

Economic Trends

March 2010 (February 11, 2010 to March 9, 2010)

In This Issue:

Inflation and Prices

- January Price Statistics or the Definition of “Subdued”

Financial Markets, Money and Monetary Policy

- The Beginnings of Normalcy
- The Yield Curve, February 2010

International Markets

- Euro Problems

Economic Activity

- Economic Projections from the January FOMC Meeting
- Signs of Abating Default Risk

Regional Activity

- Ohio’s Labor Market Cycles

FEDERAL RESERVE BANK
of CLEVELAND

January Price Statistics or the Definition of “Subdued”

03.02.10

by Brent Meyer

January Price Statistics

	Percent change, last					2009 average
	1mo. ^a	3mo. ^a	6mo. ^a	12mo.	5yr. ^a	
Consumer Price Index						
All items	2.0	2.3	2.6	2.6	2.6	2.8
Less food and energy	-1.6	0.0	0.8	1.6	2.1	1.8
Median ^b	0.5	0.6	0.8	1.0	2.5	1.2
16% trimmed mean ^b	1.0	1.0	1.1	1.2	2.4	1.3
Producer Price Index						
Finished goods	18.3	3.3	4.8	5.0	3.4	5.3
Less food and energy	4.3	3.3	1.1	1.0	2.1	0.9

a. Annualized.

b. Calculated by the Federal Reserve Bank of Cleveland.

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

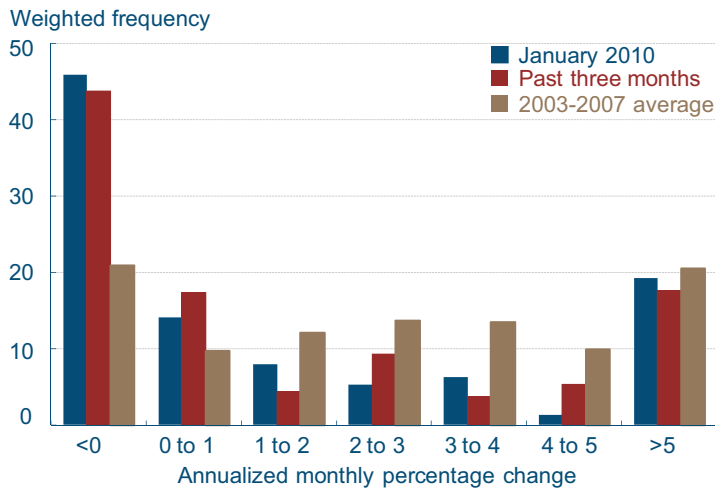
The headline CPI jumped up 2.0 percent (annualized rate) in January, mostly on a spike in energy prices (up 39 percent). However, the real story is the first appreciable decline in the core CPI index—it fell 1.6 percent in January—since December 1982, which pulled the three-month annualized growth rate down to zero and the 12-month growth rate down to 1.6 percent. The release pointed to decreases in shelter, new vehicles, and airline fares as the culprits for the decrease in the core during the month.

Measures of underlying inflation trends produced by the Federal Reserve Bank of Cleveland—the median CPI and the 16 percent trimmed-mean CPI—rose 0.5 percent and 1.0 percent, respectively, in January. These readings are very much in line with where our measures have been over the past few months. The three-month growth rate in the median is 0.6 percent, while the trim is up 1.1 percent over the past three months.

That said, the longer-term trends in the trim and median have come down sharply relative to the core CPI over the past year or so. Since August 2008, the 16 percent trimmed-mean measure has slipped from a growth rate of 3.6 percent to 1.2 percent in January 2010, while trend in the median CPI has declined from 3.2 percent to 1.0 percent. In fact, the 12-month growth rate in the median CPI—at 1.0 percent—is at a record low. Over that same time period, the core CPI has come down only 0.9 percentage point.

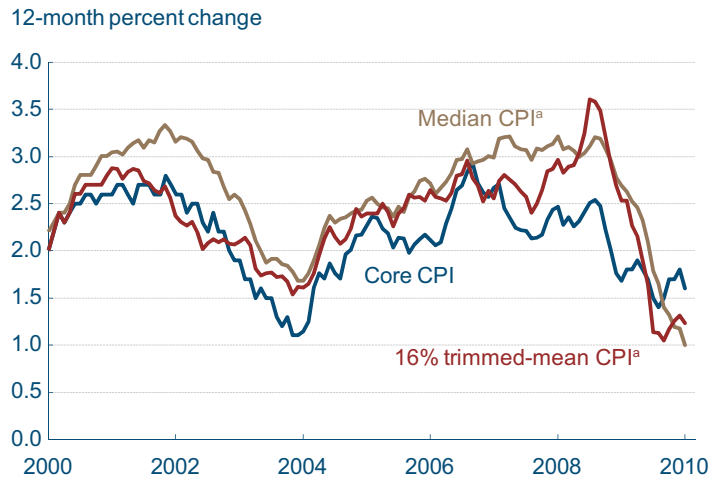
As a measure of underlying inflation trends, the core CPI suffers somewhat from its arbitrary nature. By excluding just food and energy, its implicit stance is that food and energy prices are always transitory and all other price movements may be indicative of changing inflation. This leaves the core CPI open to transitory price movements in other categories. A current example of a sector-specific shock has been the recent trend in used auto prices

CPI Component Price Change Distribution



Source: Bureau of Labor Statistics.

Consumer Price Index



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

(up an annualized 28 percent over the past six months), which many analysts have attributed (at least in part) to a decrease in the supply of used autos, related to the CARS program. Also, some month-to-month volatility may cloud the core CPI's near-term trends. Trimmed-mean measures, such as the median CPI and 16 percent trimmed-mean CPI, seek to minimize transitory effects and excess volatility, providing a "less cloudy" reading on underlying inflation.

Another way to illustrate the recent softness in retail prices is to look at the price-change distribution. In January (and over the past three months), roughly 60 percent of the consumer price index (by expenditure weight) either rose at rates less than 1.0 percent or posted outright price declines, compared to an average of 30 percent between 2003 and 2007. On the upper end of the distribution, just 27 percent of the consumer market basket has been rising at rates exceeding 3.0 percent over the past three months, compared to 44 percent over the roughly stable inflation period between 2003 and 2007.

The most recent readings in the median CPI, 16 percent trimmed-mean CPI, and core CPI are all below their respective longer-term trends, suggesting a continued disinflationary trend. Given low capacity utilization rates, excess labor market slack, and declining unit labor costs, underlying inflation trends are likely to remain subdued.

The Beginnings of Normalcy

02.19.10

by Charles T. Carlstrom and John Lindner

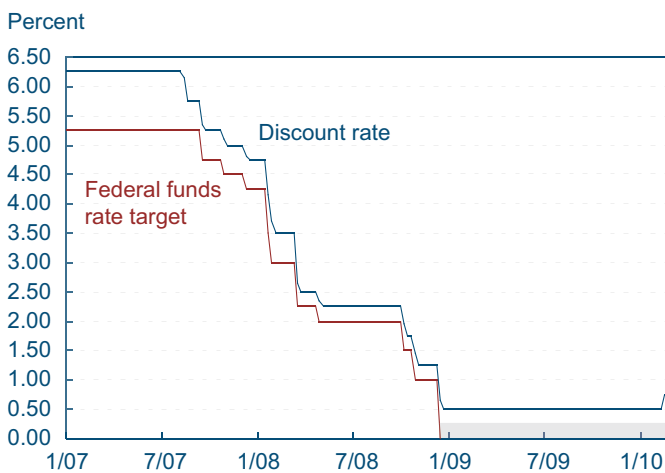
In last week’s prepared testimony for the House Committee on Financial Services, Federal Reserve Chairman Bernanke spoke extensively on the gradual exit of the Federal Reserve from many of its emergency liquidity programs. At the beginning of February, several programs were allowed to expire, including the Primary Dealer Credit Facility (PDCF), the Term Securities Lending Facility (TSLF), the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility (AMLF), and the Commercial Paper Funding Facility (CPFF). Remaining programs, like the Term Auction Facility (TAF), are mostly set to expire in March. Because the liquidity crisis appears to be over, the Board also announced that it would increase the primary credit rate (often called the discount rate) by one-quarter of a percentage point to 0.75 percent. The announcement noted:

“These changes are intended as a further normalization of the Federal Reserve’s lending facilities. The modifications are not expected to lead to tighter financial conditions for households and businesses and do not signal any change in the outlook for the economy or for monetary policy.”

This statement matches the language used by Chairman Bernanke in his testimony, in which he said that any change in the discount rate “should be viewed as further normalization of the Federal Reserve’s lending facilities.”

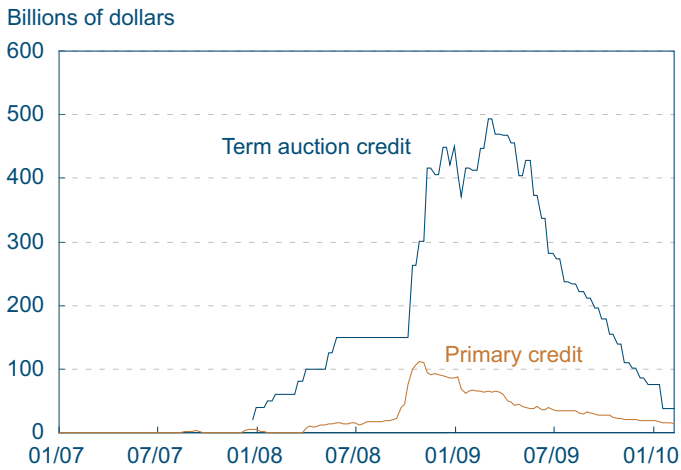
Discount window lending has declined precipitously since the crisis that occurred at the end of 2008 and early 2009. Use of the Federal Reserve as a lender of last resort peaked in October 2008, immediately following the collapse of Lehman Brothers. Use of the TAF continued at elevated levels through the first half of 2009 but has recently fallen to levels not seen since the gap between the federal funds rate and the discount rate was 25 basis points higher. Given that the target range of the federal funds rate is 0–0.25 percent, the actions taken yes-

Credit Rates



Note: Shaded area represents a target range of the funds rate from 0 to 0.25 percent.
Source: Federal Reserve Board.

Credit Extended



Source: Federal Reserve Board.

terday increased the spread between the two rates to 50–75 basis points.

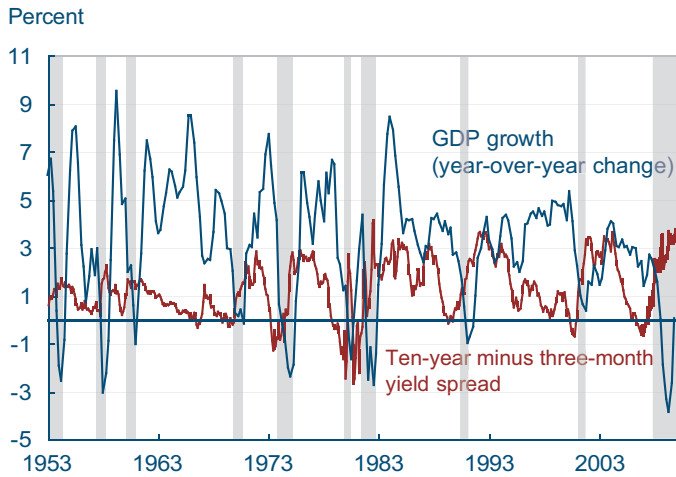
Due to the communications of Chairman Bernanke and other Federal Reserve officials prior to the announcement yesterday, market reactions to the news were relatively subdued. There were slight increases in Treasury yields, but no more than 5 basis points. Pricing for fed funds futures saw a brief increase in volatility following the release but stabilized during Friday's trading.

The Yield Curve, February 2010

02.25.10

by Joseph G. Haubrich and Kent Cherny

Yield Curve Spread and Real GDP Growth

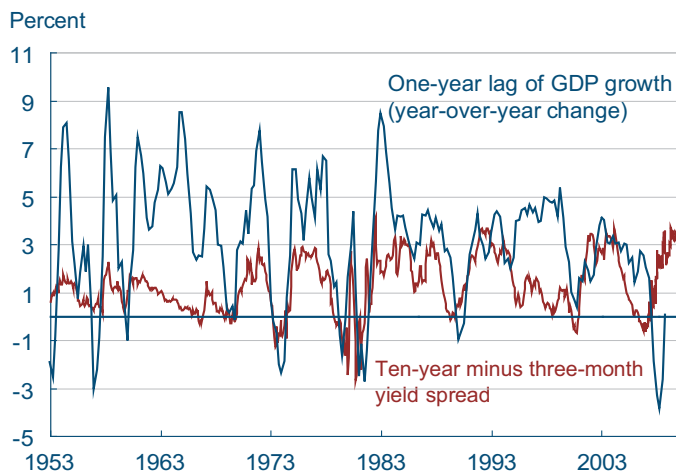


Note: Shaded bars indicate recessions.
Sources: Bureau of Economic Analysis, Federal Reserve Board.

Since last month, the yield curve has moved up and gotten steeper, with long rates rising a bit more than short rates. The difference 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 10-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.

Yield Spread and Lagged Real GDP Growth



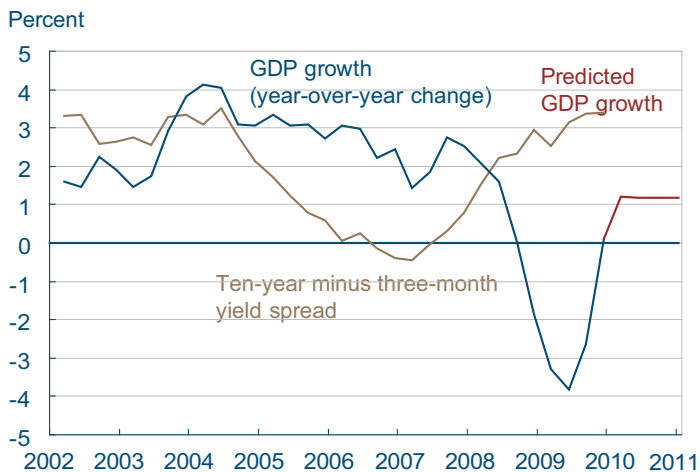
Sources: Bureau of Economic Analysis, Federal Reserve Board.

Since last month the three-month rate rose to 0.10 percent (for the week ending February 19), up from January's 0.06 percent and December's 0.04 percent. The 10-year rate increased to 3.74 percent, above January's 3.66 percent and December's 3.56 percent. The slope, already quite high, increased to 374 basis points, up from January's 360 basis points, and December's 352 basis points.

Projecting forward using past values of the spread and GDP growth suggests that real GDP will grow at about a 1.17 percent rate over the next year, essentially unchanged from January. Although the time horizons do not match exactly, this comes in on the more pessimistic side of other forecasts. Like them, it does show moderate growth for the year.

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

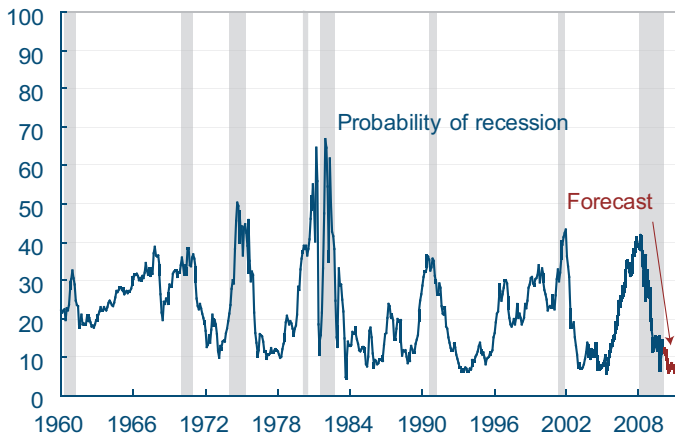
Yield Curve Predicted GDP Growth



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

Recession Probability from Yield Curve

Percent probability, as predicted by a probit model



Note: Shaded bars indicate recessions.

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

of recessions. Thus, it is sometimes preferable to focus on using the yield curve to predict a discrete event: whether or not the economy is in recession. Looking at that relationship, the expected chance of the economy being in a recession next February is 6.3 percent, just up from January's 5.1 percent and December's is 5.5 percent.

Of course, it might not be advisable to take these number quite so literally, for two reasons. (Not even counting Paul Krugman's concerns.) First, this probability is itself subject to error, as is the case with all statistical estimates. Second, other researchers have postulated that the underlying determinants of the yield spread today are materially different from the determinants that generated yield spreads during prior decades. Differences could arise from changes in international capital flows and inflation expectations, for example. The bottom line is that yield curves contain important information for business cycle analysis, but, like other indicators, they should be interpreted with caution.

For more detail on these and other issues related to using the yield curve to predict recessions, see the Commentary, "Does the Yield Curve Signal Recession?"

To read more on other forecasts:
http://www.econbrowser.com/archives/2008/11/gdp_mean_estima.html

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>

Euro Problems

03.02.10

by Owen F. Humpage and Caroline Herrell

Greece's recent debt problem has many commentators wondering about the viability of the euro zone. It has also sent the euro reeling. Whether a country is better or worse off in a monetary union like the euro zone depends on whether the gains from giving up monetary-policy sovereignty exceed the costs of losing an important parameter for economic adjustment. Monetary unions are not one-size-fits-all arrangements.

In January 1999, eleven of the 27 European Union countries adopted the euro as their currency. In doing so, they agreed to accept a common monetary policy, which the European Central Bank (ECB) would determine. A highlight of the ECB is its commitment to an inflation target of "below, but close to, 2 percent over the medium term." Greece joined the euro zone in January 2001; Slovenia followed in January 2007; Cyprus and Malta climbed on board in January 2008, and Slovakia enlisted in January 2009. All European Union members are obligated to eventually adopt the euro except the United Kingdom, Denmark, and Sweden.

Having a common currency confers two key benefits on the euro-zone countries: First, those members that previously had less-than-stellar reputations for low inflation obtain an instant boost in their credibility. Such countries then face lower borrowing costs than otherwise would be the case, and their citizens can devote more resources to building wealth than to protecting the purchasing power of their existing wealth. Second, a common currency lowers the expense of cross-border euro-zone commerce by eliminating exchange-rate risk. The savings can be substantial for small economies that are heavily dependent on inter-Europe trade and investment.

Having a common currency, however, can also impose a serious cost: Member states have less latitude to adjust to specific types of economic shocks. When domestic wages and prices are inflexible or



■ Countries using the euro
■ Countries not using the euro

Foreign Exchange Rate of the Euro Over the Past Year

U.S. dollars per Euro



Source: Federal Reserve Bank of New York.

when international arbitrage is slow, flexible exchange rates can hasten a country's adjustment to idiosyncratic economic disturbances by facilitating rapid changes in the price of a country's exports relative to its imports. In the absence of exchange-rate movements, the necessary price adjustment must await changes in profit margins, or in wages and other input prices. Losing this flexibility is not a big deal if all of the countries in a monetary union experience similar and coincidental economic shocks. In that case, bilateral exchange-rate changes would not aid adjustment, and fixed exchange rates would seem ideal.

When economic shocks are dissimilar, however, fixed exchange rates are feasible only if other economic variables facilitate the adjustment process. If, for example, the individual countries within the monetary union have sufficiently well-diversified economies so that shocks are negatively correlated across the producing sectors of any single country, changes in exchange rates may not be necessary, since unemployed resources in one sector could be absorbed in other sectors. Likewise, exchange-rate changes may be unnecessary if factors of production are highly mobile across international borders within the monetary union. Absent factor mobility, fiscal transfers across countries could also ease the adjustment to temporary shocks without recourse to exchange-rate changes. Of course, when prices and wages are highly flexible, export prices can adjust quickly without a change in the nominal exchange rate.

Each country that joins a monetary union must consider the benefits and costs. That the cost has often dominated this calculation explains why monetary unions are rare and often fragile arrangements among sovereign nations. That said, the United States did it!

"How Long Did It Take the United States to Become an Optimal Currency Area?"
<http://www.nber.org/papers/h0124>

"In Order to Form a More Perfect Monetary Union"
http://www.minneapolisfed.org/publications_papers/pub_display.cfm?id=254

Economic Projections from the January FOMC Meeting

02.23.10

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 November). 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 January 26-27 continued to confirm that the economy was in the midst of a nascent recovery, albeit at a pace that is expected to be somewhat slower than an average snapback. Notably, industrial production posted its sixth consecutive gain in December, with an accompanying 6-month annualized growth rate of 9.7 percent. At the time, monthly detail on inventories suggested that the pace of liquidation had slowed dramatically, providing a large contribution to fourth-quarter growth (which looks to be the case, as the advance estimate of real GDP shows that change in private inventories contributed 3.4 percentage points). Moreover, it appeared that businesses were successful at bringing inventory levels better in line with the pace of shipments, promoting the environment for further increases in production (provided demand continues to strengthen).

Consumer spending seemed to hold on to third-quarter gains, even when autos were excluded from calculations. On the other hand, various housing-market indicators exhibited somewhat of a pull-back in the fourth quarter, though this may reflect some pull-back associated with the initial end date for some housing tax incentives. Indicators of em-

ployment conditions continued to point to a plodding and uneven improvement in the labor market.

The FOMC members' current forecasts for economic growth are very similar to November's. In 2010, just the central tendency tightened up on the lower end—from 2.5 percent to 2.8 percent—with the upper end of the central tendency remaining at 3.5 percent. Given the depth of the contraction, historical patterns would suggest appreciably higher growth in 2010 (the so-called “v-shaped” recovery). The committee pointed to “elevated uncertainty” on the part of businesses and households, and “very slow” labor-market improvements as limiting factors in the pace of recovery.

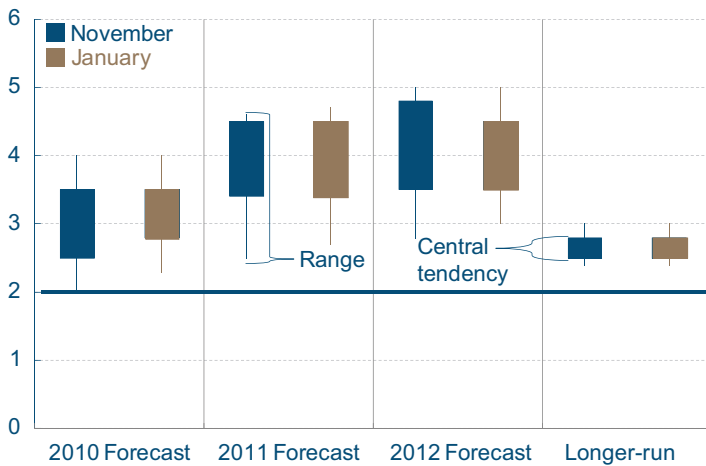
January's central tendency for 2011 and 2012 is qualitatively similar to November's projections. The Committee's forecast in the out years is for output to grow above its longer-run trend, thus closing some of the gap between potential and actual GDP. Committee members noted that “over time” the economy would converge to a “sustainable path with real GDP growing at a rate of 2.5 percent to 2.8 percent.”

FOMC members' current projections for the unemployment rate are virtually unchanged from November, except for a slightly narrower central tendency for 2010 and a marginally wider tendency for 2012. The Committee noted that, “labor market conditions would improve only slowly over the next several years” before settling between 4.9 percent and 6.3 percent in the longer run. However, some participants suggested that underlying structural adjustments are adding “considerable uncertainty” to those projections.

FOMC members' estimates for PCE inflation for 2010 were slightly higher than in November, in part reflecting increases in energy prices. Interestingly, the 2012 range of PCE estimates tightened up considerably from November to January. The release noted that the prospects for global output growth may push energy prices higher over the medium term. That said, the Committee still anticipates a “subdued” path for inflation over the outlook period. Rationale for the restrained inflation path centered on relatively low rates of resource utilization (helping to hold down cost

FOMC Projections: Real GDP

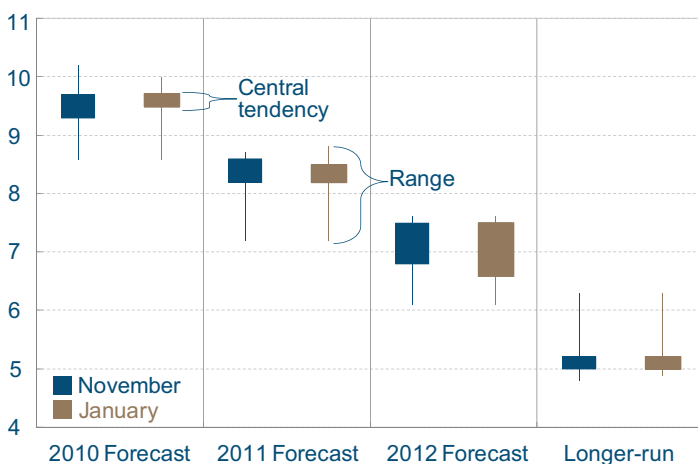
Annualized percent change



Source: Federal Reserve Board.

FOMC Projections: Unemployment Rate

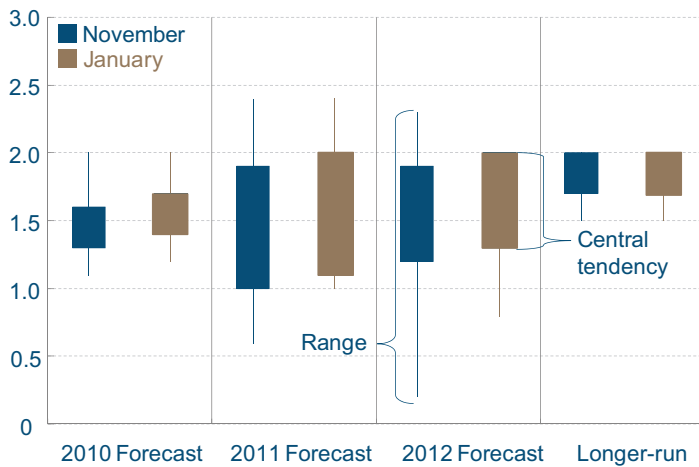
Annualized percent change



Source: Federal Reserve Board.

FOMC Projections: PCE Inflation

Annualized percent change



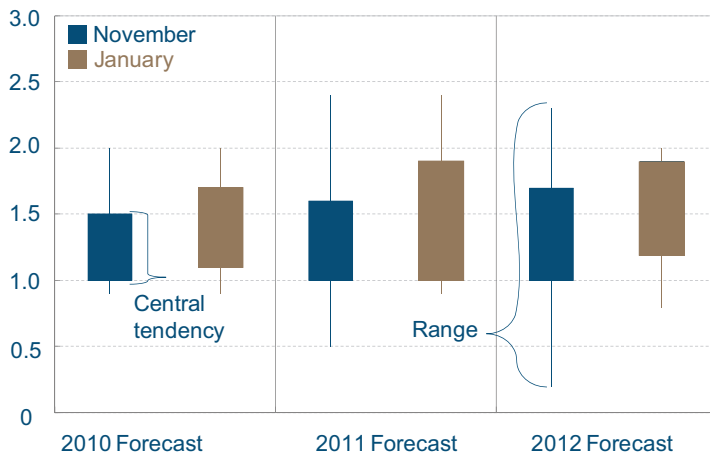
Source: Federal Reserve Board.

pressures), which are anticipated to be tempered by stable inflation expectations. As evidence, the central tendency for core PCE inflation ticked up slightly in January, from 1.0-1.7 percent to 1.2-1.9 percent. However, the release noted that is still slightly below the “mandate-consistent” inflation rate accepted by most members of the Committee.

In the minutes of January’s FOMC meeting, “nearly all” participants noted that uncertainty was higher than historical norms for all forecasted variables. The majority of respondents continued to view the risks around their projections of real GDP, inflation, and the unemployment rate as “roughly balanced.” In stating the risks to the inflation outlook, Committee members noted that longer-term inflation expectations may either head lower in response to continued economic slack and “persistently low inflation,” or drift upward, “especially if extraordinarily accommodative monetary policy measures were not unwound in a timely fashion.”

FOMC Projections: Core PCE Inflation

Annualized percent change



Source: Federal Reserve Board.

Signs of Abating Default Risk

03.03.10

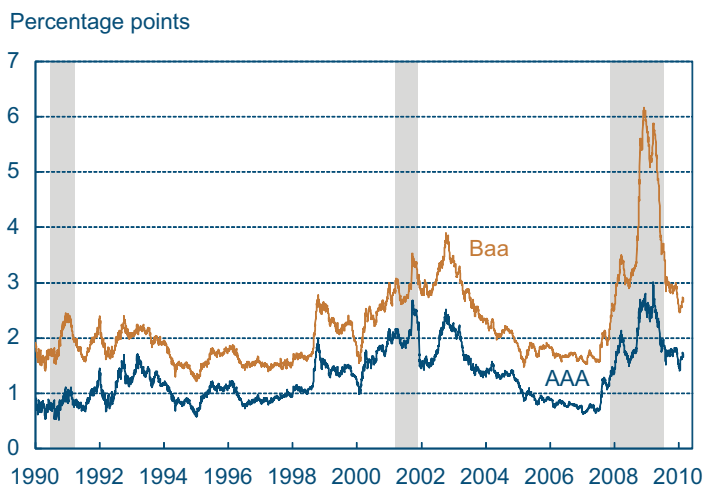
by Filippo Occhino and Kyle Fee

The last recession has been so severe that firms have clearly faced a higher risk of defaulting on their liabilities. When firms face a high probability of default, they tend to underinvest, a distortion known as “debt overhang.” This in turn reinforces the direct negative effects of the initial shock that caused the recession. Likewise, the recession, with its exceptionally high unemployment rate, increased some homeowners’ risk of default on their mortgages. Recent improvements in economic conditions may be having a positive effect on the risk of default in the economy, both for corporations and homeowners, and we check a few measures of risk to see if this is the case.

Credit spreads are the primary indicators of borrowers’ risk of default. The spreads that contain information on corporate default risk are those between corporate bond yields and Treasury rates. After deteriorating sharply during the second half of 2007 and during 2008, these spreads have markedly declined in 2009 and are now at levels that, although still elevated, are close to their historical means. The current level of the spread between the yields of Baa-rated corporate bonds and 10-year constant maturity Treasury notes is about 2.7 percent, only half a percentage point higher than its post-1990 historical mean. The recent improvement in these spreads points to a decrease in the market-assessed corporate risk of default.

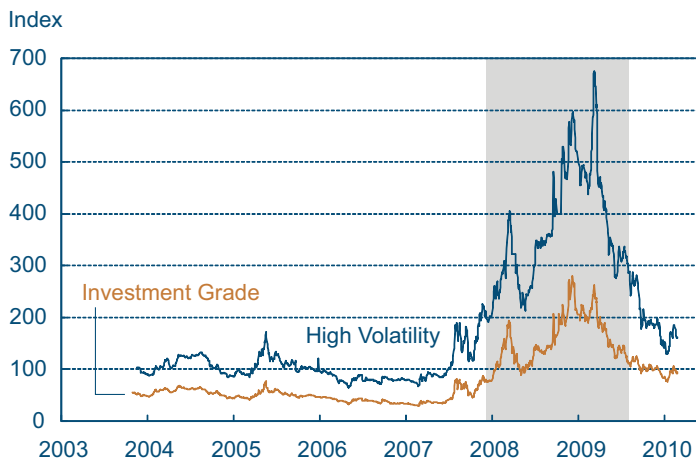
Credit default swaps (CDS) provide further information about corporations’ credit risk. The five-year CDX North America Investment Grade Index tracks the average cost of buying CDS protection against the default of any of the underlying 125 North American investment-grade companies. If the five-year index is 100, a market participant can buy five-year protection on all of the 125 companies by paying annually 100 basis points, or \$10,000 per \$1 million worth of protection, per company. When the index increases, the perceived risk of those companies defaulting is increasing.

Corporate Bond-Treasury Note Spread



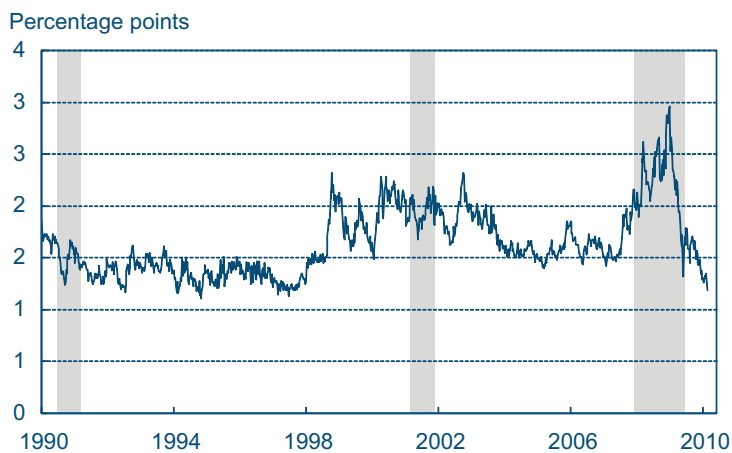
Note: Shaded bars indicate recessions.
Source: Federal Reserve Board.

CDS Spread Indexes



Note: Shaded bar indicates recession.
Source: Bloomberg.

Mortgage-Treasury Spread



Notes: The mortgage rate used is a 30-year fixed and the Treasury rate is a 10-year note rate. Shaded bars indicate recessions.
Source: Federal Reserve Board.

The index sharply increased during 2008 but then declined during 2009 and is now less than 100: It costs less than 100 basis points per company to buy protection against default. The High Volatility Index, which tracks the subset of 30 companies with the widest CDS spreads, displayed the same qualitative behavior. The trends in both indexes indicate that the cost of buying insurance against default has decreased, and likely so has the risk of default.

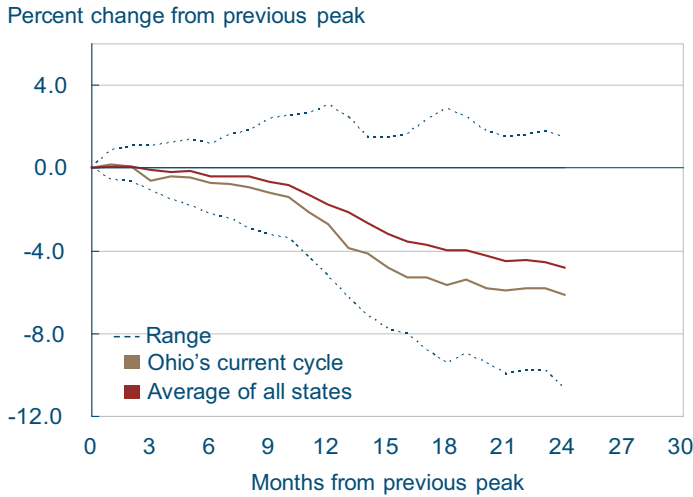
We turn next to the risk that households will default on their mortgages. Again, credit spreads are an excellent source of information on this risk, but for households these spreads are between mortgage rates and Treasury rates. After increasing during the second half of 2007 and in 2008, the spread between the 30-year mortgage rate and the 10-year Treasury yield has sharply declined during 2009 and is now at levels last seen during the 1990s. Although such a large decline may be partly due to the Federal Reserve's purchase program of federal agency debt and mortgage-backed securities, it also indicates a decrease in the market-assessed risk of mortgage default.

We conclude by observing that, in the period after 1990, measures of the risk of default have been negatively correlated with investment growth: The correlations of the AAA and Baa spreads with the growth rate of nonresidential fixed investment have been, respectively, -0.55 and -0.70 ; the correlation of the mortgage rate spread with the growth rate of residential fixed investment has been -0.38 . There are several reasons behind these negative correlations. A decrease in investment decreases future profitability and increases the risk of default; an increase in the risk of default discourages investment because of a debt-overhang distortion; and economy-wide adverse shocks simultaneously decrease investment and increase the risk of default. In any case, these negative correlations suggest that the recent improvement in these risk-of-default indicators is likely to be associated with a strengthening of investment activity.

Ohio's Labor Market Cycles

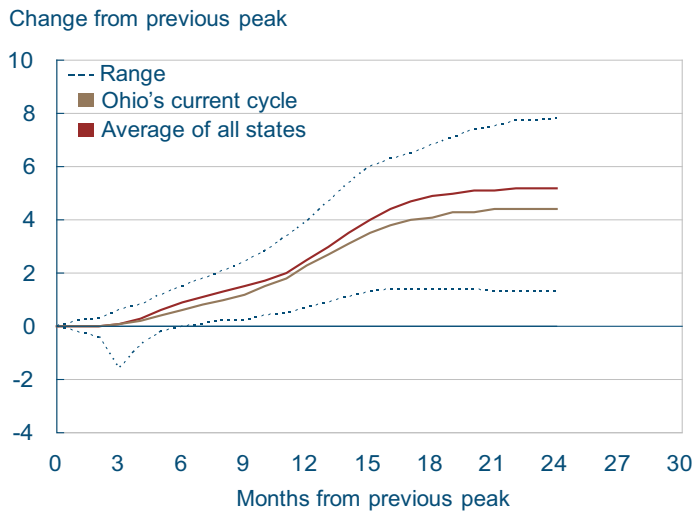
03.09.10
by Kyle Fee

State Payroll Employment



Source: Bureau of Labor Statistics.

State Unemployment Rate



Source: Bureau of Labor Statistics.

Now that it appears that the worst of the “great recession” is over, assessing the damage done to Ohio’s labor market offers insights into what a potential recovery might look like in the state.

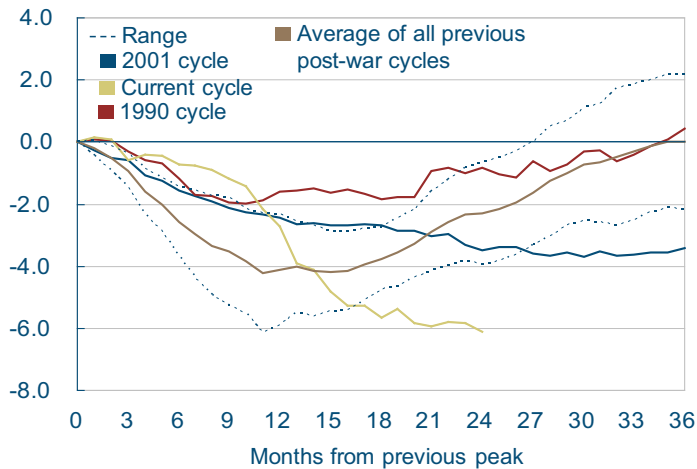
Over the course of this recession, Ohio’s payroll employment losses have continuously fared worse than the state average. To date, Ohio’s payroll employment losses of -6.1 percent have not been the largest in the country (that would be Nevada, with 10.7 percent), but they have been worse than the state average (-4.8 percent). Similarly, Ohio’s unemployment rate did not increase the most during the recession (again, that would be Nevada, at 7.8 percentage points), but it has increased more than the state average. (Ohio’s unemployment rate has increased 5.2 percentage points since the beginning of the recession, compared to the state average of 4.4 percentage points.) These numbers suggest that Ohio’s labor market recovery will also be slower than the average state.

Examining Ohio’s previous labor market cycles also allows one to glean information about the pending recovery. Comparing cycles reveals the severe impact that the current recession has had on Ohio’s labor markets. Payroll employment typically bottoms out 15 months after the peak, but it has yet to reach bottom, and we are currently 24 months from the peak. Also notice that payroll employment does not return to peak levels until 35 months after the peak in the average payroll employment cycle. An even more worrisome pattern emerged in the previous two recessions. During the 1990-91 recession, employment never fell that far relatively speaking, but it took every bit of 35 months for it to return to peak levels. Moreover, Ohio has still not returned to peak employment levels since the 2001 recession.

Ohio’s unemployment rate cycles tell a similar story. This recession saw unemployment rates increase much more than the average recession (5.2 percent-

Ohio Payroll Employment

Percent change from previous peak



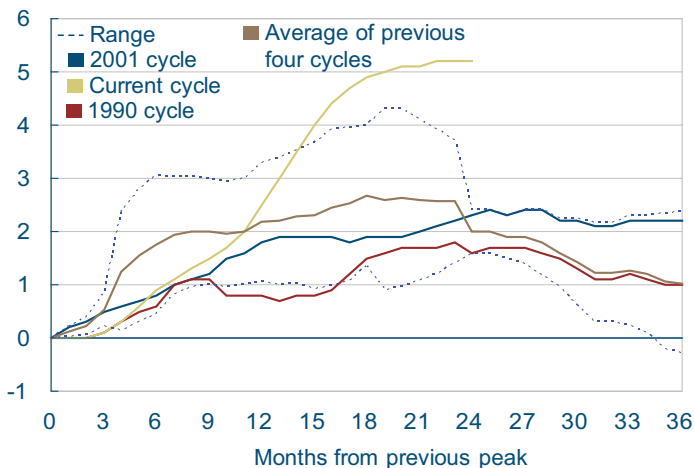
Source: Bureau of Labor Statistics.

age points compared to 2.6 percentage points). Fortunately, it appears that Ohio's unemployment rate has stabilized, as it has remained 10.8 percent over the past three months. However, after the 1990-91 recession, Ohio's unemployment rate declined very slowly (48 months) and has yet to return to its March 2001 level (3.9 percent).

Discounting the structural problems in Ohio's economy such as human capital accumulation, population loss, manufacturing decline, and so on, labor market data indicate significant damage has been done to Ohio's economy during the recession. Previous patterns in the labor market data point to a prolonged recovery.

Ohio Unemployment Rate

Change from previous peak



Source: Bureau of Labor Statistics.

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