote stated, "After review of the data the standard errors were deemed too large and the December numbers were not believed to be reliable at this time and therefore will not be published."

What is the source of this volatility? It is probably a consequence of the number of observations the indexes have to work with. If there are too few, averages from period to period can vary a lot. These numbers do look unusually low for Cleveland over the past year.

Case-Shiller indexes are constructed by comparing the sales prices of a single-family homes with their previous sales prices. The two prices constitute a matched "pair." In December 2008, there were only 554 pairs in Cleveland for all three tiers. This figure is not only low compared to other cities tracked by the indexes, it is the lowest figure in the whole history of the Cleveland series, which goes back to January 1987. What is also clear is that sale-pair counts were abnormally low and somewhat damped during the past business cycle. (As in most cities, Cleveland home sales are highly seasonal, slowing during the school year and winter.) This past summer's peak did not even rise to a more normal year's trough, and the amplitude is sharply stunted.

The sale-pair counts for the top-10 and top-20 city indexes show a similar pattern. In addition to being seasonal, counts in both indexes show a downward trend and a decline, albeit more modest, in amplitude. But importantly from a statistical perspective, none of the other cities have as few pair counts as Cleveland. The next lowest, Charlotte, has over twice as many at 1,257. Statistically, a larger sample enables tighter bounds to be put on the estimates of the housing price index.

Why are sale-pair counts down? First, the housing market is weak, so there are not that many home transactions of any type. Then, only a subset of transactions is used to calculate the indexes. Only arm's-length transactions, where both the buyer and seller acted in their own best economic interest, and

### Case-Shiller Sale-Pair Counts

#### Thousands of units 20-city index

Source: S&P, Fiserv, and MacroMarkets, LLC.

repeat sales transactions for existing, single-family homes are selected. Filtering excludes property transfers between family members and the repossession of properties by mortgage lenders at the beginning of foreclosure proceedings. Any subsequent sales by those lenders are included, however. The data are also filtered to exclude homes that have had substantial physical changes (either major renovations or significant material damage).

Many of the Cleveland transactions are not arm's-length. Over the past 12 months, 26.9 percent were foreclosures, according to the real-estate-information website Zillow. The figure for December is not available, but the National Association of Realtors reports that for the nation as a whole, 45 percent of December sales were foreclosure-related or otherwise distressed. The figure for Cleveland's lowest tier is likely higher than for Cleveland overall, as it was the lowest tier that was hardest hit by delinquencies from subprime loans.

The bottom line is that match-pair house-price indexes like S&P Case-Shiller can provide valuable information about how house prices have changed over time. However, extra care must be taken in interpreting these indexes when the sales-pair counts fall to such abnormally low levels.

### Real GDP: Fourth-Quarter 2008 Preliminary Estimate

# Real GDP and Components, 2008:Q4 Preliminary Estimate

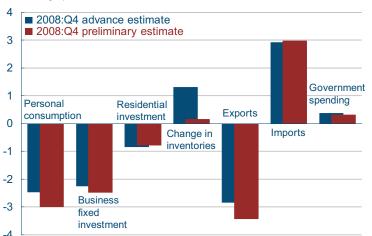
<b>Annualized</b>	percent change,	last:
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	Quarterly change (billions of 2000\$)	Quarter	Four quarters	
Real GDP	-187.4	-6.2	-0.8	
Personal consumption	-90.7	-4.3	-1.5	
Durables	-71.5	-22.1	-11.4	
Nondurables	-56.9	-9.2	-3.4	
Services	16.8	1.4	1.1	
Business fixed investment	-81.8	-21.0	-5.0	
Equipment	-85.8	-28.8	-11.2	
Structures	-5.3	-5.9	7.3	
Residential investment	-21.5	-22.2	-19.3	
Government spending	8.2	1.6	3.3	
National defense	4.3	3.2	8.8	
Net exports	-19.8	_	_	
Exports	-101.3	-23.6	-1.8	
Imports	81.5	-16.0	-7.1	
Private inventories	-19.9	_	_	

Source: Bureau of Economic Analysis.

### Contribution to Percent Change in Real GDP

#### Percentage points



Source: Bureau of Economic Analysis.

03.06.09 by Brent Meyer

Real GDP was revised down by 2.5 percentage points to –6.2 percent (annualized rate) in the fourth quarter of 2008, according to the preliminary release by the Bureau of Economic Analysis. For context, the average revision without regard to sign from the advance to preliminary estimate is 0.5 percentage point. If the current estimate holds, it will be the sharpest quarterly decrease between the two releases since the first quarter of 1982.

On a year-over-year basis, real GDP slipped into the red for the first time since the 1990 recession, falling to -0.8 percent. The only major component that contributed to real GDP growth was government spending, which increased only 1.6 percent. (Other major components are consumption, gross investment, and exports net of imports).

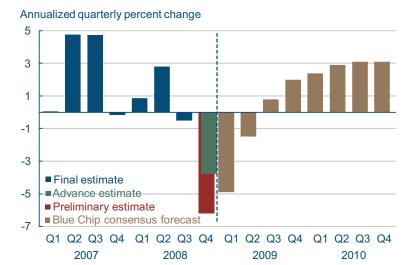
The preliminary release contained fairly widespread downward revisions, though the largest adjustments came from private inventories and exports. The change in private inventories was revised down from an addition of \$6.2 billion to a subtraction of \$19.9 billion, accounting for 1.2 percentage points in the downward adjustment to real GDP growth.

Exports were revised down to -23.6 percent from -19.8 percent in the advance estimate, pulling down growth by an additional 0.6 percentage point—the deepest contraction in exports since the fourth quarter of 1971.

The growth rate in personal consumption fell to -4.3 percent from the advance release's -3.5 percent, subtracting an additional 0.5 percentage point from real GDP growth (-3.0 percentage point in total). On a year-over-year basis, consumption is down 1.5 percent, its slowest growth rate since the third quarter of 1951.

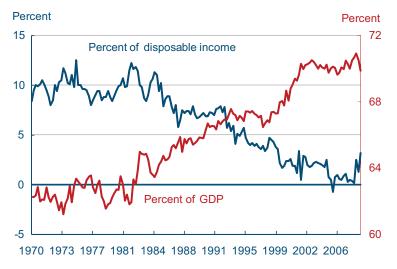
Real residential investment was revised up from -23.6 percent in the advance release to -22.2 percent (adding 0.1 percentage point to growth), though business fixed investment was revised down

#### Real GDP Growth



Source: Blue Chip Economic Indicators, February 2009; Bureau of Economic Analysis.

### **Consumption and Savings**



Source: Bureau of Economic Analysis.

slightly, subtracting an additional 0.2 percentage point from total output.

The majority of economists on the Blue Chip panel again revised down their annual estimates for real GDP in 2009 and 2010, and, as of the first week of February, expect a first-quarter decrease of 4.9 percent. Next month will likely be no different, given the relatively large downward revision to output. That said, the consensus viewpoint is for the recession to end by midyear (even the average of the 10 most pessimistic respondents is for positive GDP growth by the fourth quarter of 2009).

One of the adverse outcomes of the financial crisis has been a lack of credit, which has depressed consumer spending. Some analysts have suggested the situation might spark a reversal in the trend toward increasing consumption and the return of higher savings rates.

Personal consumption expenditures as a share of GDP rose from an average of roughly 63 percent during the 1970s and 1980s to a peak of 70.9 percent in the second quarter of 2008. During the second half of 2008, consumption's share of GDP fell 1.0 percentage point from the peak.

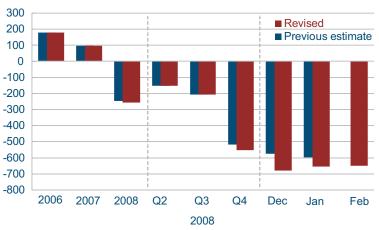
The personal savings rate, which had been hovering near 10 percent during the 1970s and 1980s, actually fell negative during the height of the recent housing price "bubble." In the fourth quarter of 2008, savings increased to 3.2 percent and, in the most recent monthly reading, jumped to 5.0 percent in January.

Obviously, no one knows whether this trend will continue and whether the savings rate will increase to levels seen during the latter half of the twentieth century. However, if the decrease in the savings rate was a rational response to perceived wealth increases tied to house-price appreciation, then it stands to reason that as long as house prices continue to fall, the savings rate should increase.

### The Employment Situation, February 2009

### Average Nonfarm Employment Change

#### Change, thousands of jobs



Source: Bureau of Labor Statistics.

03.10.09 by Yoonsoo Lee and Beth Mowry

The labor market lost 651,000 jobs in February, meeting expectations and bringing the total tally of losses since the start of the recession to 4.4 million. Downward revisions increased December and January declines by 104,000 and 57,000, respectively. Additionally, the unemployment rate increased by half of a percentage point, to 8.1 percent.

Payroll losses characterized every part of the economy, with the lone exceptions of the education and healthcare and government sectors. The diffusion index of employment change currently sits at 23.8, meaning only 23.8 percent of industries are increasing employment. This is up slightly from January's reading of 23.2 but still considerably lower than most months this past year, and lower than the average reading of 38 during the 2001 recession. Goods-producing jobs declined by 276,000, and service-providing jobs declined by 375,000. Within goods, losses were split between construction (–104,000) and manufacturing (–168,000). Residential and nonresidential construction suffered about equally.

On the services side, the trade, transportation, and utilities sector shed 124,000 jobs last month, with transportation taking the largest hit (-44,900) in this category. Truck transportation was responsible for 33,400 of those losses, making February the worst month on record for the industry since April 1994.

Financial activities lost 44,000 jobs in February, comparable to the losses of recent months. January's report was officially the sector's worst performance to date. Information payrolls declined by 15,000, and leisure and hospitality declined by 33,000. Professional business services had the worst month on record (–180,000), owing largely to losses in temporary help services (–77,700). Education and health services added 26,000 jobs last month, although the health side was responsible for all the additions (30,400). Education employment, which

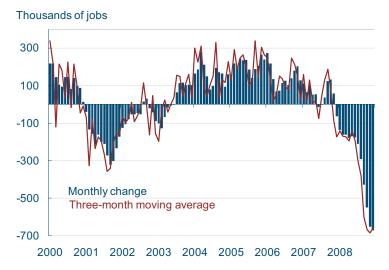
has mostly risen throughout the current downturn, declined by 4,200. The government sector added a modest 9,000 jobs, continuing its mostly positive employment trend.

#### **Labor Market Conditions**

	Average monthly change		(thousands of employees, NAICS		
	2006	2007	2008	February 2009	
Payroll employment	178	96	-257	-651	
Goods-producing	5	-34	-126	-276	
Construction	15	-16	-57	-104	
Heavy and civil engineering	3	0	-6	-5.2	
Residential <sup>a</sup>	-5	-23	-35	-51.1	
Nonresidential <sup>b</sup>	16	6	-16	-48	
Manufacturing	-14	-22	-73	-168	
Durable goods	-4	-16	-54	-132	
Nondurable goods	-10	-5	-19	-36	
Service-providing	173	130	-131	-375	
Retail trade	3	14	-44	39.5	
Financial activities <sup>c</sup>	9	-10	-19	-44	
PBS <sup>d</sup>	45	25	-63	-180	
Temporary help services	2	<b>-7</b>	-44	-77.7	
Education and health services	39	43	43	26	
Leisure and hospitality	33	2	-21	-33	
Government	17	24	14	9	
Local educational services	6	8	1	13.4	
	Average for period (percent)				
Civilian unemployment rate	4.6	4.6	5.8	8.1	

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

### Private Sector Employment Growth



Source: Bureau of Labor Statistics.

Private sector employment payrolls dropped 660,000 jobs last month, roughly similar to activity in December and January. The magnitude of losses in the past three months has been higher than twice the greatest monthly losses of the 2001 recession. Finding larger declines in private employment would require looking all the way back to the late 1940s and mid-1950s.

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

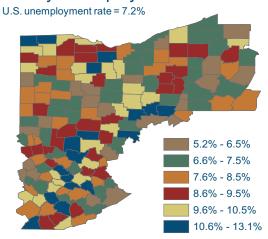
### **Unemployment Rates**





a. Seasonally adjusted using the Census Bureau's X-11 procedure. Note: 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.
Sources: U.S. Department of Labor and Bureau of Labor Statistics.

#### County Unemployment Rates

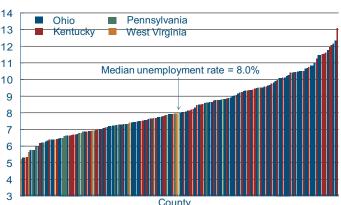


Note: Data are seasonally adjusted using the Census Bureau's X-11 procedure.

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

### County Unemployment Rates

Percent



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

02.18.09 by Kyle Fee

The District's unemployment rate jumped 0.3 percentage point to 7.4 percent for the month of December. The increase in the unemployment rate reflects an increase of the number of people unemployed (4.7 percent) and a decrease in the number of people employed (-0.5 percent). The District's unemployment rate was higher than the nation's (by 0.2 percentage point), as it has been since early 2004. However, the gap between the two has narrowed over the past year as the current recession has continued. Since this time last year, the District's unemployment rate has increased 2.0 percentage points, while the nation's has increased 2.3 percentage points.

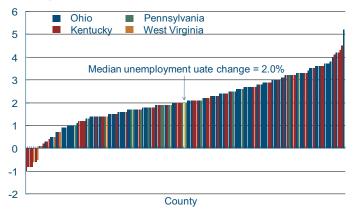
Unemployment rates differ considerably across counties in the Fourth District. Of the 169 counties that make up the District, 50 had an unemployment rate below the national average in December and 119 counties had rate higher than the national average. There were 32 District counties reporting double-digit unemployment rates, while 9 counties had an unemployment rate below 6.0 percent. Rural Appalachian counties continue to experience higher levels of unemployment, as do counties along the Ohio-Michigan border.

The distribution of unemployment rates among Fourth District counties ranges from 5.2 percent to 13.1 percent, with a median county unemployment rate of 8.0 percent. Counties in Fourth District West Virginia and Pennsylvania generally populate the lower half of the distribution, while Fourth District Kentucky and Ohio counties are dominant in the upper half. These county-level patterns are reflected in statewide unemployment rates. The states of Ohio and Kentucky both have unemployment rates of 7.8 percent, compared to Pennsylvania's 6.7 percent and West Virginia's 4.9 percent.

The distribution of changes in unemployment rates from December 2007 to December 2009 shows that the median county unemployment rate in-

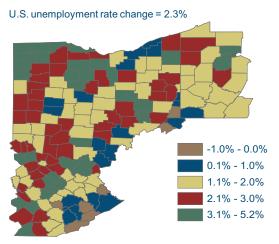
# Change in County Unemployment Rates: December 2007–December 2008

#### Percentage points



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

# Change in County Unemployment Rates: December 2007 – December 2008



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

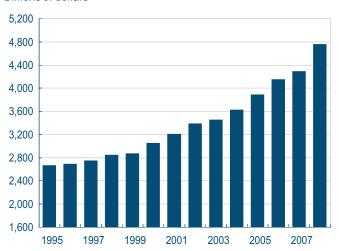
creased 2.0 percentage points. Year over year, 55 percent of Fourth District Kentucky counties and 56 percent of the counties in Ohio experienced unemployment rate increases in excess of 2.0 percentage points. However, Fourth District Kentucky and West Virginia have actually seen some county unemployment rates fall over the same period. Fourth District Pennsylvania saw unemployment rate increases ranging from 1.0 percent to 3.3 percent.

Mapping the changes in county unemployment rates highlights the dispersion of unemployment rate changes across Fourth District counties. Over the past year, northwest Ohio has experienced significant increases in unemployment rates across all counties. Counties along the Ohio-Kentucky border have also seen unemployment rates increase considerably.

### FDIC Funds

### **FDIC-Insured Deposits**

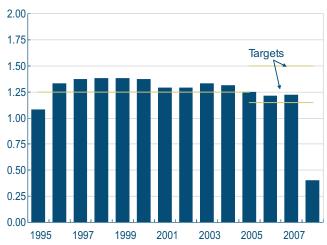
#### Billions of dollars



Source: Federal Deposit Insurance Corporation, *Quarterly Banking Profile*, Fourth Quarter 2008.

### **Fund Reserve Ratio**

#### Percent of insured deposits



Source: Federal Deposit Insurance Corporation, *Quarterly Banking Profile*, Fourth Quarter 2008.

03.10.09

by Joseph Haubrich, Kent Cherny, and Saeed Zaman

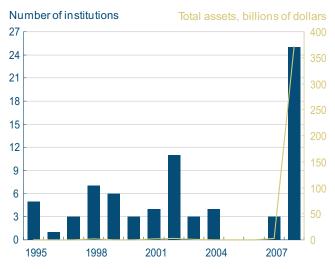
The Federal Deposit Insurance Corporation (FDIC) recently released its fourth-quarter banking summary, giving us the opportunity to examine trends in the FDIC-insured banking industry during 2008. Total deposits at insured institutions rose 10.9 percent to \$4.76 trillion from 2007 to 2008. Most of this increase in deposits took place in the third and fourth quarters of 2008, when the financial crisis hit its full stride and widespread risk aversion led to an increase in deposit holdings.

The Deposit Insurance Fund (DIF) ratio took a tremendous hit in 2008, as 25 insured institutions failed and were placed in receivership by the FDIC. Since deposits have also increased dramatically, the DIF ratio—now at 0.40 percent of insured deposits—has fallen further. In order to replenish the DIF, the FDIC recently agreed to increase premiums on insured banks, and lawmakers have also proposed to increase the established credit line that the FDIC has with the Treasury Department. The FDIC targets a DIF ratio of at least 1.15 percent of total insured deposits.

In response to bank-funding difficulties and depositor concerns, the FDIC last year instituted the Temporary Liquidity Guarantee Program (TLGP), which would, for a fee, insure financial institutions' non-interest-bearing transaction deposits and eligible senior unsecured debt. Because these programs are funded and cushioned by their service fees, they do not rely on the DIF.

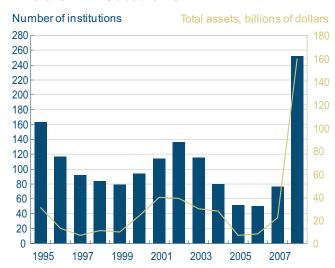
The 25 depository institutions that failed and were placed into receivership by the FDIC in 2008 are more than double the number of banks that failed in 2002. That year had the highest number of failures (11) in the 12 years preceding 2008. Furthermore, the bank failures of 1995-2007 were predominantly small institutions with assets in the hundreds of millions of dollars (see chart). However, the failure of banks as large as IndyMac pushed

#### **Failed Institutions**



Source: Federal Deposit Insurance Corporation, *Quarterly Banking Profile*, Fourth Quarter 2008.

#### **Problem Institutions**



Source: Federal Deposit Insurance Corporation, *Quarterly Banking Profile*, Fourth Quarter 2008.

the total assets of failed banks in 2008 to \$372 billion, up from \$2.3 billion in 2007. In many cases the FDIC was able to find existing depository institutions that would take over the deposits of failed banks and, in some cases, some portion of balance sheet assets.

The number of troubled institutions also increased sharply in 2008. A total of 252 banks with total assets of \$159 billion were on the FDIC's "problem list," up from 76 institutions with \$22 billion in assets during 2007. So far, 2009 has seen 17 banks closed in less than three months.

To read more on the Temporary Liquidity Guarantee Program: http://www.fdic.gov/regulations/resources/tlgp/index.html

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