

Economic Trends

November 2011 (October 14, 2011-November 8, 2011)

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The Shout with Operation Twist

10.18.11

by John B. Carlson and John Lindner

Much attention has been given to the Federal Open Market Committee's September decision to extend the average maturity of its portfolio by selling short-term Treasury securities and purchasing longer-term Treasury securities. This policy action is commonly called operation twist since its intended effect is to lower long-term interest rates relative to short-term rates—that is, to twist the yield curve.

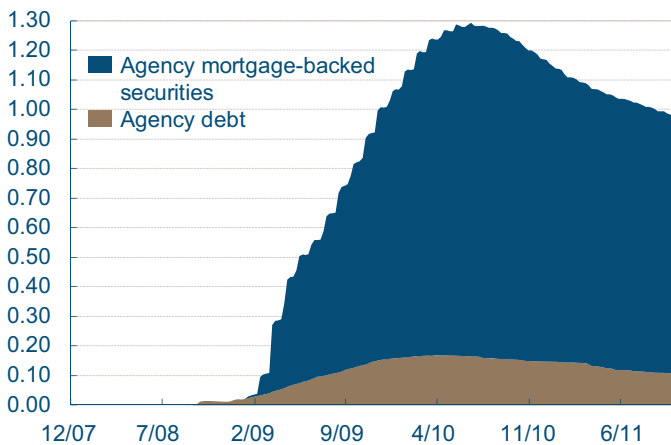
In addition to the largely anticipated maturity extension program announced by the Federal Open Market Committee (FOMC) in September, the Committee altered its reinvestment strategy on agency securities. Instead of reinvesting principal payments and prepayments from agency debt and agency mortgage-backed securities (MBS) in Treasury securities, the new directive is for those funds to be reinvested in agency MBS. The policy statement clearly communicated that this action was taken to help support conditions in mortgage markets. But has it been effective?

Let's start with the Fed's position prior to the September announcement. The balance of agency securities held by the Fed had been declining steadily since the end of March 2010, when the first round of large-scale asset purchases was being completed. After peaking at nearly \$1.3 trillion, the amount of agency security holdings now stands just below \$1 trillion.

The total amount of reinvestment purchases that will be made will depend on expected rates of prepayment and principal payments, but it is predicted that somewhere between \$200 billion and \$300 billion will be purchased through 2012. Initially, approximately \$10 billion of purchases were made in the first few weeks of the program, with another \$22 billion expected to be reinvested through the middle of November. The effect of the policy will keep the Fed's portfolio of agency securities at nearly \$1 trillion.

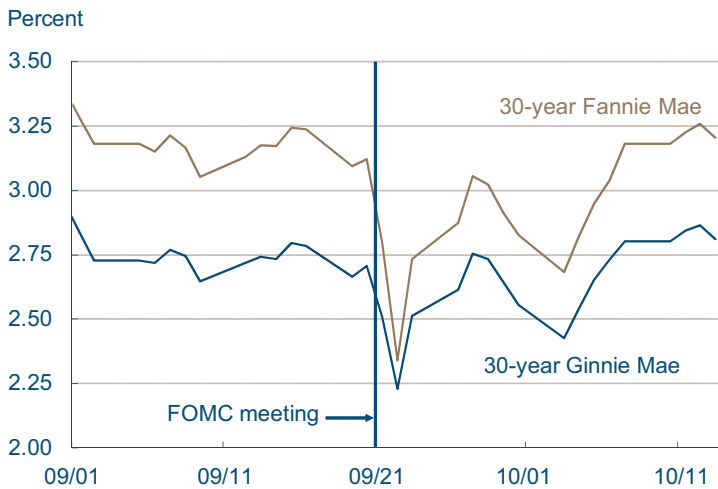
Agency Securities Holdings

Trillions of dollars



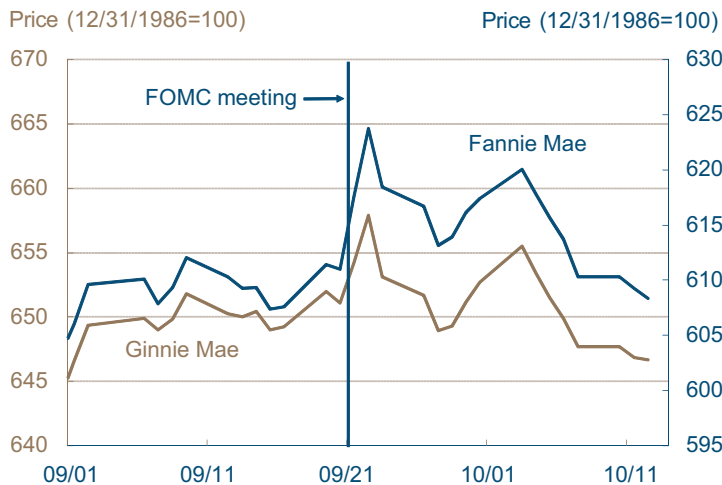
Source: Federal Reserve Board.

Mortgage-Backed Security Yields



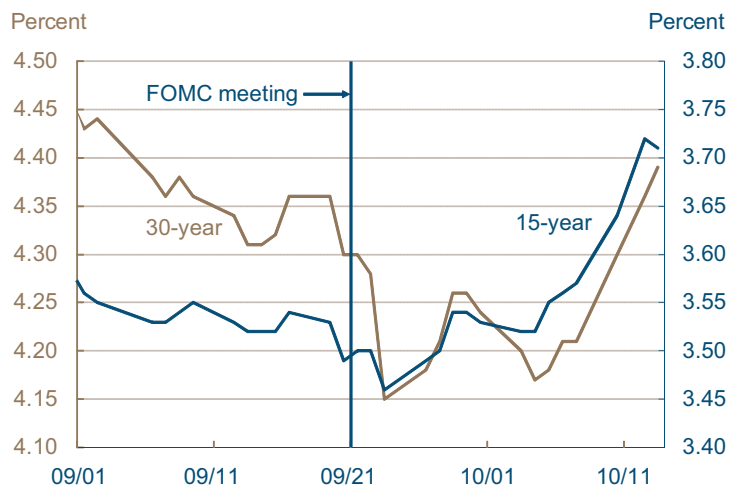
Source: Bank of America Merrill Lynch.

Mortgage-Backed Security Prices



Source: Wall Street Journal.

Mortgage Rates



Source: Wall Street Journal.

The guidelines for these purchases are very similar to those established during the initial purchasing program. Securities will be limited to those that are guaranteed by Fannie Mae, Freddie Mac, or Ginnie Mae, and they will largely be concentrated in newly issued agency MBS.

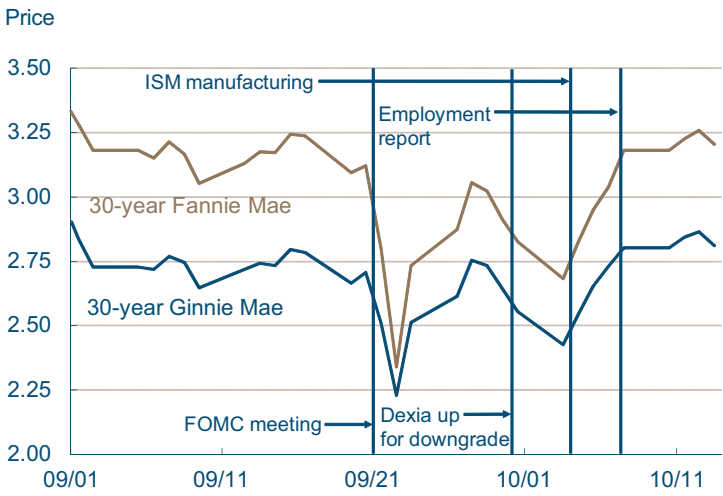
Even though the maturity extension program received the lion's share of the attention following the September FOMC meeting, at least part of the downward spike in mortgage-related yields can likely be attributed to the MBS reinvestment program. The higher demand for agency MBS created by the Fed re-entering the market should raise the value of these packaged securities, lowering the yields. Those effects were seen immediately on MBS yields for both Ginnie Mae and Fannie Mae, whose 30-year current coupon bond yields each fell roughly 50 basis points following the FOMC announcement.

Alternatively, one can examine the impact of the policy change in the prices of MBS. The 30-year current coupon MBS prices from Ginnie and Fannie rose sharply on September 21. The indexed prices for Ginnie Mae and Fannie Mae rose at least 5 index points each, led by a 12-point gain in Fannie Mae's prices. The higher coupon prices tend to increase the value of portfolios holding such long-term securities.

Since the securities being purchased are a packaged group of mortgages, another intended effect of this program will be to lower retail mortgage interest rates relative to what they would have been in the absence of the policy action. This result was observed after the September FOMC meeting, as the 30-year fixed mortgage rate fell to 4.15 percent. Smaller declines were also realized in the 15-year fixed mortgage rate. Combined with the lower yields on mortgage securities, the cumulative result should be a more accommodative mortgage market.

In the weeks following the announcement, the effects have dissipated noticeably. While some may be quick to judge the program as ineffective, the matter is not that clear cut. It could also be argued that the effect of the policy actions on mortgage rates have been obscured by the effect of other economic developments after the September FOMC meeting. For example, the employment report for October

Mortgage-Backed Security Yields



Source: Bank of America Merrill Lynch.

beat market expectations, as did retail sales and the ISM manufacturing survey. This improvement in economic conditions had the effect of generally raising the level of interest rates, offsetting the initial movements created by the Fed's announcement. Similarly, the negative news related to the Franco-Belgian bank Dexia had dampening effects on overall interest rates, including MBS bond yields.

The volatile nature of these types of financial markets makes a simple study of yields and prices an incomplete exercise. However, the immediate effect of the FOMC statement shows that the policy did influence markets and that the policy is likely to influence the expectations of market participants in the future.

Yield Curve and Predicted GDP Growth

Covering September 23, 2011—October 28, 2011
by Joseph G. Haubrich and Margaret Jacobson

Highlights

	October	September	August
3-month Treasury bill rate (percent)	0.02	0.01	0.01
10-year Treasury bond rate (percent)	2.28	1.87	2.19
Yield curve slope (basis points)	226	186	218
Prediction for GDP growth (percent)	0.8	0.8	0.08
Probability of recession in 1 year (percent)	4.3	7.0	4.8

Overview of the Latest Yield Curve Figures

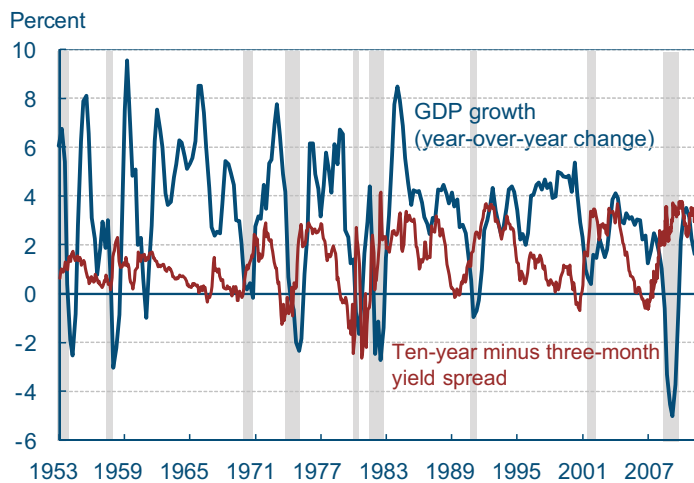
If September saw a flattening in the yield curve in the wake of Operation Twist (formally, the Maturity Extension Program and Reinvestment Policy of the Federal Reserve), October saw a reversal, with the yield curve steepening. Long rates rose back to summertime levels, and short rates edged up but remained extraordinarily low. The three-month Treasury bill rate ticked up to 0.02 percent (for the week ending October 28), up from the 0.01 percent seen in August and September. The ten-year rate surged back above 2 percent, to 2.28 percent, which is up from September’s 1.86 percent. Naturally, the slope increased, up to 226—an increase of 40 basis points.

Projecting forward using past values of the spread and GDP growth suggests that real GDP will grow at about a 0.8 percent rate over the next year, even with the projections in August and September. The strong influence of the recent recession is leading toward relatively low growth rates. Although the time horizons do not match exactly, the forecast comes in on the more pessimistic side of other predictions, but like them, it does show moderate growth for the year.

Following the usual pattern, the steeper slope indicates a lower probability of recession. Using the yield curve to predict whether or not the economy will be in recession in the future, we estimate that the expected chance of the economy being in a recession next October is 4.3 percent, down from September’s 7 percent, and from August’s 4.8 percent. So although our approach is somewhat pessimistic as regards the level of growth over the next year, it is quite optimistic about the recovery continuing.

The slope of the yield curve—the difference between the yields on short- and long-term maturity bonds—has achieved some notoriety as a simple forecaster of economic growth. The rule of thumb

Yield Curve Spread and Real GDP Growth



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

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). One of the recessions predicted by the yield curve was the most recent one. 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.

Predicting GDP Growth

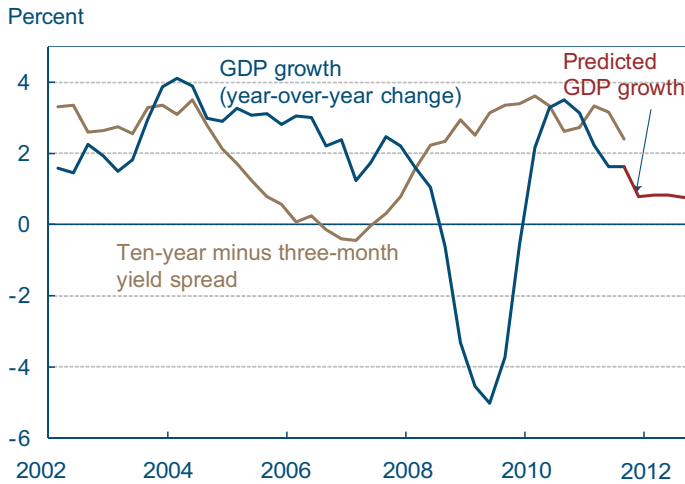
We use past values of the yield spread and GDP growth to project what real GDP will be in the future. We typically calculate and post the prediction for real GDP growth one year forward.

Predicting the Probability of Recession

While we can use the yield curve to predict whether future GDP growth will be above or below average, it does not do so well in predicting an actual number, especially in the case of recessions. Alternatively, we can employ features of the yield curve to predict whether or not the economy will be in a recession at a given point in the future. Typically, we calculate and post the probability of recession one year forward.

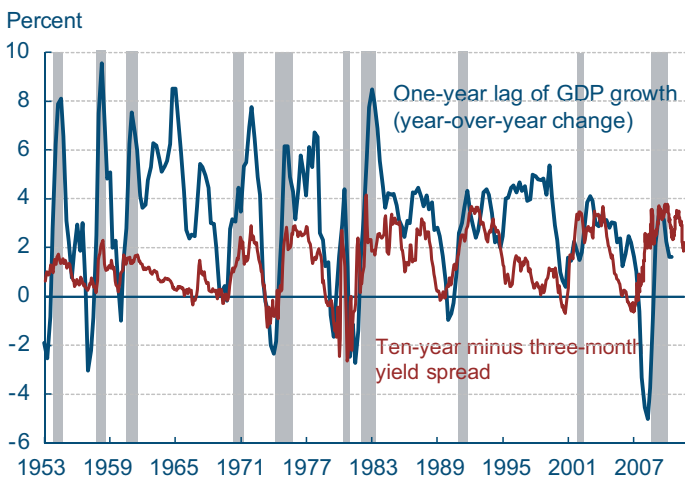
Of course, it might not be advisable to take these numbers quite so literally, for two reasons. First, this probability is itself subject to error, as is the case with all statistical estimates. Second, other researchers have postulated that the underlying determinants of the yield spread today are materially 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

Yield Curve Predicted GDP Growth



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

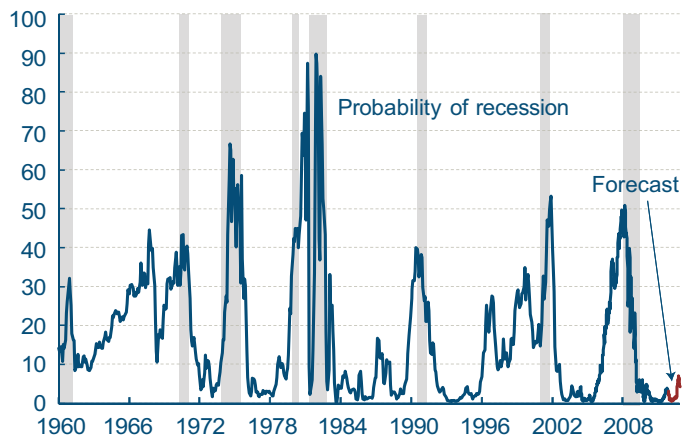
Yield Spread and Lagged Real GDP Growth



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

Recession Probability from Yield Curve

Percent probability, as predicted by a probit model



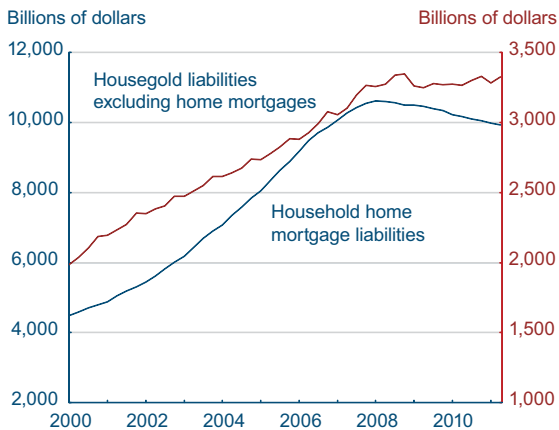
Note: Shaded bars indicate recessions.

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

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?” Our friends at the Federal Reserve Bank of New York also maintain a website with much useful information on the topic, including their own estimate of recession probabilities.

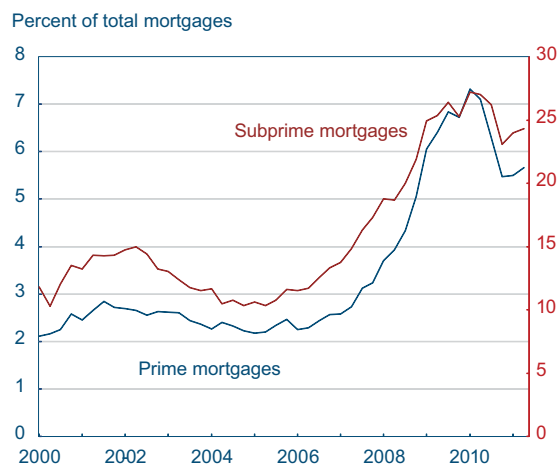
Household Debt

Household Liabilities



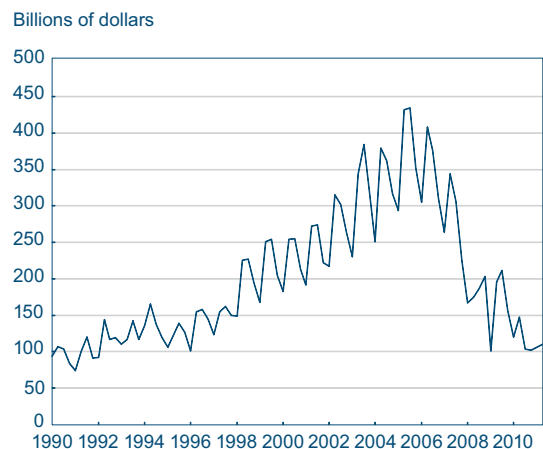
Source: Flow of Funds, Federal Reserve Board.

Delinquency Rates



Source: Mortgage Bankers Association.

Purchase Mortgage Originations: One to Four Family



Source: Mortgage Bankers Association.

10.27.11

by O. Emre Ergungor

The level of U.S. household debt relative to disposable income has been declining since the financial crisis. This household deleveraging is still continuing, according to the latest data. The deleveraging is taking place primarily because liabilities on home mortgages are falling. Nonmortgage liabilities have been flat since 2007.

The primary driver of declining mortgage balances is mortgage write-offs. Given the persistently high level of delinquency rates, mortgage write-offs are likely to remain high. Mortgage balances will drop further as result, unless purchase-mortgage originations pick up.

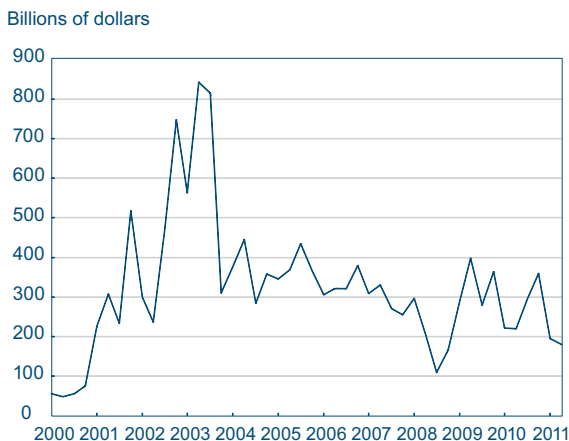
So far, purchase activity remains highly subdued. The most recent data show that originations are still close to the lowest levels seen during the crisis.

Refinancing activity has also been declining despite the historically low mortgage rates.

The obvious culprit is the lack of equity. Median price appreciation of the refinanced properties from the time the original loan was made to the time it was refinanced is -7.4 percent in the most recent Freddie Mac data. This suggests that the Fannie Mae and Freddie Mac are mostly refinancing underwater mortgages in their effort to revive the housing market. This opportunity to refinance without equity is not available to mortgages not owned by the two housing GSEs. Therefore, the overall refinancing activity is lackluster despite the low mortgage rates.

It is also worth noting that refinancing activity is not uniform across all market segments. Currently, around 80 percent of mortgage originations under the Freddie Mac loan limit are refinancings. In the broader market, the refinance share is around 60 percent. This observation also supports our earlier claim that the housing GSEs are more active in this market because they can refinance loans that would

Refinance Mortgage Originations

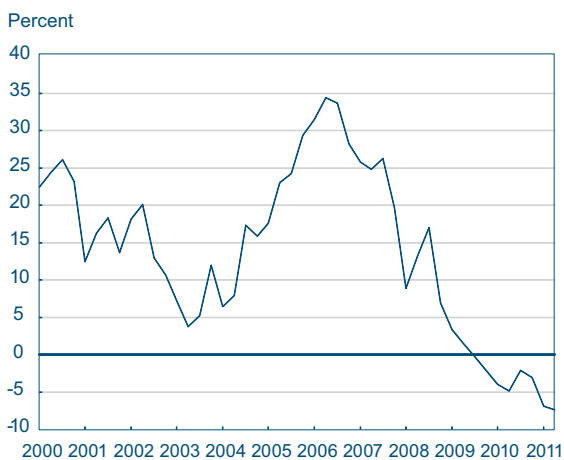


Source: Mortgage Bankers Association.

not qualify for a refinancing in the private market due to lack of equity or low credit score.

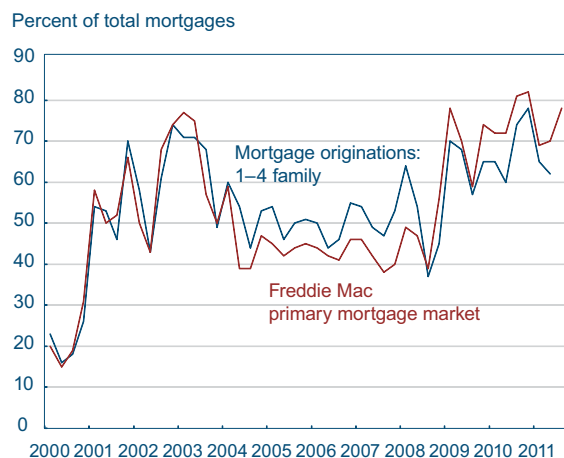
The nature of refinancing activity has also changed in the last few years. While cash-out refinancings were the most popular type of activity before the crisis, the current trend is to benefit from low rates without taking on new debt. This suggests that refinancings may not give a boost to consumption the way they did earlier in the last decade.

Median Appreciation of Refinanced Property



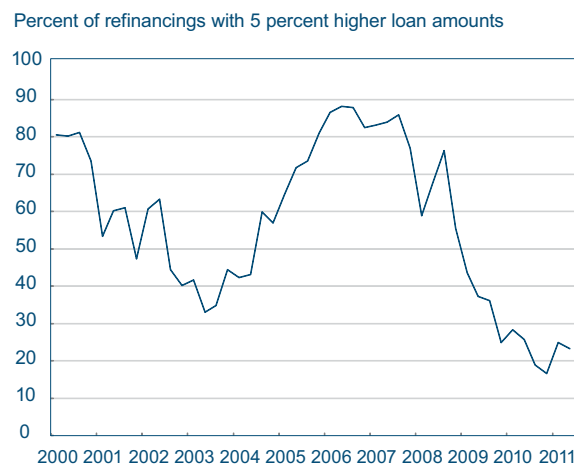
Source: Freddie Mac.

Refinance Shares



Source: Mortgage Bankers Association; Freddie Mac

Mortgages Refinanced for Higher Loan Amounts



Source: Mortgage Bankers Association.

Recent Employment Cost Index Estimates

11.02.11

by Kyle Fee

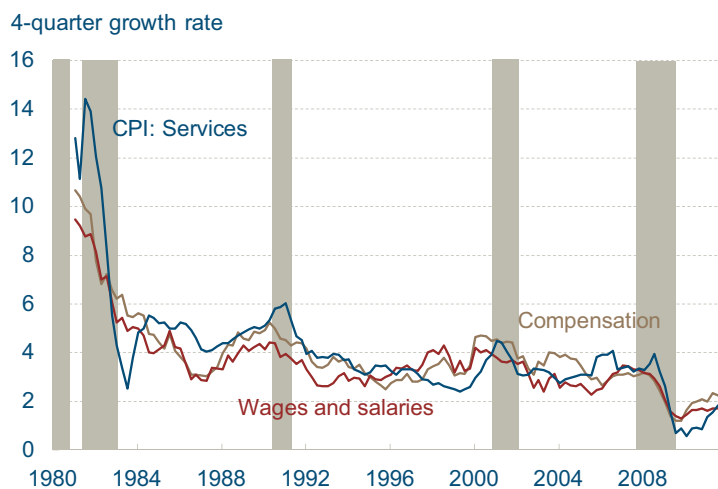
The Employment Cost Index (ECI) is one of the data releases we monitor to help shape our inflation outlook. The latest figures for the ECI continue to point to restrained wage growth. Over the past four quarters, total compensation for private workers is up 2.2 percent, while wages and benefits are up 1.7 percent and 3.4 percent, respectively. Even though total compensation for private workers has been slowly increasing following the end of the recession, much of that increase has been associated with rising benefits costs and not wage growth. In fact, wage growth has not returned to pre-recession levels. Since the recovery began nine quarters ago, the wage series has made minimal progress toward 2.0 percent growth and remains well off of its 1990 to 2007 average growth rate of 3.3 percent.

Restrained wage growth has implications for the inflation outlook. Wages are the primary input cost that business owners must account for when they set their prices, especially for services. This tight relationship between wages and prices is evident in the high correlation (0.89) between wage growth and the services component of the CPI. Total compensation is also highly correlated (0.88) with the services component of the CPI.

The correlation with the CPI service measure, while it does not prove wage increases cause inflation, is certainly noteworthy. Given that services account for a large share of the consumer market basket (60 percent), it seems appropriate to make the connection between subdued wage growth and inflation.

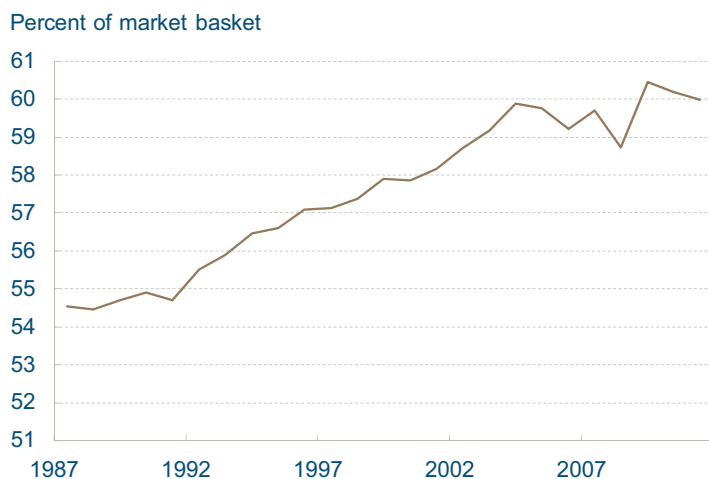
Previously, we noted that subdued labor costs will act as a drag on future inflation. The recent ECI reading suggests that labor costs are still subdued.

Employment Cost Index and CPI: Services



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

CPI: Services



Source: Bureau of Labor Statistics.

Inflation in Developed Countries

11.08.11

by Margaret Jacobson and Mehmet Pasaogullari

Earlier this year we saw average consumer prices increase in the United States, largely due to increases in food and energy prices. Since then, the inflationary pressure brought on by energy prices has been largely alleviated. A similar trend has happened in most other developed countries.

Inflation rates for developed countries tend to move together although the inflation levels can vary significantly (these data are seasonally adjusted). For example, over the last few years, CPI inflation in the UK seems to be significantly higher than in Germany (and also in other G7 continental European countries not shown in the graph). Japan, not surprisingly, has the lowest inflation as this country has been struggling with deflationary pressures.

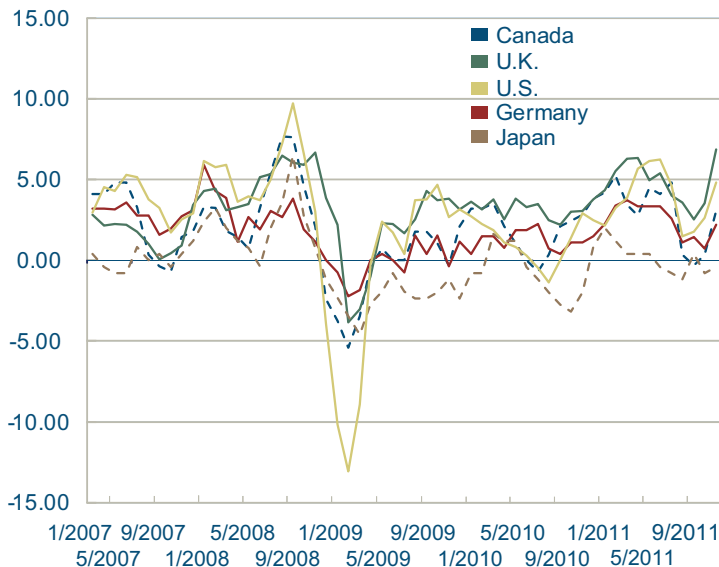
During the summer of 2008, when oil prices increased substantially, all of these countries, even Japan, experienced high levels of inflation. Something similar happened in the spring of 2011, when inflation increased to around 5 percent in Canada, the UK, and the United States. Since then, however, inflation has declined.

What has been the main driver of the increase in the inflation in early 2011? The three-month annualized inflation of energy prices (not seasonally adjusted) showed a volatile pattern in 2011. After sharply increasing in the spring, the levels reversed course. Unsurprisingly, energy prices show a very high correlation across countries, but are also more volatile in the United States than in other developed countries.

Another culprit causing high levels of inflation was elevated food inflation. A look at food-price inflation shows that food prices were at a high level in early 2011, especially in the United States, Canada, and the UK. However, food-price inflation fell less than energy inflation. Food-price inflation is still high. For example, three-month annualized food-price inflation is 5.7 percent in the United States, 4.1 percent in Canada, and 8.8 percent in the UK

Headline inflation in Developed Countries

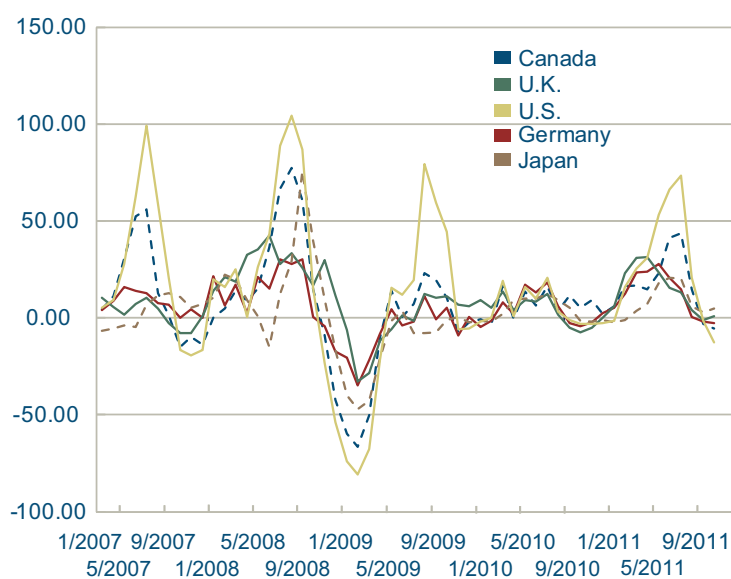
Percent (seasonally adjusted, 3-month annualized)



Sources: Bloomberg; Haver Analytics, Inc.

Energy Price Inflation in Developed Countries

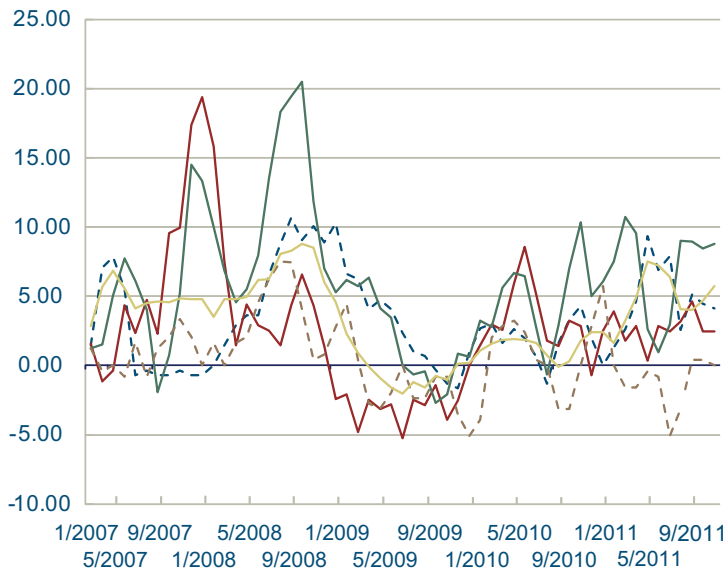
Percent (non-seasonally adjusted, 3-month annualized)



Sources: Bloomberg; Haver Analytics, Inc.

Food Price Inflation in Developed Countries

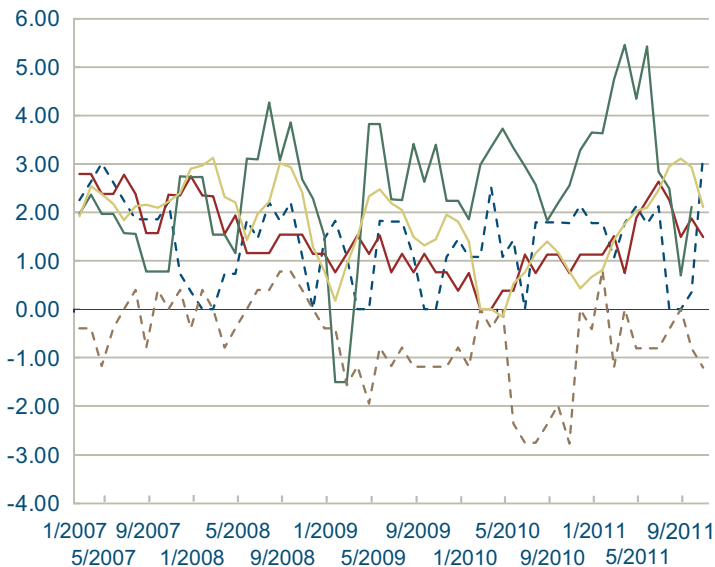
Percent (seasonally adjusted, 3-month annualized)



Sources: Bloomberg; Haver Analytics, Inc.

Core Inflation in Developed Countries

Percent (seasonally adjusted, 3-month annualized)



Sources: Bloomberg; Haver Analytics, Inc.

as of September 2011. However, we have to note that an episode of high food-price inflation is not uncommon, as the figure below suggests.

Finally, we check inflation excluding food and energy prices, frequently called core inflation in the developed countries. Most economists believe that core inflation measures are better at capturing inflationary pressures and better predictors of future inflation, as they exclude noisy signals and temporary factors.

When we look at the development of core inflation measures in the developed countries, we see several important facts. First of all, we see a lot less correlation between core inflation levels across countries than in overall inflation, food-, or energy-inflation. For example, the deflationary phase that Japan is experiencing is clearly seen in the core inflation level, which has been persistently negative since late 2008, except for a few temporary blips.

On the other hand, the UK experienced sharp increases in core inflation in early 2011, which may be related to an increase in the country's VAT tax. For the United States and Germany, it seems that the pass-through effects of energy-price increases led to peaks in core inflation—in May for the United States and in April for Germany. Now three-month annualized core inflation has declined to 2.1 percent and to 1.5 percent, respectively. On the other hand, core inflation in Canada, which was flat in the summer after higher levels in early 2011, jumped significantly in September.

In summary, we see that in early 2011 major developed countries experienced an increase in inflation that was driven mostly by higher food and energy prices. Since then, inflation has stabilized at lower levels. The core inflation measures, though, showed deflation in Japan, low inflation in Germany and the U.S., and higher inflation in Canada.

Weak Wage and Income Growth Is Holding Consumption Back

11.02.11

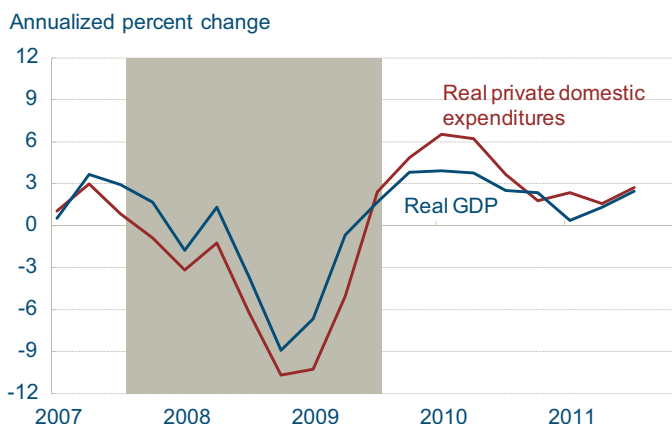
by Margaret Jacobson and Filippo Occhino

After feeble GDP growth in the first half of the year, third-quarter data came out a little stronger, suggesting that the recovery is continuing and the risk of recession is reduced. According to the advance estimate from the Bureau of Economic Analysis, real GDP grew at a 2.5 annualized percent rate in the third quarter, accelerating from its 0.8 annualized percent growth rate in the first half of the year. Real private domestic expenditures, the share of GDP that includes private consumption and investment and excludes government spending and net exports, also accelerated from 2 percent to 2.7 percent (both annualized growth rates) from the first half of the year to the third quarter.

Even though third-quarter growth looks stronger, the pace of the recovery continues to be slow. Over the past year, real GDP grew only 1.6 percent, much less than is typical during recoveries. Real private consumption, which accounts for 70 percent of GDP, also grew slowly—only 2.2 percent in the last year. One reason why consumption is rising so slowly is that personal income is rising slowly. In real terms, personal income grew a modest 2.1 percent in the last year and fell 1.6 percent in the last quarter (annualized rate). Net of taxes, household income fared even worse. Disposable personal income grew only 0.8 percent in the last year and fell 1.9 percent in the last quarter (annualized rate).

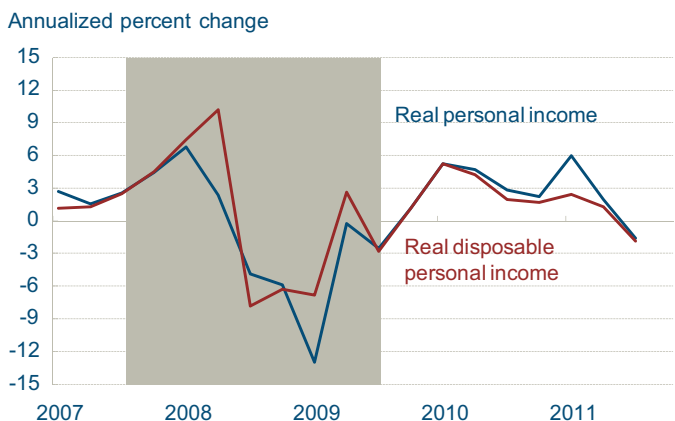
With disposable income barely growing, it is no surprise that household consumption is not growing much either. In fact, unless income accelerates soon, households will not even be able to sustain their current low rates of consumption growth for long. Household consumption is currently growing at a higher rate than income. This is possible only because households are lowering their saving rate—the saving rate dropped from 5.2 percent last year to 5.1 percent last quarter and to 4.1 percent this quarter. This pattern cannot continue indefinitely. Either household income will pick up, or house

Real GDP and Private Domestic Expenditures



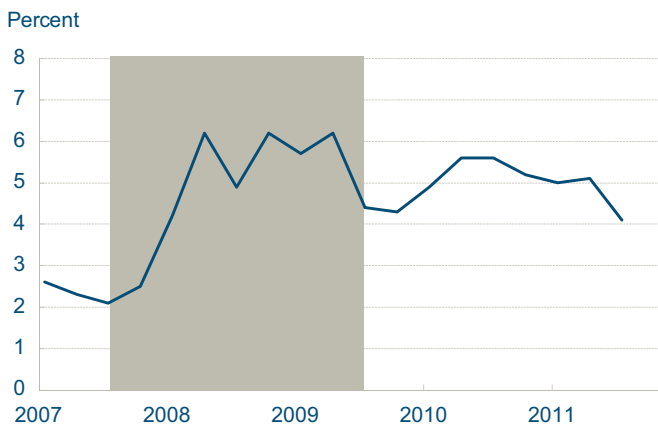
Notes: Private domestic expenditures is the sum of private consumption and private investment. Shaded bar indicates recession. Source: Bureau of Economic Analysis.

Real Personal Income



Notes: Disposable personal income is personal income less taxes. Real values were calculated using the implicit price deflator for GDP. Shaded bar indicates recession. Source: Bureau of Economic Analysis

Personal Saving Rate

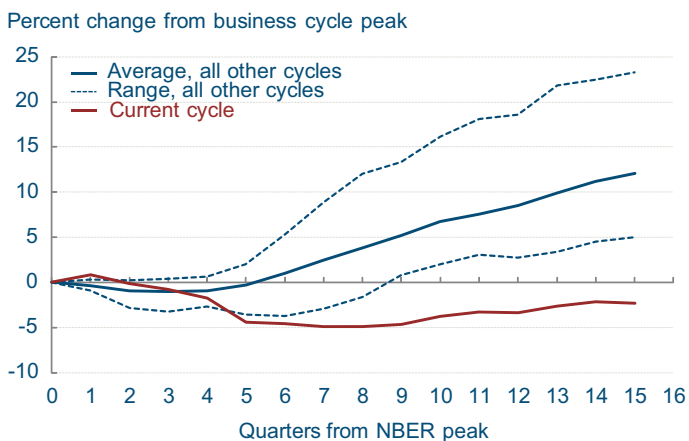


Notes: Personal saving rate is personal saving as a percentage of disposable personal income. Shaded bar indicates recession.
Source: Bureau of Economic Analysis.

holds will have to cut back on their consumption growth to avoid further declines in the saving rate.

The main reason household income is not growing at a stronger pace is that wage growth is stagnant. Real employee compensation grew only 1.1 percent in the last year and decreased 0.6 percent in the last quarter (annualized rate). Compensation peaked in early 2008, fell more than 5 percent during the recession and is still 3.1 percent below that peak, depressed by sluggish employment and wage growth. It has been lagging relative to other components of national income—the ratio of employee compensation to national income, the labor share, has been decreasing steadily since the end of the recession, and is currently 62 percent, the lowest level in more than forty years.

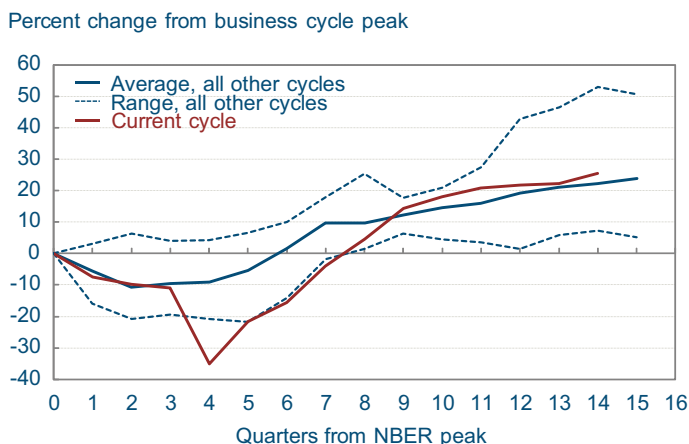
Real Employee Compensation



Note: Range refers to the minimum and maximum values over all other cycles. Real values are calculated using the implicit price deflator for GDP.
Source: Bureau of Economic Analysis

While household consumption is growing slowly, business investment is in better shape. Real fixed investment grew a solid 7.8 percent in the last year, driven by 10 percent growth in investment in equipment and software. Investment growth in the future could be fueled by corporate profits, which have rebounded strongly from their recession levels. In real terms, corporate profits have almost doubled since their lowest point during the recession, and they are now in line with the pace of previous recoveries.

Real Corporate Profits



Notes: Range refers to the minimum and maximum values over all other cycles. Real values are calculated using the implicit price deflator for GDP.
Source: Bureau of Economic Analysis

Sovereign Debt Implications on the European Banking System

11.04.11

by Ben Craig and Matthew Koepke

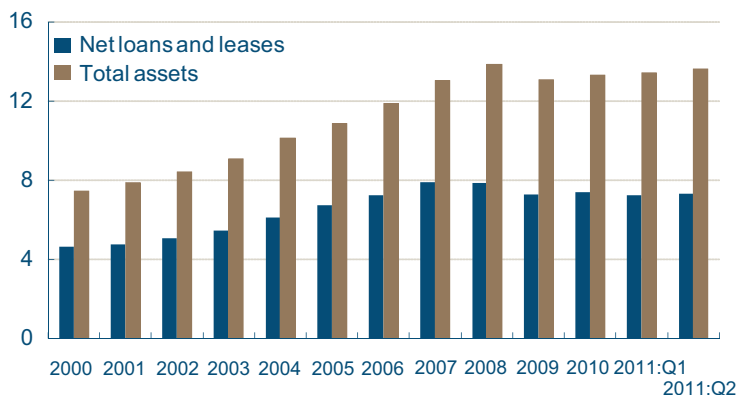
As European leaders work to define the terms of the European Financial Stability Facility (EFSF), concerns have arisen about sovereign debt write-downs and the impact they could have on the European banking system. European finance ministers just approved a plan that would require euro-zone banks to raise \$150 billion (€108 billion) in additional capital over nine months to cover potential losses. The additional capital would allow banks to meet a 9.0 percent threshold for tier-one capital after positions in distressed euro-zone debt are marked-to-market.

The additional \$150 billion of capital, while steep, was less than the \$417 billion (€300 billion) that the International Monetary Fund (IMF) estimated the cumulative spillover effects of the write-downs on the euro-zone banking system would be. According to the IMF's September Global Stability Assessment Report, cumulative spillovers from the high-spread area (Belgium, Greece, Ireland, Italy, Portugal, and Spain) account for nearly \$278 billion (€200 billion) of the \$417 billion, with an additional \$139 billion attributed to interbank exposures. The IMF expects the spillover effects to mostly affect the banking systems in the high-spread euro area. Nonetheless, the Bank for International Settlements exposure tables show that the banking systems of Germany, France, and the United Kingdom have significant exposure to the high-spread euro area, accounting for nearly 70.0 percent of the euro-zone's total exposure.

The specter of sovereign defaults and bank exposures to the debt has increased credit risk in the euro zone interbank lending markets. Evidence of the increased credit risk can be seen by examining the euribor-OIS spread. Since June, the euribor-OIS has risen to levels not seen since the financial crisis of 2008. The euro interbank offered rate (euribor) is the rate at which banks participating in the European Union money markets are willing to lend to other banks for a specified term.

Assets and Loans of All FDIC-Insured Institutions

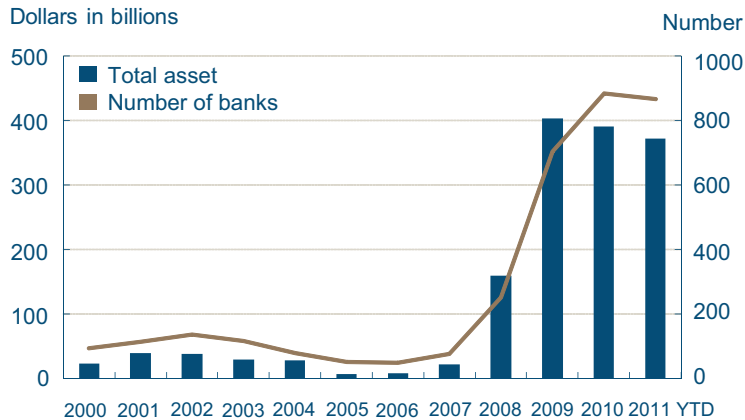
Dollars in trillions



Sources: FDIC, Haver Analytics.

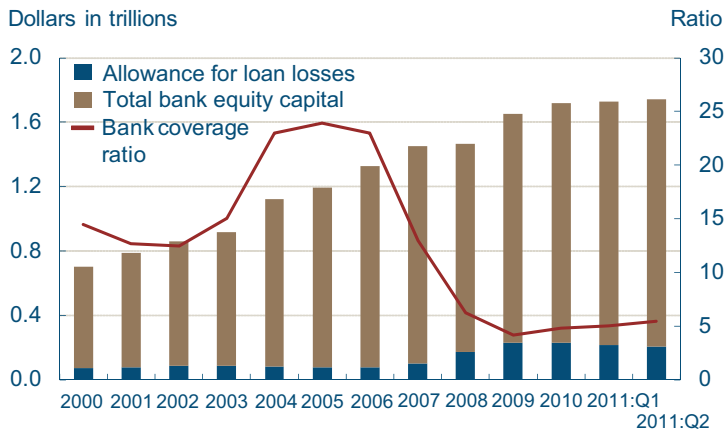
Number of Problem Banks and Total Assets

Dollars in billions



Sources: FDIC, Haver Analytics.

Bank Coverage Ratio



Source: FDIC.

euro zone. Since May 2011, the net due to foreign-related offices has increased from –22.0 billion (the foreign-related bank had a balance with the U.S. subsidiary) to \$289.6 billion (the U.S. subsidiary has a balance with the foreign-related bank). This increase suggests that foreign banks are using their U.S. subsidiaries to shore up liquidity.

Local Government Employment in Ohio, Pennsylvania, Kentucky, and West Virginia

11.02.11

by Stephan Whitaker

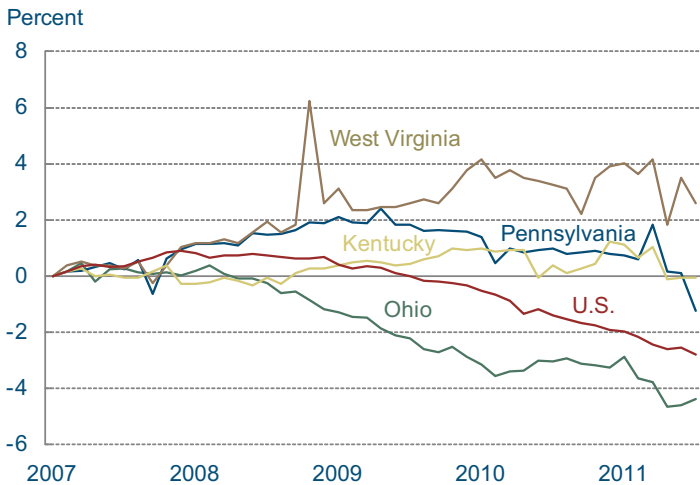
In the past year, policymakers in the Fourth District and across the nation have focused tremendous attention on local government employees. In aggregate across the United States, local government employment has fallen approximately 3 percent since the recession. The ratio of local government employment to total payroll employment rose sharply in the year after the recession because there were widespread layoffs of private sector workers.

Private sector jobs, and the local tax bases they support, have recovered only slowly. In the national figures, cuts in local government employment are bringing the ratio of public to private workers back to where it was before the recession. In the Fourth District, only Ohio has cut local government payrolls in line with the national trend. However, the ratios of public to private workers are returning to their pre-recession levels in all four states.

Local government employment has historically been a stabilizing force during recessions. That is because when the economy slows down, local government employment usually remains stable, and the workers who stay employed help to support demand for goods and services until growth returns. Local government payrolls can usually weather a recession because the largest source of local tax revenue is property taxes. In past recessions, property values did not decline, or they recovered before the multiyear tax assessment process reflected the declines. Local sales and income taxes fall during recessions and recover afterward, which forces some temporary reduction of payrolls.

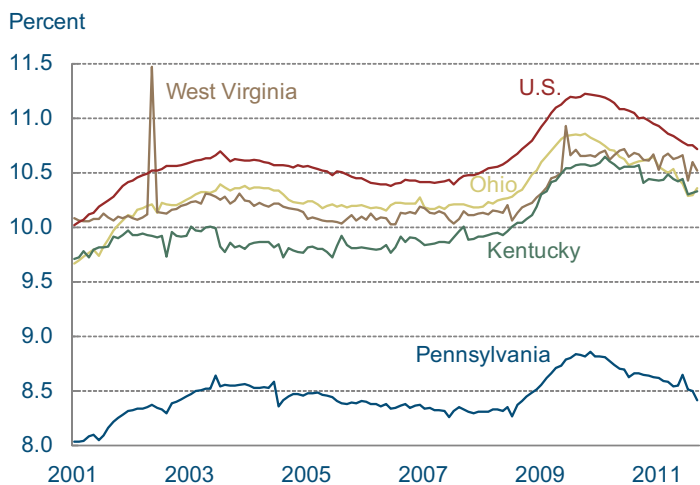
Local taxes receipts fell during the most recent recession, as they normally do. To help local governments bridge the decline in tax receipts and avoid layoffs, Congress directed a major portion of the 2009 American Recovery and Reinvestment Act (\$180 billion of the \$787 billion) to state and local governments. In the intervening months, sales

Change in Local Government Employment



Source: Bureau of Labor Statistics.

Local Government Employment as a Percent of Total Nonfarm Employment



Source: Bureau of Labor Statistics.

and income taxes have only partially recovered, and property taxes are now falling as the dramatic, nationwide decline in property values is being reflected in the assessment process. State revenues are still below 2008 levels, and many states are cutting aid to local governments. For example, Ohio is cutting state-to-local transfers by 28 percent in FY2012. This may force municipal governments to raise taxes or lay off employees.

Since the beginning of the recession, the trend in local government employment has taken a different path in each of the Fourth District states. In West Virginia, there has been a modest increase in local government payrolls. In Pennsylvania, there was a slight increase and a decline. Kentucky's local government employment has been essentially unchanged. In Ohio, the situation is much different. There has been a decline in local government employment, reaching a level in September 2011 that is 4 percent below the level just before the recession. Ohio has cut local public payrolls more than the nation as a whole.

If local government payrolls are placed in the context of total payrolls, the Fourth District trends all reflect the national pattern. During the recession, private payrolls dropped sooner and faster than public payrolls. The states of the Fourth District, like the nation as a whole, witnessed a half-point increase in the percentage of total employees working for local governments in the year following the recession. Now, in three Fourth District states, the ratio appears to be returning to its level during the previous decade. In Pennsylvania and Kentucky, municipal payrolls are almost flat and the ratio is falling, so other employment is recovering. In Ohio, the public sector workforce is declining to match the diminished private sector workforce. In West Virginia, the ratio is steady, as public and private payrolls sustain similar growth.

Local government employees as a percent of total nonfarm payrolls are below the national average in all the Fourth District states. Pennsylvania stands out with a percentage 2 points lower than the nation since the 1990s.

MSA/Employment

MSA	Local Government Percent of Total Nonfarm Employment December 2006- November 2007	Change		Local Government Percent of Total Nonfarm Employment October 2010- September 2011
		TNF	Local government	
		Cleveland	10.9	
Canton	10.4	-7.7	-3.5	10.9
Dayton-Springfield	10/1	-8.2	-3.0	10.7
Youngstown- Warren	9.7	-6.9	-1.2	10.3
Toledo	9.5	-7.8	-7.8	9.9
Akron	9.6	-5.5	-4.1	9.7
Cincinnati	8.5	-5.5	-3.4	8.7
Columbus	8.6	-3.4	-1.3	8.7
Pittsburgh	8.1	-0.9	0.9	8.2
Lexington	7.2	-4.3	7.0	8.1

Source: Bureau of Labor Statistics.

The metropolitan areas within a state always exhibit larger variations that get smoothed out in averaging. Since the recession, the ratio of public employees to total employees has increased in every metro area of the Fourth District. In most cases, both total and local government payrolls have fallen, but government payrolls have not fallen as far. Cincinnati and Columbus support relatively low percentages of their employment in the local government sector, similar to the average for Pennsylvania. The Cleveland MSA was the only Fourth District metro area to enter the recession with a percentage of workers in the local government sector that was above the national average, and it remains above the national average.

In the coming months, municipalities will have to make some difficult decisions. They will choose between raising taxes, laying off employees, reducing compensation, or some combination of the three. The aggregate impact of their decisions will be felt in the economies of their metro areas and states. It will be interesting to see if local government employment will continue to serve as a stabilizing force as it has in the past.

Emergency Unemployment Compensation and Long-term Unemployment

11.08.11

by Murat Tasci and Mary Zenker

The recent recession was the longest on record since the Depression. As it wore on, more and more workers entered the ranks of long-term unemployed. To minimize the impact of these unemployment conditions on household incomes, the federal government implemented an unemployment insurance benefit called the Extended Unemployment Compensation (EUC) program. The program allows unemployed workers to collect unemployment insurance benefits longer than they normally would be able to. In this article, we provide some context for interpreting the program's effect on the unemployment rate.

The EUC program was implemented in tiers. In June 2008 (7 months after the recession started), Congress legislated the first tier: unemployed workers could receive an additional 13 weeks of benefits. Five months later, that period was extended an additional 7 weeks and henceforth referred to as Tier 1. Tier 2 was introduced at the same time and gave an additional 13 weeks of benefits to those in states with unemployment rates above 6 percent. A year after it was enacted, Tier 2 extended benefits by 1 week and made the extension unconditional on state unemployment rates.

As the economy continued to stagnate, more tiers were introduced. In November 2009, the Tier 3 extension went into effect, adding 13 weeks of benefits in states with unemployment rates above 6 percent, and Tier 4 gave an additional 6 weeks of benefits in states with unemployment rates above 8.5 percent. All of the tiers together amount to a potential maximum additional benefit duration of 53 weeks. Adding that to the what the states provide—the traditional 26 weeks of benefits and 20 additional weeks of extended benefits—amounts to potentially being able to receive unemployment insurance benefits for 99 weeks (just about 2 years).

Initially, EUC benefits were available to anyone who had exhausted his or her regular benefits before March 28, 2009. However, as the recession wore on this date was continually moved later and later and is currently January 3, 2012.

Unemployment insurance is intended in general to provide some additional income during extended periods of unemployment, but it also creates incentives that can lead to effects that would otherwise not occur. One possible incentive might be that unemployment insurance encourages people to stay in the labor force who would otherwise drop out, since receiving benefits is conditional on searching for work. Or unemployment insurance might incentivize people to reject employment offers by raising their reservation wage, the wage above which they will accept a job.

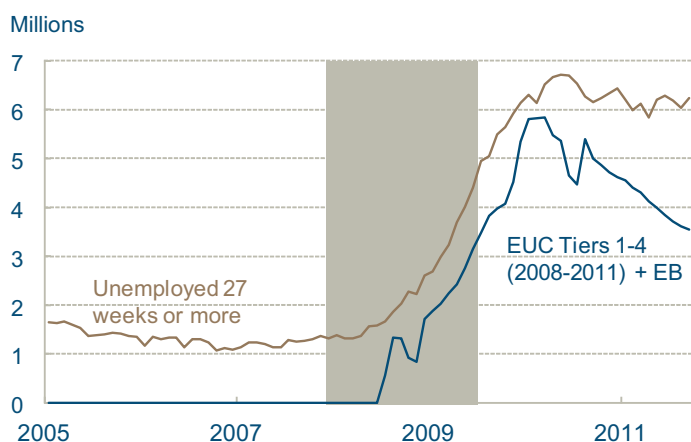
We can check the data to see if either of these effects is occurring as a result of EUC. Consider first whether EUC incentivizes unemployed workers to stay in the labor force when they would otherwise drop out. As their EUC benefits expire, unemployed workers can choose to leave the labor force or to stay in. If they leave, the number of long-term unemployed workers will decrease (all else equal), since, by definition, a worker receiving EUC is counted among the long-term unemployed. If they stay, they continue to seek work but receive no further unemployment benefits.

If EUC creates this incentive, we ought to observe evidence of workers exiting the labor force as their benefits expire. Over the past two years, however, though we have seen a noticeable decline in the number of those receiving EUC and extended state benefits, the number of long-term unemployed workers has been stuck around 6 million and shows little sign of downward momentum.

The earliest workers who took advantage of the full 99 weeks of unemployment insurance would have used up all their benefits around June 2010. As can be seen in the chart below, the number of people receiving EUC began declining markedly in 2010.

The fact that the decline in EUC recipients has not been coupled with a decline in the long-term

Long-Term Unemployed and Emergency Unemployment Compensation



Note: Shaded bars indicate recession.
Sources: Department of Labor, Bureau of Labor Statistics.

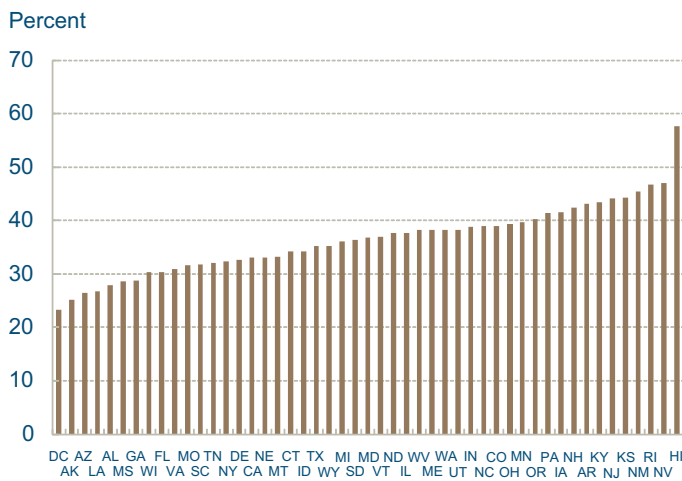
unemployed suggests those workers are staying in the labor market. This is not certain, however, as there are constant inflows to the long-term unemployed pool from the “medium”-term unemployed pool. Additionally, staying in the labor force is not unequivocally bad. Some analysis by Jesse Rothstein suggests that EUC, because it keeps workers in the labor force, may have increased the share of unemployed workers who were later reemployed.

Consider now whether EUC creates an incentive to reject employment offers. In the chart below, we show a rough approximation of a statistic called a replacement rate. The replacement rate measures how much of their prior income EUC recipients are able to receive with EUC. We lack direct data on this, but we can measure how much the average EUC benefits in a state are relative to the average wage in that state. This statistic is our proxy for the replacement rate. With an average replacement rate across all states of about 36 percent, we can surmise that when workers are receiving unemployment benefits, they are generally dealing with a nontrivial decline in income. This creates some uncertainty about the strength of the claim that receiving EUC provides an incentive to turn down a wage offer.

However, these incentive effects could be weaker when there are not many job openings available in the economy. We can look at a metric called market tightness to relate the number of unemployed persons to the number of available jobs. Essentially, this measure gives the number of vacancies per unemployed worker. When market tightness is really low, there are too many unemployed workers chasing too few job openings. Looking at this metric, we see a low level of market tightness in the economy, suggesting there is a low probability of exiting the unemployment pool on average. Potentially, a low demand for labor will dampen the incentive effects of unemployment insurance benefits. Hence, a more plausible reason for the elevated level of the long-term unemployed is a lack of demand for labor, rather than an incentive effect of EUC motivating people to stay in their current unemployed state.

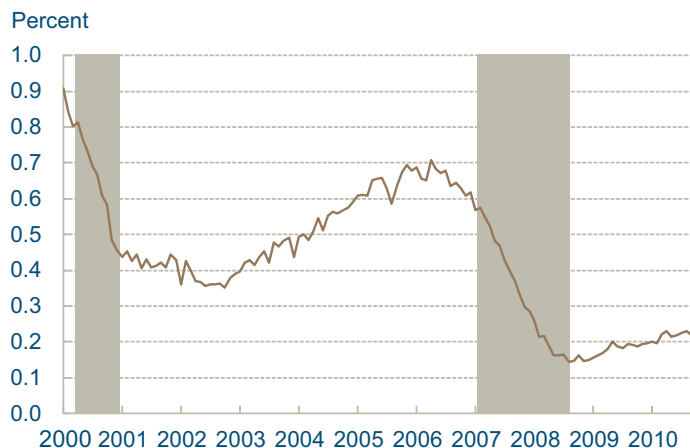
Given that EUC significantly lengthened the length of time benefits could be received and increased

Average Replacement Rates by State



Sources: Department of Labor, Bureau of Labor Statistics; as of September 2011

Market Tightness (V/U)



Note: Shaded bars indicate recessions.
Source: Bureau of Labor Statistics, authors' calculations.

the number of eligible workers, the existence and significance of these incentive effects on the unemployment rate is a key issue. An EUC incentive effect may be there, but the data shown here, even though only suggestive, do not indicate a very strong effect. Our reading of the economic literature on this issue suggests that the effect of the EUC is relatively minimal, accounting for about 0.6 to 0.8 percentage points of the unemployment rate by the end of 2010 (see the Rothstein paper mentioned earlier). The Rothstein study focuses on both of the incentive effects mentioned above and provides evidence that the unemployment exit rate was not significantly affected by the availability of EUC. The low levels of job openings we observe in the data support this view, suggesting that the scarcity of available jobs might explain the bulk of the unemployment rate.

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