Economic Trends

January 2008
(Covering December 14, 2007, to January 10, 2008)

In This Issue

November Price Statistics

01.09.08
by Michael F. Bryan and Brent Meyer

The Consumer Price Index (CPI) rose at an annualized rate of 10.0 percent in November, its largest spike since a post-hurricane Katrina jump of 15.7 percent in September 2005. Year-to-date (January–November 2007), the CPI index has advanced 4.2 percent (at an annualized rate), compared to the 2.6 percent increase for all of 2006. Although this month's jump in consumer prices was largely due to a 95.5 percent shock in energy prices, the CPI excluding food and energy (core CPI) was elevated, rising 3.3 percent during the month, well above any of its longer-run trends. Both the median and 16 percent trimmed-mean CPI indicators posted their largest increases of the year, advancing 3.7 percent in November.

Over the last three months, every major component of the CPI (except education and communication), rose at an annualized rate that exceeded 3.0 percent, pushing the 12-month growth rate in the CPI up to 4.3 percent in November, from 2.0 percent in August. The longer-term trends in the core CPI and the trimmed-mean inflation estimators have risen over that period as well (albeit less dramatically), and are ranging between 2.3 percent and 2.9 percent.

November also saw some firming in core goods prices, which rose 2.1 percent during the month, pushing their 12-month growth rate above zero for the first time in nine months. The longer-run trend in core service prices remained planted above 3.0 percent.

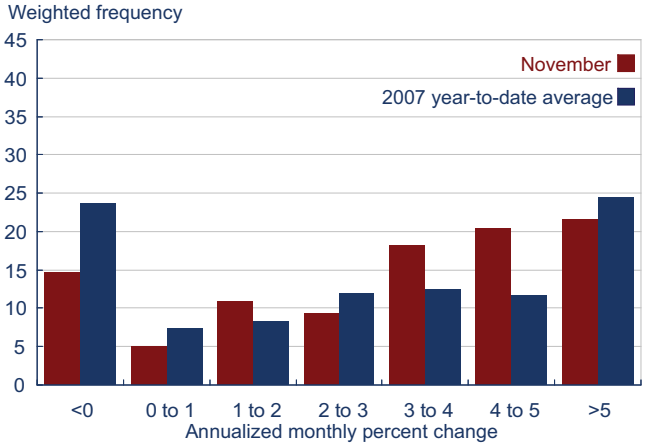
Sixty percent of the CPI index's components increased more than 3 percent in November, compared to a year-to-date average of 49 percent. Price increases were relatively broad-based among components, as only 15 percent of the index showed a deceleration in prices, compared to a 24 percent average for the year so far. As evidenced in the graph below, there is not much of a silver lining in the data this month.

November Price Statistics

	Percent change, last					
	1mo.[a]	3mo.[a]	6mo.[a]	12mo.	5yr.[a]	2006 avg.
Consumer Price Index						
All items	10.0	5.6	3.1	4.3	3.0	2.6
Less food and energy	3.3	2.6	2.6	2.3	2.1	2.6
Median[b]	3.7	3.3	2.8	2.9	2.5	3.1
16% trimmed mean[b]	3.7	3.4	2.6	2.7	2.3	2.7
Producer Price Index						
Finished goods	45.4	18.9	7.2	7.7	4.3	1.6
Less food and energy	4.5	1.7	2.0	1.9	1.6	2.1

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

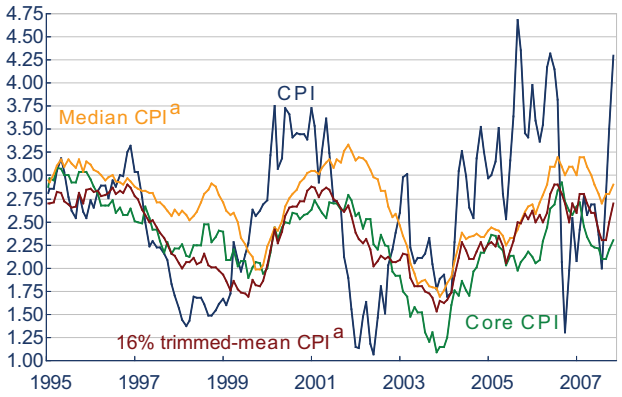
CPI Component Price Change Distributions



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

Core CPI Goods and Core CPI Services

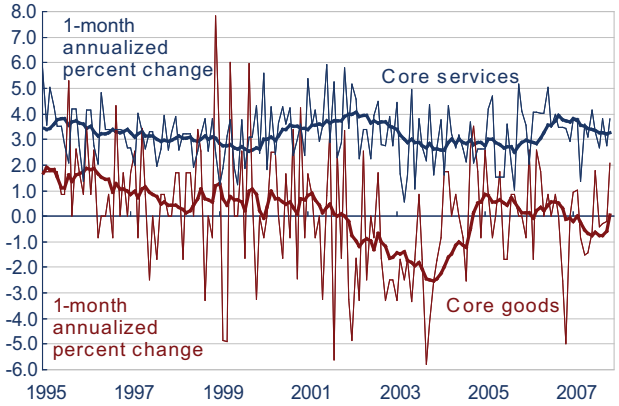
12-month percent change



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

CPI Component Price-Change Distributions

12-month percent change

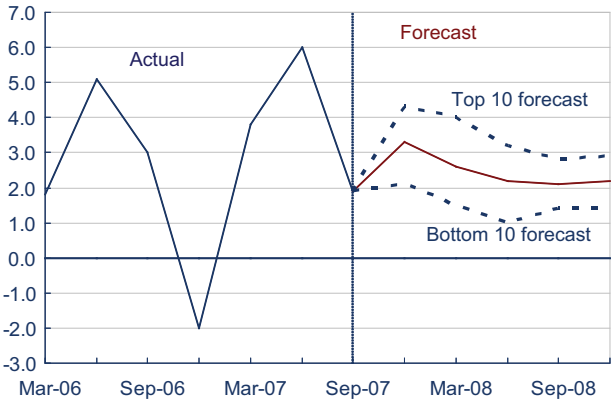


a. Calculated by the Federal Reserve Bank of Cleveland.
Sources: U.S. Department of Labor, Bureau of Labor Statistics; and the Federal Reserve Bank of Cleveland.

However, looking forward, professional forecasters see CPI inflation falling to near 2 percent by the end of next year. Even the most pessimistic scrooges (the Top 10 Blue Chip average) have the CPI growth rate falling under 3 percent by the end of 2008.

CPI and Forecasts

Annualized quarterly percent change



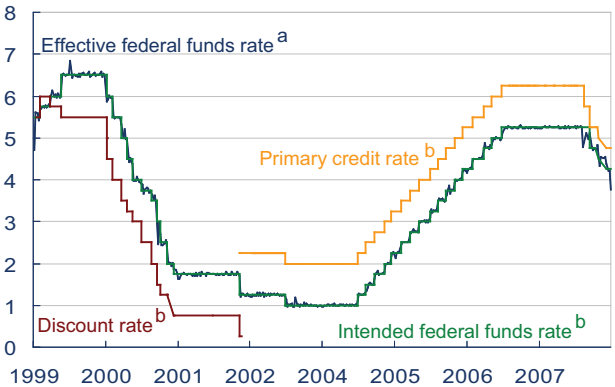
Source: Blue Chip panel of economists, December 10, 2007.

Money, Financial Markets, and Monetary Policy

Providing Liquidity

Reserve Market Rates

Percent



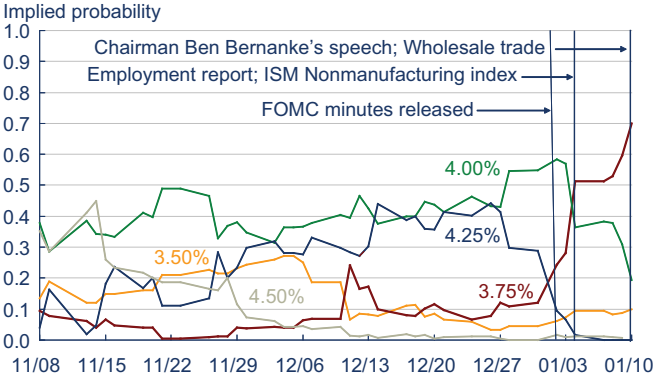
a. Weekly average of daily figures.
b. Daily observations.
Sources: Board of Governors of the Federal Reserve System, "Selected Interest Rates," Federal Reserve Statistical Releases, H.15.

01.14.08
by Bruce Champ and Sarah Wakefield

On December 11, 2007, the Federal Open Market Committee (FOMC) voted to lower its target for the federal funds rate by 25 basis points to 4.25 percent. On January 2, 2008, the FOMC released the minutes of its December meeting. In the minutes, the committee stated, "The information reviewed at the December meeting indicated that, after the robust gains of the summer, economic activity decelerated significantly in the fourth quarter. Consumption growth slowed, and survey measures of sentiment dropped further. Many readings from the business sector were also softer." Meeting participants also "discussed in detail the resurgence

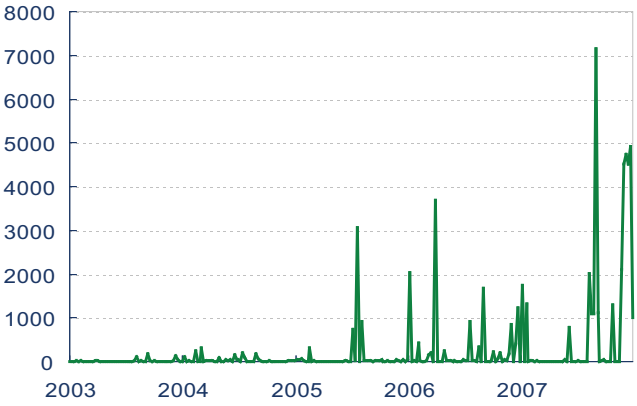
January Meeting Outcomes

Implied probability



Primary Credit

Millions of dollars (not seasonally adjusted)



Source: Board of Governors of the Federal Reserve System.

of stresses in financial markets in November" and expressed concerns about liquidity problems in interbank markets.

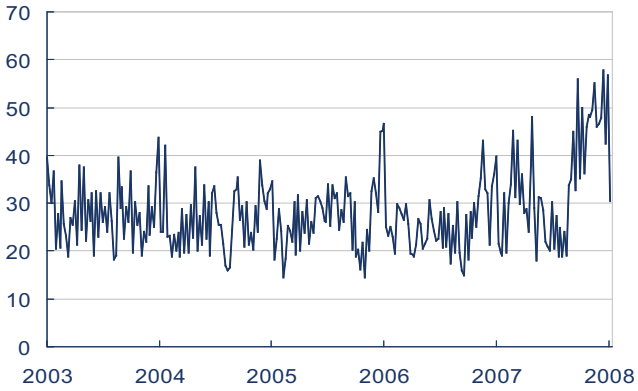
On December 31, 2007, participants in the Chicago Board of Trade's federal funds options market placed a 55 percent probability on a 25 basis point reduction and a 28 percent probability on no change in the funds rate at the FOMC's end-of-January meeting. After the publication of the December minutes, several key data releases, and a speech by Fed Chairman Bernanke on January 10, these probabilities shifted significantly, tilting toward expectations of a more aggressive January rate cut. In his speech, Chairman Bernanke stated, "We stand ready to take substantive additional action as needed to support growth and to provide adequate insurance against downside risks." As of January 10, 2008, participants' views indicated a 70 percent probability of a 50 basis point cut in the funds rate in January.

On December 12, 2007, between the FOMC meeting and the release of the minutes, the Federal Reserve announced the creation of a Term Auction Facility (TAF). The TAF was introduced to address "elevated pressures in short-term funding markets." The TAF provides a new means by which the Federal Reserve can inject liquidity into the banking system. The belief is that the discount window, through which the Fed has historically made loans to financial institutions, has not always adequately accommodated periods of financial stress. It is thought that a financial institution may be reluctant to borrow through the discount window since such an action may be interpreted as a sign of financial weakness.

Open market operations can be another source of liquidity to the system. However, in recent months concern has arisen that funds made available through open market operations are not reaching those banks experiencing the greatest liquidity needs. It is hoped that the TAF will overcome the stigma effect of standard discount window lending and elicit greater borrowing as well as channel the funds to those who need them most. Furthermore, the TAF allows the Fed to inject funds through a broader range of counterparties and against a wider

Repurchase Agreements

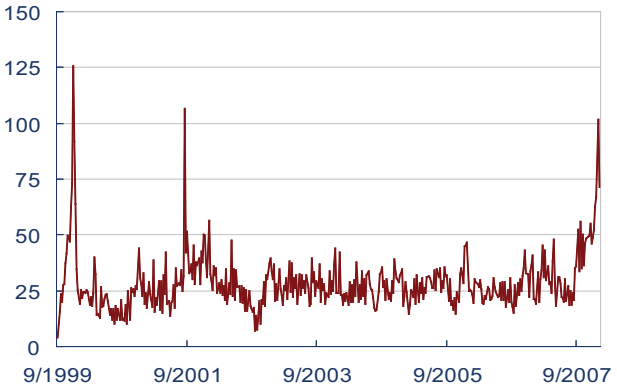
Billions of dollars



Source: Board of Governors of the Federal Reserve System.

Temporary Provision of Liquidity by the Federal Reserve

Billions of dollars



Note: Sum of discount window lending, special liquidity facility (Y2K), temporary repurchase agreements, and Term Auction Facility lending. Prior to January 2003, discount window lending consists of adjustment credit; after that date it consists of primary credit.
Source: Board of Governors of the Federal Reserve System.

range of collateral than open market operations.

Under the Term Auction Facility, the Fed announces an amount of funds to be auctioned and a term for the loan, typically about a one-month maturity. A minimum bid rate is determined by the level of the overnight indexed swap (OIS) rate near the time of the auction. (The OIS rate is typically where the market expects the funds rate to average over the period.) Funds are auctioned to generally sound financial institutions that are eligible for primary credit through the Fed's discount window. The final TAF rate is determined by the auction. Greater detail on the Term Auction Facility can be found on the Board of Governor's website.

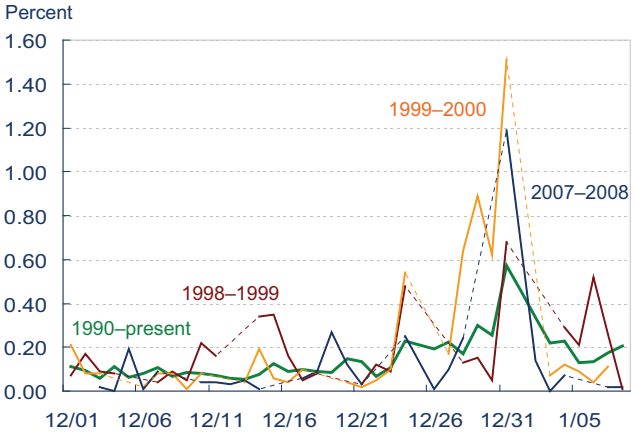
Two auctions for a total of $40 billion have been conducted so far. Bids for the first auction of $20 billion began December 17, with a minimum bid rate of 4.17 percent. A total of over $61 billion in propositions were submitted from 93 bidders. The awarded loans settled on December 20, with a maturity date of January 17, 2008. The stop-out rate (or the winning bid) was 4.65 percent. The remaining $41 billion in bids were less than 4.65 percent (but more than 4.17 percent).

The Fed conducted another $20 billion auction on December 20. Funds available through this auction will mature on January 31, 2008. The minimum bid rate was 4.15 percent. Seventy-three bidders submitted propositions totaling over $57 billion, and the stop-out rate was 4.67 percent.

Two more auctions are currently slated for January 14 and January 28. Both of these auctions will be for 28-day loans of $30 billion each. On January 4, the Fed announced that it "intends to conduct biweekly TAF auctions for as long as necessary to address elevated pressures in short-term funding markets" and would make known their decisions regarding February auctions on February 1.

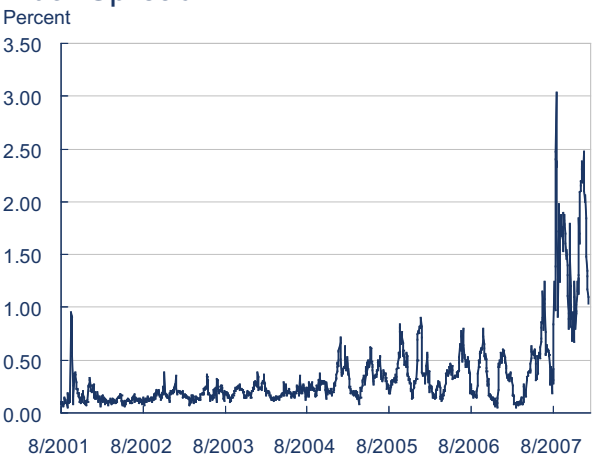
Both of the December auctions had stop-out rates only 8 to 10 basis points below the primary credit rate of 4.75 percent, yet generated a quantity of loans far in excess of outstanding primary credit. This seems to imply the program does mitigate the stigma problems associated with standard discount window loans.

Absolute Federal Funds Rate Deviation from Target by Day



For 1990–present, values are an average over all years. Dashed portions of lines correspond to weekends and holidays, when no trading occurs.
Source: Board of Governors of the Federal Reserve System.

Libor Spread



Note: Daily observations. LIBOR spread is the one month LIBOR rate minus the one month Treasury bill yield.
Sources: Board of Governors of the Federal Reserve System, "Selected Interest Rates," Federal Reserve Statistical Releases, H.15.; Financial Times.

Despite the auction of $40 billion of loans in December, the level of temporary open market operations remained elevated through the end of 2007. Primary credit outstanding, although small relative to the combined total of TAF lending and temporary open market operations, also was at historically high levels at year's end. The total amount of temporary liquidity provided by the Fed near the end of 2007 reached levels far above that of recent years and rivals the quantities provided around the century date turnover (Y2K) and immediately following the terrorist attacks of September 11, 2001. However, both primary credit outstanding and temporary repurchase agreements have fallen markedly in the first week and a half of 2008.

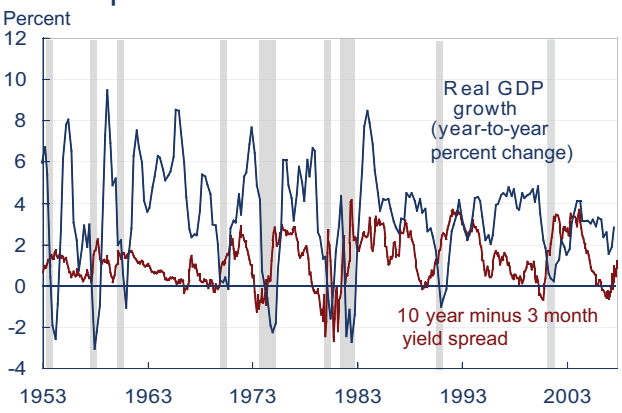
The Federal Reserve normally increases their provision of liquidity to help accommodate typical end-of-year funding pressures. The end of the year also can be associated with fairly substantial deviations of the federal funds rate from its target. These deviations are exacerbated when the system is simultaneously experiencing unusual liquidity demands for other reasons. For example, during the Y2K period and following the Long-Term Capital Management/Russian default crisis of 1998, large deviations of the federal funds rate from target were observed. In 2007, financial turmoil associated with developments in mortgage markets added liquidity pressures on top of typical year end needs.

The minutes from the FOMC's December meeting stated, "A number of participants noted some potential for the Federal Reserve's new Term Auction Facility and accompanying actions by other central banks to ameliorate pressures in term funding markets." These participants may be encouraged by recent movements in the spread between the London Inter-Bank Offer Rate (LIBOR) and the short-term Treasury rate. As of December 20, this spread was at 2.48 percent. Since then it has fallen nearly a percentage point and a half to 1.03 percent. Nonetheless, the LIBOR spread remains above levels of recent years.

What Is the Yield Curve Telling Us?

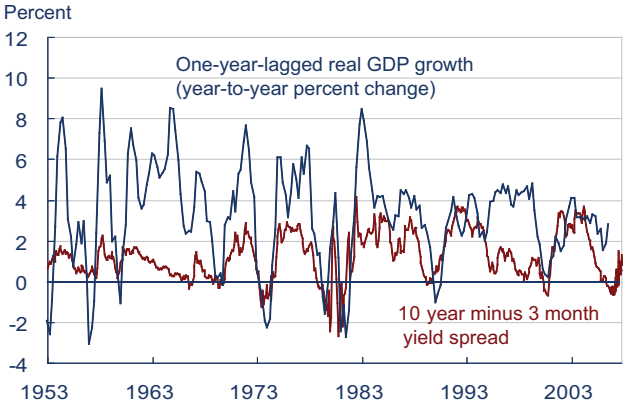
12.19.07
by Joseph G. Haubrich and Katie Corcoran

Yield Spread and Real GDP Growth*



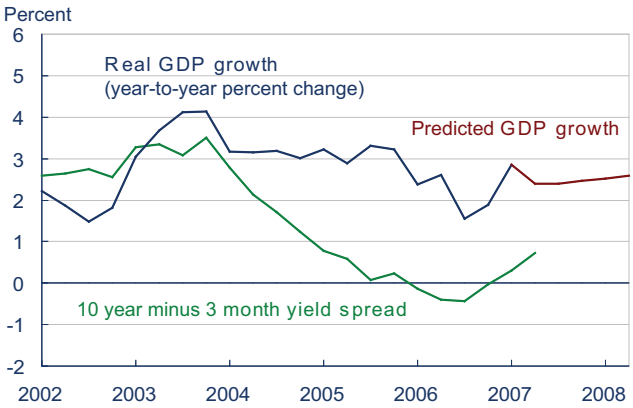
*Shaded bars represent recessions
Sources: Bureau of Economic Analysis; Federal Reserve Board

Yield Spread and Lagged Real GDP Growth



Sources: Bureau of Economic Analysis; Federal Reserve Board.

Predicted GDP Growth and the Yield Spread



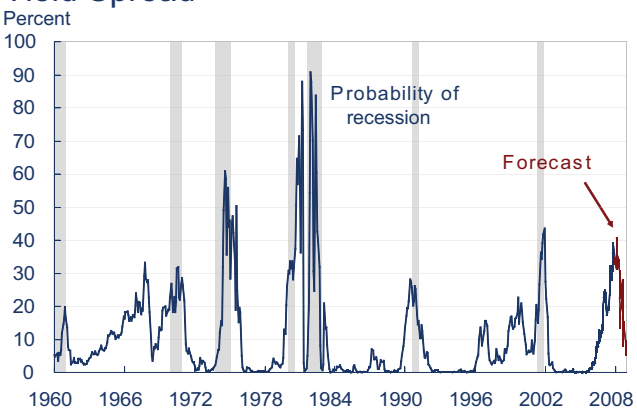
Sources: Bureau of Economic Actvity; Federal Reserve Board

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

The yield curve had been giving a rather pessimistic view of economic growth for a while now, but with an increasingly steep curve, this is turning around. The spread has remained robustly positive, with the 10-year rate at 4.12 percent and the 3-month rate at 2.92 percent (both for the week ending December 14). Standing at 120 basis points, the spread is up from November's 82 basis points as well as October's 67 basis points. Projecting forward using past values of the spread and GDP growth suggests that real GDP will grow at about a 2.6 percent rate over the next year. This is broadly in the range of other forecasts, if a bit on the low side.

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 will be in recession. Looking at that relationship, the expected chance of the economy being in a recession next

Probability of Recession Based on the Yield Spread*



*Estimated using probit model
Note: Shaded bars indicate recessions.
Sources: Bureau of Economic Analysis; Federal Reserve Board; Authors' calculations

December is 5 percent, down from November's 9 percent, and October's 14 percent.

Perhaps the decreasing chance of a recession seems strange in the midst of recent financial concerns, but one aspect of those concerns has been a flight to quality, which lowers Treasury yields. In addition, reductions in both the federal funds target rate and the discount rate by the Federal Reserve have had the same effect, as lower rates tend to steepen the yield curve. Furthermore, the forecast is for where the economy will be next December, not earlier in the year. The 5 percent probability of a recession next December is close to the 9.5 percent calculated by James Hamilton over at Econbrowser (though we are calculating different events: our number gives a probability that the economy will be in recession a year from now, and Econbrowser looks at the probability that the second quarter of 2007 was in a recession).

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?"

Monetary Policy and the Dollar's Depreciation

01.08.08

By Owen F. Humpage and Michael Shenk

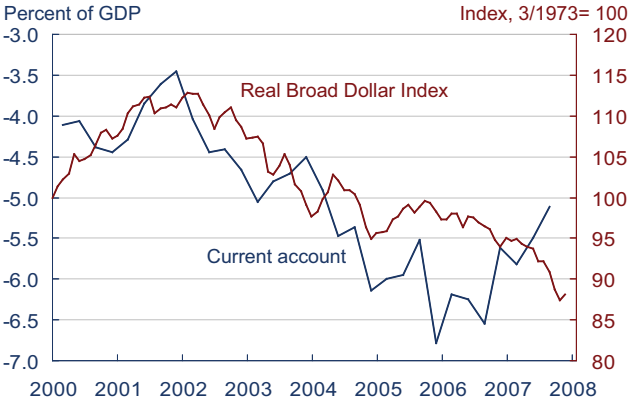
The dollar has been depreciating in foreign-exchange markets since February 2002. But in early 2006, the underlying nature of the dollar's descent changed. Prior to that time, an expanding U.S. aggregate demand seemed to have provoked the dollar's decline, but thereafter, the diversification of international investors' portfolios away from dollar-denominated assets seemed to be the cause. This diversification and the associated depreciation can affect the U.S. macroeconomy along at least three key dimensions: trade, prices, and interest rates. For that reason, the sharpness and protracted nature of the depreciation have started to raise questions about possible implications for U.S. monetary policy and about possible policy responses to the dollar's fall.

The dollar depreciation has raised the dollar price of U.S. imports and lowered the foreign currency price of U.S. exports. These relative price changes shift demand in both the United States and the rest of the world toward U.S. goods and services. Our exports rise and our imports fall, directly benefiting U.S. firms that either sell abroad or compete against foreign firms in U.S. markets. At a time when housing-sector weakness threatens growth in other sectors of U.S. economy, a strong export sector is welcome news for policymakers.

As worldwide demand shifts toward U.S. goods and services, the dollar price of both our imported and exported goods will rise. (The foreign-currency prices of our exports fall, but the dollar prices of these goods rise.) These price pressures will ripple through the economy and become reflected in key aggregate price indexes. While such price pressures are not in themselves inflationary, they greatly complicate policymakers' ability to read the degree of inflationary pressure in the economy and to respond appropriately.

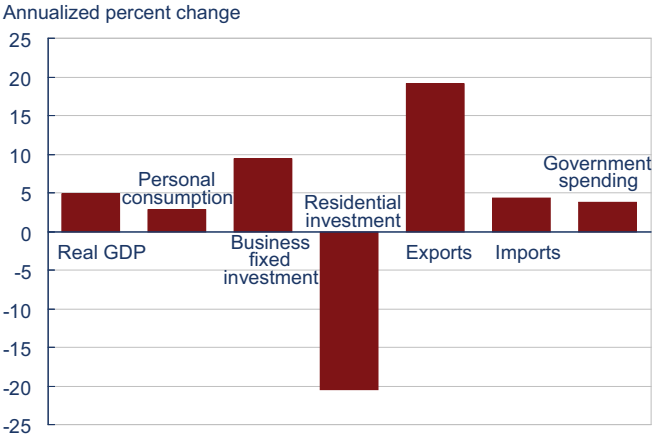
All else constant, a prolonged portfolio reshuffling away from dollar-denominated assets could leave

The Current Account and the Real Broad Dollar Index



Sources: Board of Governors of the Federal Reserve System; and The Bureau of Economic Analysis.

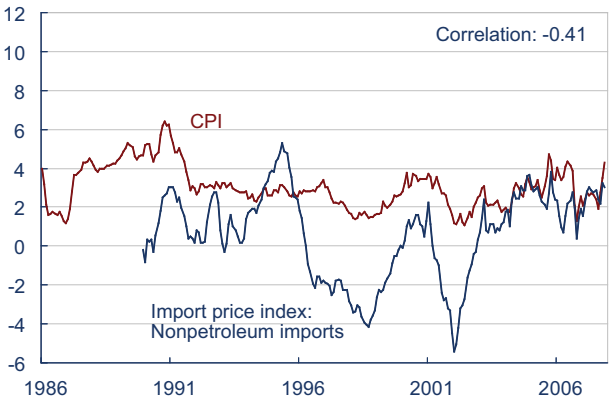
Real GDP and Components: Third Quarter



Source: Bureau of Economic Analysis

Foreign Exchange Indexes

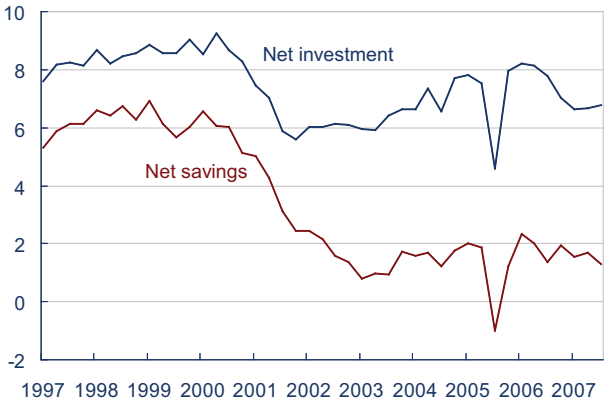
Percent change, year over year



Source: Bureau of Labor Statistics

Net Savings and Investment

Percent of GDP



Source: The Bureau of Economic Analysis.

real interest rates in the United States higher than they might otherwise be. The inflow of foreign investment funds that has accompanied the U.S. current account deficit since 1982 has allowed domestic investment to exceed domestic savings. As the current account deficit narrows and as these foreign financial inflows slow, domestic investment and savings must necessarily converge. Higher real interest rates are the mechanism that will achieve this convergence. They may imply a slower pace of U.S. investment or consumption, and they will complicate further the task of determining which federal funds rate target is neutral with respect to the economy and which federal funds rate setting is currently appropriate for achieving the Fed's dual mandate of price stability and maximum sustainable economic growth.

In the 1980s, when the dollar first appreciated and then depreciated, many observers thought that the United States should direct policy at offsetting—or at smoothing—the dollar's movements. Such a policy might minimize the economic effects of the change in the dollar's exchange value. At best, exchange-rate-focused policies are superfluous; at worst, they conflict with the Fed's dual mandate.

Focusing monetary policy on exchange rates presents the Federal Reserve with a potential mismatch between the number of policy instruments at its disposal and the number of policy objectives that it seeks to attain. Under its current dual mandate, the Federal Reserve focuses on achieving a federal-funds-rate target consistent with stable prices and economic growth at its potential. From time to time, the FOMC may lean one way or the other with respect to these dual objectives, but doing so generally does not present much of a conflict. Over the long-term, the FOMC's objectives are compatible, because the System can only raise the nation's potential for long-term economic growth by keeping inflation low and stable. Over the short-run, conflicts between objectives can arise, but often when economic growth falls below its potential rate, inflation tends to moderate, and when economic growth exceeds its potential rate, inflation tends to rise. In such cases, raising or lowering the federal funds rate promotes both the growth and inflation objectives. A serious problem arises when

the economy confronts a supply shock—like rising oil prices—since supply shocks puts upward pressure on prices while simultaneously trimming economic growth. Supply shock can force the FOMC to choose between its inflation and growth objectives, but if its policy has been credible and is clearly articulated, temporarily doing so is possible.

Adding a third, exchange-rate objective to the Federal Reserve's mandates ramps up the instrument-versus-targets problem. If the dollar were depreciating because monetary policy was excessively easy, no conflict would be involved. Tightening monetary policy to slow the depreciation would be consistent with maintaining a stable prices and ultimately keeping economic growth at potential. In this case, however, adding an exchange-rate target to the Fed's mandate would be superfluous to the its other objectives. If, however, the dollar were depreciating because of a diversification out of dollars, an attempt to slow the pace of depreciation would necessarily conflict with one or both of the Fed's other objectives. Should the FOMC be tightening to slow the dollar's depreciation when financial markets need liquidity and economic growth is likely to slow?

Some observers might recommend that the Federal Reserve slow the dollar's depreciation through sterilized sales of foreign exchange.[1] To conduct a sterilized sale, the Fed would sell euros or yen for dollars and offset or "sterilize" the decline in dollar reserves by buying U.S. Treasury securities from the banking system. This set of transactions would not interfere with the FOMC's federal funds rate target and, therefore, with the Fed's price and growth objectives. Sterilized interventions can sometimes temporarily affect exchange rates,[2] but because they do not change the underlying macroeconomic determinants of exchange rates, their impact is at best ephemeral.

1. "Is Foreign Exchange Intervention a Good Idea?" by Owen F. Humpage and Michael Shenk, Federal Reserve Bank of Cleveland, *Economic Trends*, June 06, 2007 <http://www.clevelandfed.org/research/trends/2007/0607/01intmar_060607.cfm>.
2. "On the Rotation of the Earth, Drunken Sailors, and Exchange Rate Policy," by Owen F. Humpage, Federal Reserve Bank of Cleveland, *Economic Commentary*, February 15, 2004 <http://clevelandfed.org/research/Commentary/2004/0215.pdf>.

A Review of the Latest Business Cycle

01.04.08
by Paul W. Bauer and Katie Corcoran

As we move into a new year—and as the current expansion comes, perhaps, to an end—it is an appropriate time to examine how the U.S. economy has evolved, so far anyway, over this business cycle.

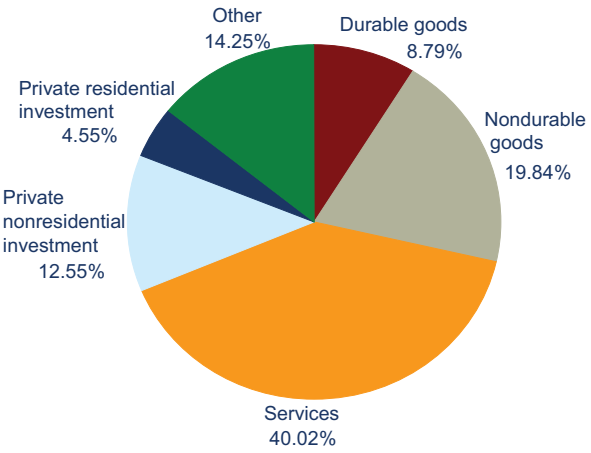
Services continue to account for the largest share of gross domestic product (GDP). Through the third quarter of 2007, they comprised 40.4 percent of GDP—up very slightly from 40.0 percent in 2000. Both nondurable and durable goods also increased their shares of GDP. Durable goods rose from 8.8 to 10.7 percent and nondurable goods from 19.8 to 20.7 percent. Declining in share were both private residential investment (4.6 to 4.2 percent) and private nonresidential investment (12.6 to 11.8 percent).

A more significant change over this business cycle is the continuing rise in the importance of international trade to the U.S. economy. Going into the last recession, both exports and imports declined as a share of GDP, but throughout this expansion both have grown at a fairly steady pace, at least until lately. As the dollar has weakened against other currencies and economic growth overseas has become relatively stronger, exports' share has begun to accelerate, while imports' share has leveled off and even shrank in the third quarter.

There have also been large changes in the shares of the components of national income over this business cycle. Compensation of employees retains the largest share, but it has fallen from over 66 percent at the end of the last expansion to 64.3 percent. Over the same period, corporate profit's share rose from 8 percent to about 13 percent. Much of this change though is likely cyclical and not permanent. As can be seen in the last business cycle, corporate profits are apt to fluctuate over a cycle, tending to peak as a share of national income well before the end of the cycle.

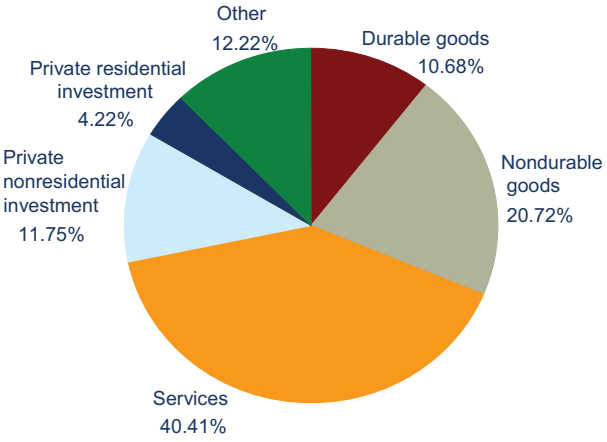
Over this business cycle, rental income has fallen to 0.6 from 1.7 percent. This is mostly due to hom-

GDP Shares: 2000



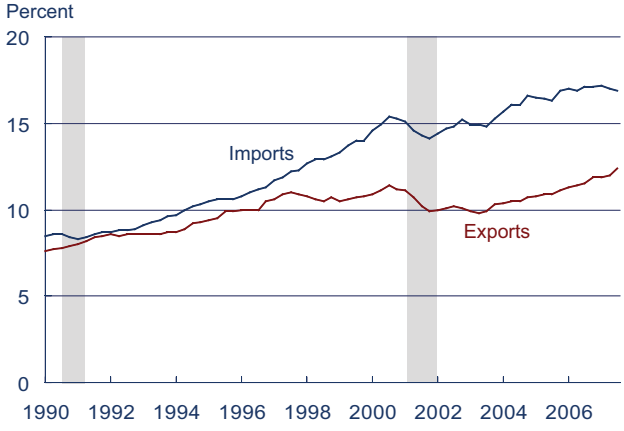
Source: Bureau of Economic Analysis

GDP Shares: 2007



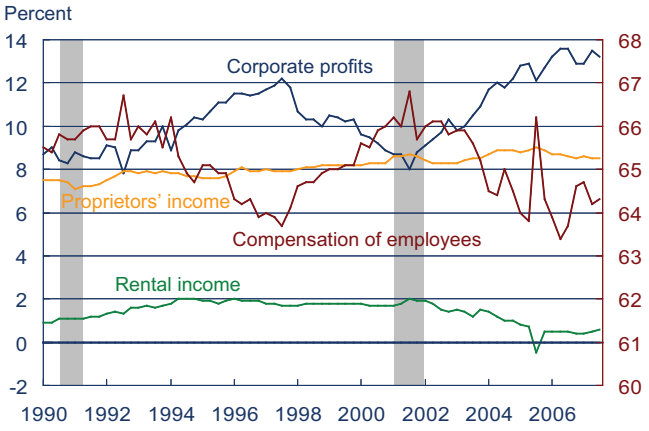
Note: Calculated through the Third Quarter
Source: Bureau of Economic Analysis

Share of GDP: Imports and Exports



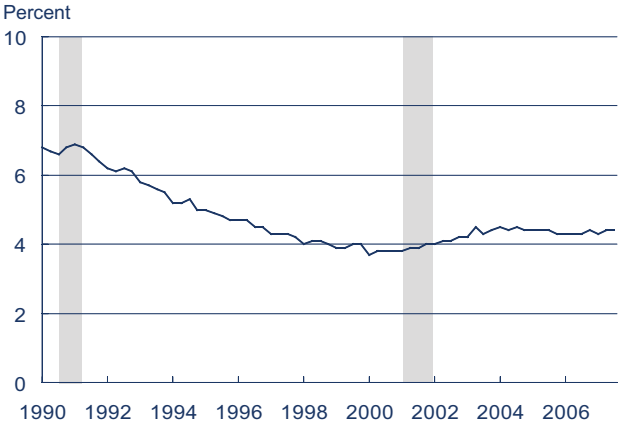
Note: Shaded bars indicate recessions.
Source: Bureau of Economic Analysis; and National Bureau of Economic Research

Component Shares of National Income



Sources: Bureau of Economic Analysis; and National Bureau of Economic Research

Share of GDP: National Defense



Source: Bureau of Economic Analysis; and National Bureau of Economic Research

eownership rates reaching record levels. Whether this is a permanent shift will become apparent as the housing slump plays out. Lastly, while proprietor's income has remained fairly flat over this cycle, since 1990 its share of national income has increased to 8.5 from 7.5 percent.

Finally, while not related to the business cycle, the economic impact of the conflicts in Iraq and Afghanistan also appear in the GDP accounts over this period. At the end of the Cold War, national defense accounted for 6.8 percent of GDP. With the "peace dividend" that share fell to 3.9 just prior to the 9/11 tragedy. Since then, national defense's share has averaged 4.4 percent.

The Employment Situation

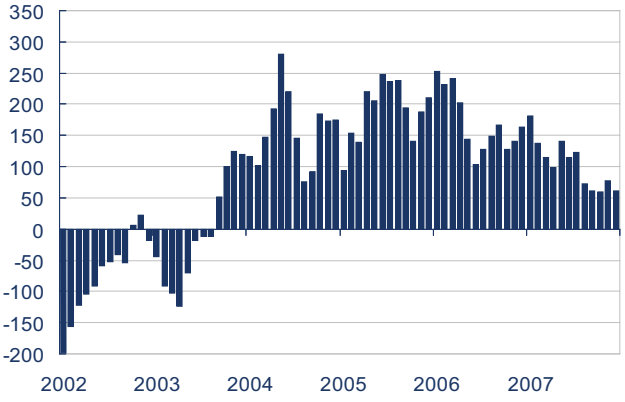
Labor Market Conditions

	Average monthly change (thousands of employees, NAICS)				
	2004	2005	2006	Jan–Nov 2007	Dec 2007
Payroll employment	172	212	189	111	18
Goods-producing	28	32	9	−31	−75
Construction	26	35	11	−16	−49
Heavy and civil engineering	2	4	2	–1	–2
Residential[a]	9	11	−2	−8	−28
Nonresidential[b]	3	4	6	0	–17
Manufacturing	0	−7	−7	−18	−31
Durable goods	8	2	0	−12	−20
Nondurable goods	−9	−9	−6	−5	−11
Service-providing	144	180	179	142	93
Retail trade	16	19	−3	4	–24
Financial activities[c]	8	14	16	–2	–4
PBS[d]	38	57	42	26	43
Temporary help services	11	18	−1	−4	0
Education and health services	33	36	41	47	44
Leisure and hospitality	25	23	38	30	22
Government	14	14	20	23	31
Local educational services	8	6	11	8	17
	Average for period (percent)				
Civilian unemployment rate	5.5	5.1	4.6	4.6	4.7

a. Includes construction of residential buildings and residential specialty trade contractors.
b. Includes construction of nonresidential buildings and nonresidential specialty trade contractors.
c. Financial activities include 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

Change, thousands of jobs: three-month moving average



Source: Bureau of Labor Statistics.

01.09.08
By Murat Tasci and Beth Mowry

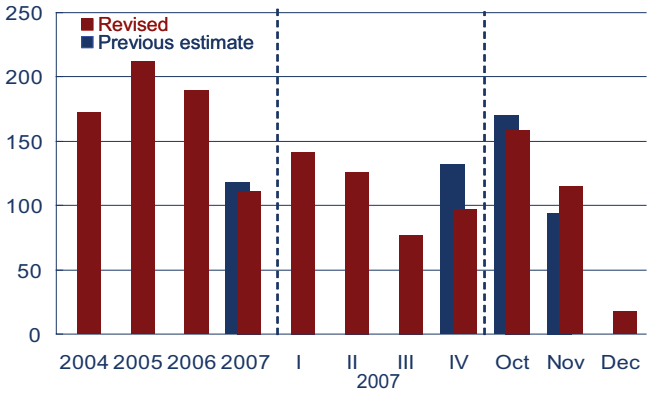
The labor market created a mere 18,000 jobs in December, falling well below expectations, as well as November's upwardly-revised 115,000 figure. The December report was the weakest since August of 2003, and the unemployment rate increased to 5.0 percent from 4.7 percent in the previous month. However, the average monthly job gain for the fourth quarter stands at 97,000, which is still better than the third quarter's average of 77,000, and indicates moderate growth.

Large contributors to December's weakness were construction (–49,000 jobs), manufacturing (–31,000), and retail trade (–25,000). These losses reflect the continuing housing downturn and the cautious retail environment. All three of these sectors, especially construction, worsened considerably since November's report. Residential construction, for example, lost 28,000 jobs, compared to November's loss of 8,000. Nonresidential construction also suffered, losing 17,000. Within the manufacturing sector, the lone job creators were food manufacturing, machinery, and chemicals. Among the subsectors struggling the most were computer and electronic products; motor vehicles and parts; and plastics and rubber products.

Services were the bright spot in the report, adding 93,000 jobs. Professional business services (43,000), education and health services (44,000), and government (31,000) were the strongest contributors within the category. All three of these sectors have been relatively consistent pillars of job growth in 2007. Management and technical consulting services added 12,300 jobs, and architectural and engineering services added 7,500. Leisure and hospitality also fared particularly well, with food services and drinking places adding 26,600 jobs, and healthcare adding 27,900. Although services created the most jobs in December, this month's growth in the sector fell far short of that in

Average Nonfarm Employment Change

Change, thousands of jobs



Source: Bureau of Labor Statistics.

Labor Market Conditions and Revisions

	Average monthly change (thousands of employees, NAICS)				
	Oct current	Revision to Oct	Nov current	Revision to Nov	Dec 2007
Payroll employment	159	−11	115	21	18
Goods-producing	−43	−21	−45	−12	−75
Construction	−20	−11	−37	−13	−49
Heavy and civil engineering	1.5	2.1	−2.1	2.4	−2
Residential[a]	−13.7	−4.1	−9.9	−2.7	−28
Nonresidential[b]	−3.3	−1.3	−2.4	−1.7	−17
Manufacturing	−23	−8	−13	−2	−31
Durable goods	−17	−8	−2	−1	−20
Nondurable goods	−6	0	−11	−1	−11
Service-providing	202	10	160	33	93
Retail trade	−20.4	−5.4	32	8	−24
Financial activities[c]	−2	0	−16	4	−4
PBS[d]	70	6	39	9	43
Temporary help services	22.9	−4.9	11.6	0.3	0
Education and health services	49	5	29	1	44
Leisure and hospitality	47	1	35	9	22
Government	49	11	28	−2	31
Local educational services	35.3	5.2	9.6	−0.2	17

a. Includes construction of residential buildings and residential specialty trade contractors.
b. Includes construction of nonresidential buildings and nonresidential specialty trade contractors.
c. Financial activities include 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.

November (160,000), as well as the year's monthly average for services (142,000).

The three-month moving average of private sector employment growth shows a definite declining trend over the past year, and even more broadly over the past two years. This trend discounts the constant positive effect the government sector has had.

December's diffusion index slipped to 48.4, indicating that more industries cut back payrolls than added to them. The last time the index fell below the neutral 50 mark was way back in September 2003.

These numbers overwhelmingly point to a weak December labor market, with almost all sectors worsening from the previous month. However, monthly data are volatile and subject to revision. The Bureau of Labor Statistics revised October's initial 170,000 payroll gain down to 159,000, and November's initial 94,000 was revised up to a gain of 115,000. Payroll gains in November and December are subject to revision in the next report.

Third-Quarter 2007 Final GDP

12.21.07
By Brent Meyer

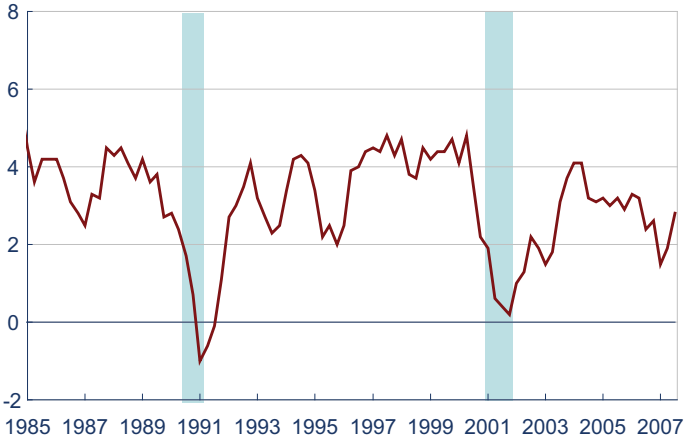
Real GDP and Components, 2007:IIIQ (final estimate)

	Annualized percent change, last:		
	Quarterly change, billions of 2000$	Quarter	Four quarters
Real GDP	138.8	4.9	2.8
Personal consumption	57.9	2.8	3.0
Durables	13.5	4.5	4.7
Nondurables	13.0	2.2	2.3
Services	32.8	2.8	3.0
Business fixed investment	30.7	9.4	5.1
Equipment	16.1	6.2	1.5
Structures	11.6	16.4	13.8
Residential investment	−27.4	−20.5	−16.5
Government spending	18.8	3.8	2.7
National defense	12.2	10.1	5.7
Net exports	40.8	—	—
Exports	61.7	19.1	10.3
Imports	20.9	4.3	1.7
Change in business inventories	24.8	—	—

Source: Bureau of Economic Analysis.

Real Gross Domestic Product

Four-quarter percent change



Source: Bureau of Economic Analysis.

Real Gross Domestic Product (GDP) advanced at a 4.9 percent annualized rate in the third quarter, according to the final estimate. The final revision was unchanged from the preliminary estimate and goes into the books as the strongest quarter since the third quarter of 2003. While the headline number remained unchanged from the preliminary estimate, some of the components were adjusted. Personal consumption expenditures were revised up slightly, as durable goods expenditures rose from 4.0 percent in the preliminary release to 4.5 percent in the final estimate. Concurrently, private inventories were revised down from an increase of $27.1 billion to one of $24.8 billion.

Following two consecutive quarters below 2.0 percent, a strong third quarter elevated the four-quarter growth rate in real GDP to 2.8 percent. Since coming out of the last recession, the year-over-year growth rate has averaged 2.7 percent.

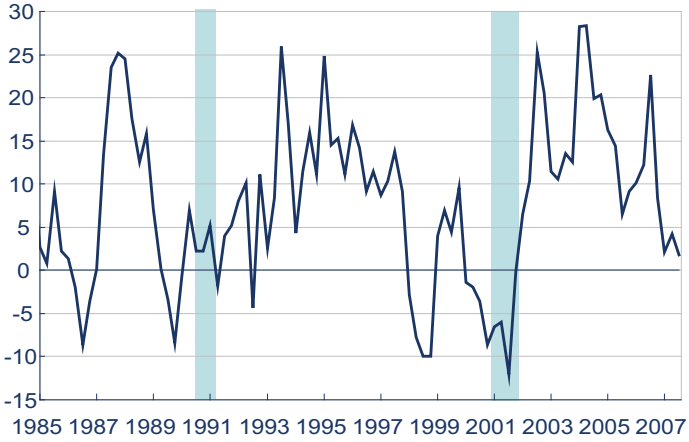
The final estimate of third quarter corporate profits was released with the GDP report. Profits before taxes were hampered by fallout from mortgage foreclosures and financial turmoil, and after having posted a $94.7 billion gain in the second quarter, fell $20.5 billion in the third. Profits are still up 1.8 percent over the third quarter of 2006, however.

With respect to the economic outlook, the Blue Chip panel of forecasters is expecting GDP growth to drop to 0.8 percent (annualized rate) in the fourth quarter, before returning to trend by the end of 2008.

The uncertainty surrounding the near-term growth outlook has caused forecasters to trim their predictions over the past couple of months. The Blue Chip consensus for fourth-quarter GDP growth fell 0.9 percentage point from November 10 to December 10 (the date of the forecast release). Out of 51 forecasting firms in the Blue Chip panel, 39 revised their 2008 GDP forecast down from November, 11 forecasts remained the same, and only 1 forecast was revised up.

Corporate Profits

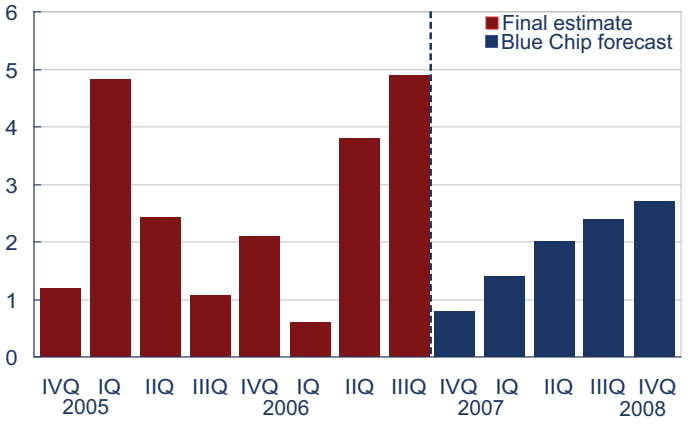
Four-quarter percent change



Source: Bureau of Economic Analysis.

Real GDP Growth

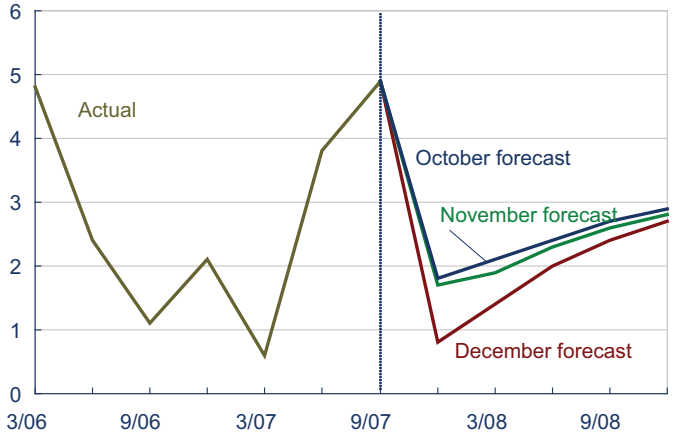
Annualized quarterly percent change



Sources: Blue Chip Economic Indicators, December 2007; and Bureau of Economic Analysis.

GDP and Forecasts

Annualized quarterly percent change

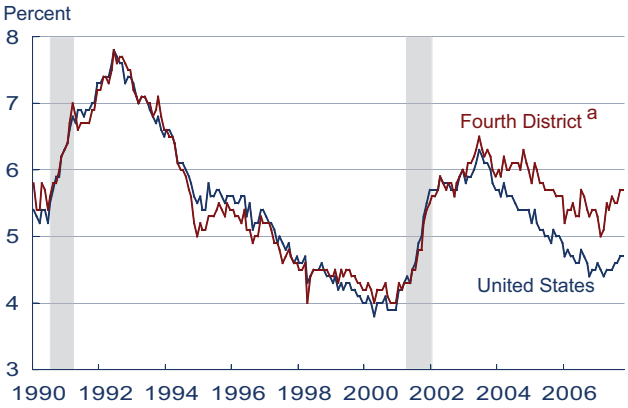


Source: Blue Chip panel of economists.

Fourth District Employment Conditions

01.08.08
By Tim Dunne and Kyle Fee

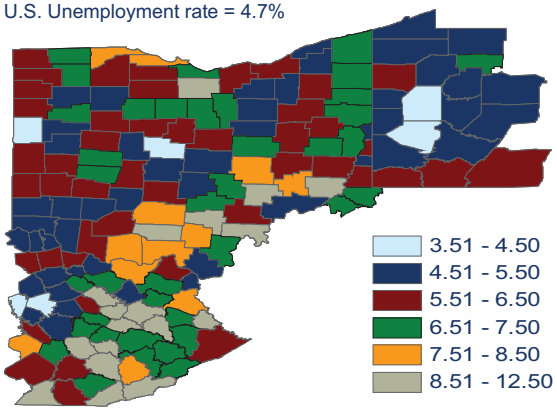
Unemployment Rates, Fourth District and Ohio



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

Unemployment Rates, October 2007

U.S. Unemployment rate = 4.7%



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

The district's unemployment rate remained at 5.7 percent for the month of October. Similar declines in the number of people employed (-0.4 percent), the number of people unemployed (-0.3 percent) and the size of the labor force (-0.4 percent) kept the district's unemployment rate steady. Compared to the national unemployment rate in October, the district's rate stood 1.0 percent higher and has been consistently higher since early 2004. Over the last year, the Fourth District's unemployment rate increased 0.4 percentage point, whereas the national unemployment rate increased 0.3 percentage point.

Within the Fourth District, unemployment rates varied widely across locations. Of the 169 counties in the Fourth District, 14 had an unemployment rate below the national average in October while 155 had a higher unemployment rate. Rural Appalachian counties continue to experience high levels of unemployment, and Fourth District Kentucky is home to five counties with unemployment rates that exceed 10 percent. Unemployment rates for the District's major metropolitan areas ranged from a low of 4.3 percent in Lexington to a high of 7.7 percent in Toledo.

Lexington is the only large metropolitan area where nonfarm employment grew as fast as the national average (1.2 percent) over the past 12 months. Akron, Cincinnati, Columbus, and Pittsburgh added jobs but at a slower rate than the United States. Conversely, Cleveland, Dayton, and Toledo have seen either no change or a decrease in nonfarm employment over the same period. Employment in goods-producing industries increased in Akron (1.3 percent), while all other Fourth District metropolitan areas lost goods-producing jobs. Nationally, employment in goods-producing industries fell 1.3 percent.

Focusing on the service sector, Lexington showed the strongest growth in employment (1.6 percent)

and was the only large metro area in the Fourth District with growth close to the national average of 1.7 percent. All other Fourth District metro areas experienced employment growth in the service sector of less than one-half of the national rate. Information services expanded in Lexington (4.3 percent), Toledo (2.5 percent), and Cleveland (0.6 percent). Professional and business services employment grew faster than the national rate of 2.0 percent in Columbus (2.2 percent), Toledo (2.6 percent), and Akron (2.4 percent). Compared to the nation's 3.2 percent increase in education and health services employment over the past 12 months, Cincinnati and Lexington posted stronger job gains (3.5 percent and 3.6 percent, respectively); all other large Fourth District metropolitan areas posted modest gains in education and health services.

Looking over a longer time horizon—from January 2000 forward—nonfarm employment growth ranged from 4.2 percent in Akron to -6.4 percent in Dayton. These employment growth rates all fall well short of the national growth rate of 8.2 percent, and the shortfalls were present in both the goods-producing and service sectors. All Fourth District metropolitan areas shown in the table lost goods-producing jobs at more than twice the national rate. Dayton (-32.0 percent) and Cleveland (-26.6 percent) led the declines in manufacturing employment, while Lexington (-17.7 percent) was the only Fourth District metro area in the table to lose manufacturing jobs at a slower rate than the nation (-18.6 percent). However, the substantial difference in job growth between the nation and Fourth District metropolitan areas in goods-producing industries is not primarily a result of differences in manufacturing. Instead, the Fourth District fell well short of the nation's 23.6 percent employment growth in natural resources, mining, and construction industries.

Turning to the service sector, Akron showed the strongest growth in service-providing employment of Fourth District cities (10.1 percent)—not too far below the national average of 11.5 percent. However, this is the exception, as the remainder of the Fourth District metropolitan economies all generated significantly lower gains in service-sector

employment than the nation. Somewhat surprisingly, there has been a sharp reduction in information services employment for the United States as a whole, as well as in the Fourth District. Dayton is the only metro area in the Fourth District to buck that trend, showing a rise in information services employment of 4.7 percent. Professional and business services employment grew faster than the nation's 13.1 percent in Columbus (16.3 percent), Cincinnati (14.4 percent), and Akron (39.7 percent). Finally, education and health services expanded strongly over the period in both the Fourth District and the United States as a whole.

Payroll Employment by Metropolitan Statistical Area (year over year)

	12-month percent change, October 2007								
	Cleveland	Columbus	Cincinnati	Pittsburgh	Dayton	Toledo	Akron	Lexington	U.S.
Total nonfarm	0.0	0.5	0.3	0.3	-0.6	-0.2	0.8	1.2	1.2
Goods-producing	-0.9	-1.7	-2.1	-1.7	-1.3	-2.8	1.3	-1.0	-1.3
Manufacturing	-1.5	-1.9	-1.5	-1.6	-1.8	-3.3	1.1	-2.2	-1.5
Natural resources, mining, and construction	1.0	-1.4	-3.3	0.1	0.2	-1.2	1.9	2.4	-1.0
Service-providing	0.2	0.8	0.8	0.6	-0.5	0.4	0.7	1.6	1.7
Trade, transportation, and utilities	-0.5	-0.4	-0.4	-0.5	-1.8	-1.0	0.3	-0.6	0.8
Information	0.6	-0.5	-3.2	-2.2	-0.9	2.5	0.0	4.3	1.1
Financial activities	-0.1	-0.9	-1.0	0.3	2.5	-0.7	0.0	-0.8	0.4
Professional and business services	-0.8	2.2	1.0	1.3	-2.2	2.6	2.4	-3.5	2.0
Education and health services	0.9	0.3	3.5	1.8	0.3	1.2	1.3	3.6	3.2
Leisure and hospitality	0.2	2.7	2.7	0.5	0.3	-0.3	-0.6	7.0	3.2
Other services	0.5	-1.3	-0.2	-0.8	0.7	1.5	0.0	0.1	0.5
Government	1.2	1.0	-0.2	1.3	0.2	0.1	0.0	3.7	1.1
October unemployment rate (sa, percent)	6.0	5.0	5.2	4.5	6.2	7.7	5.6	4.3	4.7

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

Payroll Employment by Metropolitan Statistical Area since January 2000

	Percent change since January 2000								
	Cleveland	Columbus	Cincinnati	Pittsburgh	Dayton	Toledo	Akron	Lexington	U.S.
Total nonfarm	-5.4	3.7	2.6	0.6	-6.4	-4.6	4.2	1.4	8.2
Goods-producing	-23.7	-19.6	-14.9	-17.6	-27.9	-20.0	-15.6	-15.9	-6.5
Manufacturing	-26.6	-24.8	-19.4	-24.0	-32.0	-22.6	-19.5	-17.7	-18.6
Natural resources, mining, and construction	-9.3	-6.7	-1.6	-3.3	-7.1	-11.4	0.1	-10.8	23.6
Service-providing	0.4	8.1	6.9	4.3	-0.2	0.1	10.1	6.3	11.5
Trade, transportation, and utilities	-10.1	-3.1	-4.7	-6.5	-16.6	-10.8	3.0	-5.1	2.2
Information	-20.3	-15.0	-25.7	-11.8	4.7	-13.7	-9.5	-3.6	-13.0
Financial activities	-2.1	-4.5	9.8	1.5	18.1	4.5	-2.9	2.1	10.7
Professional and business services	-0.5	16.3	14.4	8.1	0.7	-7.5	39.7	1.5	13.1
Education and health services	16.9	24.3	21.3	17.8	12.0	20.6	18.5	18.3	26.2
Leisure and hospitality	1.5	16.2	12.8	11.3	5.9	2.2	-2.0	18.4	23.1
Other services	-2.8	9.5	1.9	-1.9	2.0	6.2	-0.5	-1.8	7.3
Government	0.4	10.7	6.3	1.8	-0.1	1.4	5.1	11.8	10.8

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

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ISSN 0748-2922