

# Economic Trends

**April 2009**  
(March 13, 2009 to April 9, 2009)

## **In This Issue**

### **Inflation and Prices**

February Price Statistics

### **Financial Markets, Money, and Monetary Policy**

The Yield Curve, March 2009

New Policy Moves and the Term Asset-Backed Securities Loan Facility

### **International Markets**

China, SDRs, and the Dollar

### **Economic Activity and Labor Markets**

U.S. Real Estate: Looking for Progress in Price Stability and Financing

Real GDP: Fourth Quarter 2008 Final Estimate

March Employment Situation

An Overview of the Healthcare System

### **Regional Activity**

Fourth District Employment Conditions, January

Employment Loss in Ohio's Manufacturing Industry

Fourth District Employment Conditions, February

# February Price Statistics

03.27.09

by Brent Meyer

## February Price Statistics

	Percent change, last					2008 average
	1mo. <sup>a</sup>	3mo. <sup>a</sup>	6mo. <sup>a</sup>	12mo.	5yr. <sup>a</sup>	
<b>Consumer Price Index</b>						
All items	4.8	-0.5	-5.0	0.2	2.6	0.3
Less food and energy	2.3	1.5	1.1	1.8	2.2	1.8
Median <sup>b</sup>	2.3	2.1	2.3	2.8	2.8	2.9
16% trimmed mean <sup>b</sup>	2.5	1.7	1.3	2.6	2.6	2.7
<b>Producer Price Index</b>						
Finished goods	1.4	-3.7	-11.9	-1.6	3.3	0.2
Less food and energy	2.8	3.6	3.5	3.9	2.5	4.3

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 CPI increased somewhat unexpectedly in February, rising at an annualized rate of 4.8 percent, following a 3.4 percent gain last month. According to the release, roughly two-thirds of the headline increase was due to a jump in gasoline prices (up 8.3 percent nonannualized). The CPI excluding food and energy (core CPI), increased 2.3 percent during the month, outpacing all of its longer-term trends (3-,6-,12-,60-month percent changes).

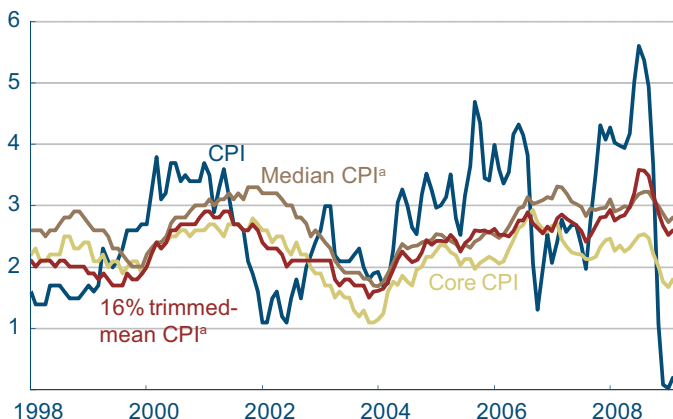
The Federal Reserve Bank of Cleveland's measures of underlying inflation trends, the median CPI and the 16-percent trimmed-mean CPI, rose 2.3 percent and 2.5 percent, respectively. Outside the jump in gas prices, the price index for new vehicles curiously spiked up 10.1 percent (annualized rate), its largest monthly increase since November 2004. Also, every subcategory of the apparel price index (except infant and toddler apparel) rose in excess of 8.0 percent during the month, which may suggest that some retail prices are starting to rebound after deeper-than-normal discounts over the holiday season. Given the relatively weak spending environment, it seems hard to view these price changes as anything other than transitory.

Even with February's jump, the CPI is still up only 0.2 percent over the past 12 months. The 12-month growth rates of all the core measures ticked up in February and are now ranging between 1.8 percent and 2.8 percent. Since last July, the 12-month growth rate in the core CPI and the 16 percent trimmed-mean CPI have fallen appreciably, while the median CPI has seen only a 0.4 percentage point decrease in its growth rate.

An investigation into the price-change distribution revealed that roughly 27 percent of the consumer market basket (by expenditure weight) increased at rates exceeding 5.0 percent in February, compared to 15 percent in January and an average of 24 percent during 2008. Roughly 27 percent of the weighted overall index exhibited price gains greater

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

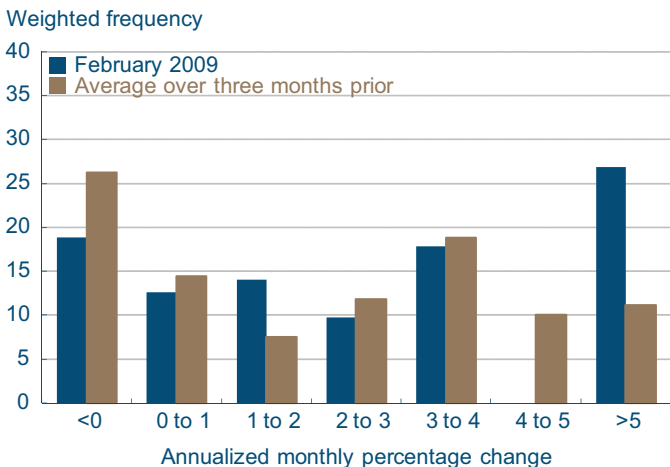
12-month percent change



a. Calculated by the Federal Reserve Bank of Cleveland.

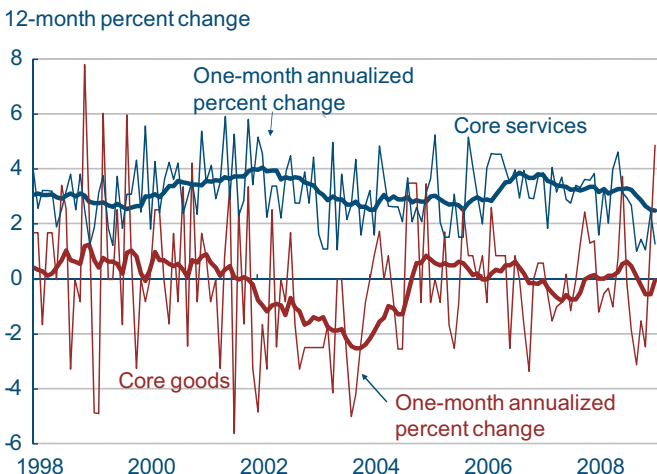
Sources: U.S. Department of Labor, Bureau of Labor Statistics, FRBC.

## CPI Component Price-Change Distributions



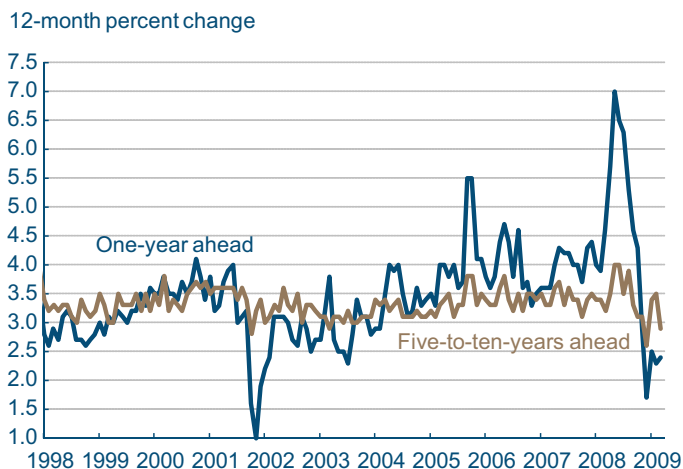
Source: Bureau of Labor Statistics.

## Core CPI Goods and Core CPI Services



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

## Household Inflation Expectations



Note: Mean expected change as measured by the University of Michigan's Survey of Consumers.

Source: University of Michigan.

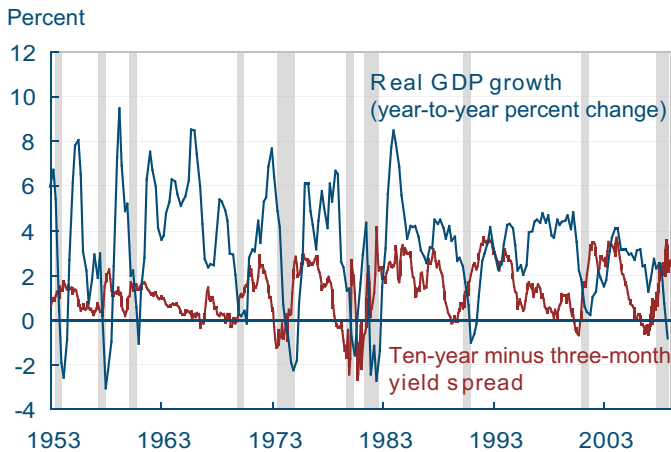
than 5.0 percent in February, more than double the percentage over the three months prior. That discrete change in the upper tail of the distribution, combined with a break between that tail and the rest of the distribution, suggests those gains may be transitory.

Further evidence of fleeting relative price changes is the 4.9 percent spike in core goods prices during February, their largest jump in nearly 10 years. Over the past 12 months, core goods prices are still slightly negative, at  $-0.04$  percent. A more stable trend has developed in core goods prices, which have risen less than 2.0 percent in four of the past five months, compared to their average monthly increase over the past five years of 3.1 percent.

Longer-term (5-10 years ahead) average inflation expectations slipped 0.6 percentage point to 2.9 percent in March. Also, one-year-ahead average inflation expectations have drifted lower than the longer-term expectations recently and stand at 2.4 percent currently. According to the University of Michigan's release, "During the past five months, on average 18 percent (of respondents) expected outright deflation in the year ahead and another 25 percent expected a zero inflation rate; in the comparable period one year ago, just 4 percent expected deflation and 3 percent a zero inflation rate. Overall, there has not been another period in the past quarter century that deflation was more widely anticipated."

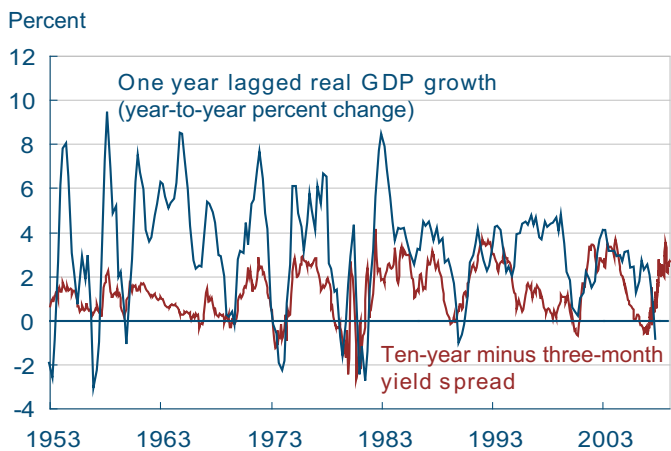
## The Yield Curve, March 2009

### Yield Spread and Real GDP Growth



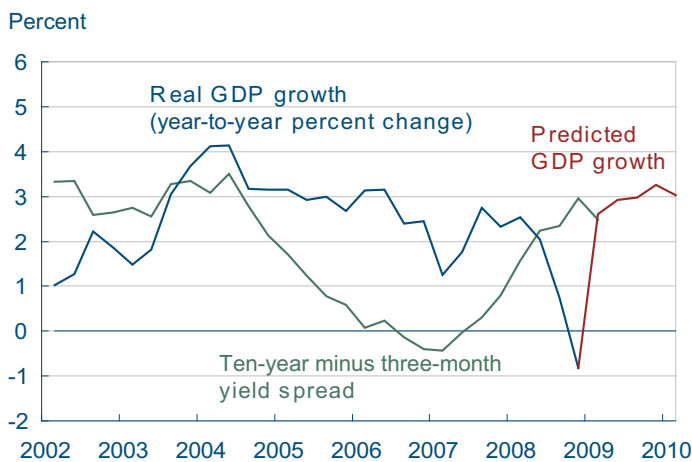
Note: Shaded bars represent recessions  
Sources: Bureau of Economic Analysis; Federal Reserve Board.

### Yield Spread and One-Year Lagged Real Gdp Growth



Sources: Bureau of Economic Analysis; Federal Reserve Board.

### Predicted GDP Growth and Yield Spread



Sources: Bureau of Economic Analysis; Federal Reserve Board.

03.24.09

by Joseph G. Haubrich and Kent Cherny

Since last month, the yield curve has moved lower and flattened slightly, with long rates dropping a bit more than short rates, though 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.

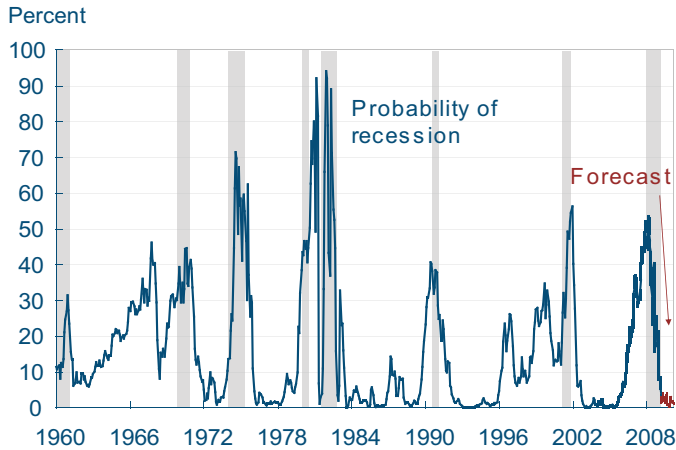
More generally, a flat curve indicates weak growth, and conversely, a steep curve indicates strong growth. One measure of slope, the spread between 10-year Treasury bonds and 3-month Treasury bills, bears out this relation, particularly when real GDP growth is lagged a year to line up growth with the spread that predicts it.

Since last month, the 3-month rate edged downward from an already low 0.30 percent, to an even lower 0.22 percent (for the week ending March 20). The 10-year rate decreased from 2.88 percent to 2.75 percent. This increased the slope to 253 basis points, just down from February's 258 basis points, and a bit above January's 237 basis points.

The flight to quality, the zero bound, and the turmoil in 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 3.0 percent rate over the next year. This remains on the high side of other forecasts, many of which expect much slower growth real GDP.

While such an approach predicts when growth is

## Probability of Recession Based on the Yield Spread



Notes: Estimated using probit model; shaded bars indicate recessions.  
Sources: Bureau of Economic Analysis; Federal Reserve Board; author's calculations.

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 1.1 percent, up slightly from February's 0.98 percent.

The probability of recession predicted by the yield curve is very low and may seem strange in the midst of recent financial news. But one consequence of the financial environment has been a 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 also that the forecast is for where the economy will be in a year, not where it is now. However, 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 1.1 percent probability of recession 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, 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?"

---

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

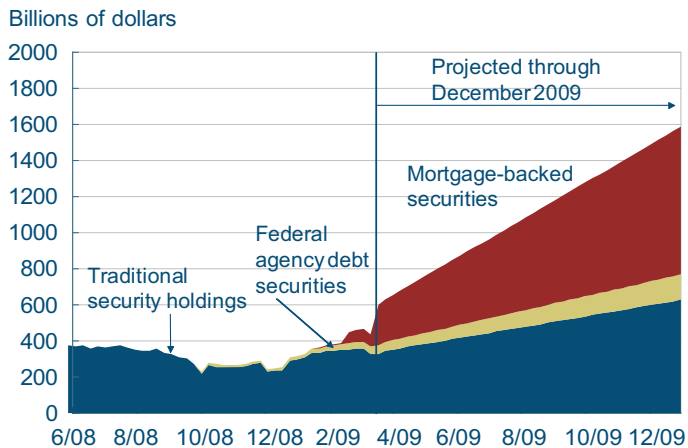
"Does the Yield Curve Yield Signal Recession?," by Joseph G. Haubrich. 2006. Federal Reserve Bank of Cleveland, *Economic Commentary* is available at: <http://www.clevelandfed.org/Research/Commentary/2006/0415.pdf>

## New Policy Moves and the Term Asset-Backed Securities Loan Facility

03.31.09

by Andrea Pescatori

### Buying Longer-Term Securities



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

Source: Federal Reserve Board

At its recent meeting on March 18, the Federal Open Market Committee (FOMC) acknowledged that the economy is continuing to contract as “job losses, declining equity and housing wealth, and tight credit conditions have weighed on consumer sentiment and spending.”

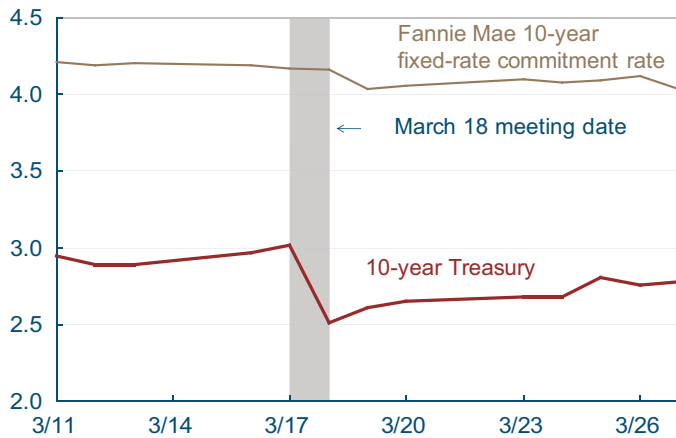
Because current economic conditions have rendered the Fed’s traditional interest rate channel no longer viable for stimulating the economy, the FOMC has turned to the use of credit-easing to support to the real economy and the financial system. Credit-easing, as Chairman Bernanke has explained, means making “use of the asset side of the Federal Reserve’s balance sheet.” With credit-easing as its alternative to traditional monetary policy tools, instead of influencing interest rates, the Fed changes the mix of the financial assets it holds, stimulating specific troubled markets in the process.

In line with this new policy framework, the FOMC announced it would increase the size of the balance sheet further by purchasing up to an additional \$750 billion of agency mortgage-backed securities and up to \$100 billion of agency debt this year. These actions could bring the Fed’s total purchases of agency securities to \$1.25 trillion this year and agency debt to \$200 billion. (“Agency” refers to the government-sponsored enterprises (GSEs) Fannie Mae, Freddie Mac, and the Federal Home Loan Banks.) Moreover, to help improve conditions in private credit markets, the Committee decided to purchase up to \$300 billion of longer-term Treasury securities over the next six months.

The purchase of mortgage-backed securities is focused on reducing the spreads of rates on GSE debt and on GSE-guaranteed mortgages, which, in turn, should reduce the cost of credit for the purchase of homes and increase its availability. Given the magnitude of the Fed’s purchases, the FOMC’s actions should not only foster improved conditions in financial markets but also support the hous-

## Fannie Mae and Treasury Yields

Percentage rate



Source: Federal Reserve Board, Bloomberg.

ing market—which is at the heart of the current recession. At the same time, purchases of long-term treasury notes should reduce long-term rates, helping financing long-term projects. At the day of the announcement the 10-year treasury notes fell dramatically while the Fannie Mae 10-year rate had a relatively minor impact.

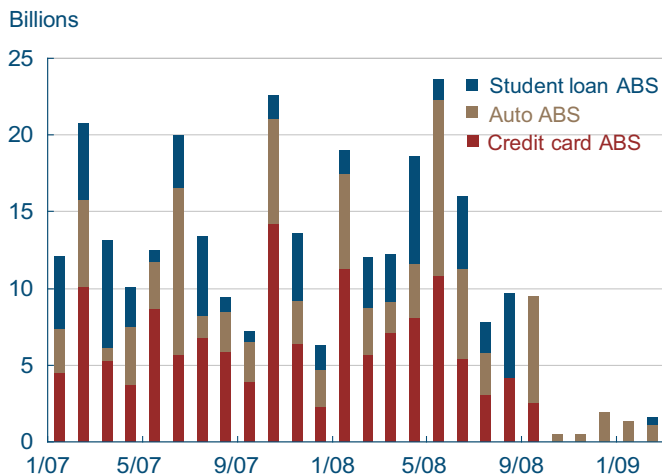
In addition to the housing market, the Federal Reserve Board, in conjunction with the Treasury, is committed to supporting another specific credit market that has been under strain recently. The Term Asset-Backed Securities Loan Facility (TALF) is a credit-easing tool that aims to directly support the market for securitized assets. The TALF is part of a broader program announced last February by the Obama administration along with the Federal Reserve, the FDIC, and the Comptroller of the Currency that is intended to restore stability to the financial system more broadly.

The TALF is designed to support the issuance of asset-backed securities (ABS) collateralized by student loans, auto loans, credit card loans, and loans guaranteed by the Small Business Administration. Over the past two decades, those credit markets have grown rapidly and become an important means by which financial institutions fund loans to businesses and consumers. Strong investor demand for securities structured for different risk appetites allowed banks and other financial institutions to sell consumer and business loans in the form of ABSs at relatively low yields. This in turn allowed lenders to increase the availability of credit and lower the rates at which they extended credit to consumers and businesses throughout the economy.

Since the beginning of the financial crisis, however, those ABS markets have been under strain. With the strain accelerating in the third quarter of 2008, the market came to a near-complete halt—the chart below shows the dramatic drop in the issuance of new consumer ABSs.

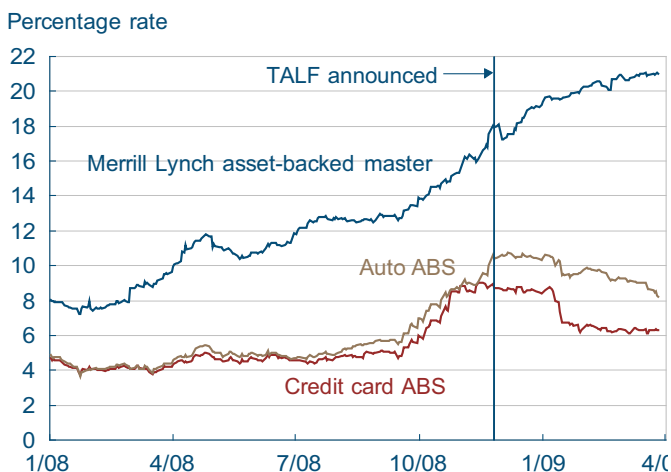
Since the beginning of the financial crisis, however, those ABS markets have been under strain. With the strain accelerating in the third quarter of 2008, the market came to a near-complete halt—the chart below shows the dramatic drop in the issuance of new consumer ABSs.

## Consumer ABS Issuance



Source: Bloomberg.

## ABS Rates



Source: Federal Reserve Board, Merrill Lynch.

At the same time, interest rate spreads on AAA-rated tranches of ABSs rose to levels well outside the range of historical experience, reflecting unusually high risk premiums, and these subdued only in part after the first announcement of the TALF in November 2008.

Continued disruption of these markets could significantly limit the availability of credit, contributing to further weakening of U.S. economic activity. The renewed issuance of ABSs at more normal interest rate spreads, which the TALF is intended to foster, should help restore these markets and simulate economic activity.

Under the TALF, the Federal Reserve Bank of New York will provide nonrecourse funding to any eligible borrower owning eligible collateral. On a fixed day each month, borrowers will be able to request one or more three-year TALF loans. As the loan is nonrecourse, if the borrower does not repay the loan, the New York Fed will enforce its rights to the collateral.

Three requirements are intended to protect the Fed from the risk of losses. First, the ABS must have the highest investment-grade rating category from two or more major nationally recognized statistical rating organizations. This requirement should reduce the risk that the ABSs accepted will fall dramatically in value. Second, borrowers will pay a risk premium set to a margin above the Libor (usually 1 percent). Third, “haircuts” ranging from 5 percent to 15 percent will be figured into the loans. That is, the amount the TALF will extend a loan for can be only as high as the par or market value of the ABS minus the haircut. This requirement means that if the borrower defaults on the loan and the Fed seizes the collateral, the Fed loses nothing unless the value of the collateral has fallen more than the haircut.



TALF loans should have a maturity of less than three years, and the underlying loans must have been originated after fall 2007. The TALF is already operational: the initial TALF subscription was held Tuesday, March 17, 2009, with a loan settlement date of Wednesday, March 25, 2009. Going forward, monthly subscriptions are scheduled for the first Tuesday of every month.

---

For more on the Federal Reserve Bank of Cleveland's research on the credit easing policy:  
<http://www.clevelandfed.org/research/trends/2009/0209/02monpol.cfm>

## China, SDRs, and the Dollar

---

03.31.09

by Owen Humpage and Michael Shenk

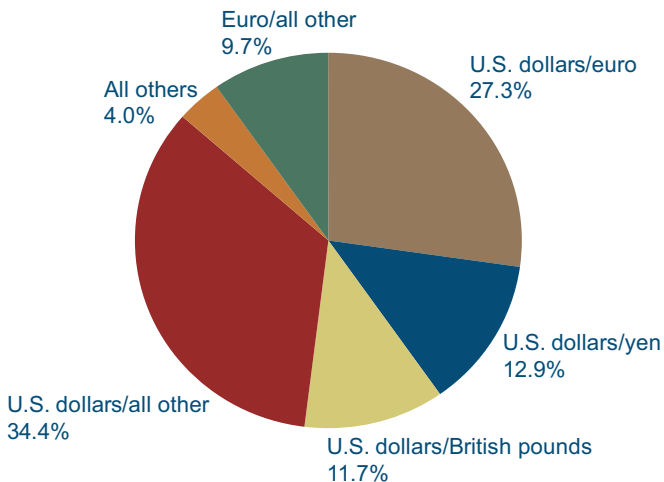
China wants a new international reserve currency that is “disconnected from economic conditions and sovereign interests of any single country.” Countries acquire portfolios of foreign exchange when they limit the appreciation of the currencies in the face of balance-of-payments surpluses. China, which holds a huge portfolio of foreign exchange, mostly in dollar-denominated assets, claims that credit-based national reserve currencies, like the dollar, are inherently risky, contribute to global imbalances, and facilitate the spread of financial crises. The Peoples Bank of China recently recommended supplanting the dollar with Special Drawing Rights (SDRs).

The International Monetary Fund created SDRs as an international reserve in 1969 to solve problems that rose out of the Bretton Woods fixed-exchange-rate system. By the mid-1960s, U.S. dollar liabilities to foreigners exceeded the U.S. gold stock, effectively nullifying the lynchpin of the Bretton Woods system, the U.S. promise to convert all dollars held abroad into gold at a fixed price. As a consequence of this development, some countries, notably France, sought to replace the dollar with a reserve currency unrelated to a single national currency, if not solely related to gold.

The IMF initially defined the SDR in terms of a fixed amount of gold (at that point in time equal to \$1) and allocated 9.3 billion SDRs between 1970 and 1972 to member countries in proportion to their quotas. Following the widespread acceptance of floating exchange rates in the mid-1970s, the IMF redefined the SDR as weighted average of the U.S. dollar, the British pound, the Japanese yen, and the currencies that eventually comprised the euro, and made a second—and last—allocation of 21.4 billion SDRs between 1979 and 1981.

The SDR never supplanted the dollar as a reserve currency unit; instead, it devolved by and large into a unit of account. Despite repeated complaints

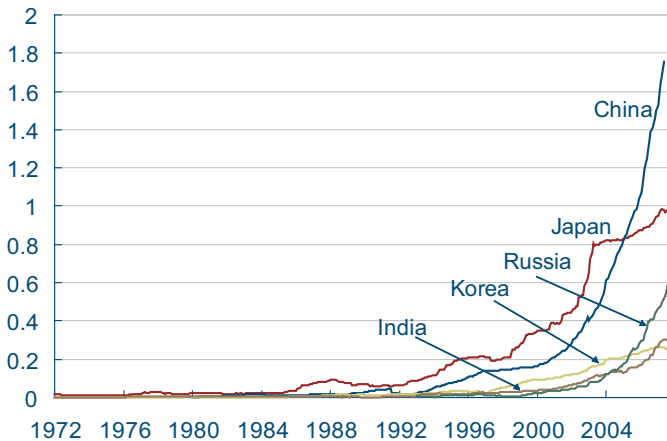
## Exchange Rate Pairs



Source: Bank for International Settlements, *Triennial Central Bank Survey*, 2007.

## Foreign Exchange Reserves

Trillions of U.S. dollars



Source: International Monetary Fund, *International Financial Statistics*.

about the dollar's role as a reserve currency, particularly when the dollar depreciated on a broad basis, the dollar remains the world's key international currency. A substantial portion of international trade—even trade not directly involving the United States—is routinely denominated in U.S. dollars. This is especially true of trade in fairly standardized commodities, like oil, coffee, and wheat, and products that trade in highly competitive markets. As a consequence, traders finance a good portion of their trade in dollars, so they maintain accounts, seek loans, and undertake other types of banking arrangements in dollars. Foreign banks, eager to serve their customers, hold portfolios of dollar assets and liabilities. With dollars widely traded and held, other dollar-denominated financial market flourished.

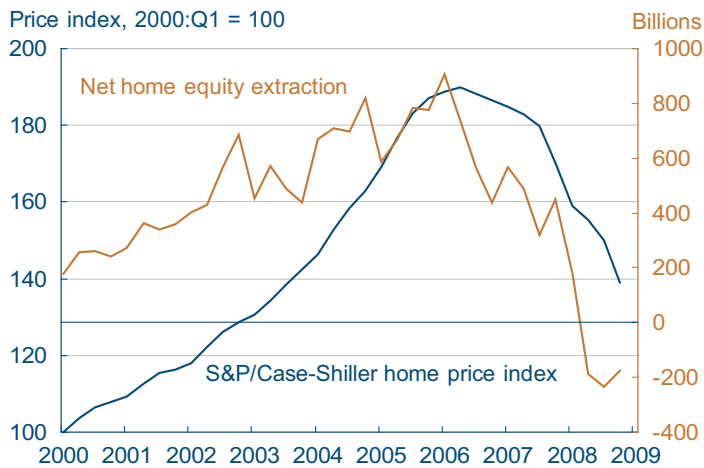
This trading and financial network affords dollar users huge economies, which other currency networks do not match. Consequently, many foreign individuals, households, companies, and even governments maintain significant proportions of both their assets and their liabilities in dollar-denominated instruments. China, Japan, Russia, and India, for example, hold very large portfolios of dollar-denominated reserves. In some countries, notably Panama, the dollar has replaced national currencies. According to a 2007 survey, roughly \$3.2 trillion worth of foreign exchange changes hands each day and 86 percent of those transactions involve dollars. The euro, the second-most widely used international currency, lags well behind the dollar.

Establishing the SDR as a new international reserve currency may be technically feasible, but it will be a long time before it can truly function as an international currency. Countries may convert their reserves into SDRs, but until the private sector adopts SDRs, these countries will still need to acquire dollars or euros or some other national currency to spend their reserves. The private sector will only adopt the SDR if it offers network benefits, comparable to the dollar, but that could take decades.

In the meantime, countries worried about their expanding dollar portfolios might take a different tack: Allow their currencies to float and adopt a domestic monetary policy focused on long-term price stability.

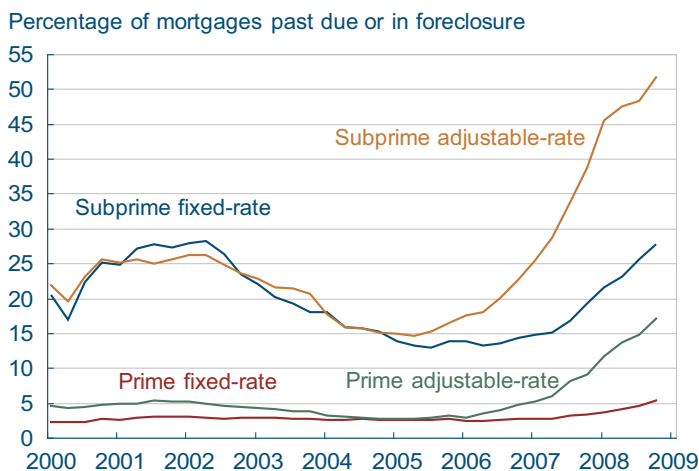
# U.S. Real Estate: Looking for Progress in Price Stability and Financing

## Home Prices and Equity Extraction



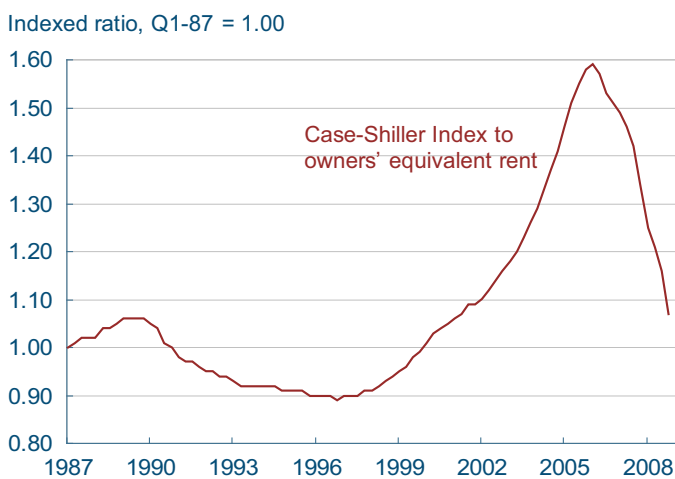
Sources: Standard & Poor's Financial Services, LLC, Federal Reserve Board.

## Troubled Loans



Source: Mortgage Bankers Association

## Home Prices and Rents



Source: Standard & Poor's Financial Services, LLC, Bureau of Labor Statistics.

03.30.09

by O. Emre Ergungor and Kent Cherny

The Case-Shiller composite price index continues to indicate contraction in U.S. residential home values. In the fourth quarter of 2009, the index stood at 139.14, down a cumulative 26.7 percent from its peak during the second quarter of 2006. By now the story of how we ended up here has become almost passé: a combination of low interest rates, loose lending standards, and financial innovation produced a boom in real estate prices on a broad, national level.

Rapid valuation increases allowed homeowners to continually refinance their mortgages and extract new equity as cash, as shown in the figure below. At its peak in the first quarter of 2006, the volume of equity extraction was over \$900 billion.

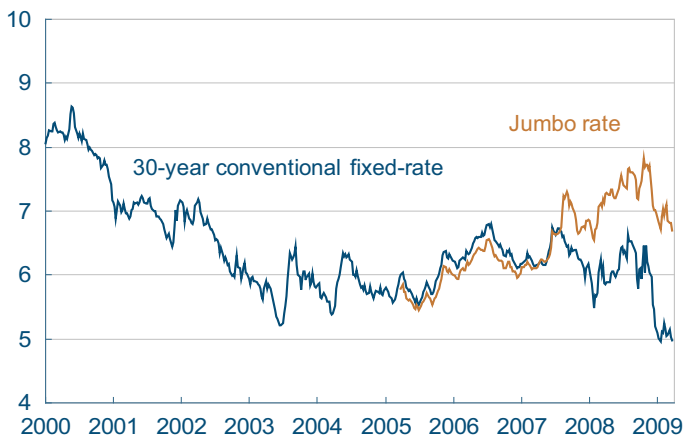
By mid-2008 net equity extraction turned negative, as plummeting home values meant that many homeowners were under water, with total housing debt exceeding the value of the underlying property.

Some homeowners and investors who opted not to walk away from troubled mortgages found they could no longer afford their monthly payments. Troubled loan rates have been and continue to be notably higher for adjustable-rate mortgages than for fixed-rate mortgages (in both the prime and subprime categories).

As of the fourth quarter of 2008, 17.1 percent of prime ARM mortgages were troubled loans (those either delinquent or in foreclosure), compared to 5.3 percent of prime fixed-rate mortgages. Likewise, 51.8 percent of subprime ARMs were past due or in foreclosure, compared to 27.8 percent for fixed-rate subprime mortgages. Many ARMs were originated with teaser rates that lasted only a year or two before kicking up to higher interest rates, which lenders did not see as terribly problematic when home prices were appreciating rapidly and mortgages could be continuously refinanced. But when home prices begin to fall, refinancing is less of an option, and a rising unemployment rate only

## Residential Mortgage Rates

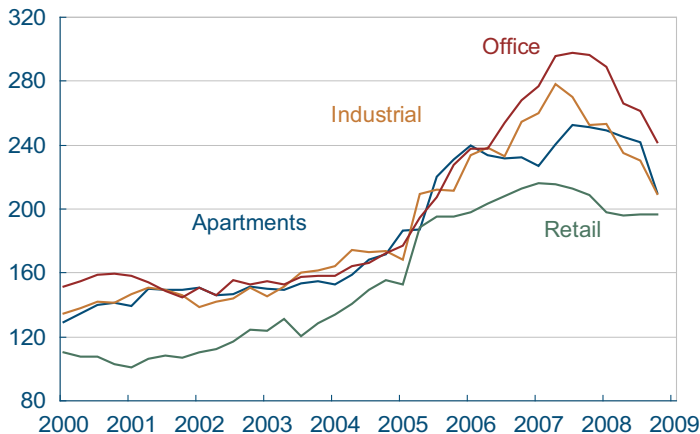
Percentage rate



Source: Federal Reserve Board, Wall Street Journal.

## Commercial Real Estate Prices

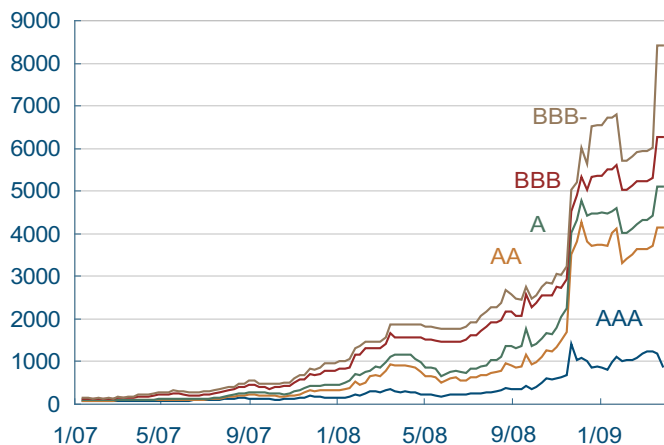
Price index, 1994:Q1 = 100



Source: MIT Center for Real Estate.

## Spread Between Ten-Year Commercial Mortgage-Backed Securities and Treasuries

Spread in basis points



Source: Morgan Stanley.

adds to the upward pressure on delinquencies and foreclosures.

Is there a way to know when home prices will reach a bottom? Any guess is complicated by the current state of the economy and financial markets. High negative sentiment among consumers and investors, combined with impaired credit markets, could cause the market to undershoot when equilibrating long-run supply and demand. (This in part explains why policymakers at all levels have been acting to support the housing market: Homes serve as collateral for trillions of dollars in loans, and so are intimately tied to financial stability.)

Still, some commentators have put forth ideas for determining a general range in which home prices might stabilize. For example, economists at the Federal Reserve Bank of Atlanta compared the historical relationship between home prices and the labor force size.

One other potentially useful ratio is that of home prices to owners' equivalent rent, a component of the CPI. Between 1987 and the start of the credit bubble in the early 2000s, the ratio fluctuated around 1.00, staying within a 0.10 range. It really began to take off in 2002, peaked at 1.59 in 2006, and only in the fourth quarter of 2008 did it again enter the range it had been in before the bubble. Although this ratio does not necessarily indicate stabilization in the residential housing market, it may be a positive sign that prices are getting closer to their long-run fundamental values.

Like residential property, commercial real estate experienced its own boom in values (although it peaked about a year later than the residential market). Apartment, office, retail, and industrial real estate values all increased dramatically in the 2005-2008 period. Since the market peak in mid-to-late-2007, all have fallen at least 9 percent (retail), with industrial property values falling 25 percent. Though prices have fallen substantially from their highs, a bottom is difficult to predict, given that commercial mortgage cash flows are heavily dependent on economic conditions. The ability of commercial enterprises to stay in business and meet their rent or mortgage payments is likely to closely track the severity (and eventual end) of the current

recession, as will commercial real estate prices.

Hundreds of billions of dollars of commercial real estate loans were packaged into commercial mortgage-backed securities (CMBS) in recent years, and the illiquidity in asset-backed markets generally has hit CMBS in a big way, as shown by their associated risk premiums. AAA-rated tranches of CMBS currently trade at about the 10-year Treasury rate plus 10 percent. The lower grades of securities trade at spreads of 60 percent to 90 percent. As noted earlier, market prices can hit distressed levels if financial markets are not operating normally. Exorbitant spreads in the CMBS market reflect both the credit-quality degradation associated with the recession and the impairment of the financial markets. A major concern is that problems in the credit market will prevent large amounts of commercial real estate debt from being rolled over (that is, refinanced).

Notice, however, that AAA spreads recently began to decrease. This may be a response to the recent announcement that the Federal Reserve's Term Asset-Backed Securities Loan Facility (TALF) would accept CMBS as collateral and thus aid the return of liquidity to the market.

---

To read the Federal Reserve Bank of Atlanta's piece on the historical relationship between home prices and the labor force size:  
<http://macroblog.typepad.com/macroblog/2008/09/wall-street-wor.html>

For more on the Federal Reserve Bank of Cleveland's research on credit easing:  
<http://www.clevelandfed.org/research/trends/2009/0209/02monpol.cfm>

# Real GDP: Fourth-Quarter 2008 Final Estimate

03.30.09

by Brent Meyer

## Real GDP and Components, 2008:Q4 Final Estimate

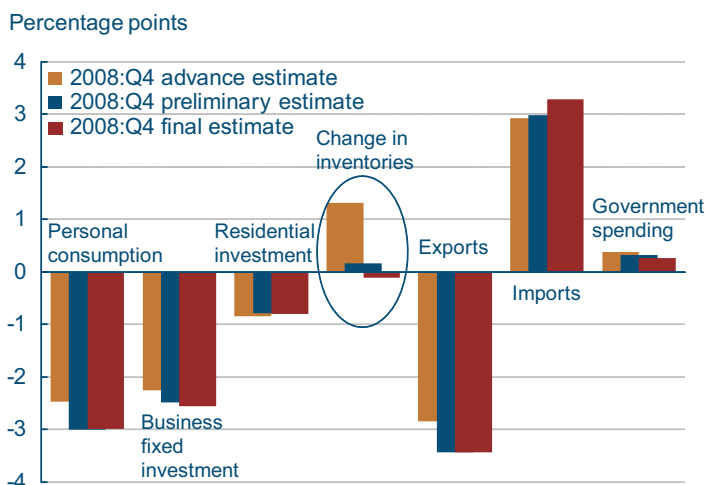
	Quarterly change (billions of 2000\$)	Annualized percent change, last:	
		Quarter	Four quarters
Real GDP	-190.4	-6.3	-0.8
Personal consumption	-90.1	-4.3	-1.5
Durables	-71.5	-22.1	-11.4
Nondurables	-57.7	-9.4	-3.4
Services	18.1	1.5	1.1
Business fixed investment	-84.6	-21.7	-5.2
Equipment	-83.5	-28.1	-11.0
Structures	-8.5	-9.4	6.3
Residential investment	-22.1	-22.7	-19.4
Government spending	6.6	1.3	3.2
National defense	4.6	3.4	8.8
Net exports	-11.4	—	—
Exports	-101.2	-23.6	-1.8
Imports	-89.7	-17.5	-7.5
Private inventories	-25.8	—	—

Source: Bureau of Economic Analysis.

The final estimate of real GDP in the fourth quarter of 2008 came in at -6.3 percent (annualized rate), 0.1 percentage points (pp) lower than the preliminary estimate and whopping 2.5 pp below the advance estimate.

The primary drivers of the further downward revision in the final estimate were downward adjustments to private inventories, business fixed investment, and government consumption. The change in private inventories was updated to show a 0.1 pp subtraction from real GDP growth, 0.3 pp lower than the preliminary estimate, and 1.4 pp less than the advance estimate. Business fixed investment was adjusted down 0.1 pp from the preliminary to final release, and government consumption ticked down 0.1 pp as well. Tempering the downward adjustments was a 0.3 pp upward revision to real imports, as the decrease in imports deepened to -17.5 percent (annualized rate) from -16.0 percent (imports subtract from output in the GDP calculation; therefore, a decrease in imports adds to real GDP growth).

## Contribution to Percent Change in Real GDP



Source: Bureau of Economic Analysis

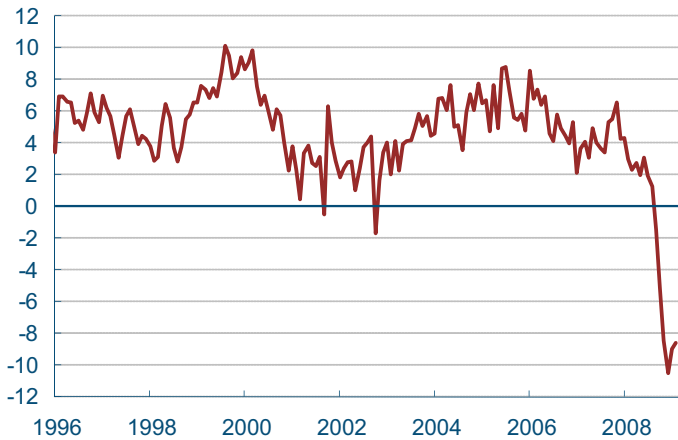
Recent data on consumption suggest that we might not experience a third consecutive quarter of negative spending growth, which would be a postwar record, even though real personal consumption slipped down 0.2 percent (nonannualized) in February, because an upward revision nearly doubled January's estimate—from a 0.4 percent increase to 0.7 percent. According to the release, consumption was bumped up due to the recent unexpected strength in the retail sales indicators.

Total retail sales actually declined 0.1 percent in February, but they came in above expectations of a -0.5 percent decline. Excluding motor vehicle and parts dealers, retail sales increased 0.7 percent during the month. This follows a large (upwardly revised) 1.8 percent jump in total retail sales during January. Over the past 12 months, total sales are still down 8.6 percent, though this is somewhat of



## Total Retail Sales

12-month percent change



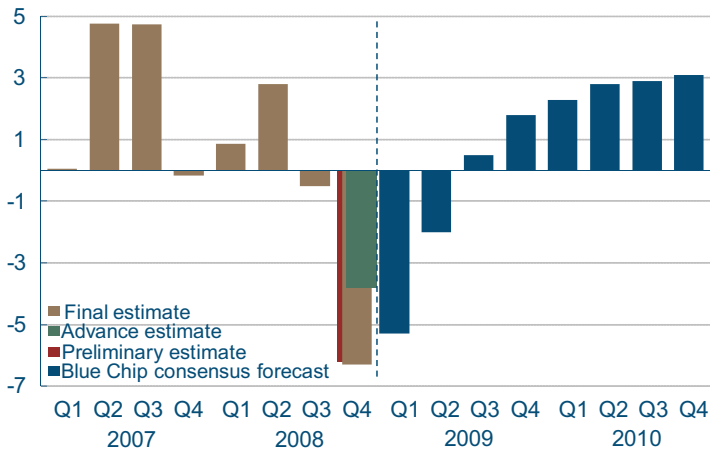
Source: Census Bureau

an improvement over the current cyclical low of -10.5 percent, which occurred in December.

Panelists on the Blue Chip survey continued to revise down their annual estimates for real GDP in 2009. As of the first week of March, they expect a first-quarter decrease of 5.3 percent. There are a couple of encouraging signs in the survey, if the respondents are to be believed. First, their first-quarter estimate is for a slightly less severe contraction. Second, 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).

## Real GDP Growth

Annualized quarterly percent change



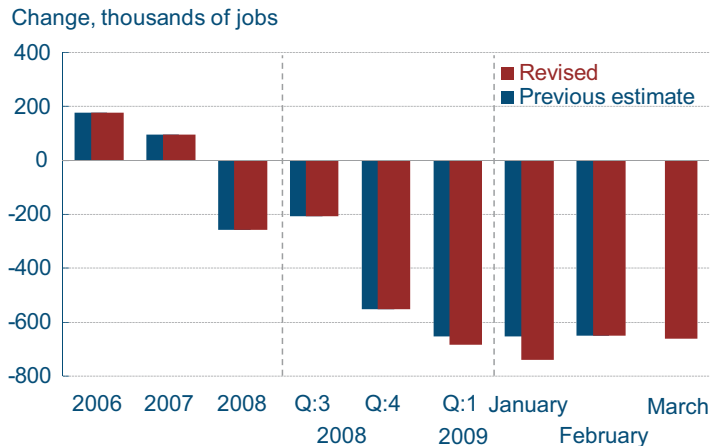
Source: *Blue Chip Economic Indicators*, March 2009; Bureau of Economic Analysis.

## March Employment Situation

04.06.09

by Murat Tasci and Beth Mowry

### Average Nonfarm Employment Change



Source: Bureau of Labor Statistics.

Payroll employment continued its sharp drop in March, declining by 663,000. Revisions left February's losses unchanged at 651,000, but January's losses increased to 741,000 (from 655,000 reported last month). Job losses were spread across all major industry groups, with the lone exception of health-care. The unemployment rate continued to rise, increasing 0.4 percentage point to 8.5 percent, the highest rate since 1983.

Goods-producing industries shed 305,000 jobs in March, and service-providing industries lost 358,000. The losses were spread between construction (126,000) and manufacturing (161,000). These two sectors alone are responsible for half of all the 5.1 million jobs lost since the start of the recession in December 2007. Manufacturing owes three-quarters of its decline last month to durable goods.

Among service-providing industries, professional and business services sustained the heaviest losses (133,000), largely due to payroll declines in temporary help services (71,700). The trade, transportation, and utilities sector shed 112,000 jobs last month. Within this sector, the retail trade drop of 48,000 was due mostly to declines at building material and garden supply stores, electronics and appliance stores, and auto dealerships.

Motor vehicle and parts dealers continued to see high casualties (-16,000), as did truck transportation (-15,000). The financial activities sector lost 43,000 jobs last month, and leisure and hospitality lost 40,000. Education and health services stayed positive, but added just 8,000 jobs, compared to its average addition of about 40,000 each month over the past year. Healthcare carried all the gains within this sector, as education services actually experienced losses. Even though the federal government was still hiring in March, the government sector as a whole recorded 5,000 losses due to cuts at the state and local levels.

## Labor Market Conditions

	Average monthly change (thousands of employees, NAICS)			
	2006	2007	2008	March 2009
Payroll employment	178	96	-257	-663
Goods-producing	5	-34	-126	-305
Construction	15	-16	-57	-126
Heavy and civil engineering	3	0	-6	-10.4
Residential <sup>a</sup>	-5	-23	-35	-58.7
Nonresidential <sup>b</sup>	16	6	-16	-57.3
Manufacturing	-14	-22	-73	-161
Durable goods	-4	-16	-54	-125
Nondurable goods	-10	-5	-19	-36
Service-providing	173	130	-131	-358
Retail trade	3	14	-44	-47.8
Financial activities <sup>c</sup>	9	-10	-19	-43
PBS <sup>d</sup>	45	25	-63	-133
Temporary help services	2	-7	-44	-71.7
Education and health services	39	43	43	8
Leisure and hospitality	33	21	-21	-40
Government	17	24	14	-5
Local educational services	6	8	1	-0.8
	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.

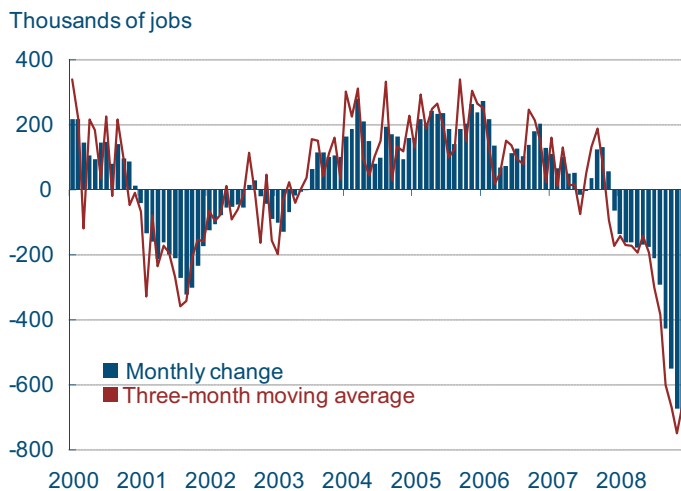
b. Includes construction of nonresidential buildings and nonresidential specialty trade contractors.

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.

## Private Sector Employment Growth



Source: Bureau of Labor Statistics.

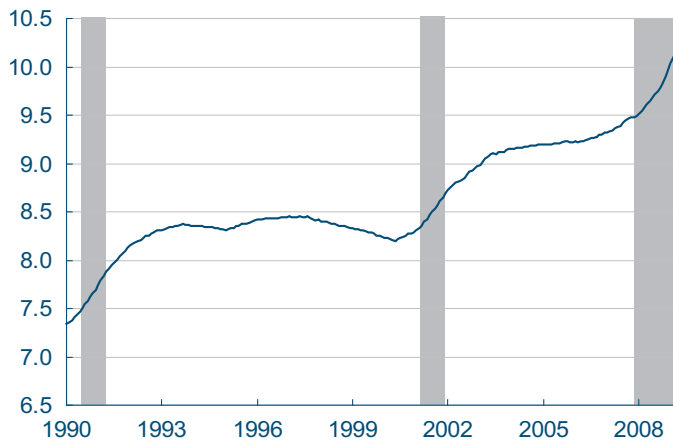
Private-sector employment dropped by another 658,000 in March, making it the fifth straight month in which the monthly decline exceeded 600,000. Since November 2008, the private sector has lost more than 3 million jobs. Finding larger declines in private employment would require looking all the way back to the late 1940s and mid-1950s.

The Bureau of Labor Statistics' diffusion index of employment change also crept slightly higher in March, inching from a reading of 21.4 to 22.0, meaning only 22 percent of all industries are increasing employment while the rest are making cuts. The index began back in 1991, and since then, only December 2008 and February 2009 have had worse readings.

# An Overview of the Healthcare System

## Healthcare Employment

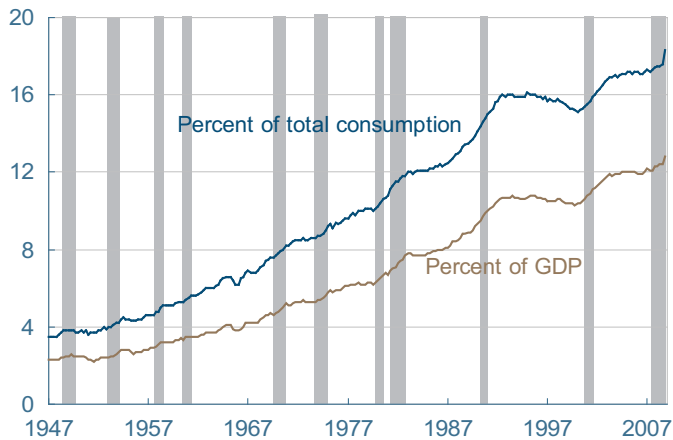
Percent of total employment



Source: Bureau of Labor Statistics.

## Healthcare Consumption

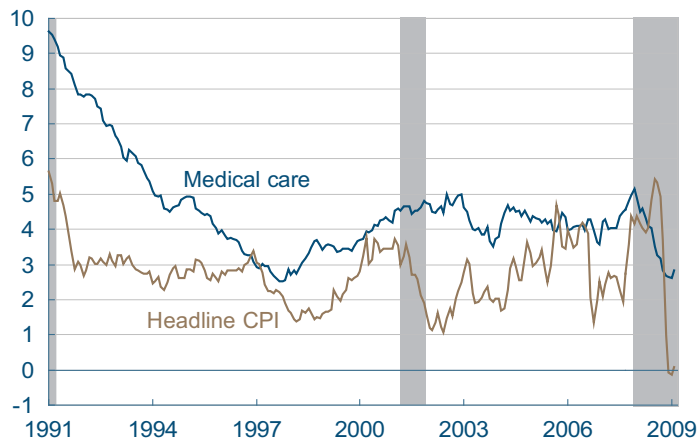
Percent



Source: Bureau of Economic Analysis

## CPI: Medical Care

Percent change, year over year



Source: Bureau of Labor Statistics.

04.07.09

by Michael Shenk

Despite much of policy makers' time being devoted to the ongoing financial crisis and the resulting recession, there seems to be a great deal of resolve to tackle the pressing issue of healthcare reform. With this in mind, it is a good time to take a look at the healthcare industry.

As a portion of total employment, the industry is relatively large, accounting for 10 percent of total employment in February 2008, up from 7.5 percent of employment in 1990. In contrast to most other industries, employment in healthcare has been remarkably resilient over the past three recessions. In fact, since the 1990 recession healthcare employment has actually increased at a faster rate during recessions and at a slower rate during the post recession period. Thus far healthcare employment has increased 3.2 percent since the start of our current recession while total service employment has fallen by 2.3 percent. Part of the reason healthcare employment has continued to increase is due to increasing demand for healthcare services. Currently, healthcare expenditures make up 18.3 percent of the country's personal consumption expenditures that equates to roughly 12.8 percent of total GDP. Those numbers are up from 3.5 percent of consumption and 2.3 percent of GDP in 1947.

As the demand for healthcare has increased, so has its price. While pundits frequently talk about healthcare inflation, the term is a bit of a misnomer. Inflation is the result of an excess supply of money that results in an increase in the price level (in other words, an increase in the average price of all goods and services). What has been attracting the attention of health policy analysts for years is that healthcare prices are going up more quickly than those for other goods and services in the economy. Economists refer to this as a "relative price movement," and it is independent of inflation. The increase in the cost of health insurance is a direct result of healthcare's relative price increase and peoples' demand for more health services. While

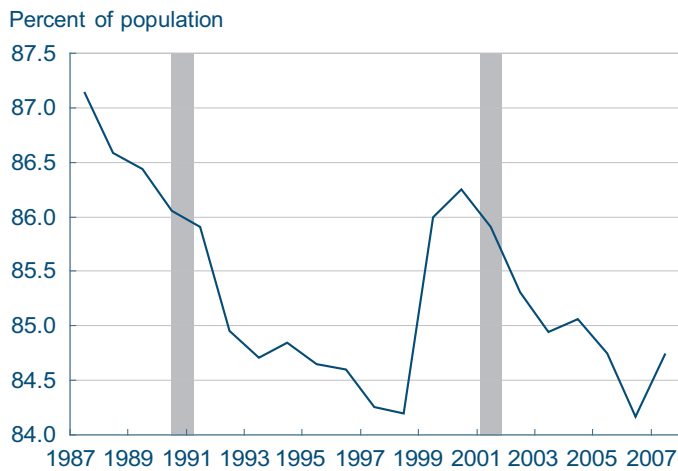
the increasing cost of healthcare is one of the driving forces behind calls for reform, there is no obvious or rational way to curb increases in demand for healthcare: it appears to be a natural result of rising incomes and improved medical technology. One potentially effective way to prevent prices from increasing rapidly would be to enact policies that encourage increases in the supply of healthcare.

Another driving force behind calls for healthcare reform is the issue of access to care. As of 2007, only 67.5 percent of people were covered by private health insurance. While government insurance plans such as Medicare and Medicaid covered an additional 17.2 percent of people, 15.3 percent of people had no health insurance in 2007. That 15 percent includes both people who are able to afford insurance but decide not to purchase it, as well as those who claim to be unable to afford insurance but do not qualify for Medicaid.

Another more recent argument for healthcare reform is that our employer-based system places an unnecessary burden on companies, making it more difficult for them to compete in the global economy. This argument doesn't seem to hold much weight. When a company employs someone, the total cost of employing that person is what matters. Their willingness to employ someone depends on the value that person provides to the company relative to the cost of their total compensation; the form of that compensation is irrelevant. For example, if a firm values an employee at \$100,000 per year, then all else constant, the firm will be indifferent between paying that employee a salary of \$100,000 and paying that employee a salary of \$90,000 plus \$10,000 in health insurance. The fact that companies pay for employees' health insurance indicates that they find some benefit in doing so. If it was more cost-effective to pay only cash salaries and have employees acquire their own insurance, companies would pay employees accordingly.

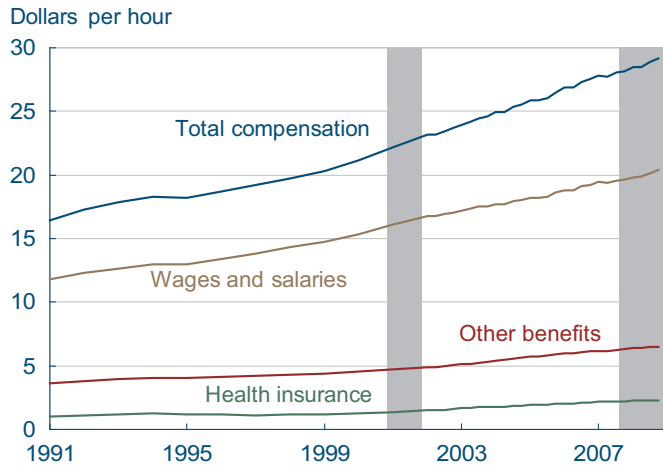
There are several potential reasons why employers prefer to provide their employees with health insurance instead of compensating them in cash alone. One is the tax treatment of employer-provided health insurance. Because employer-provided healthcare is purchased pre-tax, the employer can

## Health Insurance Coverage



Source: Census Bureau.

## Employer Cost of Employee Compensation



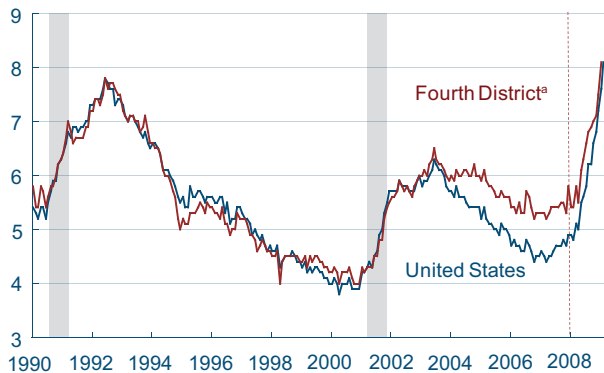
Source: Bureau of Labor Statistics.

purchase more coverage than the employee would be able to if compensated with an equivalent amount of cash. As a result, employees are either better off or employers are able to compensate less than they otherwise would. On top of the income tax savings for individuals, both the employee and the employer save substantially on payroll taxes. Employees making under the maximum amount subject to social security save an amount equal to 7.65 percent of the cost of coverage, while the employer saves the same amount for each employee. In addition, employers can purchase group coverage for a lower premium than a typical employee could get on their own: in group plans insurers do not have to worry as much about adverse selection (less healthy people buying health insurance and healthier people foregoing it). Aside from being more cost-effective, employer-provided health insurance may benefit employers by reducing employee turnover and also by encouraging employees to invest in their health (reducing the aggregate cost of sick leave). Given all the complex interactions, any move away from health insurance's current funding system needs to be carefully considered.

# Fourth District Employment Conditions

## Unemployment Rates

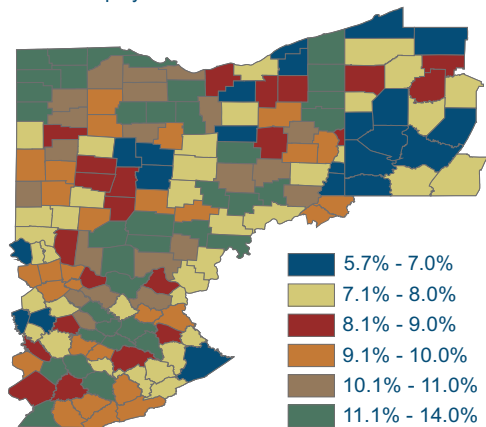
Percent



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

## County Unemployment Rates

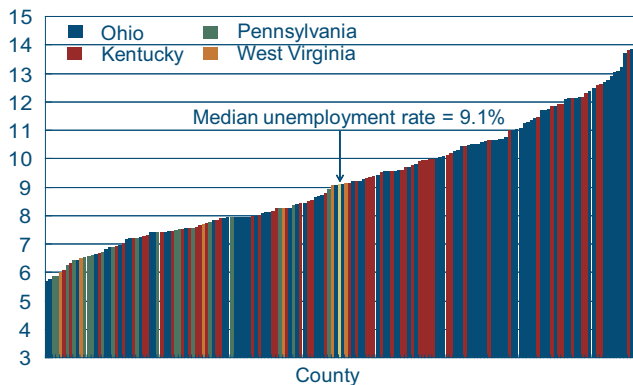
U.S. unemployment rate = 7.6%



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

03.20.09  
by Kyle Fee

The District's unemployment rate shot up 0.6 percentage point to 8.1 percent for the month of January. The increase in the unemployment rate is attributed to an increase of the number of people unemployed (8.2 percent) and a decrease in the number of people employed (-1.0 percent). Compared to the national rate in January, the District's unemployment rate (0.5 percentage point) stood higher, as it has been since early 2004. However, over the past year the gap between unemployment rates has all but vanished as a result of the current recession. Since the same time last year, the Fourth District and the national unemployment rates have both increased by 2.7 percentage points.

Unemployment rates vary considerably across counties in the Fourth District. Of the 169 counties that make up the District, 43 had an unemployment rate below the national average in January and 126 counties had rates higher than the national average. There were 58 District counties reporting double-digit unemployment rates, while only five 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. More recently, counties on the Ohio side of the Ohio-Pennsylvania border have seen spikes in unemployment rates.

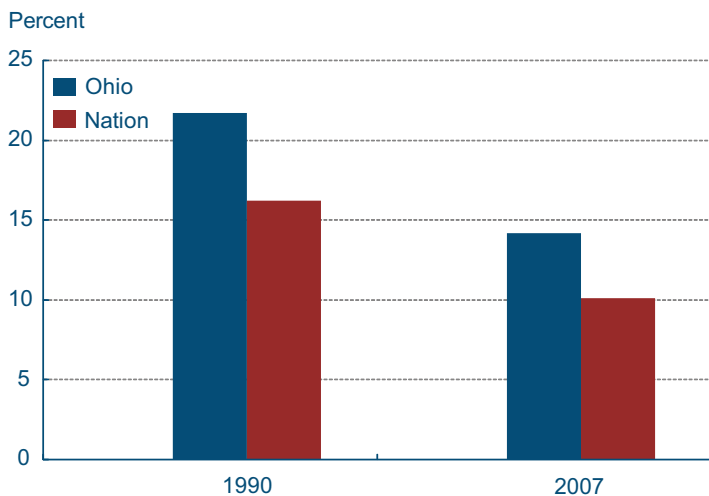
The distribution of unemployment rates among Fourth District counties ranges from 5.7 percent to 14.0 percent, with a median county unemployment rate at 9.1 percent. Counties in Fourth District West Virginia and Pennsylvania generally populate the lower half of the distribution while Fourth District Kentucky and Ohio counties continue to dominate the upper half of the distribution. These county-level patterns are reflected in state-wide unemployment rates as Ohio and Kentucky have unemployment rates of 8.8 percent and 8.7 percent, respectively, compared to Pennsylvania's 7.0 percent and West Virginia's 5.3 percent.

## Employment Loss in Ohio's Manufacturing Industry

03.30.09

by Kyle Fee

### Manufacturing as a Percent of Total Employment



Source: Bureau of Labor Statistics.

Ohio is often thought of as a state with a relatively large share of economic activity coming from the manufacturing sector, especially heavy manufacturing. Even after the sharp declines in the iron and steel industries in the 1980s, Ohio still had 21.7 percent of its workforce in the manufacturing sector in 1990. This was 34 percent more than the U.S. manufacturing employment share.

However, over the last several decades, Ohio's manufacturing employment has declined more rapidly than the nation's as a whole. By 2007, Ohio's share of employment in manufacturing reached 14.2 percent, while the nation's stood at 10.1 percent. But manufacturing still makes up an important share of employment in Ohio, and the current recession has hit Ohio's primary manufacturing industries, such as the automotive sector, particularly hard.

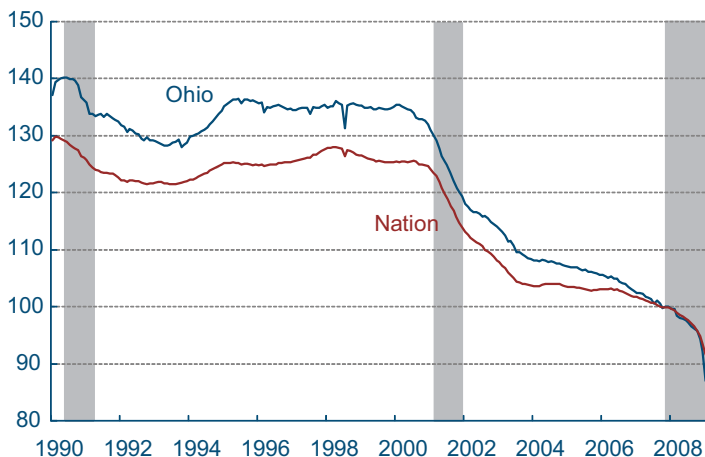
Ohio's trends in manufacturing employment have followed the nation's over the last three business cycles. After the recession of the early 1990s, manufacturing recovered slowly, and it never returned to prerecession employment levels. In the 2001 recession, employment in manufacturing declined sharply and never recovered. In fact, between the last recession and the current recession, manufacturing employment in both the state and the nation steadily declined, with Ohio experiencing a larger drop. This steady employment decline reflects both the movement of manufacturing overseas and improvement in productivity, which made manufacturing leaner, especially with respect to labor inputs.

Since December 2007, employment losses in manufacturing have accelerated. Ohio saw losses of 13.5 percent, while the nation saw losses of 9.5 percent. Employment losses in the manufacturing sector account for a disproportionate amount of overall job loss in the current recession in the United States, but especially in Ohio. Forty-seven percent (102,700 jobs) of total job losses in Ohio



## Manufacturing Payroll Employment

Index, December 2007=100



Source: Bureau of Labor Statistics.

and 30 percent (1,300,000 jobs) of total U.S. job losses are due to the manufacturing sector.

Looking at job declines by specific manufacturing industry shows which industries are driving the employment losses. Several industries stand out. First, the metals industry accounts for a larger share of Ohio manufacturing employment than U.S. manufacturing employment, and while the industry has experienced similar percentage employment losses in both the state and the nation, Ohio's larger employment share makes the industry a more important contributor to Ohio's employment losses.

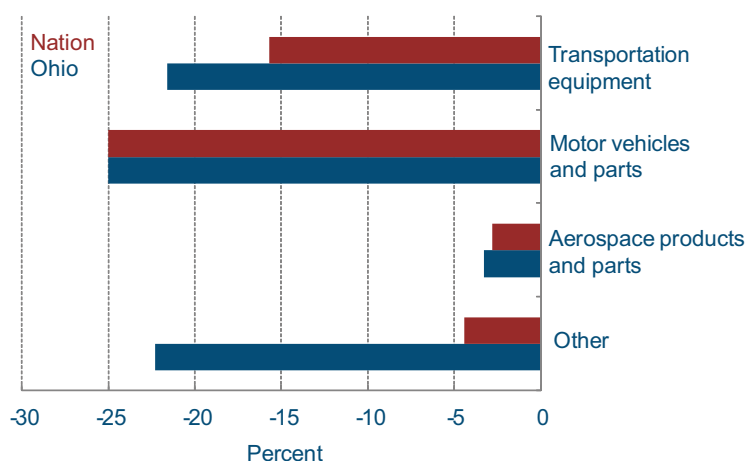
## Industry Employment Growth Since December 2007

	Ohio, percent of total manufacturing (2007)	Nation, percent of total manufacturing (2007)	Nation, employment growth since December 2007 (percent)	Ohio, employment growth since December 2007 (percent)
Nonmetallic mineral products	4.0	3.6	-12.2	-13.1
Primary metals	6.5	3.3	-11.4	-13.1
Fabricated metal products	15.3	11.3	-1.2	-10.5
Machinery	10.7	8.6	-9.3	-7.7
Computer and electronic products	2.9	9.2	0.1	-4.7
Electrical equipment, appliances, and components	4.1	3.1	-8.2	-5.9
Transportation	17.4	12.3	-21.6	-15.8
Furniture and related products	2.7	3.8	-17.5	-18.6
Food	7.0	10.7	-7.9	-1.3
Printing and related support activities	4.0	4.5	-7.4	-10.1
Chemical	6.0	6.2	-4.3	-3.0
Plastic and rubber products	8.3	5.5	-15.5	-10.7
Miscellaneous	11.1	18.0	-22.9	-10.4

Source: Bureau of Economic Analysis.

Second, Ohio has a relatively large employment share in transportation-related manufacturing industries, and these industries have experienced relatively large employment declines in Ohio. In the United States as a whole, manufacturers of transportation goods have shed 15.8 percent of their employment since the recession began, but in Ohio the decline is 21.6 percent. In fact, the transportation industry accounts for 27.8 percent of the entire manufacturing sector's employment loss in Ohio, or about 28,400 jobs. For the United States

## Transportation Industries: Employment Growth Since December 2007



Source: Bureau of Labor Statistics

as whole, transportation accounts for only 18.5 percent of the nation's losses in manufacturing, or about 240,000 jobs.

Third, industries in which employment losses so far have been relatively small across the country, such as computers and electronics and food and chemical industries, fared differently in Ohio and the U.S. as a whole. Ohio's computers and electronics industry actually had positive growth, but this was primarily due to the state's smaller share of employment in the industry, 2.9 percent, compared to the nation's 9.2 percent. Somewhat surprisingly, Ohio's food industry has also been hit relatively hard in this recession, with job losses of 7.9 percent, compared to the nation's loss of 1.3 percent.

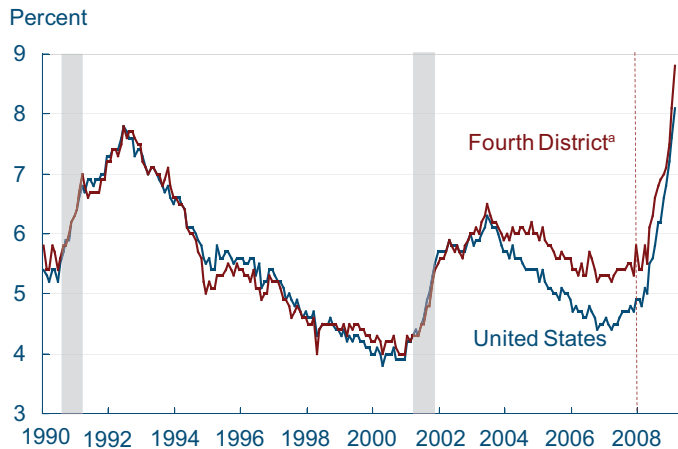
A finer industry breakout of the transportation sector shows the role of the automotive industry on employment losses. The two largest employment sectors in transportation are motor vehicles and parts and aerospace products and parts. All things considered, aerospace has held up relatively well. However, employment in the automotive industries has declined 25 percent in both the United States as a whole and Ohio. Unfortunately, the automotive industry is much more important as a share of manufacturing employment in Ohio than in the nation as a whole. It represented 13.8 percent of manufacturing employment in Ohio at the start of the recession, compared to 7.2 percent nationwide. The "other" segment in the chart below represents a relatively small share of manufacturing transportation employment and is primarily composed of manufacturing related to railroads, rolling stock, and ship and boat building. Ohio has seen a decline in excess of 20 percent for this segment compared to -4.4 percent for the nation.

Given the current state of the automotive industry, it would not be surprising to see employment in automotive-related industries decline further in both Ohio and the country at large, as industry restructuring continues.

# Fourth District Employment Conditions

04.06.09  
by Kyle Fee

## Unemployment Rates

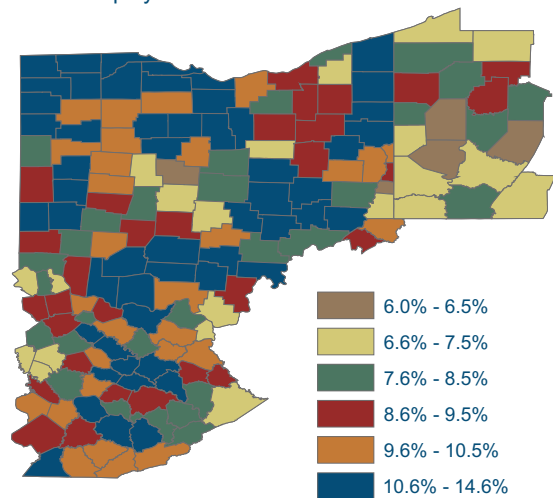


a. Seasonally adjusted using the Census Bureau's X-11 procedure.  
Note: Shaded bars represent recessions. Some data reflect revised inputs, reestimation, and new statewide controls. For more information, see <http://www.bls.gov/lau/launews1.htm>.  
Source: U.S. Department of Labor, Bureau of Labor Statistics.

The District's unemployment rate jumped 0.7 percentage point to 8.8 percent for the month of February. The increase in the unemployment rate is attributed to an increase of the number of people unemployed (8.2 percent) and a decrease in the number of people employed (-0.2 percent). The District's unemployment rate was again higher than the national rate in February (by 0.7 percentage point), as it has consistently been since early 2004. Since the recession began, the nation's monthly unemployment rate has been 0.6 percentage point lower on average than the Fourth District unemployment rate. Since this time last year, the Fourth District and the national unemployment rates have increased by 3.4 percentage points and 3.3 percentage points, respectively.

## County Unemployment Rates

U.S. unemployment rate = 8.1%



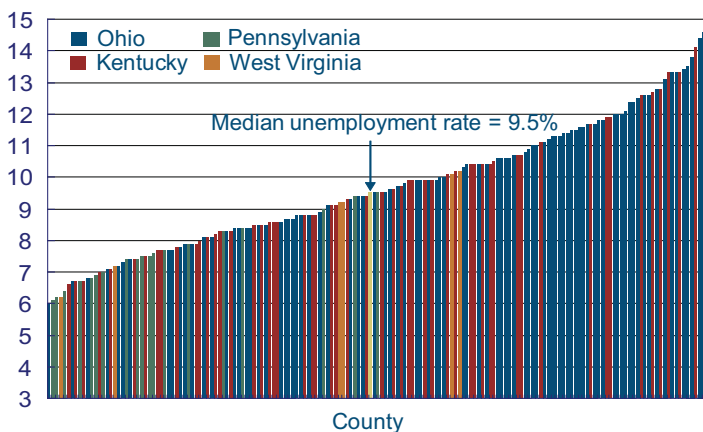
Note: Data are seasonally adjusted using the Census Bureau's X-11 procedure.  
Source: U.S. Department of Labor, Bureau of Labor Statistics.

There are substantial differences in unemployment rates across counties in the Fourth District. Of the 169 counties that make up the District, 41 had an unemployment rate below the national rate in February, and 128 counties had a higher rate. There were 69 counties in the District reporting double-digit unemployment rates, and 70 percent of those were in Ohio. Rural Appalachian counties continue to experience higher levels of unemployment, as do counties along the Ohio-Michigan border. More recently, counties on the Ohio side of the Ohio-Pennsylvania border have seen spikes in unemployment rates. Outside of Pennsylvania, lower levels of unemployment are limited to the interior of Ohio or the Cleveland-Columbus-Cincinnati corridor.

The distribution of unemployment rates among Fourth District counties ranges from 6.0 percent to 14.6 percent, with a median county unemployment rate of 9.5 percent. Counties in Fourth District Pennsylvania generally populate the lower half of the distribution, while the few Fourth District counties in West Virginia moved to the middle of the distribution. Fourth District Kentucky and Ohio counties continue to dominate the upper half of the distribution. These county-level patterns are

## 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.

reflected in statewide unemployment rates, as Ohio and Kentucky have unemployment rates of 9.4 percent and 9.2 percent, respectively, compared to Pennsylvania's 7.5 percent and West Virginia's 6.0 percent.

Current unemployment rates vary more across Fourth District metropolitan statistical areas (MSAs) than they did only a year ago. Statewide unemployment trends are evident at the MSA level, as MSAs in Fourth District Pennsylvania posted low levels of unemployment even with Erie's heavy allocation of labor in the manufacturing sector. Lexington's unemployment rate is also rather low despite employing a similar percentage of workers in manufacturing as Akron, Cleveland, and Dayton. Such differences in unemployment rates are likely due to the particular composition of the manufacturing industries in the MSAs. For instance, those MSAs with less exposure to the auto industry have experienced lower levels of unemployment than those that depend heavily on the auto industry for employment.

## MSA Unemployment Rates

	February 2008 unemployment rate (percent)	February 2009 unemployment rate (percent)	Manufacturing employment as a total percent of total employment (2007)
Akron	5.1	8.8	13.7
Canton	5.6	9.5	17.8
Cincinnati	4.9	8.4	11.6
Cleveland	6.1	8.7	13.3
Columbus	4.5	7.4	8.1
Dayton	5.6	10.7	12.9
Toledo	6.5	11.4	14.7
Youngstown	6.3	11.7	15.2
Lexington	4.2	7.1	13.7
Erie	5.4	7.4	18.2
Pittsburgh	4.8	6.6	8.8

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

*Economic Trends* is published by the Research Department of the Federal Reserve Bank of Cleveland.

Views stated in *Economic Trends* are those of individuals in the Research Department and not necessarily those of the Federal Reserve Bank of Cleveland or of the Board of Governors of the Federal Reserve System. Materials may be reprinted provided that the source is credited.

If you'd like to subscribe to a free e-mail service that tells you when *Trends* is updated, please send an empty email message to [econpubs-on@mail-list.com](mailto:econpubs-on@mail-list.com). No commands in either the subject header or message body are required.

ISSN 0748-2922

