Economic Trends

June 2011 (May 11, 2011-June 8, 2011)

In This Issue:

FEDERAL RESERVE BANK
of CLEVELAND

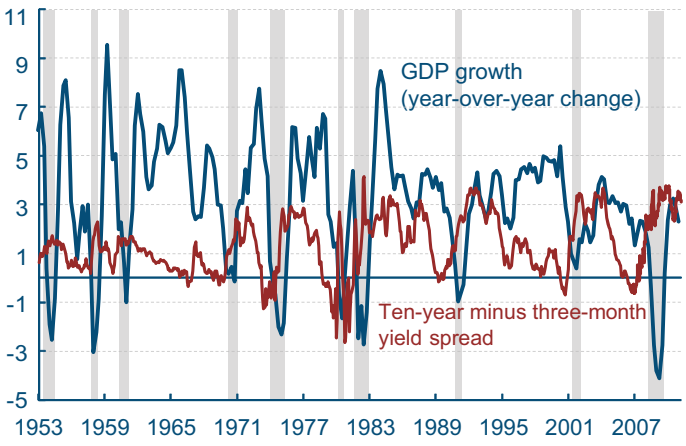
Yield Curve and Predicted GDP Growth, May 2011

Covering April 22, 2011–May 20, 2011
by Joseph G. Haubrich and Timothy Bianco

Highlights

	May	April	March
3-month Treasury bill rate (percent)	0.05	0.06	0.09
10-year Treasury bond rate (percent)	3.15	3.41	3.29
Yield curve slope (basis points)	310	335	320
Prediction for GDP growth (percent)	1.0	1.0	1.0
Probabilty of recession in 1 year (percent)	1.3	0.9	0.9

Yield Curve Spread and Real GDP Growth



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

Overview of the Latest Yield Curve Figures

Over the past month, the yield curve became flatter, as long rates dropped, reversing their previous increase. Short rates edged down yet again. The three-month Treasury bill rate moved further into the single-digit range, to 0.05 percent (for the week ending May 20). That is down from April's 0.06 percent and March's 0.09 percent. The ten-year rate dropped to 3.15 percent, down from April's 3.41 percent and below March's 3.29 percent. The slope decreased 25 basis points—a full quarter of a percent—and is below the levels for both March and April. It stands now at 310 basis points.

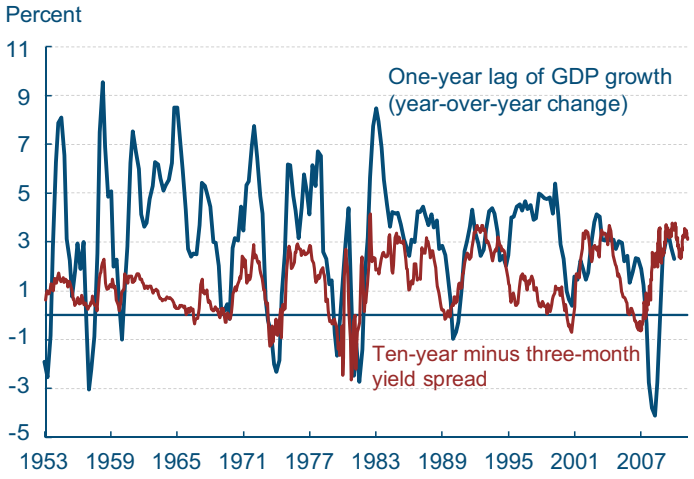
Projecting forward using past values of the spread and GDP growth suggests that real GDP will grow at about a 1.1 percent rate over the next year, just a rounding convention up from the numbers for April and March. The strong influence of the recent recession is leading toward relatively low growth rates, with a steady beat of 1 percent predictions. Although the time horizons do not match exactly, the forecast comes in on the more pessimistic side of other predictions, and like them, it does show moderate growth for the year.

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 May at 1.3 percent, up a bit from March and April's 0.9 percent. So although our approach is somewhat pessimistic as regards the level of growth over the next year, it is more optimistic with respect to the chances of the recovery continuing.

The Yield Curve as a Predictor of Economic Growth

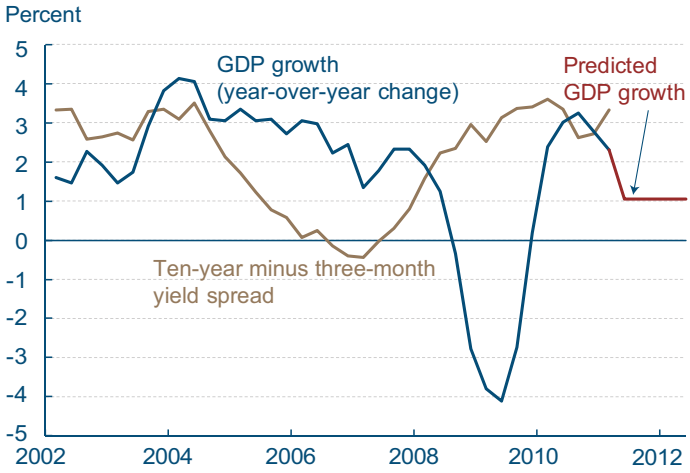
The slope of the yield curve—the difference between the yields on short- and long-term maturity bonds—has achieved some notoriety as a simple forecaster of economic growth. The rule of thumb

Yield Spread and Lagged Real GDP Growth



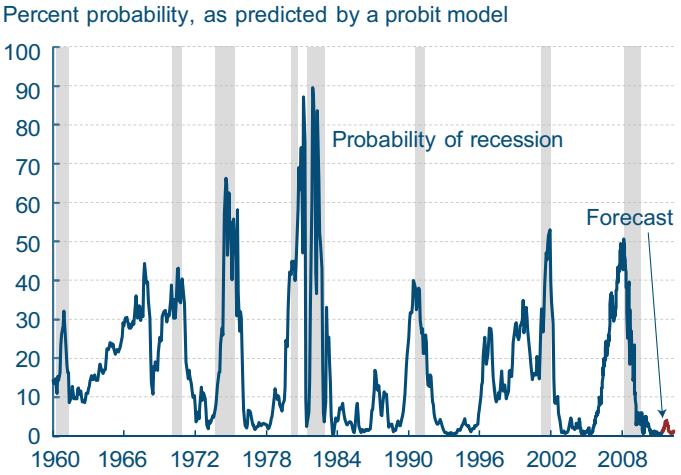
Sources: Bureau of Economic Analysis, Federal Reserve Board.

Yield Curve Predicted GDP Growth



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

Recession Probability from Yield Curve



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

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 number quite so literally, for two reasons. First, this probability is itself subject to error, as is the case with all statistical estimates. Second, other researchers have postulated that the underlying determinants of the yield spread today are materially different from the determinants that generated yield spreads during prior decades. Differences could arise from changes in international capital flows and inflation expectations, for example. The bottom line is that yield curves contain important information for business cycle analysis, but, like

other indicators, should be interpreted with caution.For more detail on these and other issues related to using the yield curve to predict recessions, see the Commentary "Does the Yield Curve Signal Recession?" The Federal Reserve Bank of New York also maintains a website with much useful information on the topic, including their own estimate of recession probabilities.

Policymaking for the Future

06.07.11

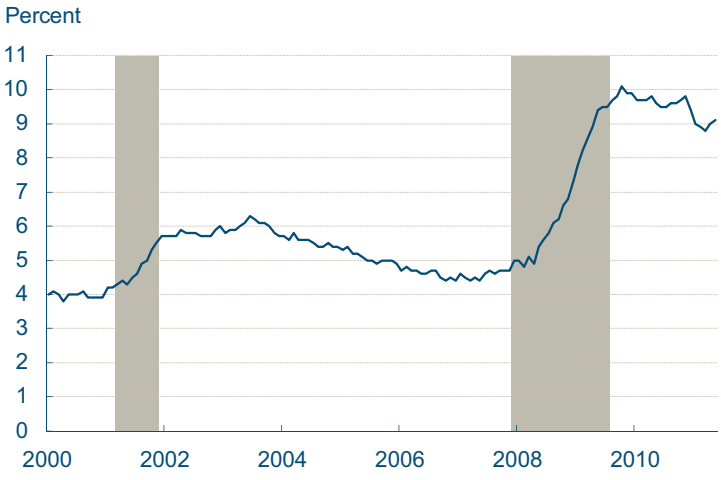
by Charles T. Carlstrom and John Lindner

It was one of the most highly anticipated events so far this year, and we are not talking about the royal wedding. Chairman Bernanke's press conference at the end of April drew notice from bloggers, news sources, and ordinary citizens concerned about the economy. Leading into the event, commentators reviewed the relevant economics lingo, explaining ideas such as "inflation expectations," the "fed funds rate," and "quantitative easing." But after all of the build-up, reviews were anticlimactic: the conference was bland and boring. In spite of that appraisal, the Chairman's remarks did contain important information, and it is sparking a bit of debate in some circles.

What the prepared remarks made clear is that monetary policy is largely a forward-looking process. Chairman Bernanke reminded everyone that it needs to be since monetary policy works with a lag, both in its effects on economic growth and price stability. This friendly reminder was surrounded by constant references to forward-looking economic indicators, which help policymakers determine where growth and price levels will likely be in the future.

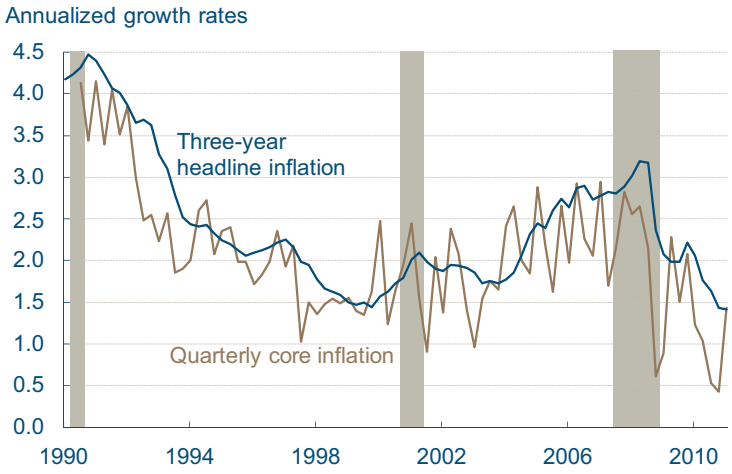
Speaking on the maximum-employment half of the Fed's dual mandate, Bernanke mentioned that policy was aimed at achieving growth so that the unemployment rate could return to its long-term normal level over time. Early on in his comments, he stated that the Federal Open Market Committee's (FOMC) longer-run projections for the unemployment rate could be interpreted as Committee participants' current estimates of the normal unemployment rate over the longer run. These projections, of course, are clearly conditional on appropriate monetary policy and current conditions. So, at this point in time, the goal of current monetary policy is to achieve economic growth to return the unemployment rate to a range of 5.2 percent to 5.6 percent. Clearly, the unemployment rate is lingering above that target. Signs that the rate is likely to fall in the near future are getting worse, as first-quarter real GDP growth came in below 2 percent, and expectations for the second

Unemployment Rate



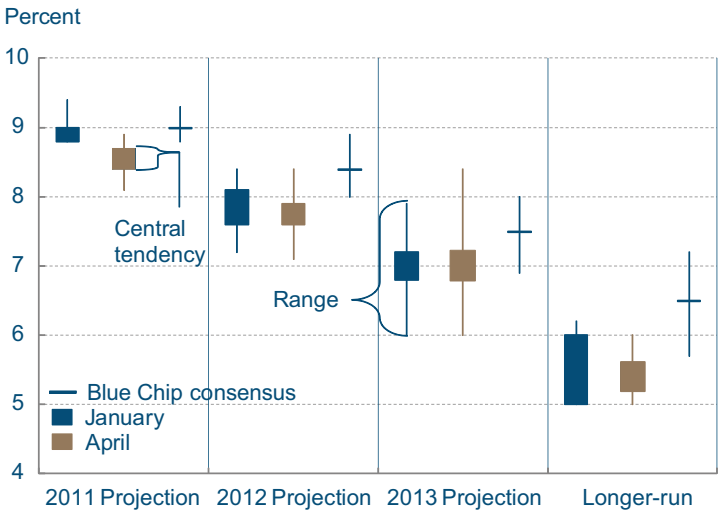
Source: Bureau of Labor Statistics.

PCE Inflation Measures



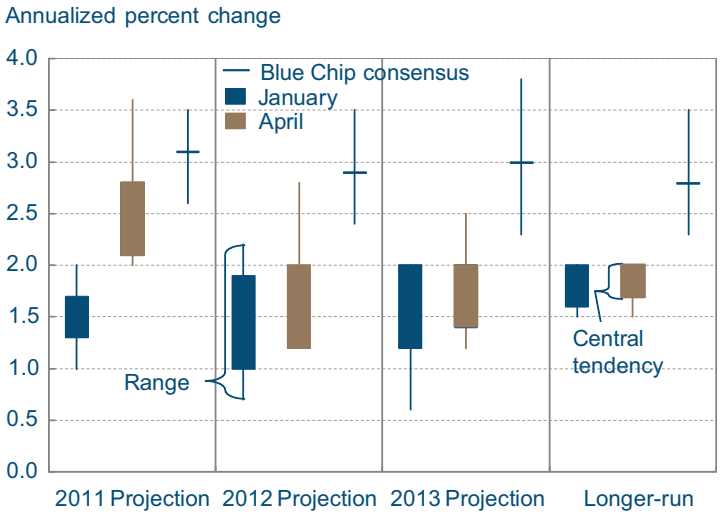
Source: Bureau of Economic Analysis.

FOMC Projections: Unemployment Rate



Sources: Federal Reserve Board; Blue Chip *Economic Indicators,* March 2011.

FOMC Projections: PCE Inflation



Sources: Federal Reserve Board; Blue Chip *Economic Indicators,* March 2011.

quarter have been steadily declining over recent weeks. However, Chairman Bernanke made it clear that "the economy's longer-term rate of growth and unemployment are determined largely by nonmonetary factors."

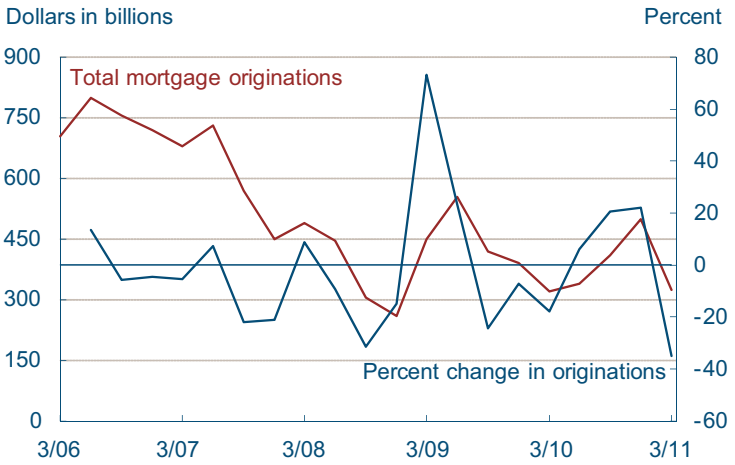
On the other half of the Fed's dual mandate, the Committee participants' longer-run projections for inflation were also said to be a good indication of what the Committee judged to be most consistent with achieving price stability. Referred to as the "mandate-consistent" rate of inflation, Committee participants' projection for the longer-run inflation rate was a range of 1.7 to 2.0 percent. Again, their projections are dependent upon the current economic environment and the enactment of appropriate monetary policy. Chairman Bernanke explained that this longer-run inflation outlook, in contrast to economic growth and unemployment trends, is "determined almost entirely by monetary policy." Some in the economics community have zeroed in on this statement, and a debate has arisen about what actually is the best predictor of future headline inflation.

One side of the debate generally believes that core inflation measures are a good predictor of intermediate-term headline inflation. Core inflation measures have remained moderate and below the "mandate-consistent" range, although they have ticked up slightly in the past few months. However, proponents on the other side of the debate advocate the use of a long-run trend in headline inflation to predict future headline inflation. This side has noted that core inflation measures have become less adept at determining longer-term inflation, especially over the past decade. Longer-run trends in headline inflation, say over the past 36 months, are providing the same information as core inflation, but that might not always be the case.

While the majority of economists and policymakers still side with the core-inflation conventions, a more vocal minority has emerged since the April Committee meeting and Chairman Bernanke's press conference. This dispute may be something to keep an eye on, because if views on inflation begin to shift, so too could future policy decisions.

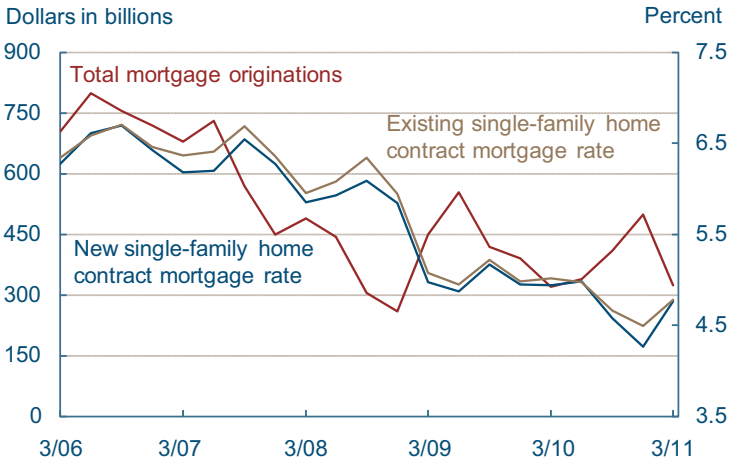
Mortgage Originations Struggle to Stay Afloat

Total Mortgage Originations



Source: *Inside Mortgage Finance*, April 29, 2011.

Total Mortgage Originations and Contract Interest Rates for New and Existing Single-Family Homes



Sources: *Inside Mortgage Finance*, April 29, 2011; Federal Housing Finance Agency; Haver Analytics.

05.31.11
by Yuliya Demyanyk and Matthew Koepke

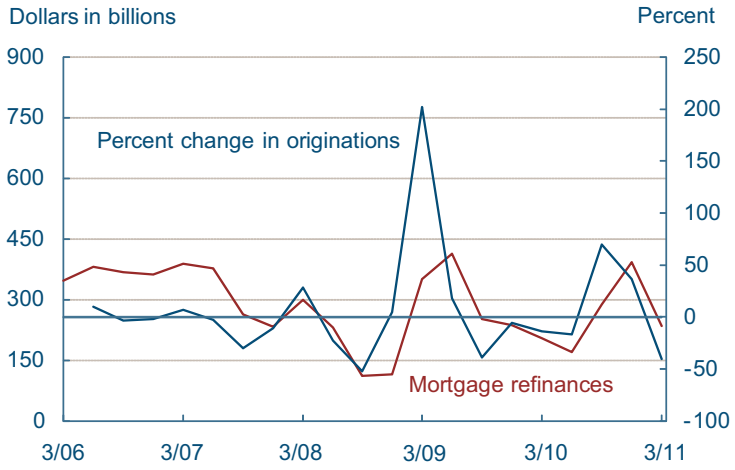
While the rest of the economy is slowly recovering, the housing market still seems to be struggling. According to the latest edition of Inside Mortgage Finance, mortgage originations in the first quarter of 2011 fell 35.0 percent, to an estimated $325 billion, reversing three consecutive quarters of origination growth. The first quarter's decline represents the largest drop in originations since the beginning of the financial crisis, when originations fell 31.5 percent. Moreover, the Mortgage Bankers Association projects that mortgage originations could fall to $1.05 trillion in 2011, the lowest level of total originations since 2000 (Economic and Mortgage Commentary, May 2011).

The first quarter's dramatic decline in originations is likely driven by higher interest rates, which are reducing demand for mortgage refinances. If the mortgage origination market is to stay afloat, mortgage demand will have to be driven by new purchases. However, flat activity in housing starts and permits and modest improvements in new and existing home sales suggest that it is unlikely that there will be enough new purchases to offset the decline in mortgage refinances. Higher mortgage interest rates and low consumer demand will likely push mortgage originations to decade lows.

Due to the financial crisis, the mortgage market has been supported by record-low mortgage rates. From September 2008 to the present, the contract interest rates on new and existing housing averaged 5.04 percent and 5.13 percent, roughly 179 and 176 basis points below their averages since 1990. The low rates resulted in a surge in refinance activity. From September 2008 to December 2010, mortgage refinance originations increased from $111 billion to $392 billion, while the share of mortgage refinances, as a percent of total originations, increased dramatically from 36.4 percent to 78.4 percent.

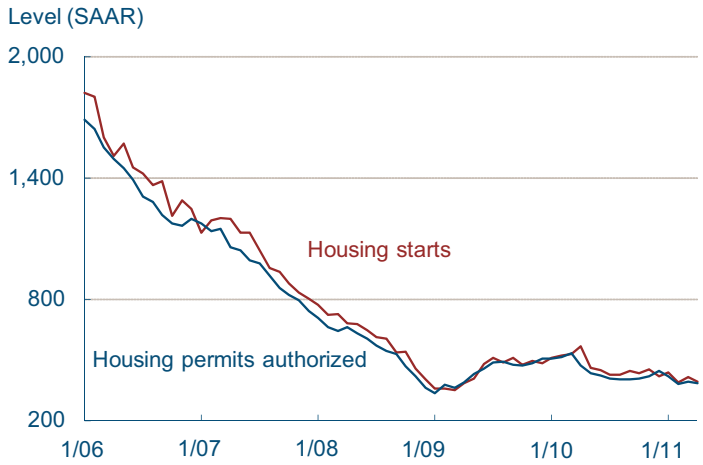
However, recent upward movements in interest rates have caused demand for mortgage originations

Mortgage Refinances



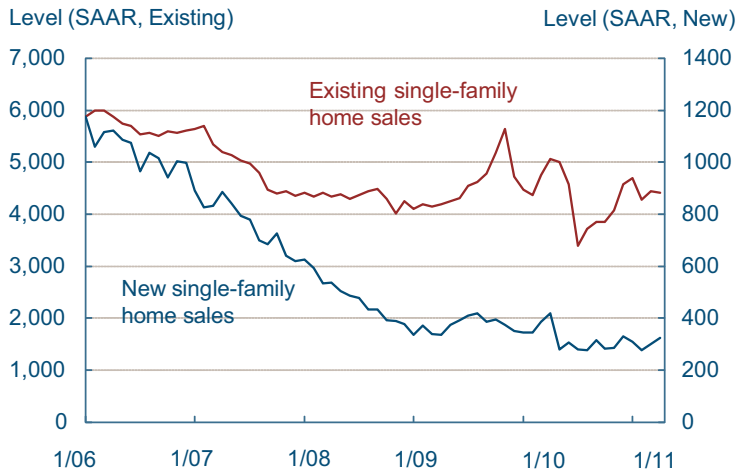
Source: *Inside Mortgage Finance*, April 29, 2011.

Housing Starts and Housing Permits Authorized



Source: U.S. Census Bureau.

New and Existing Home Sales



Sources: National Association of Realtor, U.S. Census Bureau, Haver Analytics.

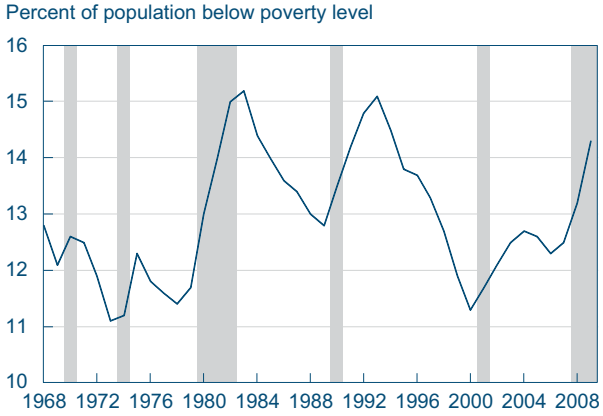
to decline. Since December 2010, the contract interest rate on new single-family homes has risen 50 basis points, while mortgage refinances have plummeted 40.1 percent to $235 billion. While the share of mortgage refinances in total originations is still relatively high at 72.3 percent, the Mortgage Bankers Association expects mortgage rates to increase further to 5.5 percent by the end of 2011. With the expected increase in mortgages rates, the Association expects the mortgage refinance share of total mortgage originations to decline from 70 percent to 54 percent.

If mortgage rates rise and demand for mortgage refinances falls as predicted, the demand for mortgage originations will be more dependent on new purchases. The latest housing start and permit data as well as new and existing home sales suggest that it is unlikely that there will be enough new purchases to offset the decline in mortgage refinances. Housing starts of single-family homes stood at 394,000 in April, slightly above the all-time low of 353,000 recorded in March 2009. While there has been some improvement in sales of new and existing single-family homes, neither trend suggests significant purchasing activity going forward. Since 2006, new and residential single-family homes sales are down 43.4 percent and 76.3 percent from their respective highs.

Given the prospect of higher mortgage rates, stagnant growth in housing starts and permits, and low levels of new and existing housing sales, purchase originations are unlikely to grow sufficiently to offset the decline in refinance originations. Consequently, mortgage production is likely to continue to struggle as the economy recovers.

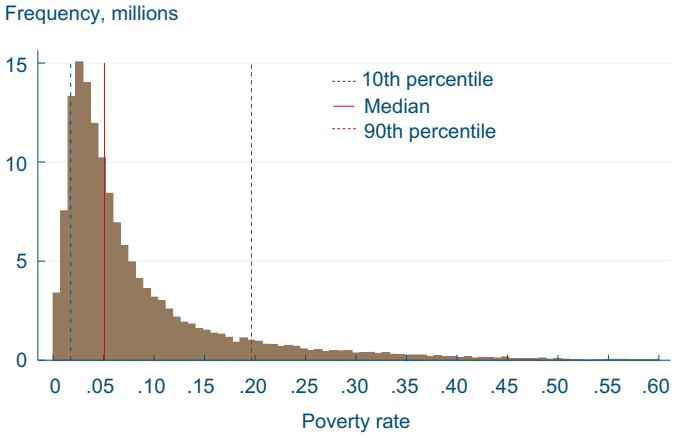
Neighborhood Poverty Rates between 1970 and 2000

U.S. Poverty Rates



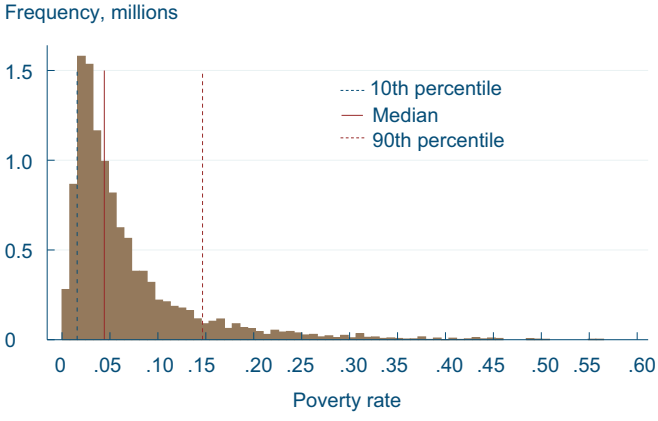
Note: Shaded bars indicate recessions.
Source: Census/Haver.

U.S. Population by Neighborhood Poverty Rate, 1970



Note: A neighborhood is defined as the census tract of residence.
Sources: U.S. Census, National Historical Geographic Information System.

Fourth District Population by Neighborhood Poverty Rate, 1970



Note: A neighborhood is defined as the census tract of residence.
Sources: U.S. Census; National Historical Geographic Information System.

05.20.11

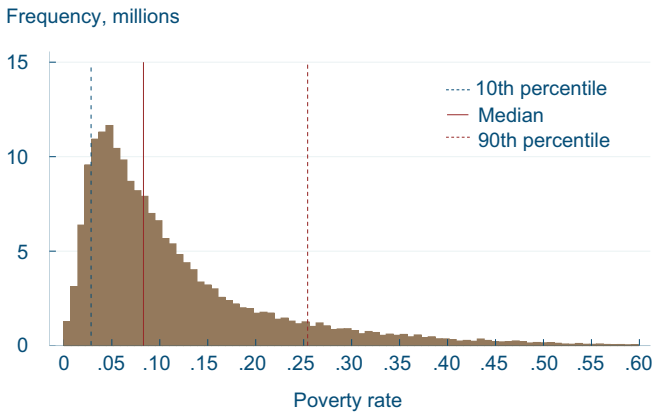
by Dionissi Aliprantis and Mary Zenker

Official poverty statistics in the United States measure the percent of individuals whose income is below a threshold. The Census Bureau defines a set of income thresholds that depend on family size and composition, and family members are considered to be in poverty if their family's total income is less than the specified threshold. Over the last 40 years, poverty rates have varied between 11 percent and 15 percent of the population, with a clear cyclical pattern. The latest figures available are from 2009, and they show a sharp rise in the poverty rate during the last recession.

The official poverty statistics measure poverty as experienced at the level of the family; however, an alternative approach to understanding the effects of poverty is to look at how many people live in high-poverty neighborhoods. It is widely believed that an increased poverty rate at the neighborhood level negatively impacts many other important outcomes, such as crime rates, employment opportunities, and educational attainment. Finding empirical evidence of negative consequences of concentrated poverty has been a focus of much research in the social sciences during recent decades.

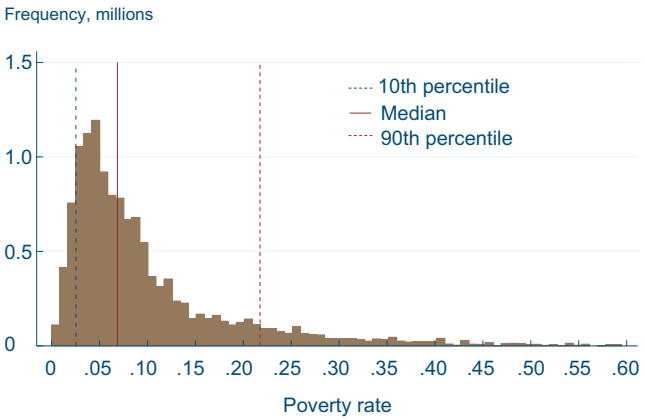
In order to measure trends in the concentration of poverty, we compare poverty rates in different U.S. census tracts, which we will consider to be neighborhoods, over time. We look at how these rates vary across the U.S. and how this variation has changed between 1970 and 2000. (These data are from the decennial census and are obtained from the National Historical Geographic Information System [NHGIS]. Data for 2010 are yet unavailable.) We present the data in histograms of the U.S. and Fourth District populations by the poverty rate of their census tract of residence. Superimposed onto the histograms are lines representing the 10th, 50th, and 90th percentiles of the distributions. These lines indicate the poverty rates to the left of which 10 percent, 50 percent, and 90 percent of the population lived, respectively.

U.S. Population by Neighborhood Poverty Rate, 1980



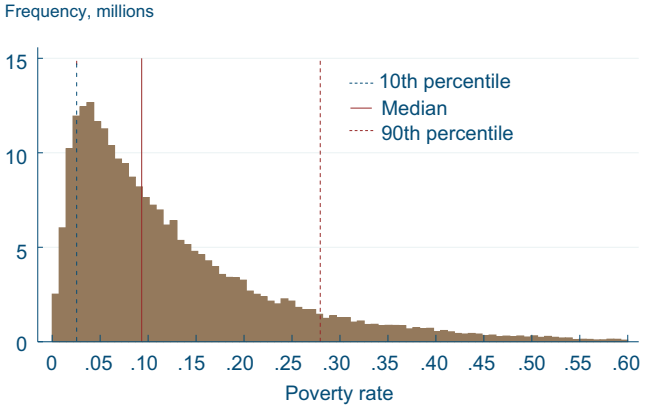
Note: A neighborhood is defined as the census tract of residence.
Sources: U.S. Census; National Historical Geographic Information System.

Fourth District Population by Neighborhood Poverty Rate, 1980



Note: A neighborhood is defined as the census tract of residence.
Sources: U.S. Census; National Historical Geographic Information System.

U.S. Population by Neighborhood Poverty Rate, 1990



Note: A neighborhood is defined as the census tract of residence.
Sources: U.S. Census; National Historical Geographic Information System.

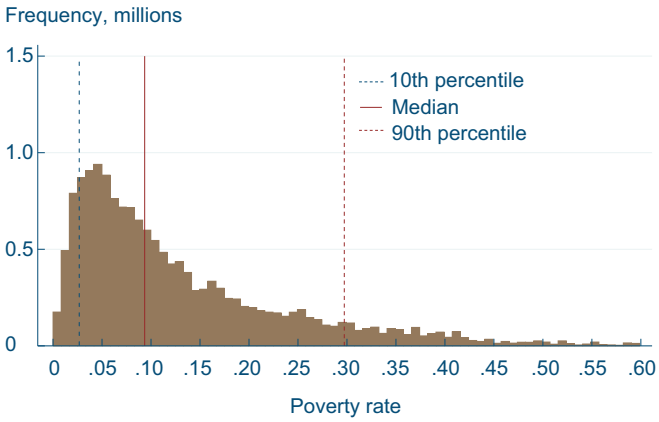
In 1970 the median individual in the U.S. lived in a neighborhood with a poverty rate of 5.1 percent, so that half of Americans lived in neighborhoods with a poverty rate less than or equal to 5.1 percent. In the Fourth District the rate for the median individual was similar, but slightly lower.

These figures also show that the distribution of poverty rates tends to have a long right tail. The 40 percent of the U.S. population that fell in the left tail (between the 10th and 50th percentiles) in 1970, for example, lived in neighborhoods with poverty rates between a narrow range of 1.7 percent and 5.1 percent. However, the 40 percent of the population that fell in the right tail (between the 50th and 90th percentiles) lived in neighborhoods with poverty rates spanning a much broader range, 5.1 percent to 19.6 percent. It is impressive to consider how much variation there is in poverty rates across neighborhoods, and what this may mean for individuals' experiences.

In 1980 many more individuals were living in high-poverty neighborhoods than in 1970. The median individual in the U.S. lived in a neighborhood with a poverty rate of 8.3 percent, and the 90th percentile individual lived in a neighborhood with a poverty rate of 25.4 percent. In 1980 the median individual in the Fourth District lived in a lower-poverty neighborhood than did the median individual in the U.S. The same was true of the 90th percentile individual in the Fourth District, who lived in a census tract with a 21.7 percent poverty rate.

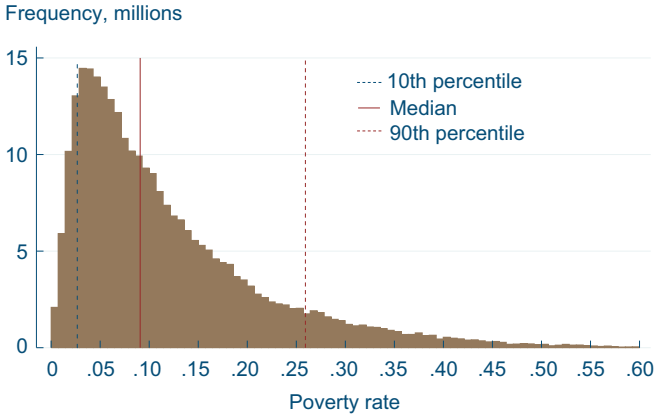
Between 1980 and 1990 there was again an increase in the number of people living in high-poverty neighborhoods. The median individual in the U.S. now lived in a neighborhood in which 9.3 percent of the residents were in poverty, and the poverty rate in the neighborhood of an individual in the 90th percentile had increased to a rate of 27.9 percent, an increase of 8.3 percent since 1970. We can also see that at some point between 1980 and 1990 the right tail of the distribution became worse for the Fourth District than for the nation as a whole. Although the 90th percentile was lower in the Fourth District than the nation in 1970, the increase in high-poverty neighborhoods between

Fourth District Population by Neighborhood Poverty Rate, 1990



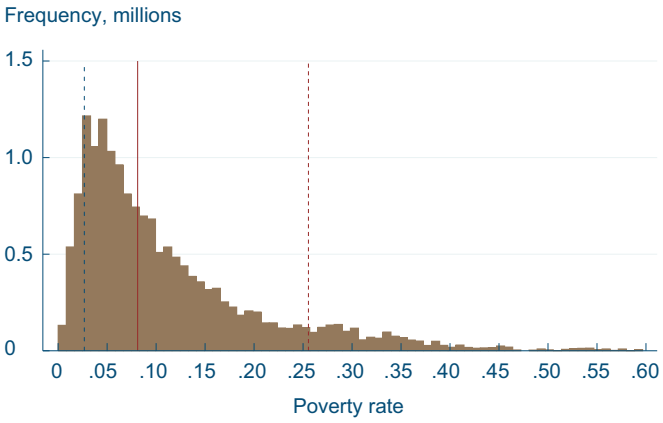
Note: A neighborhood is defined as the census tract of residence.
Sources: U.S. Census; National Historical Geographic Information System.

U.S. Population by Neighborhood Poverty Rate, 2000



Note: A neighborhood is defined as the census tract of residence.
Sources: U.S. Census; National Historical Geographic Information System.

Fourth District Population by Neighborhood Poverty Rate, 2000



Note: A neighborhood is defined as the census tract of residence.
Sources: U.S. Census, National Historical Geographic Information System.

1970 and 1990 was even greater in the Fourth District than the nation as a whole, causing these 90th percentile bars to switch order by 1990. By 1990, the 90th percentile of the Fourth District had moved all the way to 29.7 percent.

Things improved between 1990 and 2000, but this improvement did not return the right tails of these distributions back to where they were in 1970. At 9.1 percent, the median neighborhood poverty rate in the U.S. was still higher in 2000 than it was in 1980, but the 90th percentile became comparable to its 1980 rate. In contrast, although the right tail of the distribution improved between 1990 and 2000 in the Fourth District, this improvement was still not enough to return it even to 1980 levels. The median individual in the Fourth District lived in a neighborhood with a poverty rate of 8.1 percent in 2000, and the 90th percentile was still as high as 25.5 percent.

When we consider all of this evidence together, we see that since the 1970s there has been an increase in the number of Americans living in neighborhoods with high levels of poverty. A particular concern for policymakers is the emergence of many neighborhoods with highly concentrated poverty. Almost nobody lived in a neighborhood in which the poverty rate was 30 percent or more in 1970, but by 1990 a non-negligible number of Americans lived in such neighborhoods, as the distribution of neighborhood poverty rates had shifted substantially. Given the negative impacts of the recent recession, one would expect that the right tails of these distributions would resume their growth between 2000 and 2010. The continued evolution of neighborhood poverty rates will be an issue of great interest for researchers and policymakers when the relevant 2010 census data becomes available this summer.

Reference

Minnesota Population Center. National Historical Geographic Information System: Pre-release Version 0.1. Minneapolis, MN: University of Minnesota 2004. NHGIS website: http://www.nhgis.org.

Metropolitan and Micropolitan Population Growth

06.02.11
by Timothy Dunne and Kyle Fee

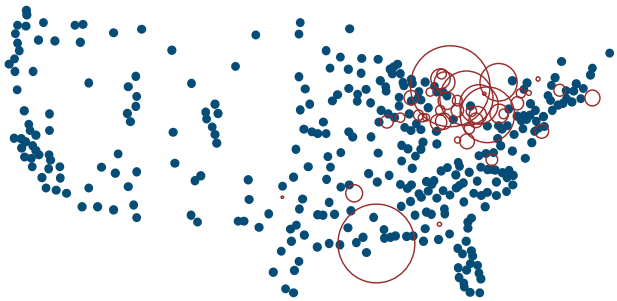
New data from the 2010 Census show that the U.S. population grew by 27.3 million people over the last decade. Most of this expansion was accounted for by growth in larger metropolitan areas, and this is not too surprising, as this is where most of the U.S. population resides. The top 100 metropolitan areas gained 19.8 million people and account for two-thirds of the total population. Still, 48 metros declined in population over the last decade, losing three-quarters of a million people. A striking feature of this population loss in metropolitan areas is how geographically concentrated it is. Apart from the large population loss in New Orleans due to Katrina, metropolitan population decline in the lower 48 states is concentrated in metro areas near the eastern Great Lakes.

The populations of the Detroit, Pittsburgh, and Cleveland metro areas fell by roughly 3 percent from 2000 to 2010. Smaller metro areas in this area of the country (Flint, Toledo, and Saginaw) also experienced declines, and even growing metro areas in this region (Akron, Rochester, and Syracuse) eked out only small gains.

Larger gains in population were located in metro areas along the eastern corridor from Atlanta to New York, and in Florida, Texas, the Southwest, and the Pacific Coast. The large metropolitan areas of New York, Los Angeles, and Chicago grew by 3 percent to 4 percent, whereas the Houston and Dallas metro areas expanded by 26.1 percent and 23.4 percent, respectively. Houston and Dallas each added over 1.2 million people to their metropolitan areas—the largest absolute gains observed in the country. Growth did occur in some large Midwest metro areas, as well. Columbus, Indianapolis, and Minneapolis all expanded at relatively robust rates over the decade.

The Census Bureau also measures populations in smaller urban areas referred to as "micropolitan areas." Micropolitan areas have urban cores of

Metropolitan Population Loss: 2000–2010



- Metropolitan areas losing population, weighted by the size of population losses
- Metropolitan areas gaining population

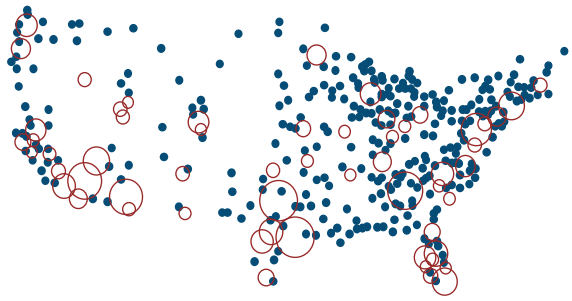
Source: Census Bureau; authors' calculations.

Net Federal Fiscal Year Deficits

Rank	MSA	Loss (number of people)	Growth (percent)
1	Detroit-Warren-Livonia, MI	−156,307	−3.5
2	New Orleans-Metairie-Kenner, LA	−148,746	−11.3
3	Pittsburgh, PA	−74,802	−3.1
4	Cleveland-Elyria-Mentor, OH	−70,903	−3.3
5	Youngstown-Warren-Boardman, OH-PA	−37,191	−6.2
6	Buffalo-Niagara Falls, NY	−34,602	−3.0

Source: Census Bureau.

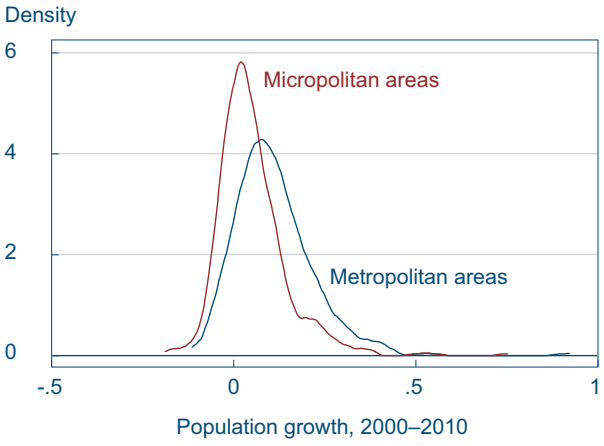
Metropolitan Population Gains: 2000–2010



- Metropolitan areas gaining 100,000 or more population, weighted by the size of population gains
- Metropolitan areas losing population or gaining fewer than 100,000

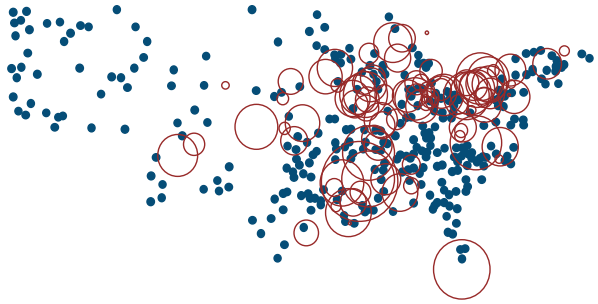
Source: Census Bureau; authors' calculations.

Population Growth Distributions: 2000–2010



Source: Census Bureau; authors' calculations.

Micropolitan Population Loss: 2000–2010



- Micropolitan areas losing population, weighted by the size of population losses
- Micropolitan areas gaining population

Note: The chart includes the 400 largest micropolitan areas.
Source: Census Bureau; authors' calculations.

10,000 to 50,000 inhabitants and range in size from 12,000 to 200,000 people in the 2010 Census data. Micropolitan areas have grown at a slower rate than metropolitan areas over the last decade. Population growth averaged 11.0 percent for the 374 metropolitan areas and only 5.1 percent for the 581 micropolitan areas. Moreover, there is a greater percentage of micropolitan areas undergoing decline (28.7 percent) compared to metropolitan areas (12.8 percent). This is reflected in the fact that the distribution of micropolitan growth rates is shifted well to the left of the metropolitan growth rate distribution.

The population losses in the micropolitan areas are somewhat less geographically concentrated than those in the metropolitan areas. There is still a significant cluster of micropolitan areas around the eastern Great Lakes that are losing population, but there is a bit more dispersion. Indeed, nine out of the ten micropolitan areas with the largest losses in population over the period 2000 to 2010 were in the South. The larger circles on the chart below show population losses in the 3,000 to 6,000 person range, with the largest decline (–11,840) observed in Greenville, Mississippi.

The reason why the urban areas of the eastern Great Lakes have suffered declining populations is multifaceted. Clearly, the population in the core cities of these metro areas has fallen sharply (for a discussion of this trend see this article). The continued after-effects of de-industrialization, older populations, less educated workforces, and the broader trend movement of population to the South have been associated with low population growth in such metropolitan areas. Still, many of these factors are "endogenous," as much a result of the slow population growth of a region as a driver of slow growth.

Further reading:
http://www.clevelandfed.org/research/trends/2011/0411/01labmar.cfm

Investment in Structures Is Still Depressed

06.01.11
by Timothy Bianco and Filippo Occhino

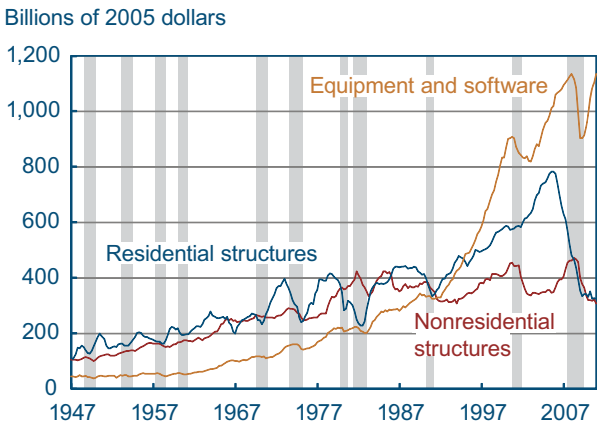
The current business cycle has been atypical along many dimensions. The recession was one of the most severe, and the recovery has been one of the slowest. (Click here for more about the comparison.) One of the striking features of this cycle has been the behavior of private investment in structures, both residential (new houses) and nonresidential (new factories, plants, office buildings, stores, etc.). The percentage drop in private investment in structures has been the largest ever in the last 60 years, and investment in these long-lived assets remains depressed, showing no sign of recovery.

The behavior of residential investment has been particularly unusual. Residential investment grew rapidly during the 1990s and early 2000s and then plunged 59 percent from its 2005:Q4 peak. While residential investment typically bounces back as recessions end, in this recovery the level is still depressed nearly two years after the recession ended. Investment in nonresidential structures dropped 35 percent from its 2008:Q2 peak and continues to decrease.

In contrast, the behavior of the other components of GDP has been more typical. For instance, although private investment in equipment and software dropped by a sizeable 20 percent during the financial crisis, it has since rapidly recovered and is now at pre-crisis levels.

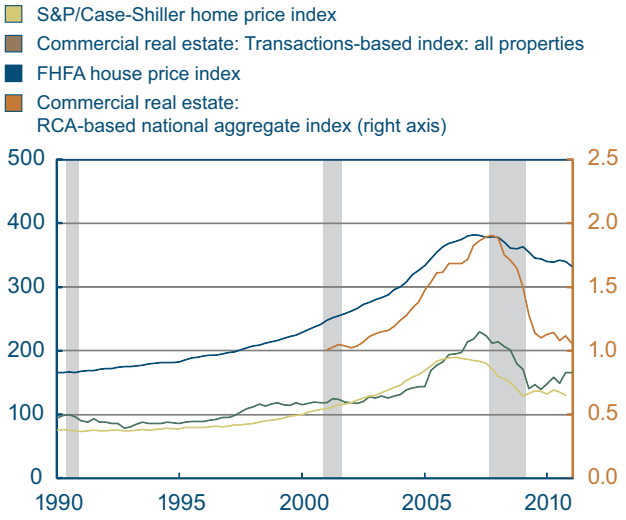
Real estate prices go a long way toward explaining the unprecedented swing in investment in residential and nonresidential structures. Investment in structures responds to the price of these long-lived assets. As the price of structures increases, the anticipated profitability of investing in structures increases, and investment increases and new structures are built. Real estate prices were relatively high before the crisis, plunged during the crisis, and remain at a depressed level. In response, investment in structures was high before the crisis, dropped sizably during the crisis, and remains depressed.

Real Private Investment



Note: Shaded bars indicate recessions.
Source: Bureau of Economic Analysis.

Real Estate Price Indexes



Note: Shaded bars indicate recessions.
Sources: S&P, Fiserv, and Macroeconomics LLC; FHFA; Moody's; MIT Center for Real Estate.

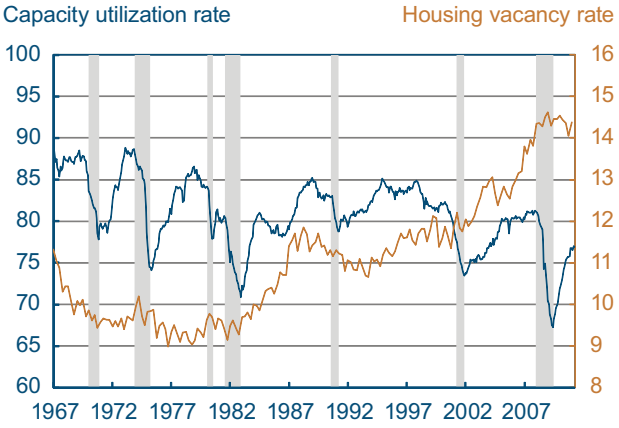
Indeed, some evidence suggests that the collapse in real estate prices was a major factor behind the severity of the last recession and the slowness of the current recovery. In other work, we found that shocks that depressed household balance sheets had played an exceptionally large role in generating the last recession, and we showed that these shocks tend to have long-lasting effects. Since these shocks can be interpreted as unanticipated drops in the price of long-term assets, and of real estate in particular, our results suggest that unanticipated drops in real estate prices contributed to the severity of the recession and the slow pace of the recovery.

In turn, the weakness of the current recovery is one reason real estate prices remain low. It is constraining household income and households' demand for houses. The weak aggregate demand is also discouraging firms from investing in nonresidential structures. Another reason behind the low real estate prices is the large overhang of unused and underutilized structures and the excess capacity present in the economy. The relatively high level of real estate prices before the crisis likely gave overly optimistic signals about the profitability of future investment, encouraging households and firms to overinvest in structures. This generated an overhang of structures, which is now weighing on current real estate prices and investment.

The capacity utilization rate, for instance, dropped to 67.3 percent at the end of the recession. Since then it has been increasing, as firms utilize the excess capacity rather than adding to it by investing in new structures. Likewise, the housing vacancy rate recently reached a record high level of 14.5 percent and is still very close to that level, which is evidence of a large overhang of unoccupied houses.

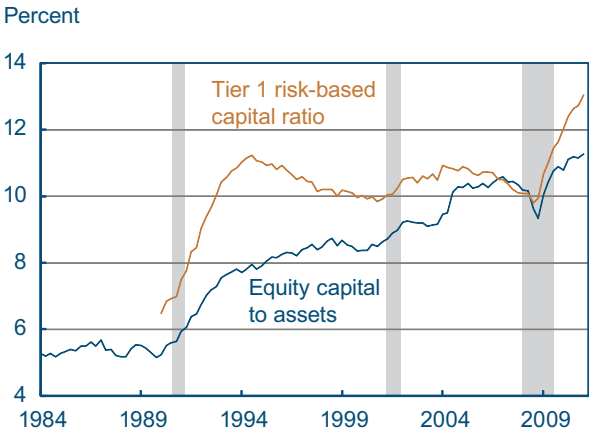
In addition to low real estate prices and the low profitability of investment, credit supply constraints could be another factor restricting investment. Some profitable investment projects may exist but not be undertaken because banks do not fund them. How big a role credit supply constraints are playing in this recovery is not clear though. While lending still shows no sign of growth after falling by approximately 10 percent during and after the recession, it could be entirely due to low investment

Capacity Utilization Rate and Housing Vacancy Rate



Note: Shaded bars indicate recessions.
Sources: Census Bureau; Federal Reserve Board.

Capital Ratios: All FDIC-Insured Institutions



Note: Shaded bars indicate recessions.
Source: Federal Deposit Insurance Corporation.

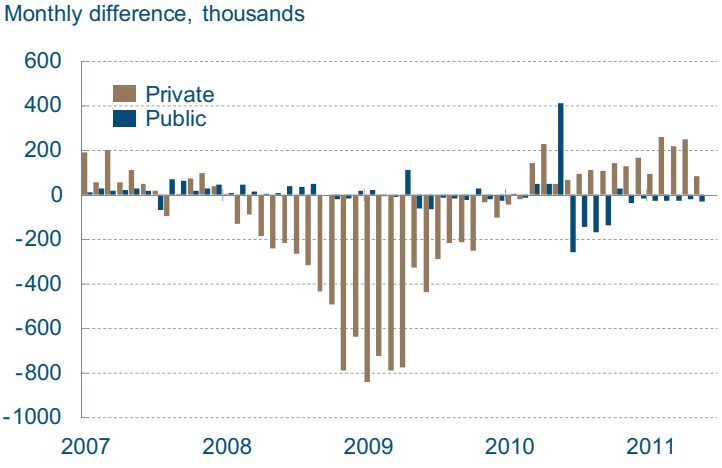
profitability rather than a constrained credit supply. Bank capital ratios are currently at record-high levels, which could suggest that bank balance sheets are strong enough and are not a constraint on the credit supply. However, part of the reason banks are maintaining higher capital ratios is to satisfy higher required capital standards, current or anticipated under Basel III. This may be limiting the amount of credit that they are willing to extend.

Overall, the weak and uncertain profitability of investment projects seems to be the main reason behind the depressed levels of investment in structures. The large overhang of unused and underutilized structures needs to be absorbed, and a more robust recovery needs to take hold before we will start to see real estate prices picking up, making investment more profitable, and encouraging businesses to increase their investment in structures.

Manufacturing Hours and Employment in the Recovery

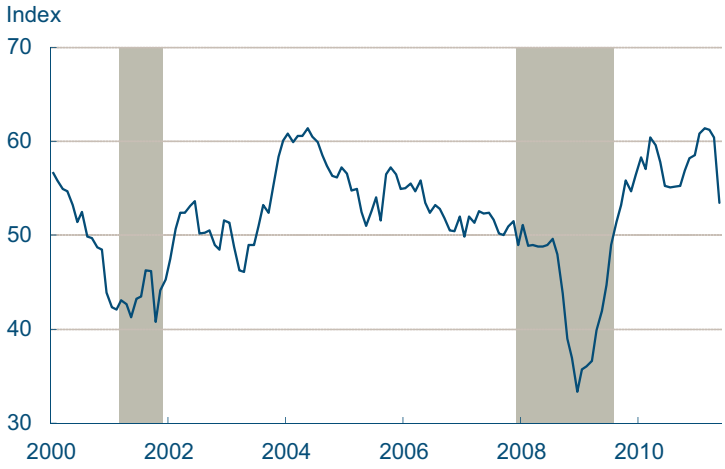
06.07.11
by Timothy Dunne, Kyle Fee and John Lindner

Nonfarm Payroll Employment



Source: Bureau of Labor Statistics.

ISM Manufacturing: Diffusion Index



Note: Shaded bars indicate recessions.
Sources: Institute for Supply Management.

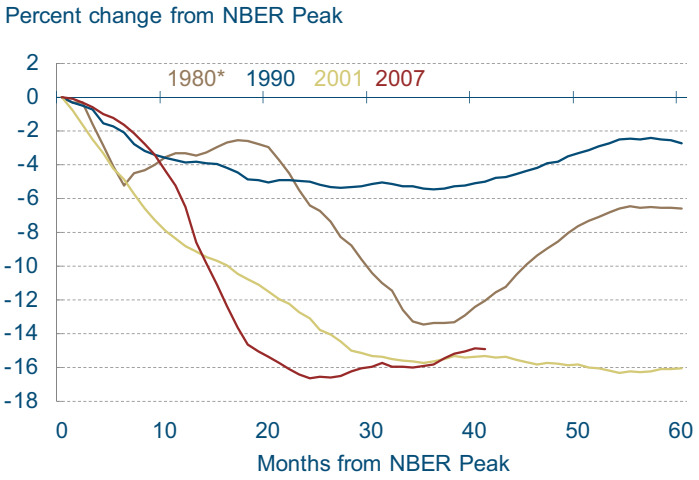
The labor market showed a bit of weakness in May, gaining only 54,000 jobs. This is well below the rate observed since the beginning of the year. The unemployment rate also ticked up by 0.1 percent to 9.1 percent.

Part of May's shortfall was due to weak employment growth in the manufacturing sector. Total manufacturing employment declined by 5,000, and employment in motor vehicles and parts fell by 3,400. There was some evidence that Japanese supply-chain issues reduced production during the month, and May's Institute of Supply Managers (ISM) report also showed a deceleration in the expansion of the manufacturing sector, with the index dropping from 60.4 to 53.5.

There has been some recent discussion of manufacturing leading the way out of the last recession; however, one sees little evidence of this view in terms of employment growth. Growth in manufacturing employment closely matches the gain seen in the rest of the private sector. Since the employment low in manufacturing was reached in December 2009, the manufacturing sector has added 238,000 jobs, a rise of 2.08 percent over the 18-month period. Other sectors have gained 1.93 percent.

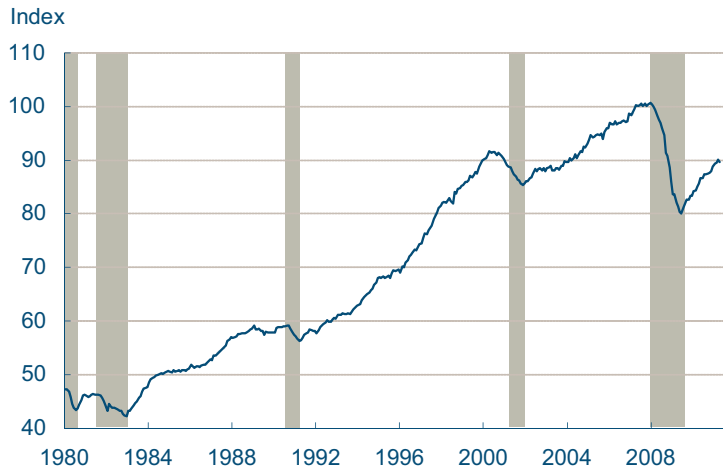
One might have expected a larger rebound in manufacturing employment, especially given the magnitude of the sector's job loss during the recession and the subsequent rise in industrial production. Industrial production in manufacturing has risen by 12 percent since the end of the recession. This rising production reflects increases in sales and the rebuilding of inventories. More specifically, there has been a substantial increase in export activity for manufactured goods; automobile production has rebounded some off of very low levels, notwithstanding the slowdown in May; and computer-related technology industries have expanded production at a relatively strong pace.

Manufacturing Payroll Employment



Note: 1980 and 1982 recessions are combined.
Source: Bureau of Labor Statistics.

Manufacturing Industrial Production

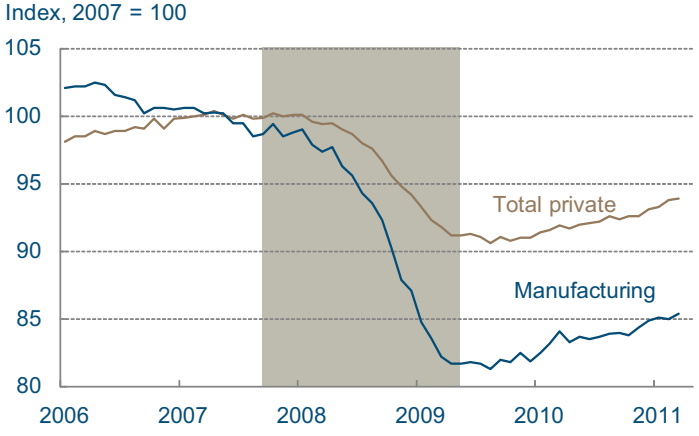


Note: Shaded bars indicate recessions.
Source: Federal Reserve Board (SIC).

One reason for the muted employment gains is that during the recession firms not only cut employment levels but also reduced the average weekly hours of their remaining workforces. Total hours, the sum of all hours worked in the manufacturing sector, declined by 17.8 percent over the recession, somewhat more than the level of employment losses that were sustained. However, since the end of the recession in June of 2009, manufacturers have been increasing both average weekly and overtime hours. Indeed, all of the rise in manufacturing hours since the end of the recession can be accounted for by the increase in the intensity of labor utilization—employees working longer days or work weeks. A second reason is that labor productivity in manufacturing has continued to rise—an hour of work can produce more output than it did prior to the recession.

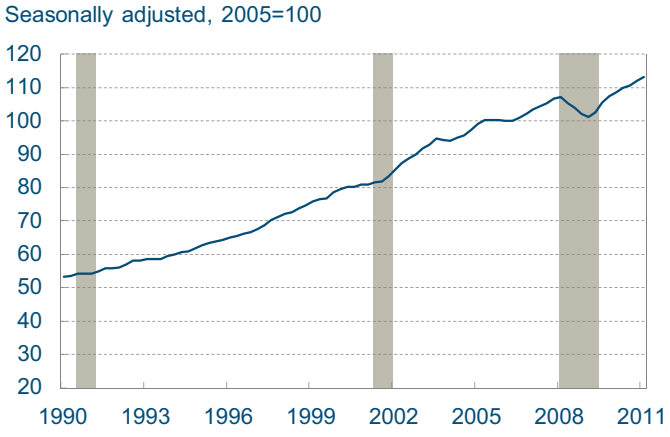
Given that average weekly and overtime hours in manufacturing are at pre-recession levels (40.6 and 4.1 hours, respectively), it is likely that increases in labor utilization going forward are more likely to come from the hiring margin. However, any such gains will depend on further expansion in industrial output and the pace of growth in labor productivity.

Aggregate Weekly Hours Index



Note: Shaded bar indicates recession.
Source: Bureau of Labor Statistics.

Labor Productivity: Manufacturing



Note: Shaded bars indicate recessions.
Sources: Bureau of Labor Statistics, Haver Analytics.

Wages, Expectations, and Prospects for Inflation

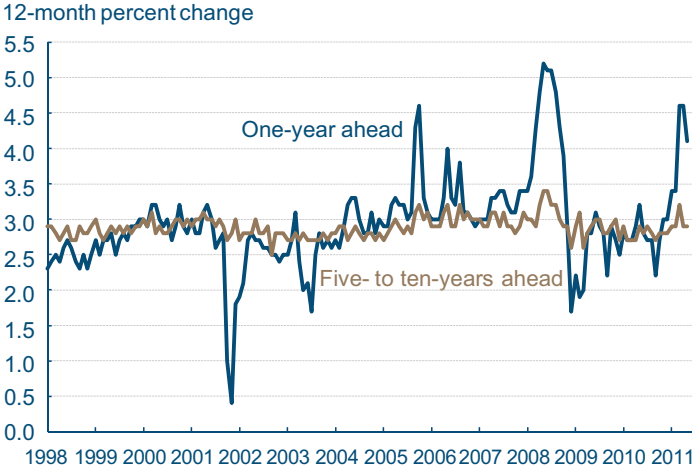
05.27.11
by Brent Meyer

Over the past six months, food and energy prices have risen at an annualized rate of 17 percent, prompting speculation of a possible price-wage spiral that will result in rampant inflation. A wage-price spiral occurs when wage earners start to demand higher nominal wages just to keep up with rising inflation (trying to hold real incomes constant). In turn, these wage increases raise the costs of production, which squeezes margins and induces business owners to raise prices. These even-higher prices then push wage earners to try and negotiate even higher wages, which again prods businesses to raise prices, and so onâ€¦resulting in a rapid run-up in inflation.

For some, this argument may be a nonstarter, given that a wage-price spiral usually requires competitive (or "tight") labor markets. In the absence of a tight labor market, the wage-earner will not hold enough bargaining power to be able to force the firm to acquiesce. With an unemployment rate at 9.0 percent and an employment-to-population ratio that has barely edged up from its current cyclical low, it would be hard to argue that labor markets are anything close to "tight." Nevertheless, we have some data that might help spot this inflationary pressure, should the pace of economic activity quicken and labor market slack dissipate.

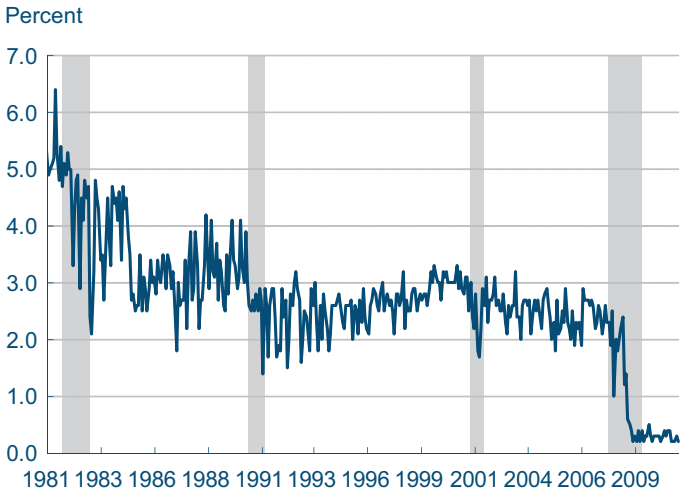
As workers and business owners start to see price pressure building, their concern is likely to play into their inflation expectations. Median year-ahead inflation expectations actually edged down to 4.1 percent in May, compared to 4.6 percent in April. The statement that accompanied the data release noted that the downtick was connected to an expectation that gas prices will decrease. Longer-term (5- to 10-year) median inflation expectations held at 2.9 percent in May, remaining near pre-recession levels. Moreover, the latest estimate from the Cleveland Fed's model of inflation expectations suggests that the public expects inflation over the next 10 years to average a relatively low 1.9 percent.

Household Inflation Expectations



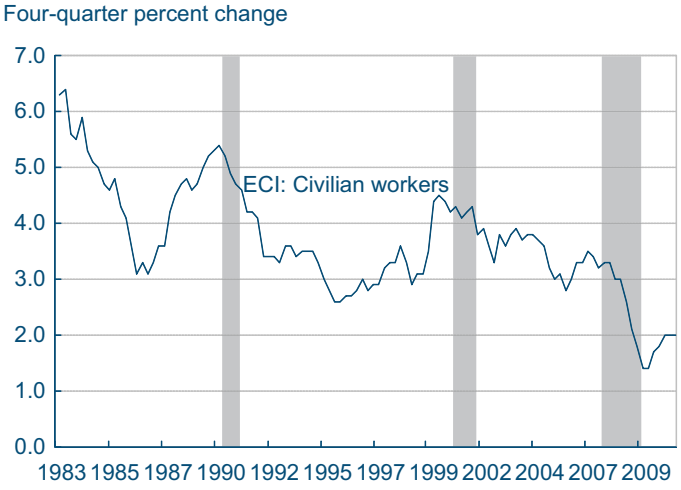
Note: Mean expected change as measured by the University of Michigan's *Survey of Consumers*.
Source: University of Michigan.

Expected Change in Family Income



Note: Shaded bars indicate recessions.
Source: University of Michigan, Survey of Consumers.

Employment Costs



Note: Shaded bars indicated recessions. Editor's note: The chart was updated on 6/1/2011 to correct the placement of the recession bars.
Source: Bureau of Labor Statistics.

Another measure of forewarning about a wage-price spiral can be gleaned from certain survey data. In addition to inflation expectations, the University of Michigan's Survey of Consumers also asks participants about their future income prospects. They are asked: "By about what percent do you expect your (family) income to increase during the next 12 months?" Individuals who feel confident about their ability to demand higher wages in response to rising prices would likely expect rising family income. In stable economic conditions, individuals typically expect their family's income to roughly keep pace with inflation. However, about midway through the last recession, the median expectation plummeted from around 2.0 percent to near zero, and it has continued to hover at an all-time low of 0.2 percent. If inflation were to increase at about 2 percent over the next year and the income expectation materialized, that would mean the median individual's real income would fall.

Data on compensation tell a similar story about the lack of wage pressure. The Employment Cost Index (ECI)—which includes wages, salaries, and employer costs for employee benefits—slowed markedly during the recession, bottoming out at a four-quarter growth rate of 1.4 percent shortly after. While the year-over-year trend has edged up to 2.0 percent as of the first quarter of 2011, it is still 1.3 percentage points below its 20-year average.

In light of relatively slow compensation growth, slack labor markets, and a somewhat bleak expectation of future income gains, it's hard to imagine that recent spikes in food and energy prices have touched off a price-wage spiral. More likely, these relative-price increases will cause consumers to trim spending elsewhere in their budget or save less before they go asking for a raise.

Economic Trends is published by the Research Department of the Federal Reserve Bank of Cleveland.

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