

# Economic Trends

October 2008

(Covering September 11, 2008, to October 9, 2008)

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# August Price Statistics

09.26.08  
Brent Meyer

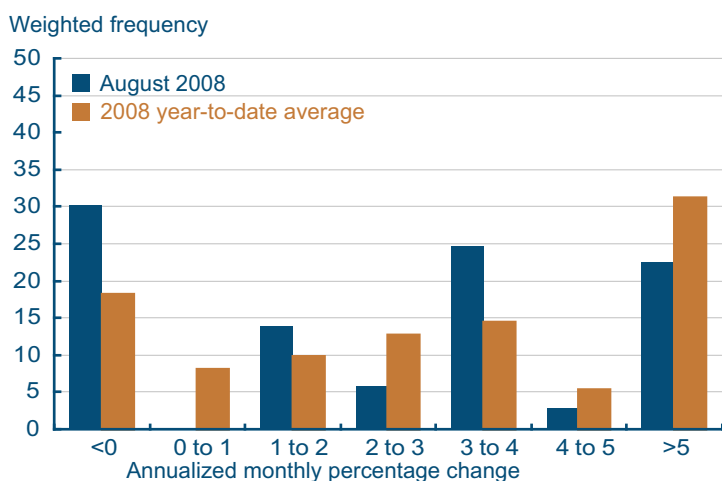
## August Price Statistics

	Percent change, last					2007 avg.
	1mo. <sup>a</sup>	3mo. <sup>a</sup>	6mo. <sup>a</sup>	12mo.	5yr. <sup>a</sup>	
<b>Consumer Price Index</b>						
All items	-1.6	7.2	6.0	5.4	3.5	4.2
Less food and energy	2.4	3.4	2.6	2.5	2.3	2.4
Median <sup>b</sup>	3.5	4.3	3.5	3.3	2.8	3.1
16% trimmed mean <sup>b</sup>	1.2	4.6	4.0	3.5	2.7	2.8
<b>Producer Price Index</b>						
Finished goods	-10.5	8.6	9.6	9.7	4.9	7.1
Less food and energy	2.9	4.6	4.3	3.7	2.2	2.1

a. Annualized.  
b. Calculated by the Federal Reserve Bank of Cleveland.  
Sources: U.S. Department of Labor and Bureau of Labor Statistics.

The Consumer Price Index (CPI) fell for the first time since October 2006, declining at an annualized rate of 1.6 percent in August. It was pulled down, as expected, by a large decrease (-31.8 percent) in energy prices, which, in the three months prior to August, had helped to push the CPI up 10.6 percent. The CPI excluding food and energy (core CPI) increased 2.4 percent during the month, compared to a 4.0 percent increase in July and a 3.9 percent increase in June. The median and 16 percent trimmed-mean CPI estimates also rose more slowly in August than in July. The median CPI rose 3.5 percent during the month, down from 4.7 percent in July. At the same time, the 16 percent trimmed-mean CPI increased just 1.2 percent, compared to a 7.2 percent increase last month.

## CPI Component Price Change Distributions



Source: Bureau of Labor Statistics.

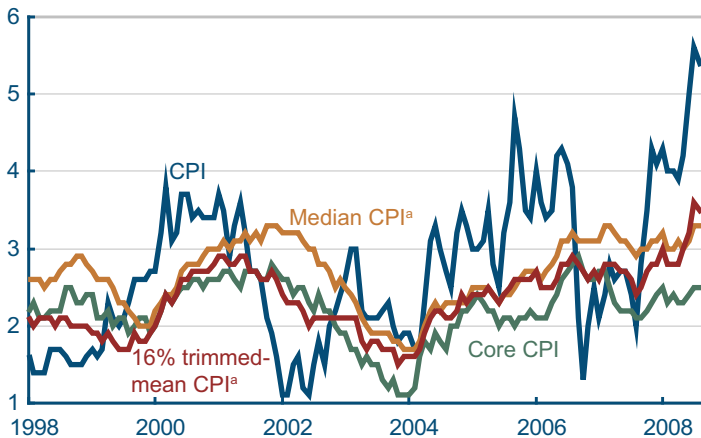
In August, 30 percent of the components of the CPI exhibited price decreases, while 22.5 percent experienced increases at rates exceeding 5.0 percent (so a majority of the index's components fell into the tails of the distribution). The prices of some fairly substantial components—gas and piped electricity, lodging away from home, new vehicles and used cars and trucks, and communication—which together account for 16 percent of household expenditures on CPI components, decreased in August. The combined weight of their decreases helped to pull down the 16 percent trimmed-mean. It also explains some of the disparity between the median and the 16 percent trimmed-mean measures.

Over the past 12 months, the CPI has increased 5.4 percent. The longer-term trends in the core and trimmed-mean measures remained somewhat elevated in August, ranging between 2.5 percent and 3.5 percent.

Core services, which account for roughly 55 percent of the overall CPI, exhibited price gains in August (up 3.0 percent), roughly in line with the longer-term trend of 3.3 percent. Core goods prices

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

12-month percent change



a. Calculated by the Federal Reserve Bank of Cleveland.

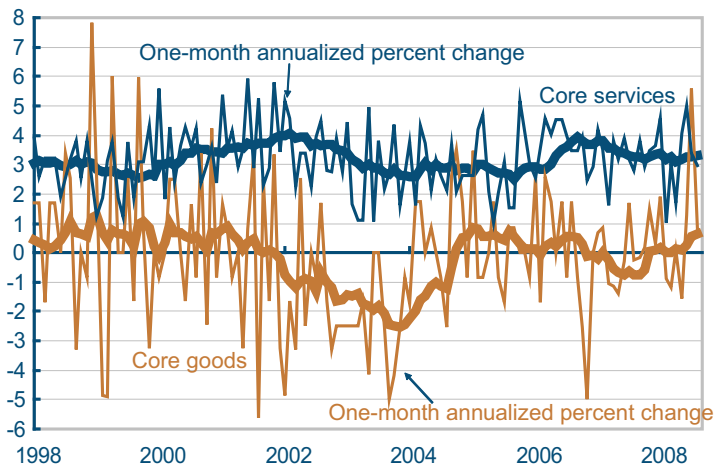
Sources: U.S. Department of Labor, Bureau of Labor Statistics, FRBC.

es returned to trend growth, increasing 0.8 percent in August after a hefty 5.6 percent gain last month.

Short-term (one-year ahead) average inflation expectations fell to 3.9 percent in September (as measured by the University of Michigan's Survey of Consumers), as energy and commodity prices continued to fall from recent highs. Long-term (5–10 year) average inflation expectations decreased from 3.9 percent in August to 3.1 percent in September.

## Core CPI Goods and Core CPI Services

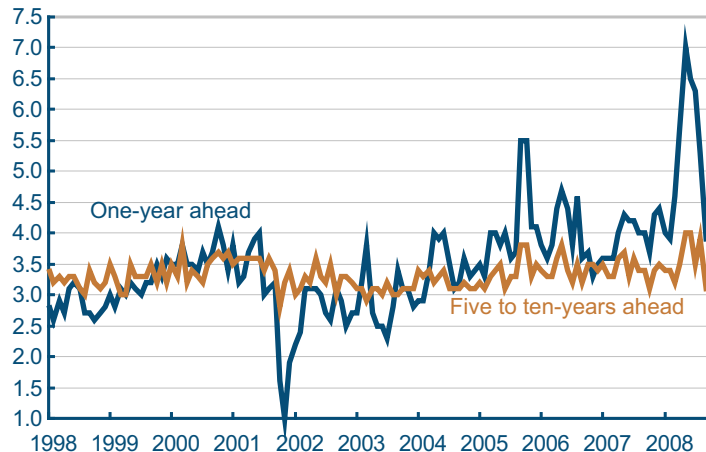
12-month percent change



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

## Household Inflation Expectations

12-month percent change



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

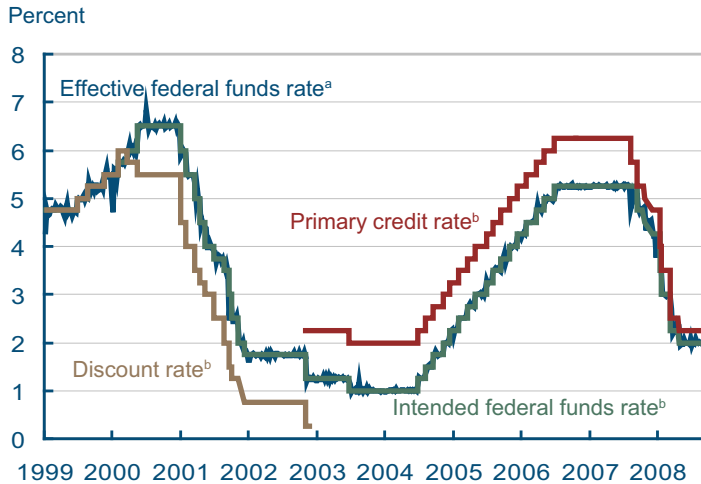
Source: University of Michigan.

## Staying the Course

09.17.08

John Carlson and Sarah Wakefield

### Reserve Market Rates

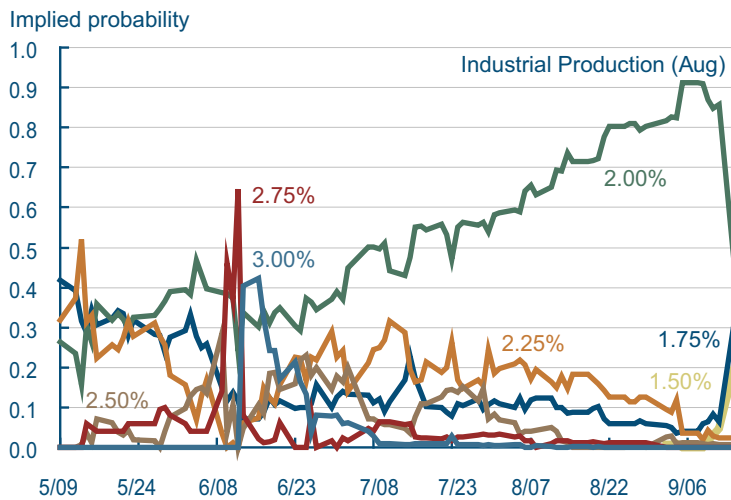


a. Weekly average of daily figures.

b. Daily observations.

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

### September Meeting Outcomes



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

Sources: Chicago Board of Trade and Bloomberg Financial Services

In a unanimous vote, the Federal Open Market Committee (FOMC) voted to keep its target fed funds rate steady at 2 percent. In its statement, the FOMC recognized that "Strains in financial markets have increased significantly..." While noting that credit conditions had tightened, the statement concluded, "Over time, the substantial easing of monetary policy, combined with ongoing measures to foster market liquidity, should help to promote moderate economic growth."

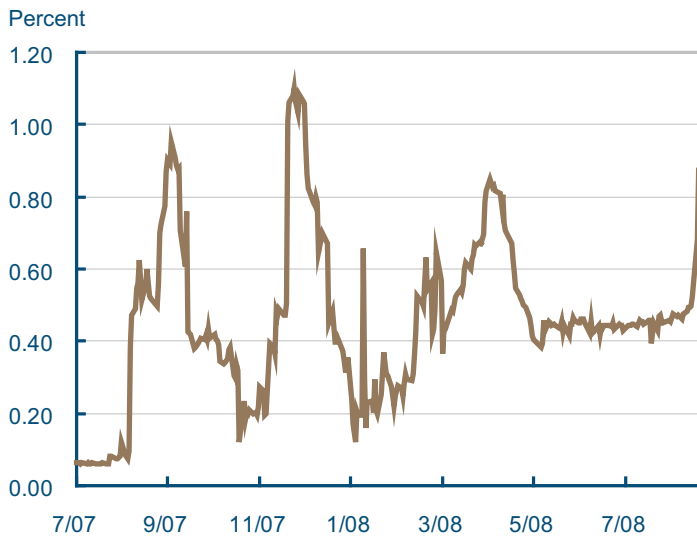
Just last week, most market participants took the no-change outcome as a given. However, financial market developments over the weekend sent shockwaves through the whole financial system. By Monday, options and futures prices on the fed funds rate indicated that odds slightly favored a rate cut of at least 25 basis points. But that was not to be.

The dramatic collapse of Lehman Brothers, the hasty sale of Merrill Lynch to Bank of America, and the appeal of AIG for aid changed all that. Concerns about liquidity and systemic risk, which had been rising, intensified. One closely watched indicator of liquidity conditions, the spread between the term borrowing rate in the London interbank market (Libor) and the cash market rate (OIS), reflected these developments. The spread for one-month borrowing had declined considerably from recent peaks; however, recent turmoil in financial markets has caused the spread to increase substantially.

Rather than addressing this liquidity problem with a change in the policy rate, the Fed decided to continue to rely on its several lending facilities. The New York Federal Reserve Bank added \$50 billion in liquidity to money markets through overnight repurchase agreements, known as repos. In addition, the Trading Desk, which conducts open market operations on behalf of the Federal Reserve, said in a statement that it "stands ready to arrange further operations later in the day, as needed."

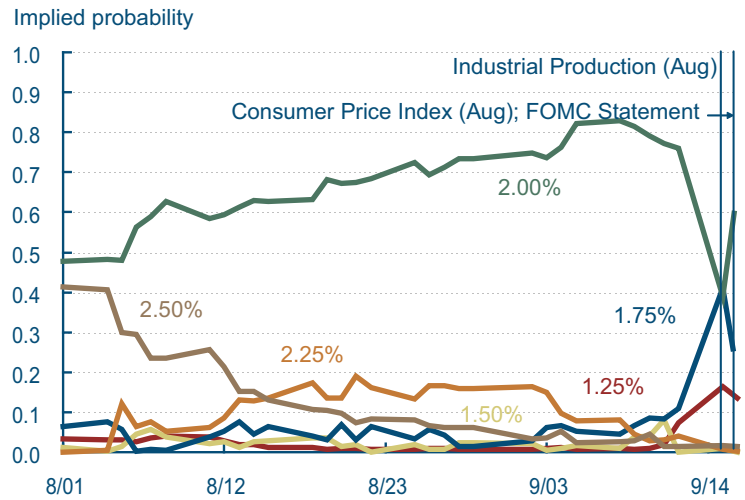
The markets backed off on an expectation for a rate hike at the FOMC's next meeting in October. The odds for the no-change outcome moved to better than even.

## One-Month LIBOR Spread



Notes: Daily observations; LIBOR spread is the one-month LIBOR rate minus the one-month OIS Rate.  
Sources: Bloomberg Financial Services, Financial Times.

## October Meeting Outcomes



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

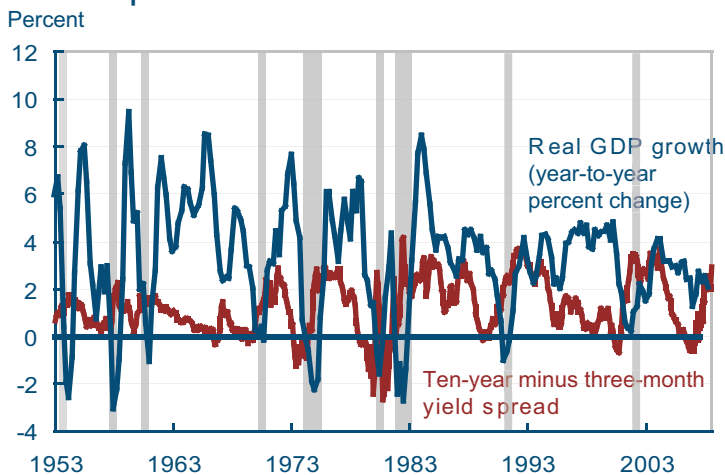
## Financial Markets, Money, and Monetary Policy

### The Yield Curve

09.26.08

Joseph G. Haubrich and Kent Cherny

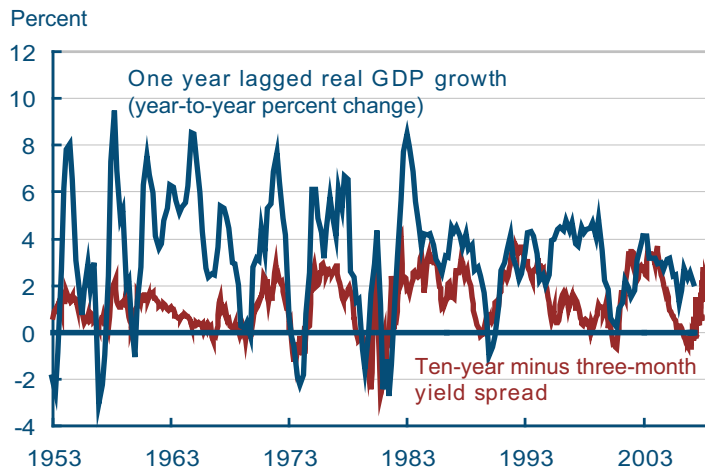
## Yield Spread and Real GDP Growth



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

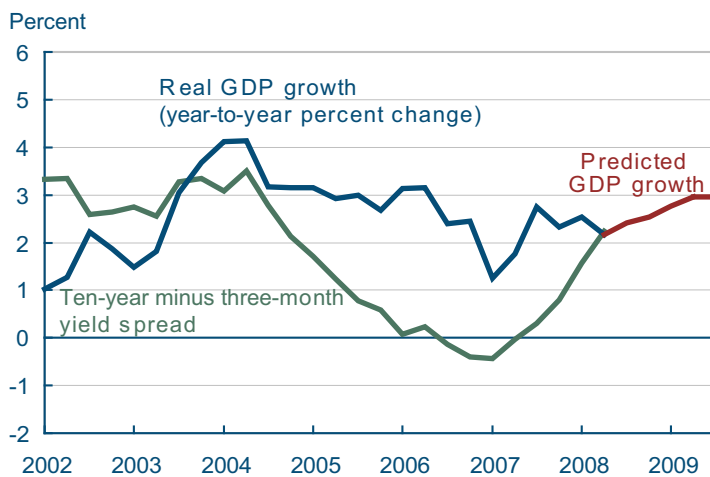
Since last month, the yield curve has moved lower and gotten steeper, as both short and long-term interest rates fell. One reason for noting this is that the slope of the yield curve has achieved some notoriety as a simple forecaster of economic growth. The rule of thumb is that an inverted yield curve (short rates above long rates) indicates a recession in about a year, and yield curve inversions have preceded each of the last six recessions (as defined by the NBER). Very flat yield curves preceded the previous two, and there have been two notable false positives: an inversion in late 1966 and a very flat curve in late 1998. More generally, though, a flat curve indicates weak growth, and conversely, a steep curve indicates strong growth. One measure of slope, the spread between 10-year 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.

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



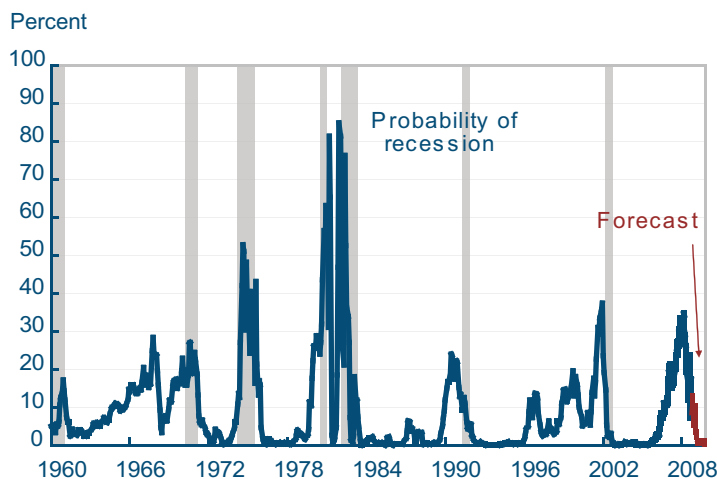
Sources: Bureau of Economic Analysis; Federal Reserve Board.

## Yield Spread and Predicted GDP Growth



Sources: Bureau of Economic Analysis; Federal Reserve Board.

## Probability of Recession Based on the Yield Spread



Note: Estimated using probit model.

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

The financial crisis showed up in the yield curve, with rates falling since last month, as investors fled to quality. This was particularly true at the short end, with the 3-month rate dropping from 1.86 percent all the way down to 0.62 percent (for the week ending September 19).

The 10-year rate took a substantial but less impressive drop from 3.91 to 3.52 percent. Consequently, the slope increased by a full 85 basis points, moving to 290 basis points up from the 205 basis points for August and well above the 213 basis points seen in July. The flight to quality and the turmoil in the financial markets may impact the reliability of the yield curve as an indicator growth, 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.

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 September stands a miniscule 0.2 percent, down from August's 1.3 percent and July's 1.1 percent.

The probability of recession is below several recent estimates and perhaps seems strange in the midst of the recent financial concerns, but one aspect of those concerns has been a flight to quality which lowers Treasury yields. 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 next September, not earlier in the year.

To compare the 0.2 percent to some other probabilities, and learn more about different techniques of predicting recessions, head on over to the Econbrowser blog.

Of course, it might not be advisable to take this number quite so literally, for two reasons. First, this probability is itself subject to error, as is the case

with all statistical estimates. Second, other researchers have postulated that the underlying determinants of the yield spread today are materially different from the determinants that generated yield spreads during prior decades. Differences could arise from changes in international capital flows and inflation expectations, for example. The bottom line is that yield curves contain important information for business cycle analysis, but, like other indicators, 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 see other forecasts of GDP growth:  
[http://www.cbo.gov/ftpdocs/89xx/doc8979/02-15-EconForecast\\_ConradLetter.pdf](http://www.cbo.gov/ftpdocs/89xx/doc8979/02-15-EconForecast_ConradLetter.pdf)

To see other probabilities of recession:  
<http://www.bloomberg.com/apps/news?pid=20601087&sid=aEX73qWiBrb4>

Econbrowser blog is available at:  
[http://www.econbrowser.com/archives/2008/02/predicting\\_rece.html](http://www.econbrowser.com/archives/2008/02/predicting_rece.html)

Does the Yield Curve 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>

## International Activity

### Swap Lines

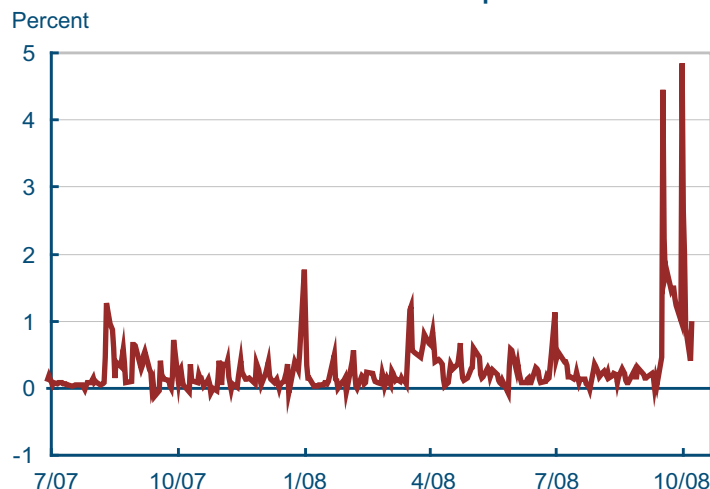
10.09.08

Owen F. Humpage and Michael Shenk

The current financial crisis is global. Banks in many countries are scrambling for liquidity—not just in their own currencies, but in dollars too. The Federal Reserve has attempted to facilitate this process by setting up swap lines with the world’s key central banks.

The dollar is world’s leading international currency. Many cross-border transactions—even between individuals who are not residents of the United States—are denominated in U.S. dollars. Commodities, most notably oil, are an excellent example; they typically are priced in U.S. dollars, and payments usually are made in U.S. dollars. Because of the dollar’s international role, large banks around the globe hold significant amounts of dollar-denominated assets and liabilities. Many of these banks have found themselves stuck with dollar-denominated assets that are tied to the U.S.

### Libor-Federal Funds Rate Spread



Note: Spread is calculated with the overnight dollar Libor.  
Sources: The Federal Reserve Board; Financial Times.

real estate debacle or that are otherwise distressed. These banks, like many U.S. domestic banks, have been scrambling for needed dollar liquidity, but the interbank market has frozen up as banks with funds worry about potential counterparties' balance sheets.

Indicative of the problem, rates on overnight interbank loans have recently shot skyward. Over the past year, spreads between the Libor (the index rate on overnight dollar funds in the London interbank market) and the federal funds rate, which typically are miniscule, became large and very volatile. In September, these rate spreads frequently exceeded a whopping 4 percentage points.

The Federal Reserve has been helping to provide dollar liquidity to foreign markets by agreeing to “swap” U.S. dollars temporarily for foreign currency. On September 29, the System offered swaps totaling \$620 billion dollars to nine key central banks through April 2009, if necessary. In a swap transaction, the Federal Reserve and a foreign central bank immediately exchange U.S. dollars for the foreign currency at a specific exchange rate—typically the prevailing spot rate—and simultaneously agree to reverse the transaction at a set exchange rate—often the same exchange rates—on a specific date in the future. Conducting the spot and forward legs of this currency swap at set exchange rates protects both the Federal Reserve and its foreign counterpart from losses (or gains) associated with any unanticipated intervening exchange-rate movements. During the term of the swap, the United States holds its foreign exchange in a special account at the foreign central bank, and the participating foreign

## Special Temporary Swap Lines

	Billions of dollars									
	Bank of Australia	Bank of Canada	National Bank of Denmark	Bank of England	European Central Bank	Bank of Japan	Bank of Norway	Bank of Sweden	Swiss National Bank	Total
12/12/2007	--	--	--	--	20	--	--	--	4	24
3/11/2008	--	--	--	--	30	--	--	--	6	36
5/2/2008	--	--	--	--	50	--	--	--	12	62
9/18/2008	--	10	--	40	110	60	--	--	27	247
9/24/2008	10	10	5	40	110	60	5	10	27	277
9/26/2008	10	10	5	40	120	60	5	10	30	290
9/29/2008	30	30	15	80	240	120	15	30	60	620

Source: The Federal Reserve Board.



central bank uses its newly acquired funds to provide emergency dollar liquidity to commercial banks.

Over the past 50 years, the Federal Reserve has often used swaps to finance foreign exchange interventions and to provide temporary funding to foreign countries in times of financial chaos. During the 1960s, for example, the Fed established a series of reciprocal swap lines with the major developed countries. At the time, the dollar was pegged to gold, and foreign currencies were fixed to the dollar. When foreign countries accumulated unwanted dollars reserves, they could exchange them with the U.S. Treasury for gold. Often, however, the U.S. monetary authorities believed that the foreign inflow of unwanted dollars would soon reverse, so they encouraged foreign central banks not to convert dollars into gold too hastily. A key way of doing so utilized swaps. The Federal Reserve would swap dollars for foreign currency with a central bank that held too many U.S. dollars and then use the newly acquired foreign currency to buy the excess dollars from that same foreign central bank. This sounds odd, because this set of transactions left the foreign central bank holding just as many dollars as initially was the case. It often worked because the central bank now held dollars under a swap with an established, single exchange rate for both the forward and spot legs of the transaction. The deal then protected the foreign central bank for the term of the swap against any dollar depreciation.

After March 1973, when exchange rates began to vary with market pressures, the Fed sometimes intervened to influence them. When the Fed wanted to prop up the dollar by selling foreign exchange, it often facilitated the operation by drawing foreign exchange on its swap lines. Use of the swap lines for foreign exchange intervention waned as the Fed eventually acquired a substantial portfolio of German marks and Japanese yen, which it could use for intervention purposes instead. The Fed also used swap lines to provide dollars temporarily to Mexico during the peso crises of 1982 and 1995. The United States terminated all of its on-going swap lines when Europe inaugurated the euro, except for two lines with our NAFTA partners, Canada and Mexico. Nevertheless, swaps are easy to step up and offer central banks a useful, very flexible mechanism for acquiring foreign currencies.

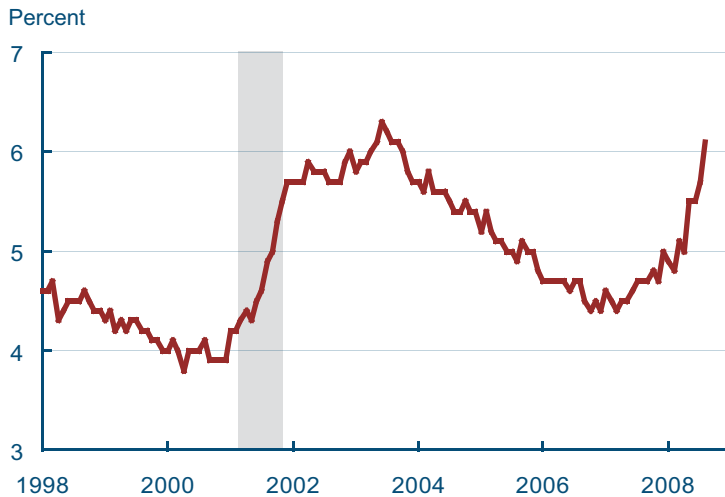
## Economic Activity and Labor Markets

# Cracks in the Real Economy

10.02.08

Timothy Dunne and Kyle Fee

### Unemployment Rate



Notes: Data are seasonally adjusted. Shaded bar indicate recession.  
Source: Bureau of Labor Statistics.

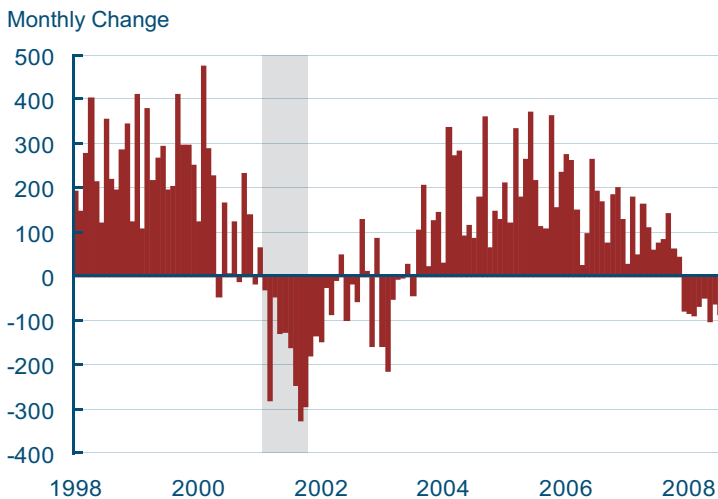
Not too surprisingly, news of general economic activity has taken a backseat to news of the problems plaguing the U.S. financial system. A look at the main data releases of September (which describe the economic activity of August) suggests a picture of weakening across a broad range of the economy. The month opened with the Bureau of Labor Statistics reporting a sharp rise in the unemployment rate, from 5.7 percent in July to 6.1 percent in August, along with a drop of 84,000 in payroll employment. The BLS also revised downward its estimates of payrolls for June and July.

Although the unemployment rate is at levels similar to that experienced shortly after the last recession, the drop in payroll employment has been relatively modest in comparison to previous recessions. According to the BLS, payroll employment declined in each month in 2008, though none of the month's losses exceeded 100,000 workers. To put this figure in perspective, note that job losses during the 2001 recession averaged 200,000 workers a month.

The employment report for September won't be released until tomorrow, but the unemployment claims data published weekly throughout the month suggest that labor markets continued to weaken during the month. The four-week moving average of continuing claims moved substantially higher throughout August and the first part of September. To be sure, some of these statistics have been negatively impacted by the recent hurricanes in Texas and Louisiana, but even factoring in such events, initial claims and continuing claims remain at high levels.

While the labor data over the last several months have indicated a deteriorating economy, monthly data on industrial production, durable goods, and retail sales have offered a somewhat mixed picture up through July. In fact, initial reports for industrial production and durable goods shipments and

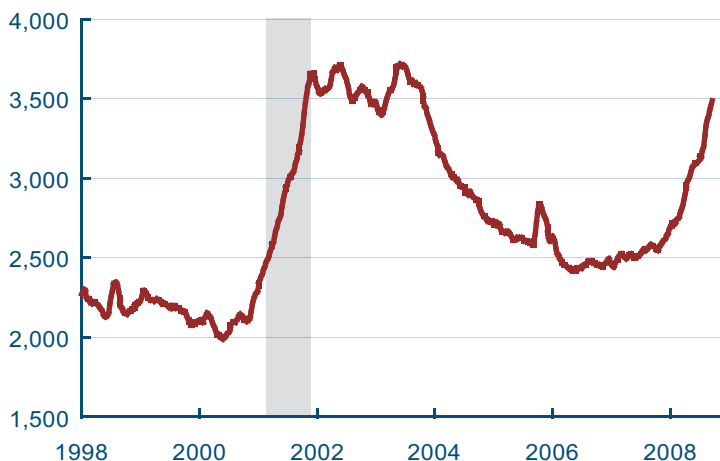
### Payroll Employment



Notes: Data are seasonally adjusted. Shaded bar indicate recession.  
Source: Bureau of Labor Statistics.

## Unemployment Insurance: Continued Claims

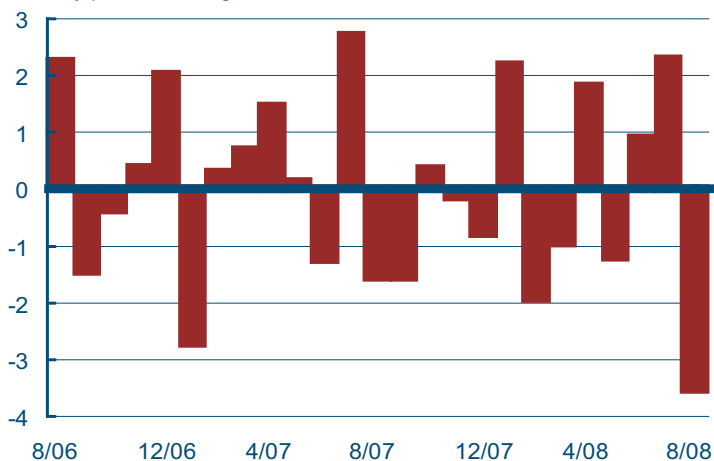
Four-week moving average (thousands)



Notes: Data are seasonally adjusted. Shaded bar indicate recession.  
Source: U.S. Department of Labor.

## Durable Goods: Shipments

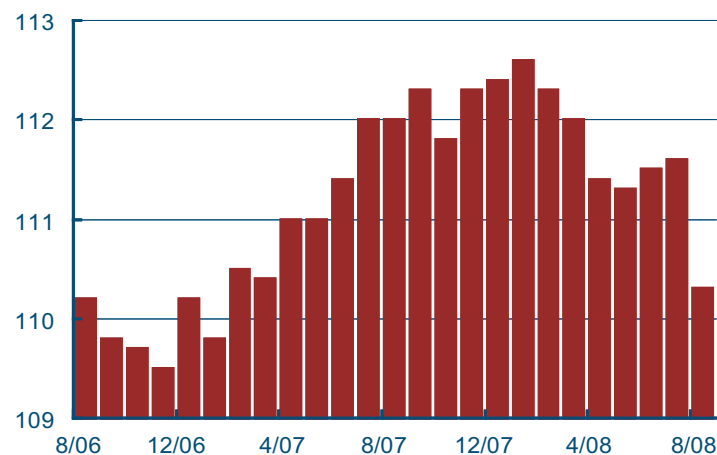
Monthly percent change



Note: Data are seasonally adjusted.  
Source: Census Bureau.

## Industrial Production

Index, 2002 = 100



Note: Data are seasonally adjusted.  
Source: Federal Reserve Board

orders for July showed some strength. However, these series turned sharply lower in August, with July data being revised downward, as well. Industrial production fell 1.1 percent from July to August. It is important to caution that one month does not make a trend, and the data are subject to revision. That said, our first look at manufacturing for September shows the sector contracting. The ISM manufacturing index registered 43.5 for September, where an index value below 50 indicates contraction. September's reading of 43.5 was well below August's (49.5) and the lowest since 2001.

The softening in the goods sector has also been evident in the retail sector. Both July and August showed month-over-month declines in retail sales of -0.6 percent and -0.3 percent, respectively.

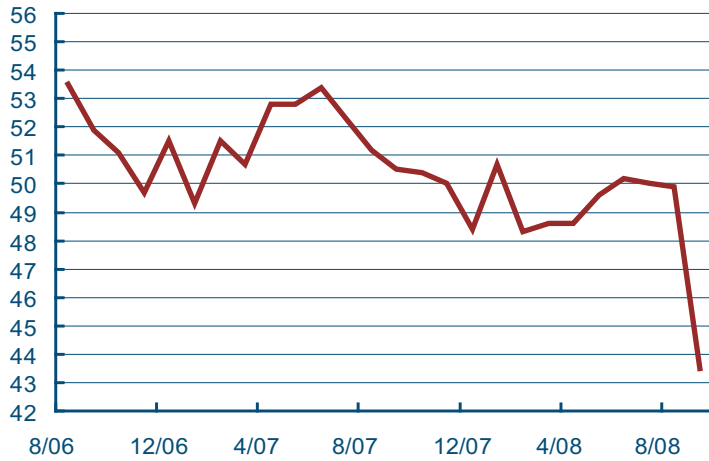
Residential construction continued to be weak, as both housing starts and new-home sales hit lows not seen since the recession in the early 1990s. This represents year-over-year declines of almost 35 percent for each series, and month-over-month declines of -1.9 percent for single-family-housing starts and -11.5 percent for new-home sales.

Rounding out the month's data for August is this week's report from Bureau of Economic Analysis on monthly personal income and outlays. Real personal consumption expenditures in both July and August were below the second-quarter's levels. This drop reflects, in part, the unwinding of the stimulus package, which had a much larger impact in the second quarter than in July or August. While the data for September are not yet available and the July and August data are still subject to revision, the first two months of data for the third quarter indicate that real PCE growth may well be negative for the current quarter.

In short, almost all major monthly data releases describing economic activity in August show a deteriorating economic environment.

## ISM Manufacturing Index

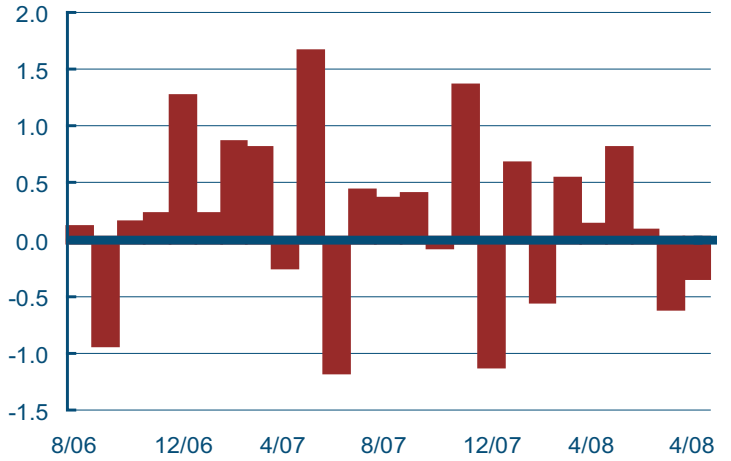
Composite index, 50+ = increasing



Note: Data are seasonally adjusted.  
Source: Institute for Supply Management.

## Retail Sales

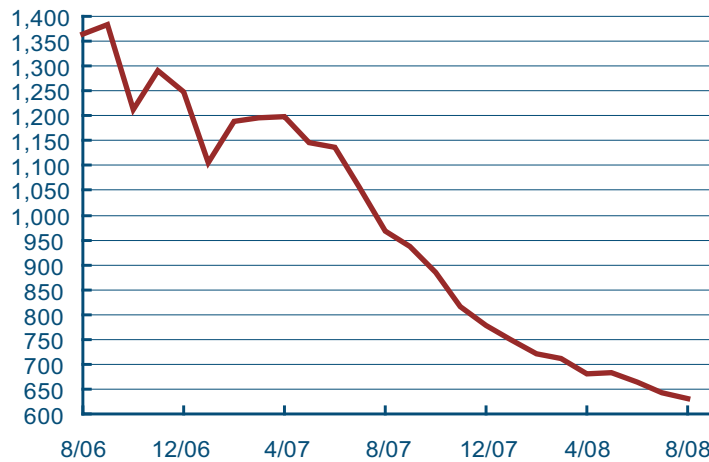
Monthly percent change



Note: Data are seasonally adjusted.  
Source: Census Bureau; Haver Analytics.

## Housing Starts

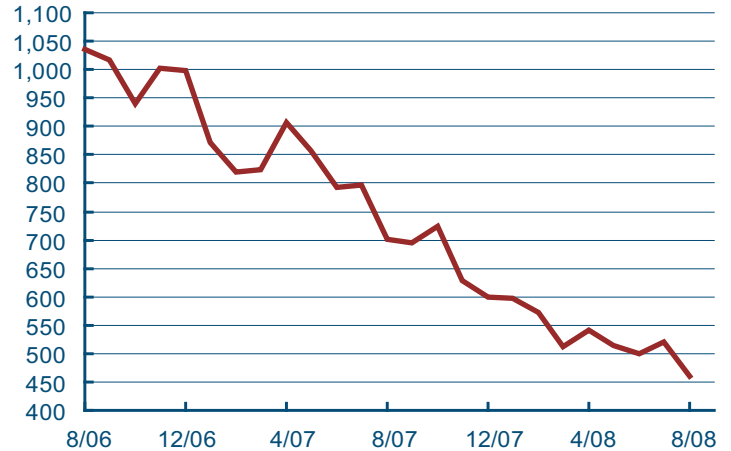
Single-family units (thousands)



Note: Data are seasonally adjusted annual rates.  
Source: Census Bureau.

## New Homes Sales

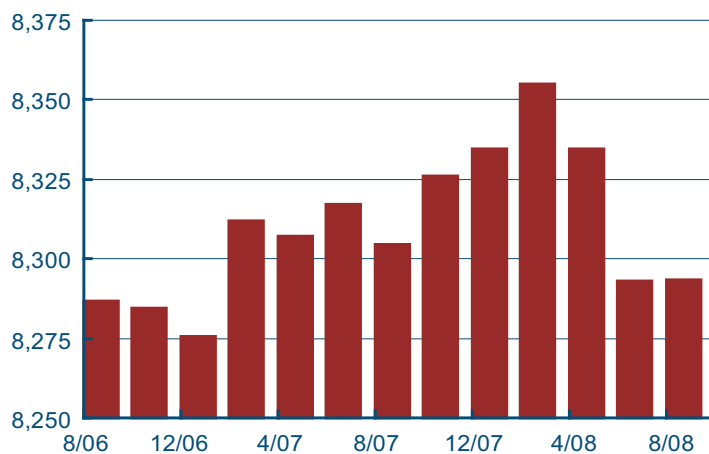
Single-family units (thousands)



Note: Data are seasonally adjusted annual rates.  
Source: Census Bureau.

## Real PCE

2000 dollars (billions)



Note: Data are seasonally adjusted annual rates.  
Source: Bureau of Economic Analysis

# The Employment Situation, September

10.06.08

Murat Tasci and Beth Mowry

## Labor Market Conditions

	Average monthly change (thousands of employees, NAICS)				
	2005	2006	2007	YTD 2008	Sept 2008
Payroll employment	211	175	91	-84	-159
Goods-producing	32	3	-38	-75	-77
Construction	35	13	-19	-38	-35
Heavy and civil engineering	4	3	-1	-5	-5.5
Residential <sup>a</sup>	23	-5	-20	-25	-12.9
Nonresidential <sup>b</sup>	8	14	1	-7	-16.7
Manufacturing	-7	-14	-22	-44	-51
Durable goods	2	-4	-16	-32	-37
Nondurable goods	-8	-10	-6	-12	-14
Service-providing	179	172	130	-10	-82
Retail trade	19	5	6	-28	-40.1
Financial activities <sup>c</sup>	14	9	-9	-8	-17
PBS <sup>d</sup>	56	46	26	-33	-27
Temporary help services	17	1	-7	-27	-24.1
Education and health services	36	39	44	50	25
Leisure and hospitality	23	32	29	-1	-17
Government	14	16	21	23	9
Local educational services	6	6	5	9	16.3
Civilian unemployment rate	5.1	4.6	4.6	5.4	6.1

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. Professional business services, which includes professional, scientific, and technical services, the management of companies and enterprises, administrative and support, and waste management and remediation services.

Source: Bureau of Labor Statistics.

Nonfarm payrolls declined by 159,000 between August and September, with losses spread across a wide range of industries. This marks the ninth consecutive month of employment decline and a continuation of the 6.1 percent unemployment rate, which remains the highest seen since September 2003. Revisions to July and August payrolls roughly cancelled each other out and amounted to modest additional gains of 4,000 for those two months combined. September's decline in payrolls was larger than consensus expectations, which called for losses in the neighborhood of 105,000. Since the decline in payrolls started back in January, the United States has shed a total of 760,000 jobs.

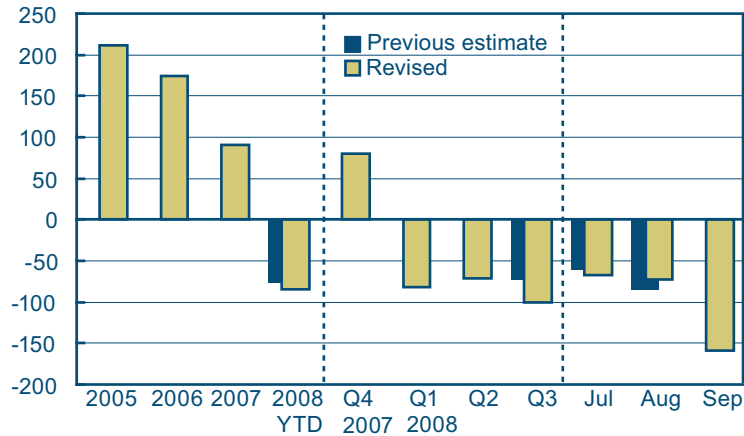
The diffusion index of employment change sank further, moving from 44.7 in August to 38.1 in September. An index reading below 50 indicates that more employers are cutting jobs than adding them, and this past month's movement indicates that an increasing number of employers began to do so in September. The index has not been this low since June 2003.

The goods-producing sector shed 77,000 jobs last month due to losses in both manufacturing (-51,000) and construction (-35,000). Manufacturing's losses were felt predominantly in durable goods (-37,000), particularly in the area of motor vehicles and parts (-18,200). Residential and nonresidential construction both recorded job losses in this report, unlike in August when only residential construction lost jobs. Natural resources and mining continued to make a lone positive contribution of 9,000 jobs to goods-producing industries.

Service-providing industries took a greater turn for the worse in September, losing 82,000 jobs, compared to August's smaller loss of 16,000. Losses were experienced broadly in service industries, with the exception of a 25,000 gain in education and health and a 9,000 gain in the government

## Average Nonfarm Employment Change

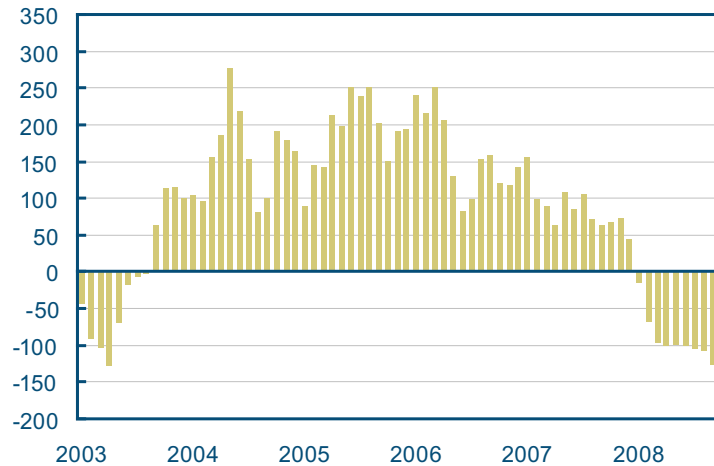
Change, thousands of jobs



Source: Bureau of Labor Statistics.

## Private Sector Employment Growth

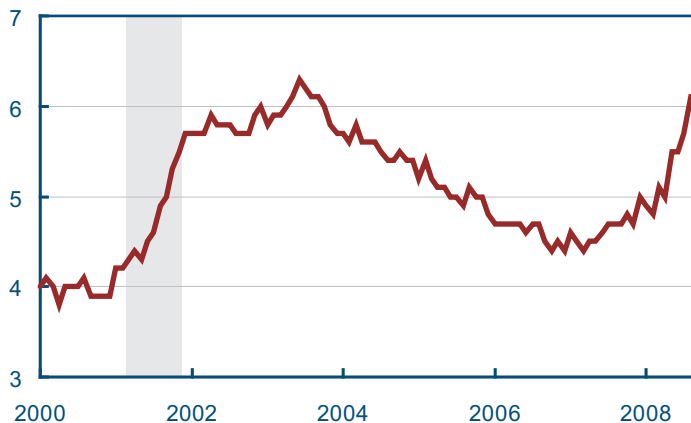
Change, thousands of jobs: Three-month moving average



Source: Bureau of Labor Statistics.

## Unemployment Rate

Percent



Note: This is the seasonally adjusted rate for the civilian population, age 16+.

Source: Bureau of Labor Statistics.

sector. However, the gain in government was less impressive than gains in the previous two months (39,000 and 31,000). Likewise, the gain in education and health was the smallest experienced during all of this year and the last. Within services, trade, transportation, and utilities lost 58,000 jobs, professional and business services lost 27,000, and financial activities and leisure and hospitality each lost 17,000. Retail trade fell further, dropping 40,100 jobs in September, compared to August's drop of 25,400. Temporary help services, considered a leading indicator of overall employment conditions, continued to decline, recording its eleventh consecutive month of losses with a loss this month of 24,100 jobs.

The three-month moving average of private-sector employment growth dug itself deeper into the negative territory first entered back in January and now sits at -126,000. Although headline payroll employment numbers for July and August were revised only modestly, private payrolls for these two months were revised downward by 40,000 and 43,000, respectively. Government payrolls were revised up 33,000 and 14,000. For the year, private payrolls are down 969,000, while government payrolls have risen by 209,000. These revisions show that overall payroll decline underestimates the loss in private payrolls due to significant gains in government payrolls.

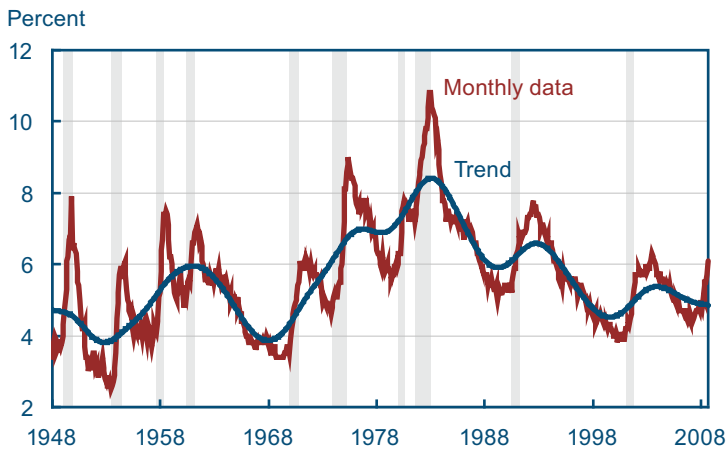
Results from the government's household survey indicates that the total unemployment rate stayed steady at 6.1 percent in September. Even though the number of those employed declined by 222,000, the labor force declined by 121,000, keeping the unemployment rate where it was in August. These monthly changes are common in the household survey and do not constitute a significant change.

## Trend Unemployment and What It Says about Unemployment Patterns

09.19.08

Murat Tasci and Beth Mowry

### Unemployment Rate for All Workers (Aged 16+)



Notes: Data are seasonally adjusted. The trend was generated by using a Hodrick-Prescott filter with a smoothing parameter of  $10^5$ . Shaded bars indicate recessions.

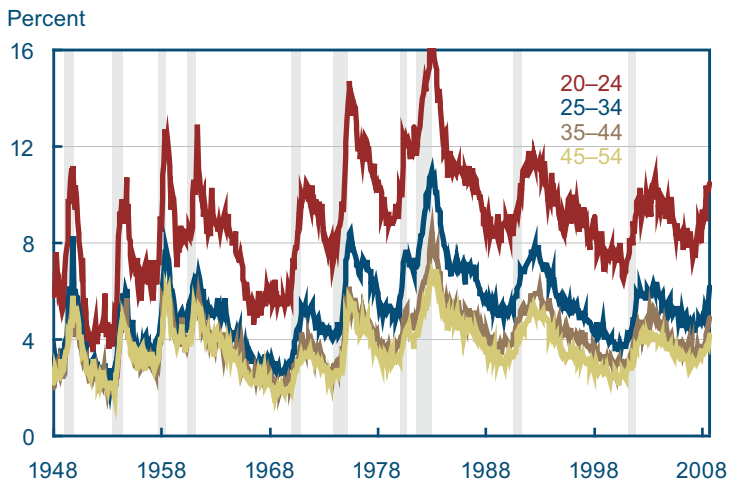
Source: Bureau of Labor Statistics.

The unemployment rate increased to 6.1 percent in September from 5.7 percent a month earlier. Just a few months ago, in May, the rate experienced another sharp rise, from 5.0 to 5.5 percent. A year ago, the unemployment rate was just 4.7 percent. Such movements in the unemployment rate are not unusual by any measure, and they have been studied for a long time. For the past 60 years, the unemployment rate has varied between 2.5 percent and 10.8, rising during recessions and falling during expansions. This pattern makes it what economists call a countercyclical variable. Typically, the rate rises sharply at the onset of a recession, but it usually takes a while for the rate to drop back down once the recession ends. These cyclical fluctuations in the unemployment rate are a robust feature of the data, and even though the timing of the ups and downs changes somewhat across different historical episodes, the clear countercyclical pattern tends to hold.

However, monthly fluctuations in the unemployment rate include a lot of cyclical movements that may be only temporary. Removing those cyclical elements can help to see the longer-term picture, and this we can do by smoothing the data to calculate the unemployment rate's trend. When we look at the trend along with the monthly data for the last two recessions and the recoveries that followed, we see that the trend increased slightly in both cases, but the unemployment rate stayed above the trend for more than two years. This view shows that it takes a while for the unemployment rate to return to its long-run trend after recessions, but once it gets there, it stays there for the rest of the expansion. The unemployment rate returns to its trend only when the expansion is long enough, like the two that preceded the 2001 recession.

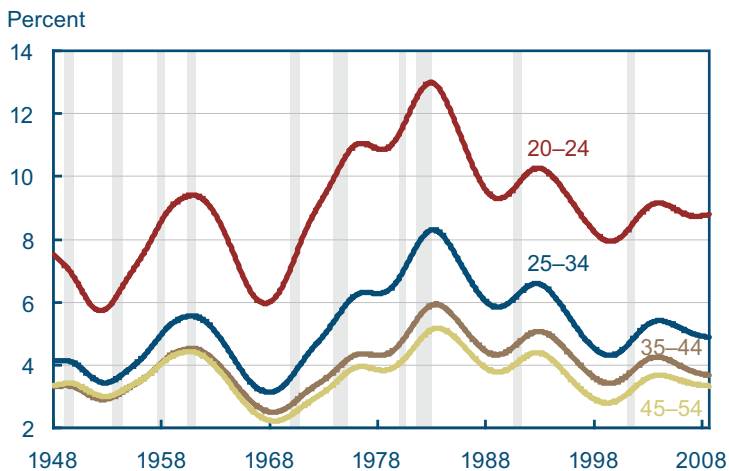
One might expect the pattern just described to be different for various segments of the workforce, since workers' desire for employment or their employability can differ, depending on their age,

## Unemployment Rates for Workers at Various Ages



Note: Data are seasonally adjusted. Shaded bars indicate recessions.  
Source: Bureau of Labor Statistics.

## Trend Unemployment Rates for Workers at Various Ages



Notes: Data are seasonally adjusted. The trend was generated using a Hodrick-Prescott filter with a smoothing parameter of  $10^5$ . Shaded bars indicate recessions.  
Source: Bureau of Labor Statistics.

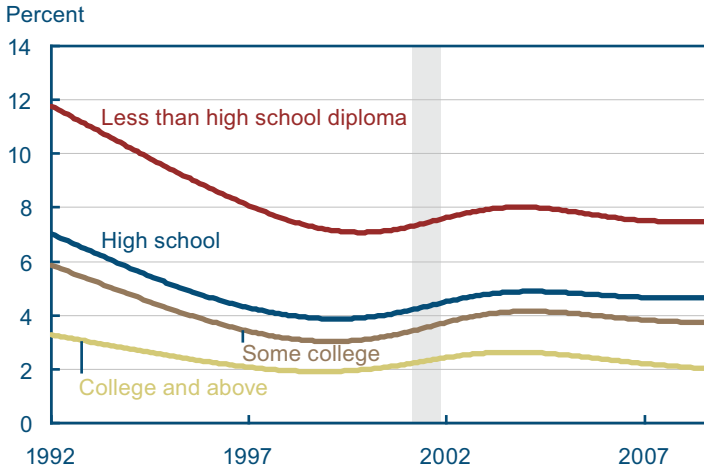
gender, or education. For instance, older workers have always had lower unemployment rates than younger workers. Because older workers are arguably more attached to the labor force and more experienced at their jobs, they are less likely to be let go in a downturn and more likely to be hired in a boom. This story likewise explains the higher unemployment rate of younger workers as well as its greater volatility. However, the trend rates for different-aged workers in general follow the overall pattern of the aggregate unemployment rate. A look at the trends also suggests that most of the upward trend in unemployment in the late 1960s and 1970s, as well as the downward trend that followed, was led by young workers.

Education does not appear to affect the basic countercyclical unemployment pattern either. As one might expect, years of schooling is negatively correlated with the unemployment rate. For instance, workers with at least a college degree have the lowest unemployment rate, around 2.4 percent on average since 1992. This compares with 3.9 percent for workers with some college, 4.8 percent for high school graduates, and 8.9 percent for high school drop outs. Even though we do not have a long enough time series to detect a clear cyclical pattern, we can see that over the last recession the behavior of the unemployment rates of workers with different levels of education fits the general picture.

The unemployment rate for men and women also follows the countercyclical pattern, rising around the start of recessions and falling after the end of downturns. On the other hand, the overall trend in each of the two groups has been steadily changing over time. Until mid-1980s, the unemployment rate for women stayed consistently below that of men. Since then, the two unemployment rates have almost converged. One reason for this could be the higher labor force participation and higher educational attainment of women in the past two decades. These two potentially related facts created a female workforce with a stronger attachment to the labor market, whose unemployment profile increasing resembled that of men. One might even argue that the unemployment rate trend for men is now above the women's.

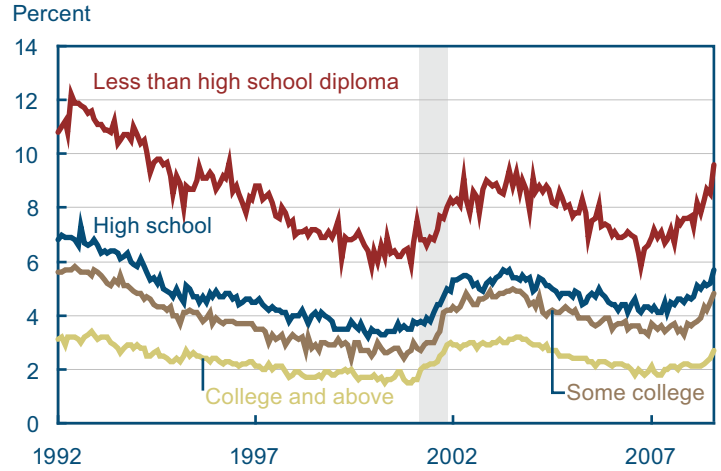


## Trend Unemployment Rates for Workers with Different Levels of Education



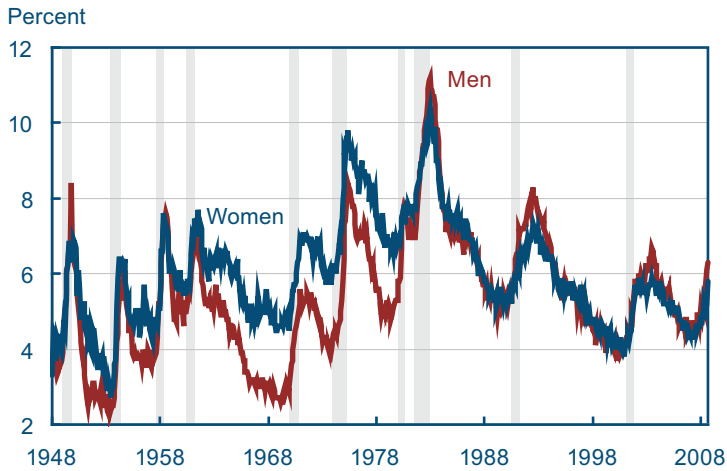
Notes: Data are seasonally adjusted. The trend was generated by using a Hodrick-Prescott filter with a smoothing parameter of  $10^5$ . Shaded bars indicate recessions.  
Source: Bureau of Labor Statistics.

## Unemployment Rates for Workers with Different Levels of Education



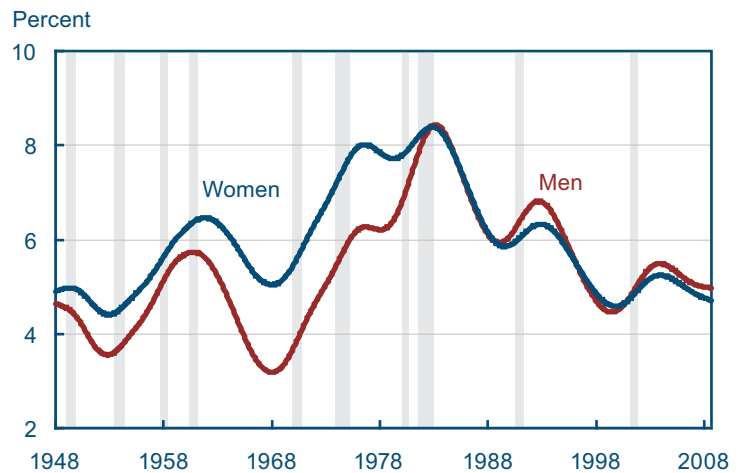
Note: Data are seasonally adjusted. Shaded bar indicates recessions.  
Source: Bureau of Labor Statistics.

## Unemployment Rates for Men and Women



Note: Data are seasonally adjusted. Shaded bars indicate recessions.  
Source: Bureau of Labor Statistics.

## Trend Unemployment Rates for Men and Women



Notes: Data are seasonally adjusted. The trend was generated using a Hodrick-Prescott filter with a smoothing parameter of  $10^5$ . Shaded bars indicate recessions.  
Source: Bureau of Labor Statistics.

## Second-Quarter GDP, Final Revision

10.02.08

Brent Meyer

### Real GDP and Components, 2008:Q2 Final Revision

	Quarterly change (billions of 2000\$)	Annualized percent change, last:	
		Quarter	Four quarters
Real GDP	81.4	2.8	2.1
Personal consumption	25.2	1.2	1.3
Durables	-8.7	-2.8	-1.1
Nondurables	22.8	3.9	1.2
Services	7.8	0.7	1.7
Business fixed investment	8.7	5	4.2
Equipment	-13.9	-5.0	-0.3
Structures	14.1	18.4	13.9
Residential investment	-13.4	-13.3	-21.6
Government spending	19.8	3.9	2.6
National defense	9.2	7.3	5.9
Net exports	80.7	—	—
Exports	44.1	12.3	11.0
Imports	-36.6	-7.3	-1.9
Private inventories	-50.6	—	—

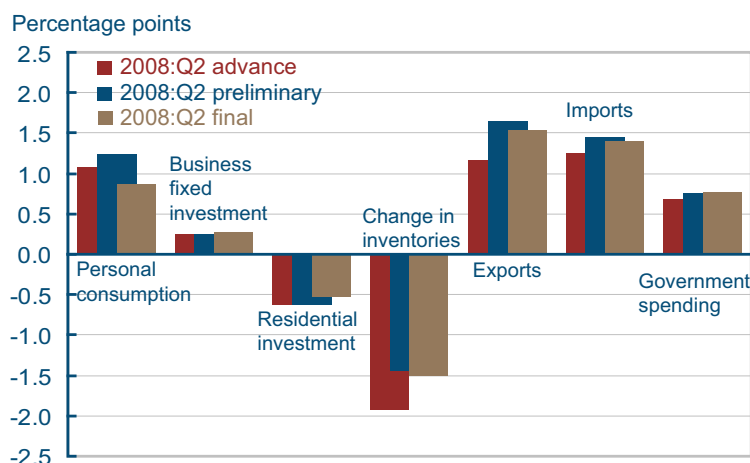
Source: Bureau of Economic Analysis.

Real GDP advanced at an annualized rate of 2.8 percent in the second quarter, according to the final release from the Bureau of Economic Analysis. This is a downward revision of 0.5 percentage point from the preliminary estimate, but it is still up 0.9 percentage point from the advance estimate. The downward adjustment (from preliminary to final) was largely due to a revision to real consumption growth, from an increase of 1.7 percent to 1.2 percent. Exports were also revised down from an increase of 13.2 percent to 12.3 percent, while the decrease in imports was revised up from -7.5 percent to -7.3 percent. Inventories decreased by \$50.6 billion, according to the final estimate, down from a subtraction of \$39.2 billion in the previous estimate. On a positive note, the contraction in residential investment, which has been quite a large drag on growth lately, was revised up 2.5 percentage points, to a decrease of -13.3 percent. While still negative, this is a considerable improvement over the -25.0 percent in the first quarter.

Personal consumption expenditures added 0.9 percentage point to real GDP growth in the second quarter, according to the final estimate, down from 1.2 percentage points and 1.1 percentage points in the preliminary and advance estimates, respectively. The overall private investment picture improved somewhat, and the severity of the change in private inventories lessened from the advance to final estimates. Net exports provided an unusually large boost during the quarter, adding 2.9 percentage points to real GDP growth. Given reports of weakness in the foreign sector and the recent reversal of the dollar's slide, the kick from net exports seems likely to fade in the coming quarters.

Another component that seems likely to weaken over the rest of the year is consumption. Personal consumption growth has been falling since 2006. While consumption growth in the second quarter outpaced the first, 1.2 percent to 0.9 percent, that was likely due to the fiscal stimulus rebate checks.

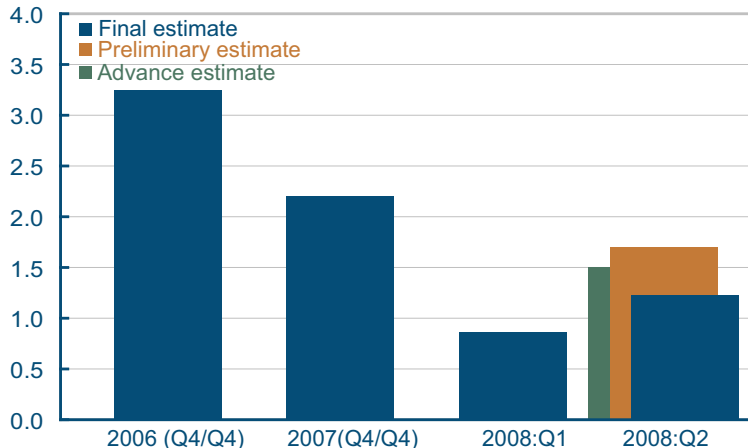
### Contribution to Percent Change in Real GDP



Source: Bureau of Economic Analysis

## Real Personal Consumption Expenditures

Annualized percent change



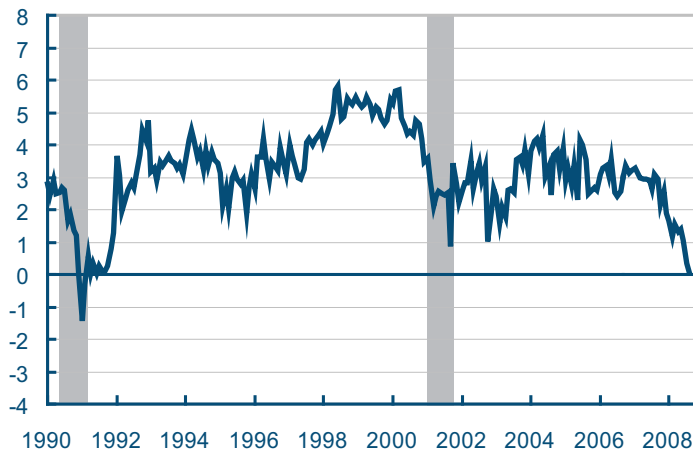
Source: Blue Chip Economic Indicators, July 2008; Bureau of Economic Analysis.

The most recent monthly data suggest that third-quarter consumption growth will be negative once the distribution of those checks ceases. In July, consumption fell 5.8 percent (annualized rate) and was followed by a gain of zero in August. In fact, the 12-month growth rate in personal consumption expenditures has fallen to 0.1 percent, its lowest growth rate since August 1991.

Reflective of the somewhat pessimistic incoming data, the consensus estimate for the second half of the year from the Blue Chip panel of forecasters has fallen once again, to 1.0 percent GDP growth in the third quarter and 0.2 percent in the fourth. However, their consensus estimate for 2009 has remained at 1.5 percent, with growth returning to near trend by the end of that year.

## Real Personal Consumption Expenditures

12-month percent change

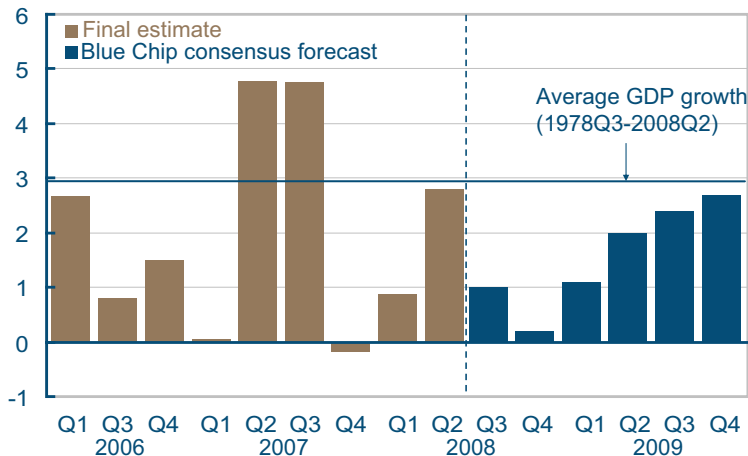


Note: Shaded bars indicate recessions.

Source: Bureau of Economic Analysis

## Real GDP Growth

Annualized quarterly percent change



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

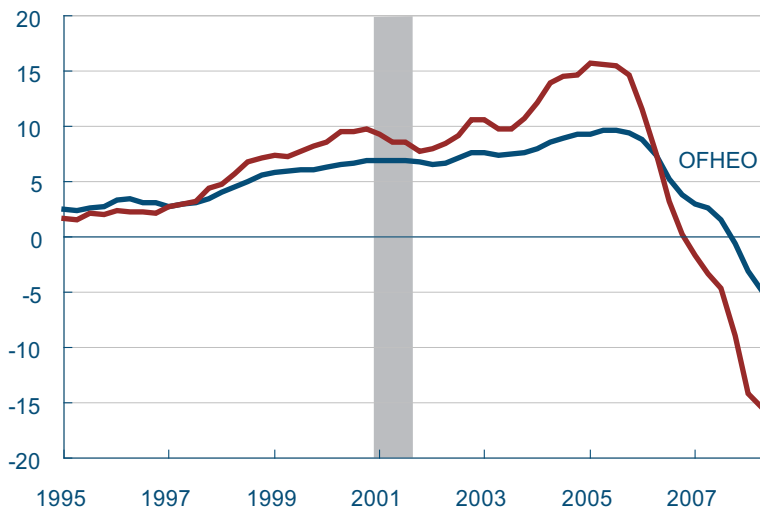
# Housing and the Banking Industry

10.07.08

O. Emre Ergungor and Kent Cherny

## Housing Price Indexes

Percent change, year over year

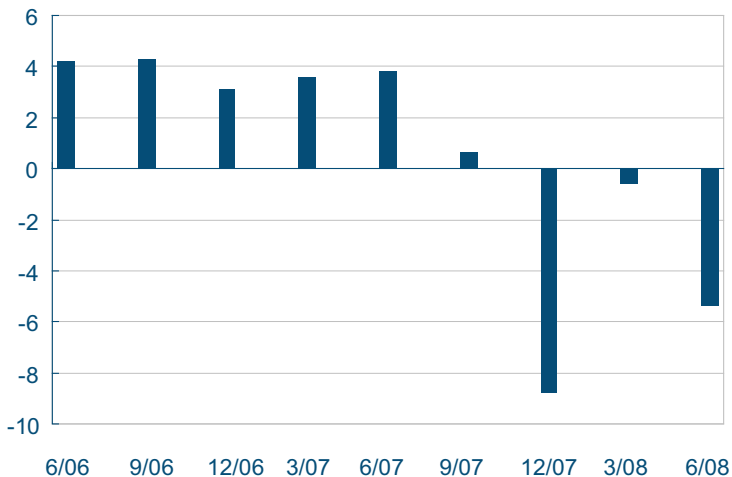


Note: Shaded bar indicates a recession.

Source: OFHEO; S&P, Fiserv, and Macromarkets, LLC.

## Thrift Industry Earnings

Billions of U.S. dollars



Source: Office of Thrift Supervision.

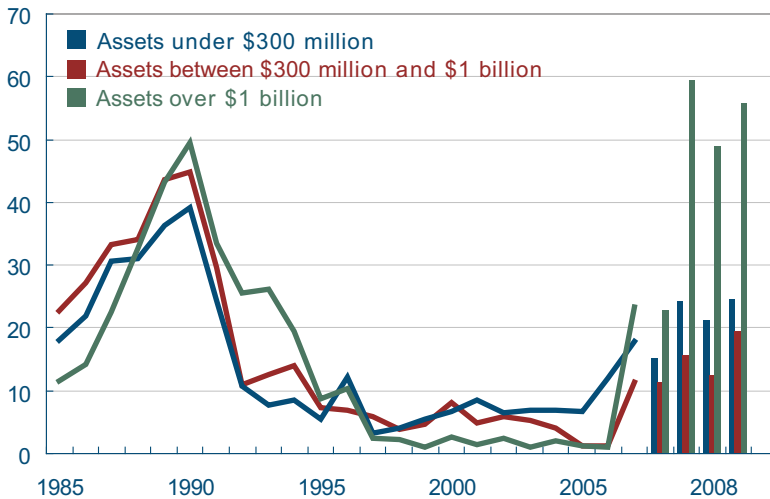
The deterioration of the housing market shows few signs of nearing an end. The S&P/Case-Shiller home price index registered year-over-year quarterly declines of -14.2 percent and -15.4 percent in the first half of 2008, extending its record drop. OFHEO's price index has also remained in negative territory after dipping below zero for the first time in its 17-year history in the fourth quarter of last year. While both indexes show downward pressure on home prices, the magnitude of the declines differs significantly across the two. The reason is that OFHEO tracks only homes with mortgages below Fannie Mae and Freddie Mac's conforming loan limit, which was set at \$417,000 in 2006 and 2007. (That limit has been temporarily raised to \$729,000 or 125 percent of an area's median home price, whichever is lower). The S&P/Case-Shiller index tracks home sales in all price ranges and is therefore more affected by the pricey housing of the coastal areas.

As housing-market conditions continue to worsen, mortgage-related losses are taking a big bite out of mortgage lenders' profits. Thrifts—FDIC-insured depository institutions that specialize in mortgage lending—began to record losses in the fourth quarter of 2007. The industry's aggregate profits—which were around \$4 billion a year ago—fell to -\$5.3 billion in the second quarter of this year.

Increasingly, the deterioration in earnings is affecting more than a few large institutions and becoming a widespread problem. Evidence of this can be seen in the share of the industry's assets that is owned by unprofitable institutions. This share was high in 1990, fell to much lower levels thereafter, and has been shooting back up since 2005. In 1990, for example, almost 50 percent of the assets owned by large thrifts those whose total assets exceed \$1 billion—were owned by large thrifts that were unprofitable. This share fell to 3.5 in the first quarter of 2007 and to 1.8 percent in the second quarter. But by the second quarter of 2008, 56

## Assets of Unprofitable Thrifts

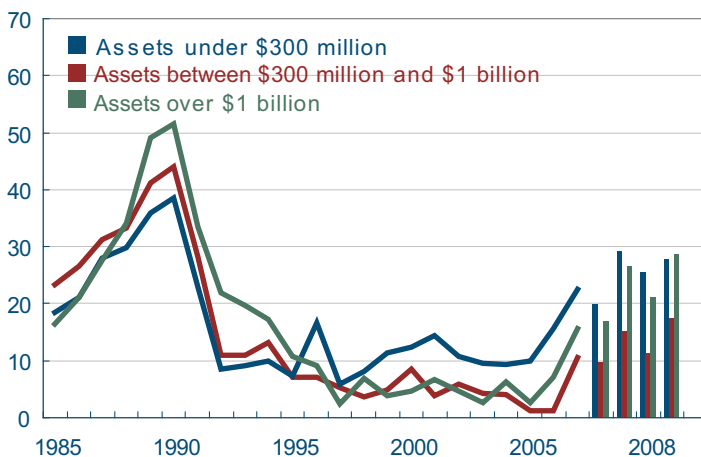
Percent of total assets



Source: Federal Reserve Board.

## Unprofitable Thrifts

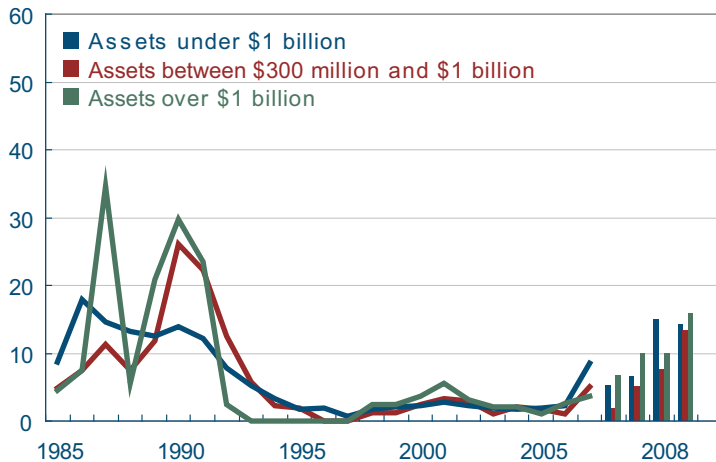
Percent of total number



Source: Federal Reserve Board.

## Unprofitable BHCs And FHCs

Percent of total number



Source: Federal Reserve Board.

percent of these institutions' assets were owned by large thrifts that were unprofitable—a higher share than during the thrift crisis of the late 1980s. Note that we have not adjusted asset sizes for inflation, so a \$1 billion thrift in 1990 was an economically bigger institution than a \$1 billion thrift today.

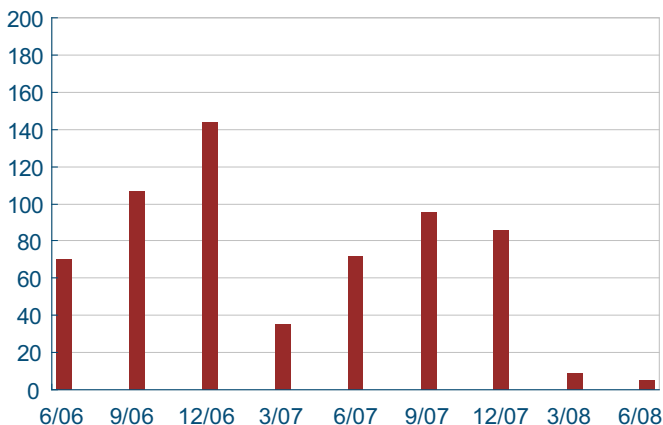
Further evidence of the spreading effects of the housing situation is the growing number of unprofitable institutions. In the first quarter of 2007, about 20 percent of thrifts with assets less than \$300 million and 10 percent of thrifts with assets greater than \$1 billion were unprofitable. Those numbers jumped to 28 percent and 29 percent, respectively, by the first half of 2008. The proportions of unprofitable institutions in each size category are well below the levels they reached in late 1980s, but their increases now suggest that profitability is being squeezed across thrift institutions of all sizes as home prices fall.

Bank holding companies and financial holding companies (BHCs and FHCs) seem to have fared slightly better in these difficult times, but their luck might be changing. These holding companies own a diverse set of financial institutions, ranging from depository institutions to insurance companies and investment banks. Although total holding company profits remained barely positive at \$5.5 billion last quarter, the number of companies reporting losses has been steadily increasing over the past year. In the second quarter of 2008, about 15 percent of holding companies of all sizes were unprofitable.

As thrift and other financial institutions' profits have been pressured by housing declines, insured deposits across the banking system have continued to rise, reaching \$4.4 trillion by the end of the first half of 2008. Bank failures during early 2008 have contributed to a depletion of the Federal Deposit Insurance Corporation's reserves, which have fallen below the target range of previous years to 1.01 percent of total insured deposits as of June 2008. What's more, the FDIC's data are current only as of the second quarter of this year, so they do not include the seizure of IndyMac in July. The largest thrift failure in U.S. history, IndyMac will cost the insurance fund an estimated \$4 billion to \$8 billion to cover. Nor does the FDIC's data include

## BHC and FHC Earnings

Billions of U.S. dollars



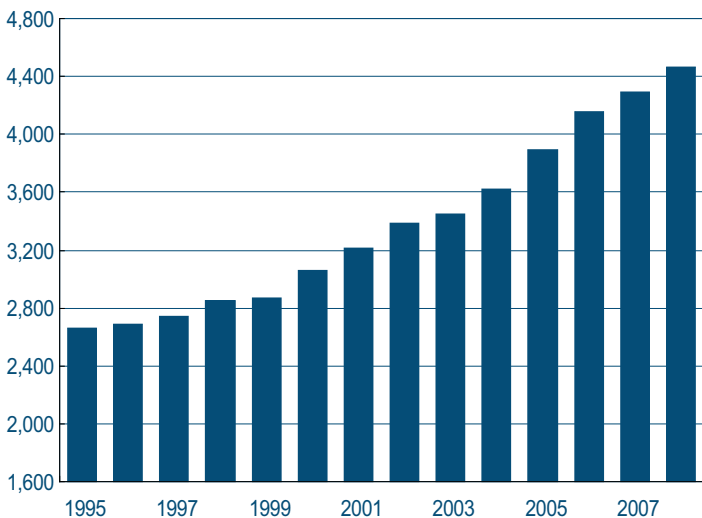
Source: Federal Reserve Board.

the recently enacted increase in the limit of insured deposits from \$100,000 to \$250,000.

FDIC data on troubled banks and recent failures, like the home price indexes detailed earlier, provide little assurance that pressures on financial institutions will ease in the near future. While the number of failed institutions remained modest up through June, the size of these banks with regard to assets is already at or near levels last seen following the 2001 recession. Before the failure of IndyMac, the number of troubled institutions nearly doubled from 61 in 2007 to 117 this year.

## FDIC-Insured Deposits

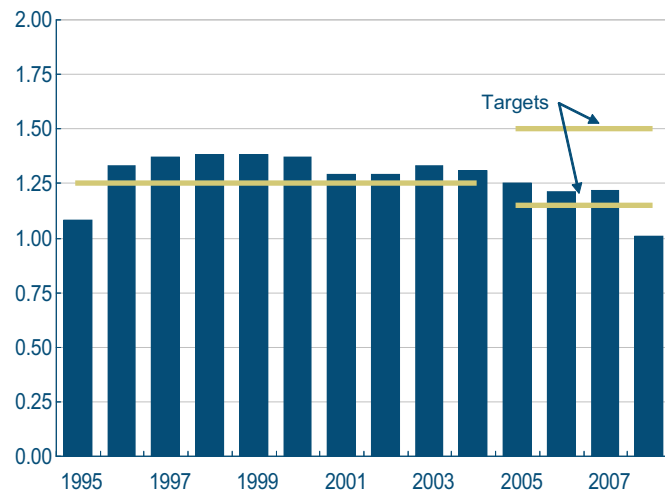
Billions of dollars



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

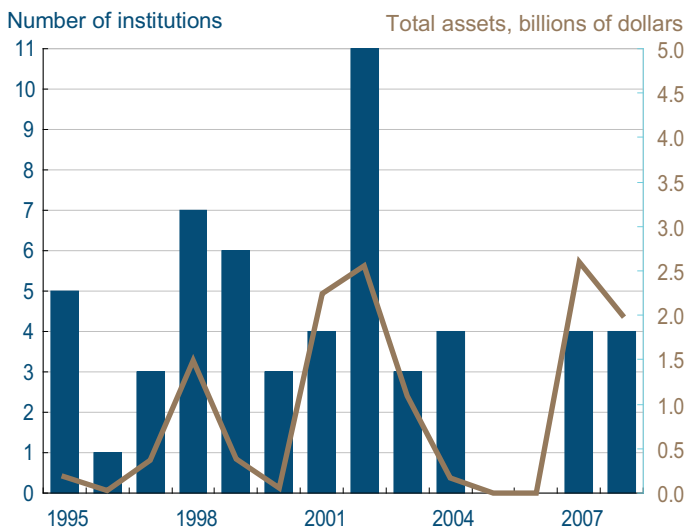
## Fund Reserve Ratio

Percent of insured deposits



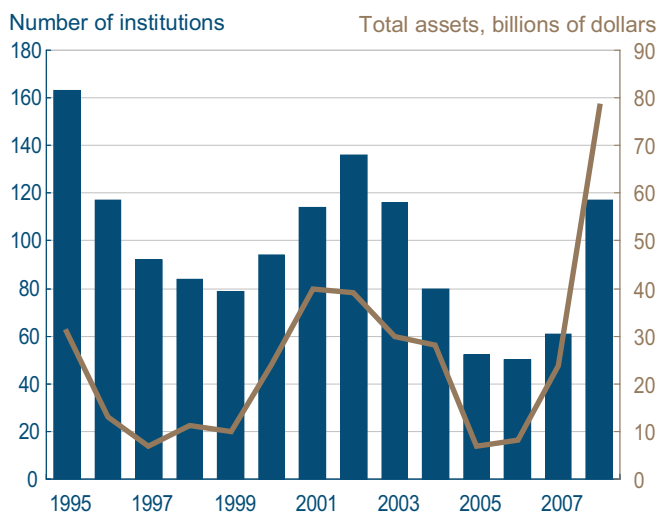
Source: Federal Deposit Insurance Corporation, *Quarterly Banking Profile*, Second Quarter 2008

## Failed Institutions



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

## Problem Institutions



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

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ISSN 0748-2922

