# Economic Trends

**June 2009** (Covering May 15, 2009, to June 1, 2009)

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FEDERAL RESERVE BANK of CLEVELAND

#### **April Price Statistics**

#### **April Price Statistics**

	Percent change, last						
	1mo.a	3mo.a	6mo.a	12mo.	5yr.a	2008 average	
Consumer Price Index							
All items	-0.2	0.9	-3.9	-0.7	2.6	0.3	
Less food and energy	3.1	2.5	1.7	1.9	2.2	1.8	
Median <sup>b</sup>	2.1	2.1	2.1	2.6	2.8	2.9	
16% trimmed mean <sup>b</sup>	0.9	1.3	1.1	2.1	2.6	2.7	
Producer Price Index							
Finished goods	3.1	-3.0	-8.6	-3.5	2.9	0.2	
Less food and energy	0.7	1.2	1.7	3.4	2.5	4.3	

a. Annualized.

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

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

#### 12-month percent change



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

05.20.09 by Brent Meyer

The Consumer Price Index (CPI) was virtually flat in April, falling 0.2 percent at an annualized rate, pulled down in part by falling food and energy prices, which were down 2.2 percent and 25.1 percent, respectively. Over the past 12 months, the CPI has fallen 0.7 percent, its sharpest decrease since June 1955. The growth rate in energy prices is down 25.2 percent over the past year—compared to jumping above 29 percent last July—which is driving much of the price declines in the overall CPI.

Excluding food and energy prices (core CPI), the index jumped up 3.1 percent. As was the case in March, the excise tax on tobacco was the smoking gun pushing up the core CPI. Tobacco prices jumped up 191.7 percent (annualized rate) as the tax went into effect on April 1. Early adopters raised prices in March, which led to a 251 percent increase (annualized) that month.

Alternative core measures of underlying inflation—the median CPI and the 16 percent trimmed-mean CPI—were somewhat disparate in April. The median CPI rose 2.1 percent in April and is up 2.6 percent over the past 12 months, while the 16 percent trim rose just 0.9 percent during the month and is up 2.1 percent over the past year.

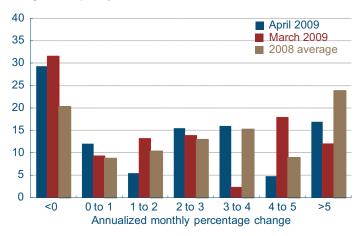
The price-change distribution revealed that roughly 29 percent of the consumer market basket (by expenditure weight) exhibited price decreases this month, compared to 32 percent in March. At the same time, 17 percent of the index was in the upper tail (price increases above 5.0 percent), compared to 12 percent in March and an average of 24 percent in 2008. Even though it looks like the lower tail of the price-change distribution has grown in recent months, the share of the consumer market basket exhibiting price increases ranging between 0 percent and 3 percent was 33 percent in April, up 1.0 percentage point from the 2008 average.

Both short-term and longer-term consumer infla-

b. Calculated by the Federal Reserve Bank of Cleveland.

# CPI Component Price Change Distribution

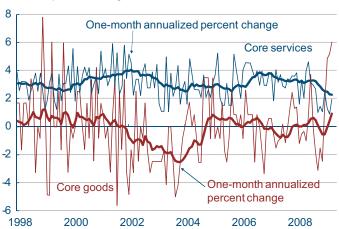
Weighted frequency



Source: Bureau of Labor Statistics

#### Core CPI Goods and Core CPI Services

12-month percent change



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

#### Household Inflation Expectations

12-month percent change



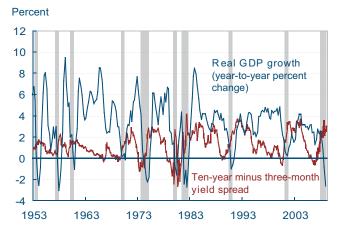
Note: Mean expected change as measured by the University of Michigan's Survey of Consumers.

Source: University of Michigan.

tion expectations ticked down slightly in May. One-year-ahead average expectations ticked down from 3.1 percent in April to 2.9 percent in May. Longer-term (5–10 years ahead) average inflation expectations also fell to 2.9 percent in May, though they are still above their recent low of 2.6 percent in December 2008.

#### The Yield Curve, May 2009

#### Yield Spread and Real GDP Growth



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

#### Yield Spread and Lagged Real GDP Growth

# One year lagged real GDP growth (year-to-year percent change) Ten-year minus three-month yield spread

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

1983

1993

2003

1973

1953

1963

#### Predicted GDP Growth and Yield Spread

#### Percent 5 Real GDP growth (year-to-year 4 Predicted percent change) GDP growth 3 2 0 Ten-year minus three-month yield spread -2 -3 2004 2005 2008 2003 2006 2007 2009 2010 2002

Sources: Department of Commerce; Bureau of Economic Analysis; Board of Governors of the Federal Reserve System; authors' calculations. 05.21.09 by Joseph G. Haubrich and Kent Cherny

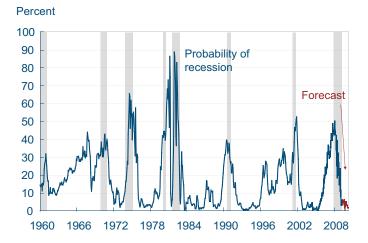
Since last month, the yield curve has shifted up and gotten steeper, with both short and long rates rising. The spread between these rates, the slope of the yield curve, has achieved some notoriety as a simple forecaster of economic growth. The rule of thumb is that an inverted yield curve (short rates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

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

Since last month, the three-month rate edged upward from a low 0.13 percent to a barely higher 0.18 percent (for the week ending May 15). The ten-year rate increased from 2.96 percent to 3.14 percent. This increased the slope to 296 basis points, which is up from April's 283 basis points and well above March's 253. The flight to quality, the zero bound, and the turmoil in the financial markets may impact the reliability of the yield curve as an indicator, but projecting forward using past values of the spread and GDP growth suggests that real GDP will grow at about a 2.9 percent rate over the next year. This is not that far from other forecasts.

While this 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:

# Probability of Recession Based on the Yield Spread



Note: Probability is estimated using a probit model; Shaded bars indicate recessions.

Sources: Department of Commerce, Bureau of Economic Analysis, Board of Governors of the Federal Reserve System, authors' calculations.

# **Durations of Yield Curve Inversions and Recessions**

Recession	Duration (months)			
	Recession	Yield curve inversion (before and during recession)		
1970	11	11		
1973-1975	16	15		
1980	6	17		
1981-1982	16	11		
1990-1991	8	5		
2001	8	7		
2008-present	16 (through April 2009)	10		

Note: Yield curve inversions are not necessarily continuous month-tomonth periods.

Sources: Bureau of Economic Analysis, Federal Reserve Board, and authors' calculations.

To read more on the NBER's Recession Dating Procedure http://www.nber.org/cycles/recessions.html

To read more on other forecasts:

http://www.econbrowser.com/archives/2008/11/gdp\_mean\_estima.html

For Paul Krugman's column:

http://krugman.blogs.nytimes.com/2008/12/27/the-yield-curve-wonkish/

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

whether or not the economy is in recession. Looking at that relationship, the expected chance of the economy being in a recession next May stands at a very low 1.8 percent, just down from April's 1.9 percent, but above March's 1.1 percent.

The probability of recession coming out of the yield curve is very low, but remember that the forecast is for where the economy will be in a year, not where it is now. However, consider that in the spring of 2007, the yield curve was predicting a 40 percent chance of a recession in 2008, something that looked out of step with other forecasters at the time.

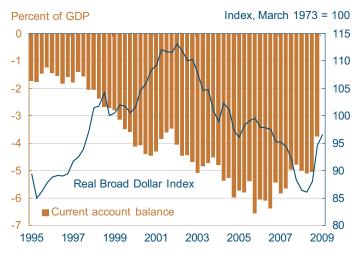
Of course, it might not be advisable to take this number quite so literally, for two reasons. (Not even counting Paul Krugman's concerns.) First, the probability is itself subject to error, as is the case with all statistical estimates. Second, other researchers have postulated that the underlying determinants 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.

Another use the yield curve can serve is to get at the question of when the recovery will start. If we compare the duration of past recessions with the duration of the interest rate inversions that preceded them, we see that, with the exception of the 1980 recession, longer inversions have been followed by longer recessions. Given this pattern, the current recession is already longer than expected.

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?"

#### **Mighty Bad Recessions**

# Current Account Deficit and the Exchange Rate



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

05.29.09 by Owen F. Humpage and Michael Shenk

A lively debate has arisen over the contribution that foreign savings may have made to our current economic problems. Some economists argue that an influx of foreign savings helped to inflate the U.S. housing bubble, whose bursting caused the financial turmoil that led to our current recession. Others insist that the problems were by and large home grown. Most of the arguments have focused on the behavior of interest rates, yield spreads, and asset prices for proof, but foreign saving flows affect exchange rates and balance-of-payments patterns, so these data might help tell the tale.

When the influx of foreign savings rises, it increases the current-account deficit. An increase in domestic demand has the same effect. But each cause leaves a distinct footprint. An expansion of the current-account deficit that stems from an exogenous inflow of foreign savings will be accompanied by an appreciation of the dollar. An expansion of the current-account deficit that stems from an increase in domestic demand will cause a dollar depreciation.

Both types of patterns have appeared in U.S. data over the last few decades. Foreign savings, for example, shot in from mid-1997 through 2000, during the dot-com boom. To buy assets in the United States, foreigners first needed to acquire dollars in the foreign-exchange market.

As they did, the dollar appreciated 17.4 percent in real (inflation-adjusted) terms against a broad array of our major trading partners' currencies. The dollar's real appreciation raised the foreign-currency price of U.S. exports and lowered the dollar-price of foreign-made goods and services. As a result, worldwide demand shifted away from the United States, and our current-account deficit widened from 2 percent of GDP to over 4 percent of GDP. A similar savings-led pattern also appeared in the early 1980s.

#### Real Federal Funds Rate

#### Percent



Note: The effective federal funds rate less the 12-month growth rate in the core CPI.

Source: Bureau of Labor Statistics; Board of Governors of the Federal Reserve.

The configuration of dollar and current-account trends that developed after the 2001 recession and before the real estate bust points to expanding domestic demand—not foreign savings—as the key causal development. The 2001 recession was very mild, but labor markets recovered slowly and output seemed to remain below potential. The Federal Reserve maintained an accommodative monetary policy with a real federal funds rate in negative territory through 2004. Domestic demand was strong enough to fuel import growth, but foreign economic activity and U.S. export growth lagged behind. The U.S. current account deficit grew from over 4 percent of GDP in early 2002 to 6½ percent of GDP in late 2005.

To buy imports, Americans must sell dollars and buy foreign currencies, which promotes a dollar depreciation. From early 2002 through 2005, the dollar depreciated 12.9 percent on a real basis. The dollar's depreciation, however, made U.S. dollar-denominated financial assets more attractive to foreigners, who then channeled additional savings into these instruments.

To be sure, more foreign savings flowed into the United States between 2002 and 2005 than between 1997 and 2000, but between 2002 and 2005 developments in this country essentially enticed the foreign savings in. Between 1997 and 2000, foreign savings seemed to have barged in, as if they had no place else to settle.

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

05.20.09 by Brent Meyer

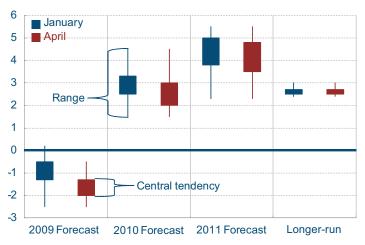
The economic projections of the Federal Open Market Committee (FOMC) are released in conjunction with the minutes of the meetings four times a year (January, April, June, and October). The projections are based on the information available at the time, as well as participants' assumptions about the economic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

Data available to FOMC participants on April 28-29 seemed to indicate that a few of the substantial downward trends in the economy were diminishing somewhat. Notably, personal consumption rose modestly in the first quarter, after two consecutive quarterly decreases in excess of 3.5 percent (annualized rate). Also, between the meetings, some housing-market indicators had started to show signs of stabilization (albeit at a relatively low level). On the other hand, the labor market continued to hemorrhage jobs, as factories scrambled to cut production and clear excess inventories. Furthermore, economic and financial conditions in the rest of the world continued to deteriorate in the first quarter, dampening demand for U.S. exports.

The Committee's central tendency is now for the economy to contract on a year-over-year basis in 2009 between -2.0 percent and -1.3 percent, compared to January's central tendency of -1.3 percent to 0.2 percent. As noted in the FOMC release, the first-quarter data on real GDP was weaker than many participants had expected, contributing to the weaker 2009 growth projections. Conversely, the minutes point out that April's projections for the second half of 2009 were revised up from the January meeting.

#### **FOMC Projections: Real GDP**

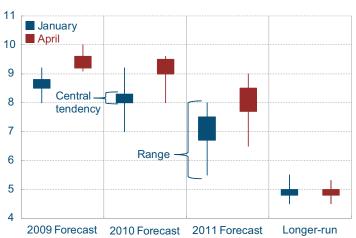
#### Annualized percent change



Source: Federal Reserve Board.

#### FOMC Projections: Unemployment Rate

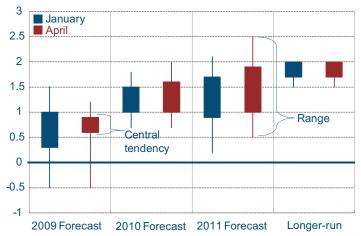
#### Percent



Source: Federal Reserve Board.

#### FOMC Projections: PCE Inflation

#### Annualized percent change



Source: Federal Reserve Board.

The Committee noted that the key factors aiding in the recovery will be a boost from the fiscal stimulus, housing-market stabilization, an end of the inventory correction followed by a return to accumulation, and continuing improvement in financial markets. The Committee's projections have output growth returning roughly to trend in 2010, before climbing to a central tendency of 3.5 percent to 4.8 percent in 2011—closing some of the gap between actual and potential GDP. The longer-term (5-6 years out) growth projections remained unchanged from January at the April meeting, ranging between 2.4 percent and 3.0 percent.

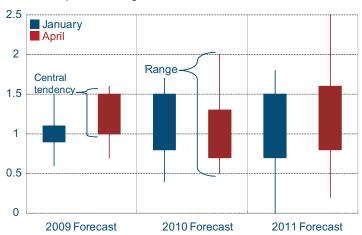
Reflecting the rapid deterioration in the employment situation, the Committee's projections for the unemployment rate were more pessimistic in April than in January. In fact, even the most optimistic projection jumped up above 9.0 percent in 2009. Most participants now expect that the unemployment rate will rise to between 9.2 percent and 9.6 percent in 2009, and given that most participants' projections for economic growth are not appreciably above the longer-run trend, the unemployment rate is expected to decline only slightly in 2010. Even "absent further shocks," most participants judge that the unemployment rate will remain stubbornly above its "longer-run sustainable rate" through 2011. Some participants noted that the unemployment rate may remain stubbornly high, as resources are shifted away from certain sectors that are experiencing rapid employment losses. Laborers who lose their jobs in these shrinking sectors may need an extended period of time to acquire new skills and education to adapt to working in new sectors.

The Committee's inflation projections for the next few years were revised up slightly. It was mentioned in the minutes that the most recent PCE inflation data had come in higher than had been expected at the January meeting. According to the release, many participants continue expect that "economic slack" will put downward pressure on prices and wages in the medium term, leading to inflation rates below the longer-run "appropriate" level.

It is clear that uncertainty surrounding the inflation projections remains. The April projections of PCE

#### FOMC Projections: Core PCE Inflation

#### Annualized percent change



Source: Federal Reserve Board.

inflation for 2011 range from 0.5 percent to 2.5 percent, a spread of 2.0 percentage points. Also, the range on core PCE inflation widened to 0.2 percent to 2.5 percent in the April projections, compared to 0 percent to 1.8 percent in January.

In the minutes of April's FOMC meeting, the participants noted that the uncertainty in their inflation projections was higher than historical norms, though the majority of participants viewed the risks to their inflation outlook as "roughly balanced." This compares to a "slight majority" who assessed the risks as balanced in January. That said, some participants noted their concern with the possibility that inflation expectations may head downward in response to relatively low inflation readings. On the other side of that argument were those that saw inflation expectations drifting higher if individuals think that the expansion in the Federal Reserve's balance sheet could be difficult to unwind in a "timely fashion."

#### Putting the Current Recession in Perspective

05.29.09 by Michael Shenk

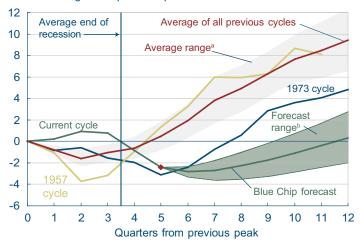
The media, as well as policymakers, are increasingly calling the current economic downturn the "worst since the Great Depression." They are not necessarily saying that the economy is in a worse place than it was in, say 1975, when the unemployment rate peaked at 9.0 percent (roughly where it is today) and inflation hit 12 percent, or in the 1980s, when inflation peaked at over 14 percent and the unemployment rate hit 10.8 percent. The comparison of this recession to others centers on the steepness and breadth of the current decline relative to previous cycles. With the rate of decline slowing recently, we may be seeing some preliminary signs that the economy has hit an inflection point. With that in mind, let's compare the current recession with those of the last 60 years.

The path of GDP, so far in this cycle, has been somewhat out of the ordinary, but to date it has not surpassed the 1973 recession in terms of length or total output lost. However, based on the current Blue Chip forecast (a compilation of 50 private forecasts), that could happen in the coming quarters. If the forecasts are correct, one characteristic of this recession that would make it unique will be the length of time it lasts. While the average Blue Chip forecast predicts that GDP will not decline as much as it did during the 1973 recession or the 1957 recession (only the more pessimistic forecasters have it surpassing the 1973 recession), it is not expected to bottom out until six quarters after the onset of the recession, longer than in any postwar recession.

It's important to note that while all business cycles are inherently different, they typically share a common pattern: They begin with a recession period in which GDP growth is negative, move into a recovery period in which GDP growth ramps up above potential, and end with an expansion period in which growth settles back down to a more sustainable growth rate. At present, the recovery period of the current business cycle is forecasted to be considerably slower than is typical of previous cycles. That

#### Real GDP

Percent change from previous peak



a. Shaded area is +/-1 standard deviation from average.

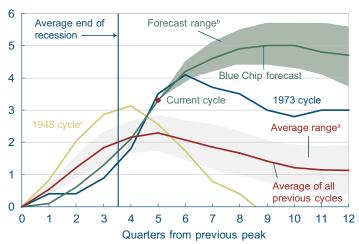
b. Forecast range is defined by the average of the top 10 and the bottom 10 forecasts

Note: Red diamond represents the current point in time.

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

#### **Unemployment Rate**

Change from previous peak



- a. Shaded area is +/-1 standard deviation from average.
- b. Forecast range is defined by the average of the top 10 and the bottom 10 forecasts
- c. The unemployment rate during the 1948 recession increased from 3.8 percent in November 1948 to 7.9 percent in October 1949. Aggregating the unemployment rate data to show them on a quarterly basis causes the full extent of the increase not to show up.

Note: Red diamond represents the current point in time.

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

expectation may be partially a function of aggregating forecasts, but even the average of the ten most optimistic forecasts has GDP taking five quarters to fully recover. A recovery of that length would contrast sharply with the rapid recoveries we saw in 1957 and 1973.

The behavior of the labor market in this recession has also been strikingly poor when compared to previous recessions. Only the 1948 recession and the 1973 recession witnessed larger increases in the unemployment rate, but if the Blue Chip projections hold true, the current recession will eventually surpass those cycles as well. This recession is also unusual in that the labor market's poor performance is forecast to continue for some time. In fact, the unemployment rate is not expected to peak until the first quarter of 2010, nine quarters after the onset of the recession. The labor market is also expected to recover at a slower pace than in previous business cycles. Currently, 94 percent of Blue Chip forecasters expect the unemployment rate to average 9.0 percent or higher in 2010.

One potential reason why labor market woes are expected to continue past the end of the recession is that an unprecedented number of the unemployed are reporting that their layoffs are permanent in nature. Over 80 percent of those losing jobs, either due to layoffs or the completion of a temporary job, currently view their job separation as permanent. That amounts to nearly 55 percent of all those who report they are unemployed, nearly 10 percentage points higher than at any other time since the series began in 1967. With temporary layoffs accounting for such a small share of those currently unemployed, dislocations in the labor market are likely to persist for a while, as workers need time to search for new jobs that match their current skill set or go through retraining that will allow them to switch professions.

To date, the current recession has been particularly painful. Although it has probably not yet surpassed the 1973 recession in terms of overall severity, if current forecasts prove correct, it is just a matter of time before it does. What may ultimately make the current downturn the worst since the Great Depression is the sheer length of time it is expected

#### Job Losers Not on Temporary Layoff

# Percent 100 90 80 70 60 50 40 30 20 1967 1972 1977 1982 1987 1992 1997 2002 2007

Note: Shaded bars indicate recessions. Source: Bureau of Labor Statistics.

to persist and the slow pace at which the recovery is expected to proceed once the downturn comes to an end. That being said, it is important to note that forecasts often prove to be wrong, and GDP data is frequently revised, so the final picture of the current business cycle may look notably different than what is currently projected.

#### Regional Labor Market Recessions and Recoveries

05.28.09 by Tim Dunne and Kyle Fee

All the recent talk of "green shoots" has led to speculation about what a recovery of the U.S. labor market will look like. Will employment begin to bounce back in a V-shaped recovery curve, or will a U-shaped or even an L-shaped curve ensue? While this alphabet soup of recovery patterns (there's a W, as well) describe previous national labor market recoveries, the patterns also emerge at the regional level.

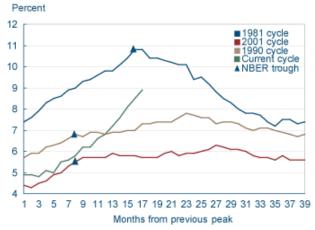
At the national level, labor market recoveries after the four most recent U.S. recessions (1981, 1990, 2001, and the current one) were not all alike. Once the trough in nonfarm payroll employment had been reached in the 1981 recession, employment rebounded sharply, and unemployment fell markedly. The next two recessions, on the other hand, experienced relatively "jobless" recoveries, with payroll employment growth picking up slowly (if at all) after the trough was reached and unemployment rising for several quarters. Seventeen months into the current recession, nonfarm payroll employment has declined 4.0 percent, and the unemployment rate has risen 4.0 percentage points. The trough in this recession will be both deeper and occur later than in the previous three. The current unemployment rate of 8.9 percent is still below what it was in the 1981 recession, but most analysts expect that it will continue to rise over the next several quarters.

#### U.S. Nonfarm Payroll Employment

#### Percent change from previous peak 5 ■ 1981 cycle 4 2001 cycle 3 1990 cycle Current cycle 2 ▲ NBER trough 0 -1 -2 -3 -4 -5 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 Months from previous peak

Source: Bureau of Labor Statistics.

#### U.S. Unemployment Rate

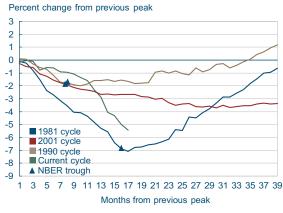


Source: Bureau of Labor Statistics

Labor market recovery patterns have varied across the states of the Fourth District in these recessions as well. Past business cycles indicate that Ohio typically has been relatively slow to recover lost employment. This was true in the recovery cycle after the 1981 recession, when Ohio's recovery lagged the nation, as well as after the 2001 recession, when Ohio experienced a truly "jobless" recovery, as nonfarm payroll employment remained essentially flat from 2002 through 2007. Since the start of the current recession, the percentage decline in Ohio's payroll employment has exceeded the nation's decline by 1.3 percentage points, but the decline is still less than in the 1981 recession. Ohio's unemployment rate rose to 10.2 percent in May, above the national unemployment rate but well below the peak unemployment rate of 13.9 percent, seen in the 1981 recession.

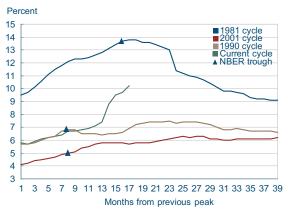
Pennsylvania's payroll employment, in contrast, initially held up relatively well in the current recession, although it started to deteriorate in 2009. Still, the state's labor market performance is better than the nation's as a whole, with Pennsylvania's unemployment rate a full percentage point below the national rate and its nonfarm payroll employment declining by 1.2 percentage points less than the nation's drop.

#### **Ohio Nonfarm Payroll Employment**



Source: Bureau of Labor Statistics.

#### Ohio Unemployment Rate



Source: Bureau of Labor Statistics

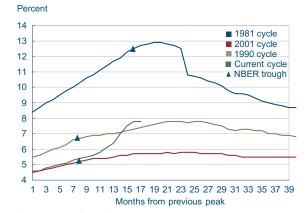
#### Pennsylvania Non-Farm Payroll Employment

Percent change from previous peak



Source: Bureau of Labor Statistics.

#### Pennsylvania Unemployment Rate

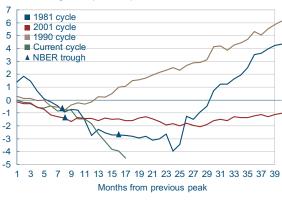


Source: Bureau of Labor Statistics.

Kentucky's employment losses in the current cycle are somewhat greater than the national decline. Kentucky has lost 4.5 percent of its nonfarm payroll employment, and the state's unemployment rate has risen to 9.8 percent. In terms of nonfarm payroll employment losses, this is shaping up to be Kentucky's worst downturn of the past four cycles. Kentucky's unemployment rate is up 4.3 percent, with 3.4 percentage points coming in the past five months.

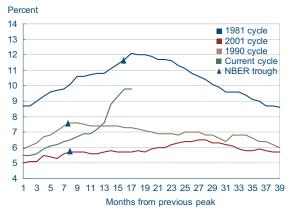
#### Kentucky Non-Farm Payroll Employment

Percent change from previous peak



Source: Bureau of Labor Statistics

#### Kentucky Unemployment Rate



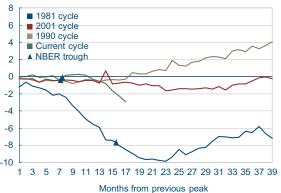
Source: Bureau of Labor Statistics

According to the current data, West Virginia's downturn occurred somewhat later and has been milder than Ohio's, Kentucky's, and Pennsylvania's. However, since the beginning of 2009, West Virginia has been playing catch-up, as its payroll employment declined sharply and its unemployment rate rose. Indeed, West Virginia's unemployment rate is up 3.2 percentage points in this cycle, with almost the entire increase taking place since December 2008 (3.0 percentage points). Still, this is markedly different from the 1981 recession, when West Virginia experienced the highest unemploy-

ment rate of any state (18.2 percent), and nonfarm payroll employment remained depressed for years after the recession.

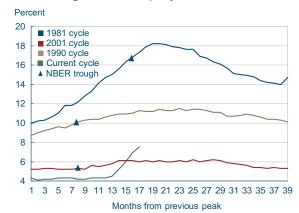
#### West Virginia Non-Farm Payroll Employment

Percent change from previous peak



Source: Bureau of Labor Statistics

#### West Virginia Unemployment Rate



Source: Bureau of Labor Statistics.

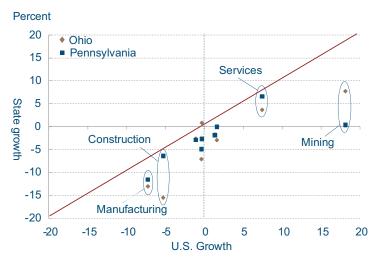
may be experiencing different patterns of job losses across the recessions. We illustrate this for Ohio and Pennsylvania by comparing the employment growth rates of various industries in these states to national growth rates in the same industries. We do this comparison for both the 1981 recession and the current recession. In the charts below, the solid red line represents what would be equal growth rates at the state and national level. Thus, for data points below the line, the growth rate of the industry in that state is below the national level, and vice versa for points above the line.

Hidden in these state patterns is the possibility that different industries in Fourth District states

During the 1981 recession, almost all of Ohio's and Pennsylvania's industries grew at rates that were below their corresponding national rates. National growth rates in the construction and manufacturing sectors were quite low, but in Ohio and Pennsylvania they were even lower. Employment growth in services remained positive, as well as in mining. Still, Ohio and Pennsylvania experienced belownational growth across almost all sectors.

In the current recession, growth rates in most Ohio and Pennsylvania industries have remained relatively close to the nation. Again, construction and manufacturing have experienced the sharpest national declines in employment. Pennsylvania's construction industry has outperformed the nation, while Ohio's manufacturing industry has under-

#### Sector Employment Growth, 1980 to 1982



Note: For the 1981 recession, we use data from the BEA that measures employment growth between 1980 and 1982. For the current recession, we use BLS data as in the charts above. The vertical dotted line delineates positive from negative growth at the national level.

Source: Bureau of Economic Analysis, Bureau of Labor Statistics.

# Sector Employment Growth Since December 2007

#### Percent 10 Ohio Pennsylvania 5 0 State growth Education and health services -5 Government Manufacturing -15 Construction -20 -20 -15 -10 -5 5 10 U.S. growth

Note: For the 1981 recession, we use data from the BEA that measures employment growth between 1980 and 1982. For the current recession, we use BLS data as in the charts above. The vertical dotted line delineates positive from negative growth at the national level.

Source: Bureau of Economic Analysis, Bureau of Labor Statistics.

performed the nation. This underperformance of manufacturing in Ohio reflects, in part, the fact that Ohio has an above-average concentration of automotive industries, and these industries have recently experienced sharp declines in employment. Sectors that have expanded employment nationally include education and health services and government. These sectors grew at similar rates in Ohio and Pennsylvania, as well.

Overall, states with counties in the Fourth District have experienced somewhat different labor market cycles in the current recession. Ohio has had the weakest labor market, while Pennsylvania and West Virginia have had relatively strong labor markets. Employment recoveries from recessions have also differed markedly. In recent recessions, job losses have been relatively minor but the accompanying recovery was also anemic. A current fear is that while we are experiencing a sharp labor market contraction similar in magnitude to the 1981 recession, we will have a labor market recovery similar to those which occurred after the 1990 or 2001 recessions—the L-shaped scenario.

#### The Credit Environment for Business Loans

05.28.09 by Yuliya Demyanyk, Kent Cherny, and Saeed Zaman

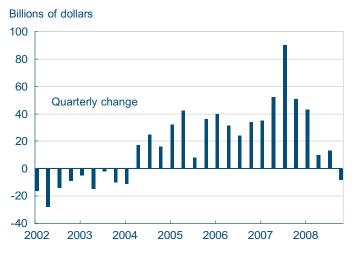
A major concern arising out of credit market impairments is that businesses, which rely on credit for operations and growth, may find it difficult to receive new loans or refinance existing ones. Some reports have shown evidence of contraction in commercial and industrial (C&I) loans, usually using loan volume data. We look at some other measures of business lending, based on Call Report, FDIC, and Federal Reserve survey data, to analyze supply and demand patterns for these loans.

Loans to businesses come in two primary forms: lines of credit that can be tapped for cash management and working capital, and term loans meant for business expansion. Both are important for the smooth functioning of businesses, particularly at times when financial market and economic conditions are strained. Consider that in an illiquid market environment, a firm or entrepreneur might want both a backup credit line for liquidity and a term loan to finance the purchase of, for example, a business line that a troubled competitor is selling off.

FDIC data show that commercial and industrial loan volume experienced significant growth from 2006 to mid-2007, but then fell off sharply with the onset of the recession in 2008. A shrinking C&I loan volume does not, however, mean that all commercial credit is contracting. The type of commercial credit outstanding has shifted somewhat to credit line draw-downs. In addition, a decline in the overall demand for C&I loans has reduced loan volumes.

Commercial credit-line utilization rates have exhibited a very different trend from the loan volume numbers. As banks grew more cautious about extending term loans, businesses opted to increase draw-downs on existing credit lines from banks. Since 2007, utilization rates as a percentage of extended commitments have risen nearly 7 percent.

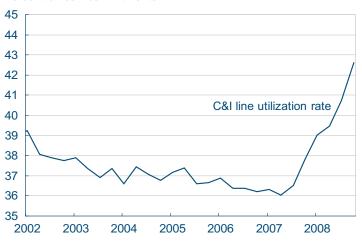
#### Quarterly Change in C&I Loan Volume



Source: Federal Deposit Insurance Corporation.

#### C&I Credit Line Utilization Rate

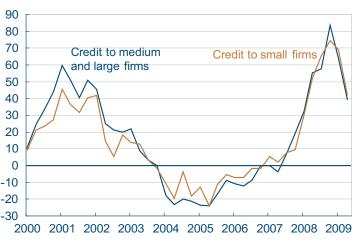
Percent of loan commitments



Source: Federal Deposit Insurance Corporation.

#### Banks Reporting Tighter Credit Standards

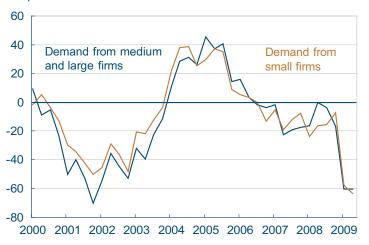
Net percent



Source: Federal Reserve Board.

#### Banks Reporting Stronger Loan Demand

Net percent



Source: Federal Reserve Board.

According to some recent reports, banks have been shortening the maturity term of their business loans, adding stricter covenants, and generally tightening credit standards. Relative tightening in C&I markets can be analyzed using the Fed's Senior Loan Officer Opinion Survey, which collects information about credit markets from bank lenders each quarter. Their responses can be used to gauge the supply of and demand for credit.

The data from the survey show that fewer banks have tightened their credit standards for business loans in the first quarter of 2009 compared to the end of 2008. As of the first quarter of 2009, the net percentage of banks reporting tighter standards (those tightening minus those loosening) was approximately 40 percent. That is, the fraction of banks still tightening has fallen. This reduction applies to commercial loans that have been extended to both small firms and medium-to-large firms, and as such it indicates a broader-based reduction in tightening across the banking sector.

The survey also shows that about 80 percent of domestic banks continued to increase interest rate spreads on loans to medium and large businesses (about 75 percent bumped up spreads for small firms as well). But although a large majority of banks are still widening interest rate spreads beyond their cost of funds, the practice is somewhat less pervasive than during the previous two quarters. Banks partially attributed the net tightening of standards and loan terms to "a less favorable or more uncertain economic outlook, a worsening of industry-specific problems, and a reduced tolerance for risk."

Demand is the other half of the picture. The demand for business loans shows a dramatic fall-off since the end of last year. Most recently, 60 percent of bank respondents told the Federal Reserve that they were seeing weaker demand for business loans from firms of all sizes. Loan officers attributed the weaker demand primarily to "a decrease in [the need] to finance investment in plant or equipment...inventories, accounts receivable, and mergers and acquisitions." Simply put, fewer economic opportunities mean lower demand for credit. Another possibility is that the restrictive credit

standards of banks, combined with the degraded balance sheets of a large fraction of firms, are leading many businesses to assume that they cannot get credit on favorable terms, and consequently they do not approach financial institutions for new loans or credit lines.

Finally, we compare Fourth District banks to the larger domestic banking sector. To avoid the swings in loan volumes by the largest banks, we limit our sample to only those banks with less than \$15 billion in total assets. We find that Fourth District banks of this size realized, at the aggregate level, a return on total assets of 0.19 percent last quarter, down from 0.78 percent in the fourth quarter of 2008. At the national level (which includes the Fourth District banks), net income for institutions with under \$15 billion in assets was negative, resulting in an ROA of -0.005 percent. Gross returns on commercial loans were identical regionally and nationally, at 1.38 percent. And although C&I charge-offs fell between the fourth quarter and first quarter, commercial loans that were past due or no longer accruing interest continued to creep up during this period for all banks, including those in the Fourth District.

#### **Aggregated Bank Commercial Loan Statistics**

Indicator	200	8:Q4	2009:Q1		
	Fourth District banks	All U.S. banks	Fourth District banks	All U.S. banks	
Return on total assets (percent)	0.78	0.10	0.19	-0.005	
C&I interest income to total C&I loans (percent)	7.24	6.38	1.38	1.38	
C&I charge-offs (as percentage of C&I loans)	0.79	1.03	0.26	0.39	
C&I past-due and non-accruing loans (as percentage of C&I loans)	2.64	2.21	3.00	2.78	

Note: Excludes banks with more than \$15 billion in assets.

Source: Bank Call Reports.

The data we have considered indicate that business loan volumes continue to exhibit a downward trend, though firms are still drawing heavily on credit lines that may have been established before the tighter credit cycle. And while loan officers are reporting some easing of the credit supply, demand for business loans remains low and may result in continuing C&I volume contraction at the ag-

gregate level. Going forward, increasing C&I loan volume, a continuing loosening of credit terms, and a return of business loan demand will serve as indicators that credit markets and the real economy are returning to health.

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