

Economic Trends

July 2013 (June 12, 2013-July 11, 2013)

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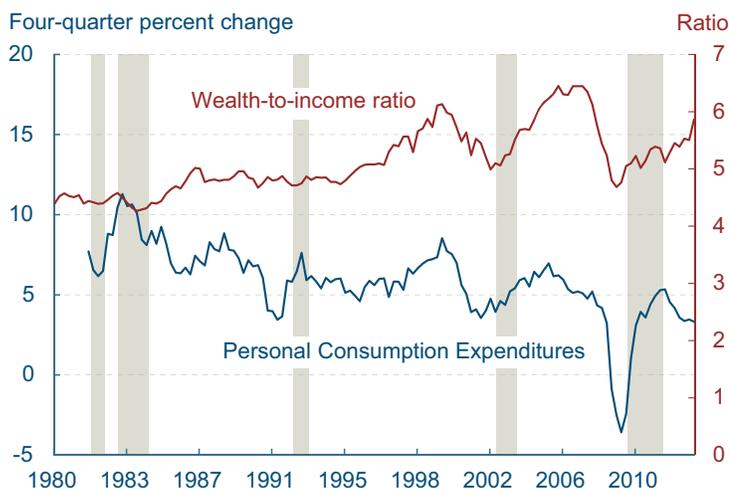
FEDERAL RESERVE BANK
of CLEVELAND

Changes in Households' Balance Sheets

06.26.13

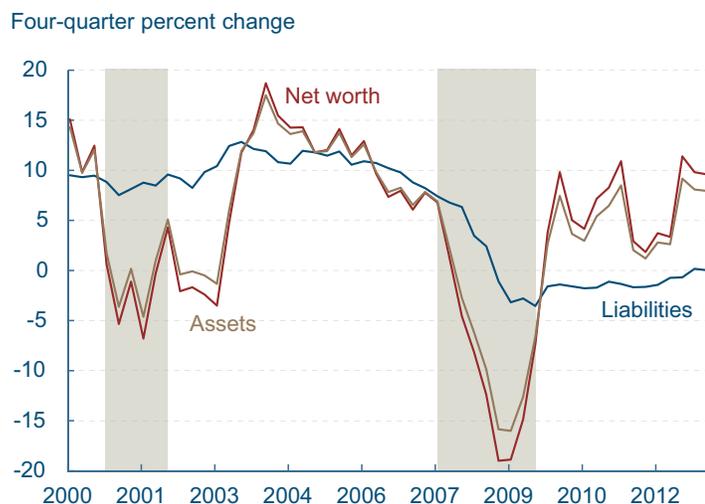
by O. Emre Ergungor, Patricia Waiwood, and Caleb Brantner

Household Wealth and Consumption



Notes: Wealth is defined as household net worth. Income is defined as personal disposable income. Shaded bars indicate recessions.
Source: Bureau of Economic Analysis, Board of Governors of the Federal Reserve System.

Household Balance Sheet



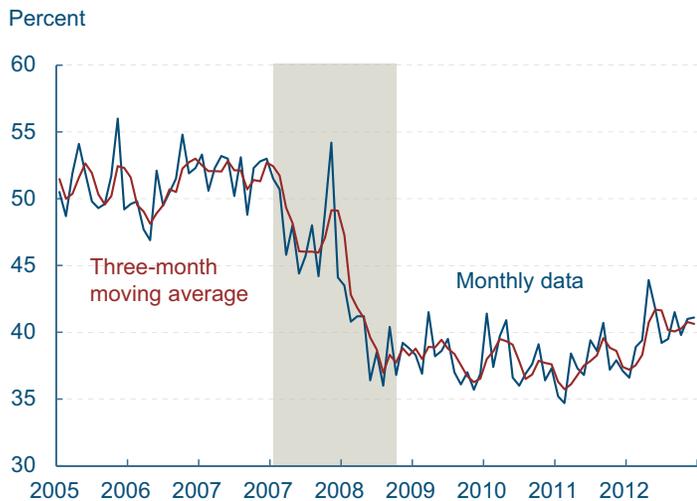
Note: Shaded bars indicate recessions.
Source: Board of Governors of the Federal Reserve System.

For a few years before the recession, Americans had reason to feel richer. Their wealth was nearly seven times their income in 2005, and the situation remained that way until the recession began. Following the 2008 financial crisis, the ratio of wealth-to-income fell back to its long-term trend. Since then, household wealth has been growing faster than income, having reached, once again, nearly six times income in the first quarter of 2013. Does the similarity of this growth now and before the crisis give cause for concern? Our conclusion is: no. Households have been more cautious during the recovery, and the drivers of household net worth are different this time.

One of the marks of the pre-recession period was that households financially overextended themselves. Yet a quick look at households' current balance sheets shows that consumers aren't as highly leveraged as they were before the recession. Yearly growth in households' total liabilities slowed and then stalled during the recession, and even now, that metric sits at zero. On the other side of households' balance sheets, yearly growth in households' assets dove to near -20 percent during the recession. However, the metric regained positive territory in late 2009 and now stands at about 8 percent. Meanwhile, yearly growth in personal consumption expenditures (PCEs) dropped during the recession but recovered shortly thereafter. More recently, it reached a post-recession high (5.34 percent) in the third quarter of 2011 and has been falling since. In the first quarter of 2013 it fell further, to 3.32 percent.

Interestingly, post-recession growth in PCEs has not tracked the wealth-to-income ratio as it did before the recession; in other words, growth in PCEs is lingering while the wealth-to-income ratio rises. Perhaps one reason that PCEs are off to a relatively slow start is that consumers' expectations about their financial condition in the future are muted.

Probability that Personal Income Will Increase during the Year Ahead

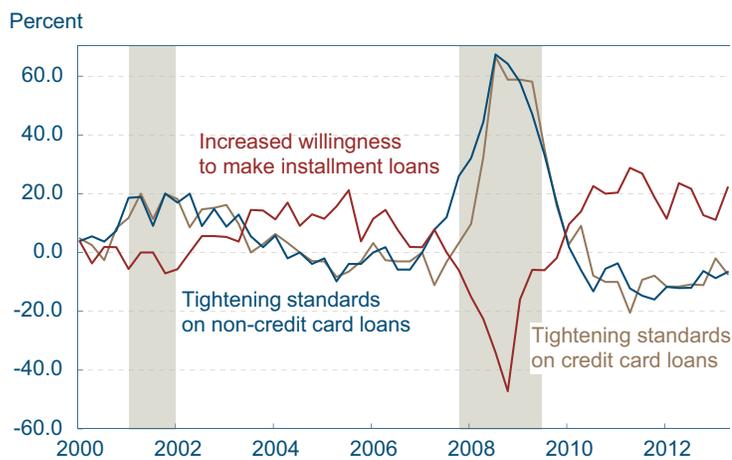


Note: Shaded bar indicates a recession.
Source: University of Michigan.

According to the University of Michigan's monthly Survey of Consumers, Americans are slowly raising their expectations of personal income growth. The survey shows that the mean probability that personal income will increase during the year ahead reached 41.7 percent at the end of 2012. Although this figure is substantially lower than pre-recession highs, it shows that expectations are slowly gaining steam.

A look at consumer debt gives us insight into consumers' borrowing behavior of late. During the recession, loans were harder to obtain, as banks began tightening their lending standards. After the recession ended in mid-2009, banks began gradually loosening their restraints on consumer loans in order to fuel lending. Concurrently, the net percentage of loan officers willing to make new installment loans has reached a new high, according to the Senior Loan Officer Opinion Survey.

Survey Measure of Supply of Consumer Loans



Note: Shaded bars indicate recessions.
Source: Senior Loan Officer Opinion Survey.

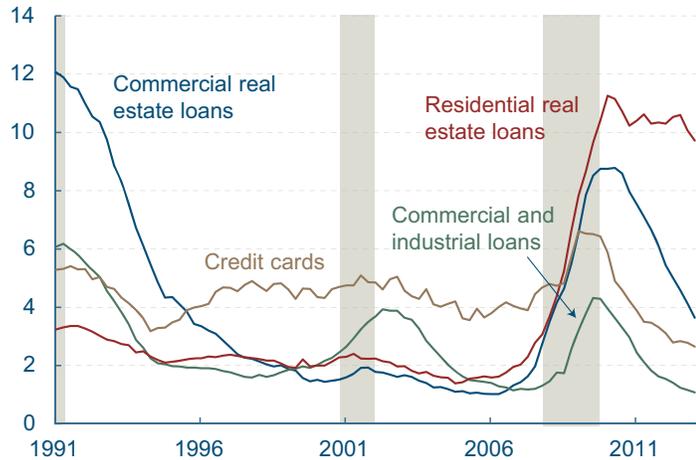
Before the recession, loan standards were relatively low, which fueled irresponsible lending. Currently, loan standards are looser than pre-recession standards, in order to kick-start lending. With lower loan standards and expectations for higher income in the future, will Americans return to their excessive borrowing behavior?

During the recession, delinquency rates were dangerously high. Following the recession, residential real-estate loan delinquencies reached 11.26 percent of average loan balances. Commercial real-estate loan delinquencies reached 8.78 percent, while credit card delinquencies reached 6.61 percent. The lowest percent of delinquency rates came from commercial and industrial loans at just 4.32 percent. Now, however, various loan delinquency rates, save for residential real estate loans, have descended to pre-recession levels, as the proportion of households' incomes devoted to paying down debt continues to smoothly decline.

That is not to say that households are completely unleveraged. In fact, outstanding consumer credit stood at \$2.82 trillion in April. Notice, though, that while the amount of nonrevolving credit (such

Delinquency Rates

Percent of average loan balances



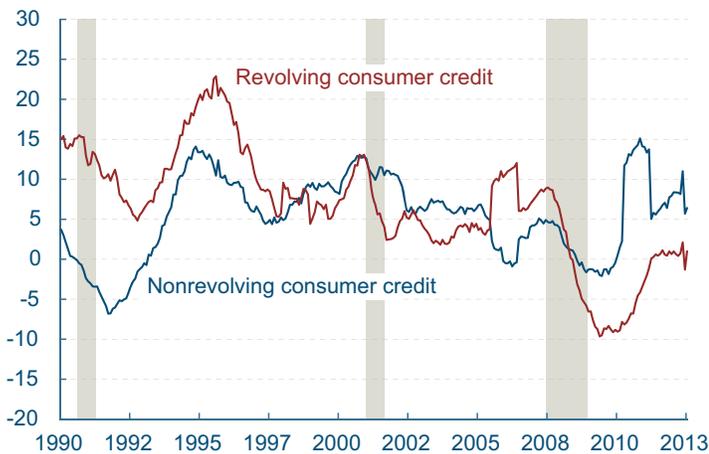
Note: Shaded bars indicate recessions.
Source: Board of Governors of the Federal Reserve System.

as student loans and auto loans) in the economy is increasing, the amount of revolving credit (such as credit cards) hasn't changed much at all over the past few months.

In conclusion, consumers seem to be proceeding with caution. Their expectations about their financial condition in the future are gradually improving, but they're not reverting back to the low-savings, high-spending behavior that characterized the pre-recession period.

Outstanding Debt

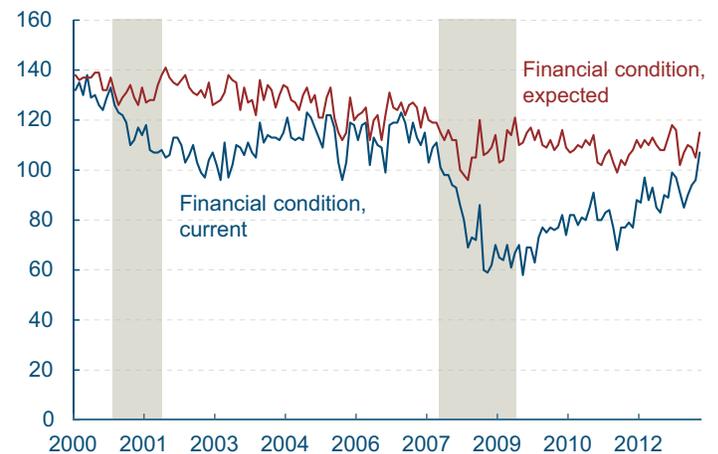
12-month percent change



Note: Shaded bars indicate recessions.
Source: Board of Governors of the Federal Reserve System.

Survey Measures of Consumer Finances

Index, 1966=100



Note: Shaded bars indicate recessions.
Source: University of Michigan.

Rising Asset Ownership Among the Income-Poor

07.11.13

by Daniel Carroll and Kathryn Holston

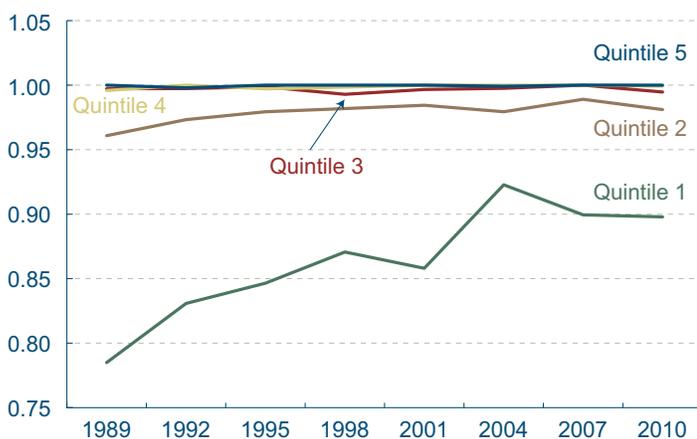
According to the Survey of Consumer Finances, the fraction of low-income households (defined here as the bottom 20 percent by income) with positive assets has risen considerably over the past two decades from 78.5 percent in 1989 to 90 percent in 2010. In contrast, there has been almost no change in the share of households with positive assets within the top four income quintiles over the past 20 years—within these quintiles, nearly all households own assets.

The survey divides asset holdings between financial assets and nonfinancial assets (like houses and cars). Relative to 1989, a somewhat larger fraction of low-income households report owning nonfinancial assets, but there has been a more pronounced increase in the fraction owning financial assets. The share of households that owns some financial assets surpassed the share that owns some nonfinancial assets in every year except 1989. Additionally, growth in the share of households owning financial assets has outpaced growth in the share owning nonfinancial assets over the past two decades.

A closer look at what the wealth of the lowest income quintile consists of reveals that ownership of liquid accounts like checking accounts (counted under financial assets) has been growing steadily for the past two decades. In 2010, about three-fourths of low-income households reported owning liquid accounts, compared to just over half of these households in 1989. In contrast, there has been almost no change in home ownership over the past 20 years.

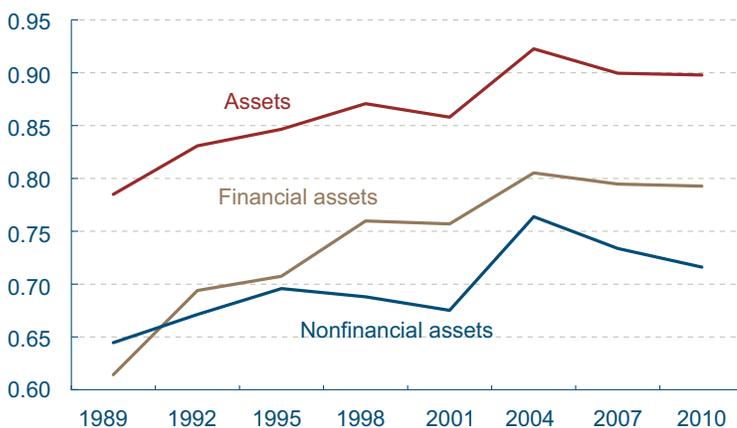
One possible explanation for this trend of increasing financial asset ownership is that the age composition of the bottom quintile may have shifted toward older households, who tend to have more financial assets than their younger counterparts. However, we do not find any dramatic change in the age distribution of heads of households in this income quintile since 1989. Additionally, the share

Percentage of Households Owning Assets by Quintile



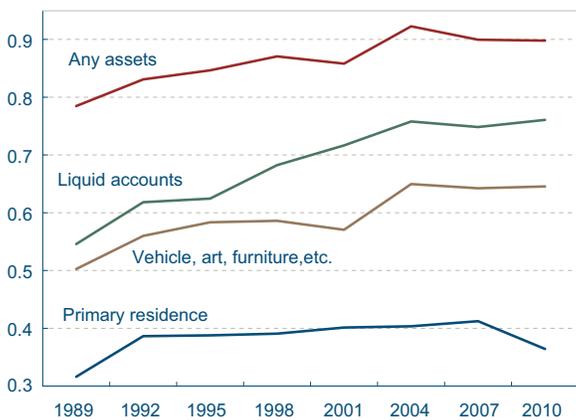
Source: Board of Governors of the Federal Reserve System, Survey of Consumer Finances.

Wealth of the Bottom 20 Percent of Income: Percentage Owning Each Type of Asset



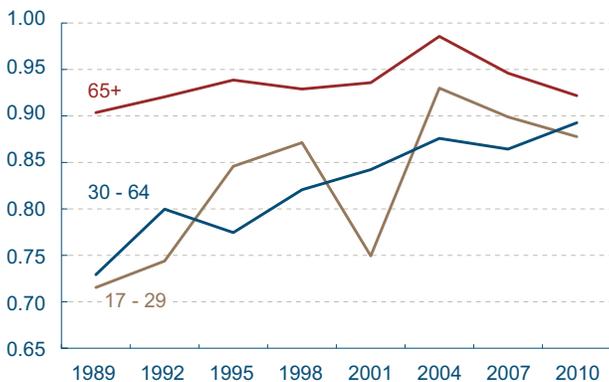
Source: Board of Governors of the Federal Reserve System, Survey of Consumer Finances.

Wealth of the Bottom 20 Percent of Income: Percentage Owning Each Type of Asset



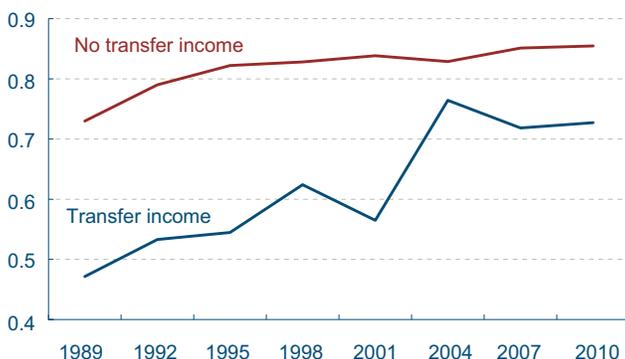
Source: Board of Governors of the Federal Reserve System, Survey of Consumer Finances.

Percentage of the Bottom Income Quintile Owning Assets by Age Group



Source: Board of Governors of the Federal Reserve System, Survey of Consumer Finances.

Percentage of Bottom Income Quintile Owning Financial Assets by Transfer Income Status



Source: Board of Governors of the Federal Reserve System, Survey of Consumer Finances.

of low-income households with positive assets has remained relatively constant for households that are headed by someone who is 65 or older. In contrast, the share that owns assets has increased sizably for households in which the head is younger than 64. This is true for the subset of households headed by those under 29 and the subset headed by those 30–64. The percentage of households owning assets in both of the two lower age brackets increased from less than 75 percent in 1989 to almost 90 percent in 2010, mirroring the growth in overall asset ownership.

An alternate explanation is that a shift to electronic transfer payments for government aid benefits may have resulted in increased ownership of financial assets among those that receive transfer income. Over the time period in question, many states began to transfer government aid benefits solely through direct deposit or other electronic means. Households receiving such aid make up a sizeable minority of low-income households. On average over the last 20 years, almost 40 percent of these households have received some type of aid transfers (such as food stamps, Temporary Assistance for Needy Families (TANF), etc). Looking at asset ownership, we see that there has been a more substantial increase in financial asset ownership among the low-income households that have received transfer income than among those that have not.

While not conclusive, our findings support the hypothesis that changes in the way transfer aid is distributed is a primary cause for the rise in asset ownership among the income-poor. In light of these findings, one may wonder if the rise in asset ownership has been accompanied by a sizeable rise in the level of wealth among the poor. Specifically, does opening a bank account encourage households to save more? In real dollars the median value of financial asset holdings among the income-poor has increased by almost 50 percent over the period studied. The levels (in 2005 dollars) are still very low, however, with medians of \$307 and \$455 in 1989 and 2010, respectively.

Behind Recent Disinflation: 2010 Redux?

06.24.13

by Edward S. Knotek II and Bill Bednar

Inflation rates have been trending lower since the start of 2012. According to the primary inflation indicators used by the Federal Open Market Committee (FOMC), the year-over-year percent changes in the price index for personal consumption expenditures (PCE) and the index excluding food and energy prices (core PCE) were 0.7 percent and 1.05 percent, respectively, in April. Both inflation rates are well below the FOMC's longer-run inflation goal of 2 percent. In addition, the April core PCE inflation reading is currently the lowest on record.

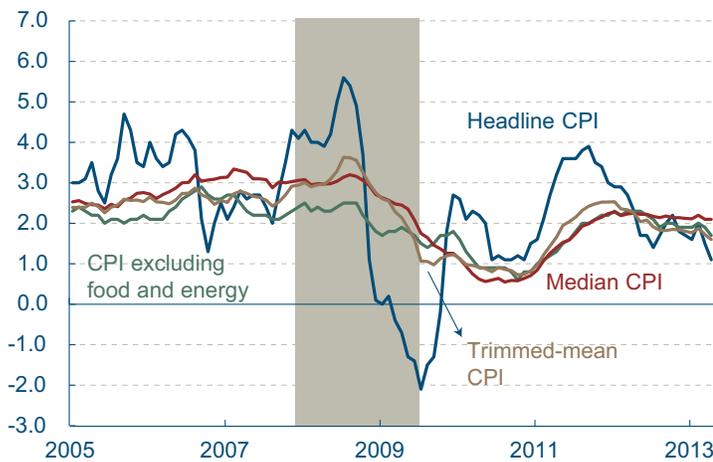
Both inflation rates are also lower than they were in 2010, during the country's last episode of disinflation. Back then, PCE and core PCE inflation reached lows of 1.4 percent and 1.08 percent, respectively. The FOMC's concerns about low inflation during that time were part of the rationale for enacting the Federal Reserve's second large-scale asset purchase program.

While the disinflationary trend is evident across a range of inflation measures, the strength of that trend differs depending on which one you're looking at. Inflation readings based on the Consumer Price Index (CPI), for example, have softened like those based on the PCE. But while the decline in CPI inflation since January 2012 has been comparable to the decline in PCE inflation, the decline in core CPI inflation has been smaller than the decline in core PCE inflation. Meanwhile, median CPI inflation—which provides an alternative measure of inflationary pressure—has been relatively stable; in May, it registered 2.1 percent for the third consecutive month.

The CPI-based measures offer a number of contrasts with the 2010 disinflation. First, core and median CPI inflation are currently running above headline CPI inflation; in 2010, the ordering was reversed. Second, the CPI-based inflation measures have recently been above their PCE equivalents. For most of 2010, both core CPI and median CPI

CPI-Based Inflation Measures

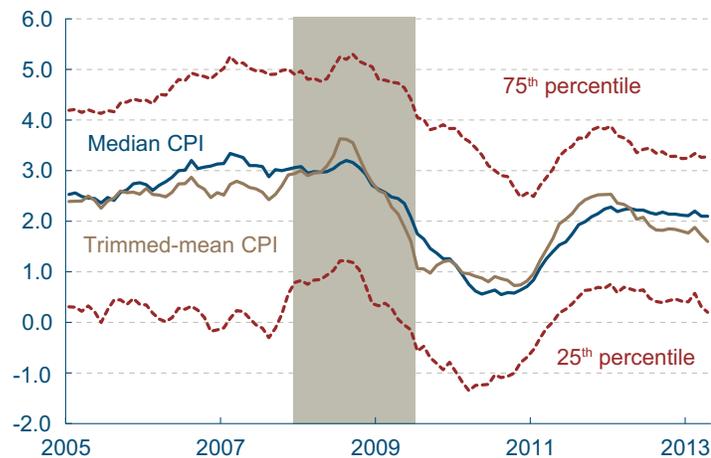
12-month percent change



Note: Shaded bar indicates a recession.
Sources: Bureau of Labor Statistics; Federal Reserve Bank of Cleveland.

Median and Trimmed Mean CPI

12-month percent change



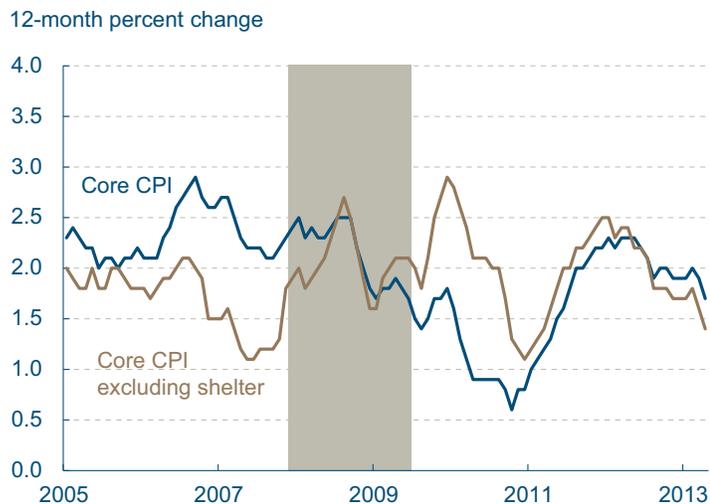
Note: Shaded bar indicates a recession.
Sources: Bureau of Labor Statistics; Federal Reserve Bank of Cleveland; authors' calculations.

Owner's Equivalent Rent of Primary Residency



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

Core CPI With and Without Shelter



Note: Shaded bar indicates a recession.
Sources: Bureau of Labor Statistics, Haver Analytics.

inflation were less than 1 percent, while PCE and core PCE inflation were in the 1-2 percent range. The differing patterns among these various measures suggest that comparisons between the 2010 disinflation and today's disinflation might benefit from digging into the details.

Analyzing goods and services prices separately turns out to provide a fair amount of clarity in understanding both recent inflation trends and how they relate to 2010. These two types of prices are impacted by different factors, and as such they have behaved very differently over time.

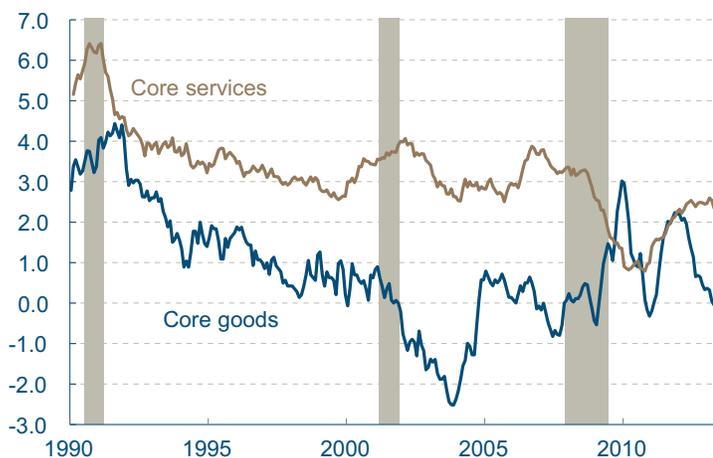
Declines in goods inflation played a key role in the downward movements in overall inflation in 2010 and today. Core goods inflation has recently fallen by about 2 percentage points, according to both the CPI and the PCE price index, and both are now showing modest deflation. A roughly similar decline in core goods inflation occurred in 2010 as well, helping to pull down inflation at that point, too.

While the recent decline in core goods inflation is similar to what occurred in 2010, a look at the components reveals notable discrepancies. In 2010, a weak dollar supported the prices of imported goods, and the cyclical recovery in motor vehicle sales helped to push up the prices of those vehicles. At the same time, weakness in the housing market was associated with relatively strong deflation in the prices of housing-related goods, like furnishings and household equipment and recreational goods and vehicles. More recently, the recovering housing market has pulled housing-related inflation up. At the same time, slowing growth abroad and strength in the dollar have weighed on import prices, and moderation in the motor vehicle recovery has pulled motor vehicle price inflation down toward the general trend in goods prices.

Given the similar trends in both PCE and CPI core goods inflation, both in today's disinflationary period and in 2010, discrepancies between PCE- and CPI-based inflation measures are primarily explained by their services components. The CPI measure of core services inflation was below 1 percent for much of 2010, but it recently has been

Goods and Services Prices

12-month percent change

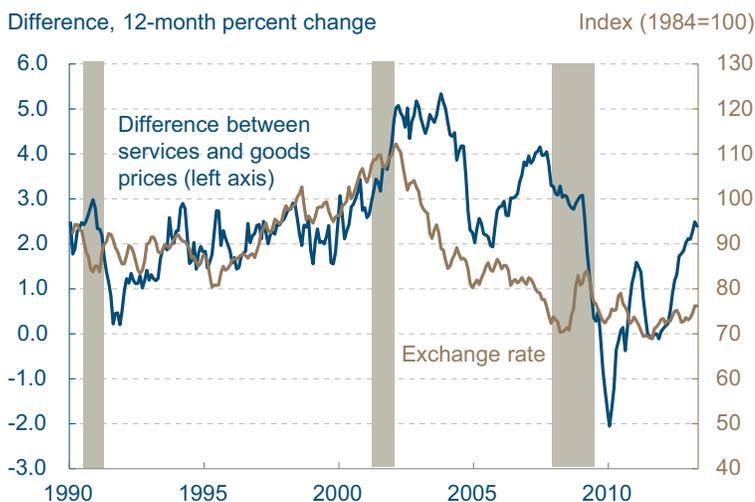


Note: Shaded bar indicates a recession.

Source: Bureau of Labor Statistics.

Inflation Gap and the Exchange Rate

Difference, 12-month percent change



Note: Shaded bars indicate recessions.

Source: Bureau of Labor Statistics, Board of Governors of the Federal Reserve System, authors' calculations.

roughly stable near 2.5 percent. By contrast, the PCE measure of core services inflation remained well above its CPI counterpart in 2010. More recently, it has shown a similar downward drift as occurred in 2010. This drift has amplified the goods disinflation and explains why PCE measures of inflation are running below CPI measures.

A key factor behind the differences in services inflation is how the indexes weight shelter costs. Shelter comprises a larger share of the CPI than the PCE price index. With the housing market and the labor market both weak in 2010, inflation in the shelter component of the PCE price index was also subdued. More recently, as the labor market recovery has slowly progressed and the housing market has improved, rents have been rising and shelter inflation has increased, thereby helping to anchor services inflation in the CPI.

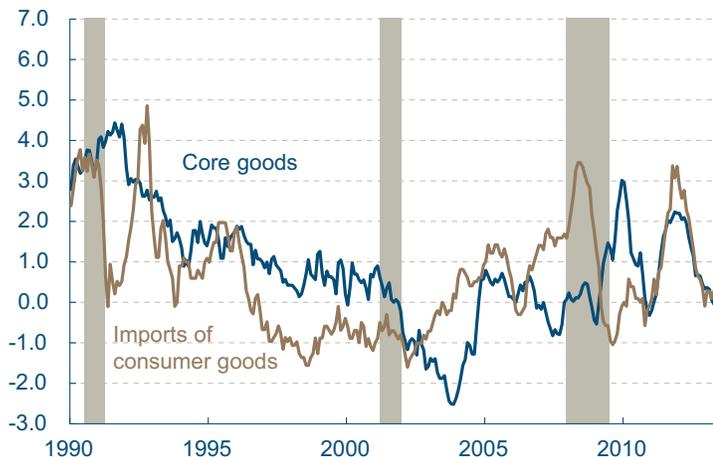
A number of other methodological differences between the indexes are also contributing to more disinflation in core PCE services than in core CPI services. The PCE price index includes broader measures of financial services and insurance, transportation services, and medical care than the CPI. For various reasons, all three of these components have been experiencing low inflation recently, whereas in 2010 they helped to lift core PCE services inflation.

Over a longer time horizon, discrepancies between the behavior of goods and services prices and their impact on aggregate inflation measures are not abnormal. Core services inflation remains historically low, most likely reflecting the weak-but-improving labor market. This would be consistent with subdued demand for consumer services, limited pricing power by businesses, and limited cost pressures coming from labor, as measured by the Employment Cost Index (ECI), for example.

Interpreting recent movements in core goods prices is more difficult. Ongoing deflation among core goods prices was the norm prior to the financial crisis. One possibility is that the surges in goods inflation in 2009 and 2011 were due to transitory factors that have run their course. This possibility suggests that the disinflations in 2010 and 2013—while differing in the details—partly reflect

Goods and Import Prices

12-month percent change



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

goods inflation returning to its longer-term trend. Alternatively, core goods inflation may have entered a new phase in which it is volatile but positive on average, thereby putting some upward pressure on inflation.

With services comprising about two-thirds of the market basket, an upward move in core services inflation in line with an improving economy and rising labor costs will be a key feature in bringing core inflation back toward 2 percent. But this return to 2 percent inflation will take longer if core goods price trends stabilize in deflationary territory.

Yield Curve and Predicted GDP Growth, June 2013

Covering May 21, 2012–June 14, 2013
by Joseph G. Haubrich and Margaret Jacobson

Highlights

	June	May	April
Three-month Treasury bill rate (percent)	0.05	0.04	0.06
Ten-year Treasury bond rate (percent)	2.20	1.93	1.73
Yield curve slope (basis points)	215	189	167
Prediction for GDP growth (percent)	0.4	0.3	0.5
Probability of recession in one year (percent)	4.4	6.1	8.1

Sources: Board of Governors of the Federal Reserve System; authors' calculations.

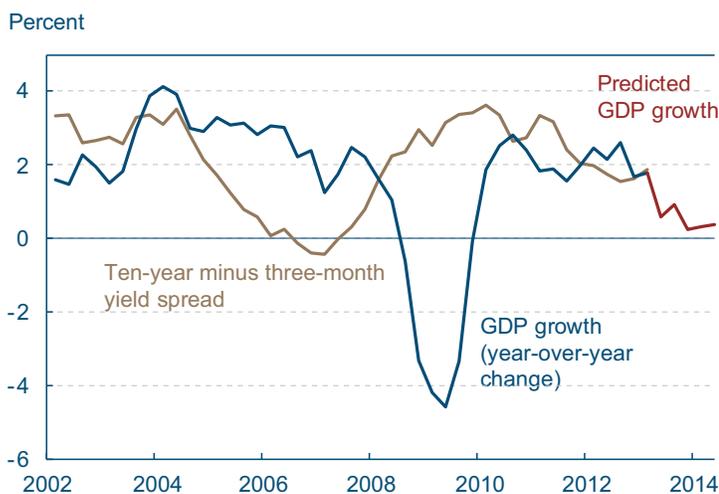
Overview of the Latest Yield Curve Figures

Over the past month, the yield curve moved up, becoming noticeably steeper. Long rates rose a lot, while short rates moved up slightly, increasing the slope even more than last month. The three-month Treasury bill rose to 0.05 percent (for the week ending June 14) just up from May's 0.04 percent and just below April's 0.06 percent. The ten-year rate moved to 2.20 percent, the first reading above 2 percent since March, and up from May's 1.93 percent, and nearly a full half of a percent above April's 1.73 percent. The slope increased to 215 basis points, up from May's 189 and April's 167 basis points.

The steeper slope had a small impact on projected future growth, however. Projecting forward using past values of the spread and GDP growth suggests that real GDP will grow at about a 0.4 percent rate over the next year, barely up from May's 0.3 percent and just down from the April level of 0.5 percent. The strong influence of the recent recession is still 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.

The slope change had a bit more impact on the probability of a 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 June is 4.35 percent, down from May's estimate of 6.1 percent and April's of 8.1 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.

Yield Curve Predicted GDP Growth



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

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 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.

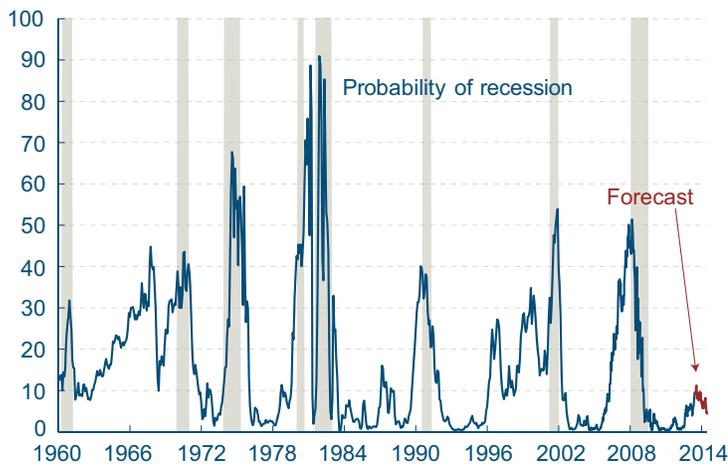
Predicting the Probability of Recession

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 materi-

Recession Probability from Yield Curve

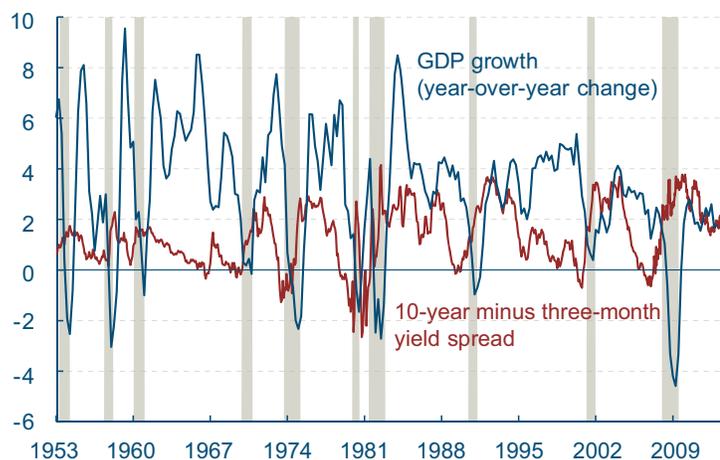
Percent probability, as predicted by a probit model



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

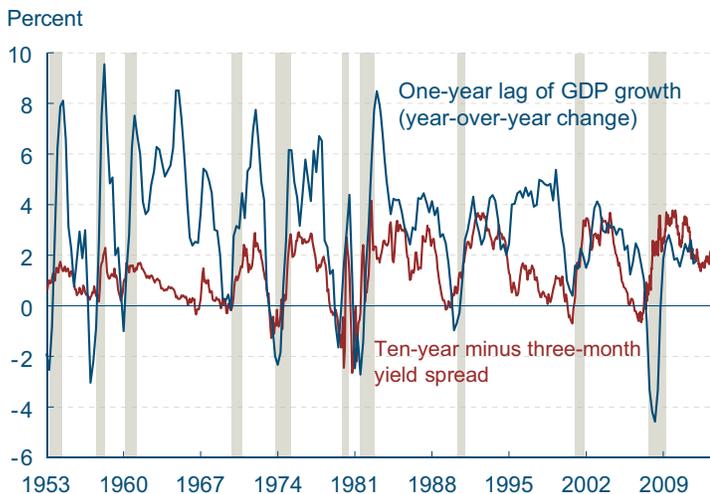
Yield Curve Spread and Real GDP Growth

Percent



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

Yield Spread and Lagged Real GDP Growth



Note: Shaded bars indicate recessions.

Sources: Bureau of Economic Analysis, Federal Reserve Board.

ally 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?” 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.

For more on the yield curve, read the *Economic Commentary* “Does the Yield Curve Signal Recession?” at <http://www.clevelandfed.org/Research/Commentary/2006/0415.pdf>.

For more on the Federal Reserve Bank of New York’s estimate for recession, visit http://www.newyorkfed.org/research/capital_markets/yfaq.html.

Underemployment, College Graduates, and the Recession

06.21.13

by Jon James and Christopher Vecchio

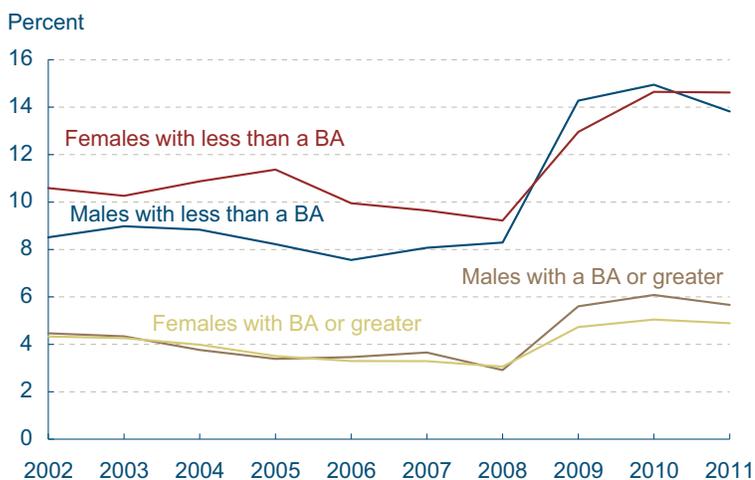
The exceptionally high unemployment rate of recent years indicates that the U.S. workforce has been persistently underutilized. With fewer individuals working than would otherwise be, or those with jobs working fewer hours than they would prefer, the economy is producing at a level far below its potential. This underemployment impacts current standards of living, but it could also have long-lasting effects on workers and the economy.

College graduates in general have fared better than those without a college degree in the conventional measures of underemployment. The unemployment rate for recent college graduates ages 25–29 is currently below 6 percent. This is less than half of the unemployment rate for workers in that age group without a college degree (around 13 percent). Similarly, college graduates have experienced only a mild reduction in full-time employment since the recession, while those with no college degree have experienced a far greater drop-off. Male college graduates, for example, went from around 91 percent working full time before the recession to around 88 percent now, a 4 percent drop. Meanwhile, males with no college degree saw a greater drop, from about 90 percent working full time to 83 percent.

While college graduates have been less susceptible to high unemployment or major reductions in work hours, they face a very different—but potentially equally damaging—form of underemployment in a slack labor market. The problem for these workers, especially those just entering the workforce, is that they may be more likely to take jobs in which they are overqualified. By taking jobs that do not require a postsecondary education, they leave the benefits of their college degrees unused and are likely producing at a level below their full potential.

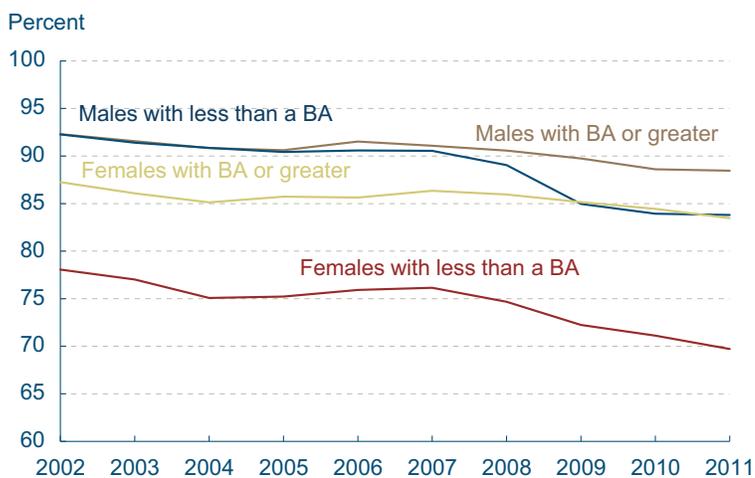
Comparing the top occupations for recent college graduates in 2005 to the top occupations in 2011 provides some evidence that in the last few years,

Unemployment Rate



Sources: American Community Survey, authors' calculations.

Full-time Workers



Sources: American Community Survey, authors' calculations.

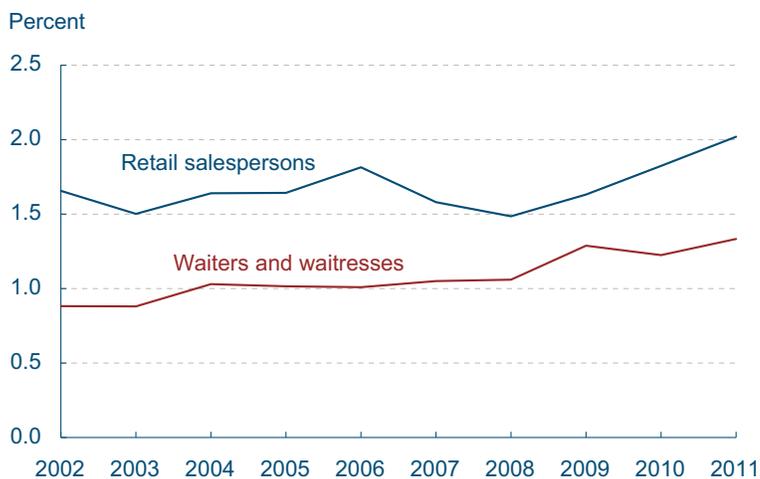
college graduates may have been more likely to take jobs in which they are overqualified. While the set of top occupations has remained the same across the years, there has been some noticeable change in the rankings. For example, retail sales—where a sizeable fraction of workers aged 25–29 do not have a college degree—has climbed from 12th to 7th. Similarly, waiter and waitress occupations (not on the list) has climbed from 23rd to 16th.

Most Popular Occupations for College Graduates

Rank	2005	2011
1	Elementary and middle school teachers	Elementary and middle school teachers
2	Accountants and auditors	Accountants and auditors
3	Postsecondary teachers	Registered nurses
4	Registered nurses	Postsecondary teachers
5	Miscellaneous managers	Miscellaneous managers
6	Secondary school teachers	Computer software engineers
7	Computer software engineers	Retail salespersons
8	First-line supervisors of retail sales workers	Customer service representatives
9	Social workers	First-line supervisors of retail sales workers
10	Lawyers, judges, and paralegals	Secretaries and administrative assistants
11	Sales representatives, wholesale and manufacturing	Social workers
12	Retail salespersons	Secondary school teachers
13	Secretaries and administrative assistants	Counselors
14	Customer service representatives	Lawyers, judges, and paralegals
15	Computer scientists and systems analysts	Designers

Source: American Community Survey.

Share of Recent College Graduates

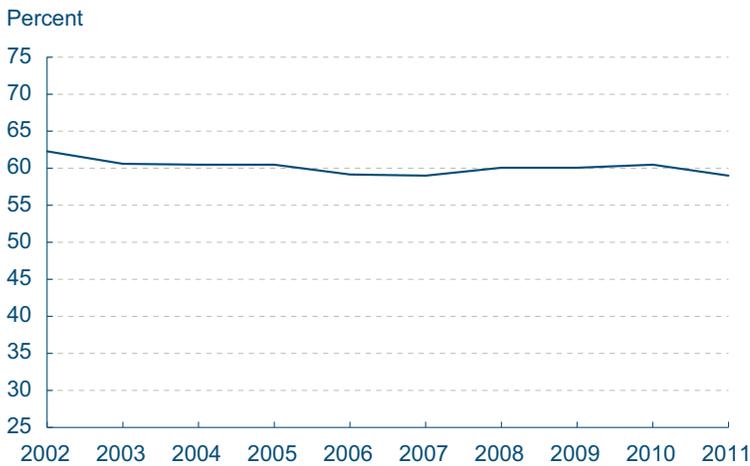


Sources: American Community Survey, authors' calculations.

These trends tend to corroborate popular stories about the recent experiences of college graduates, but are these experiences representative of the typical college graduate? One way to answer this question is to classify each occupation as either a high-school type job or a college-type job. In this analysis, we will classify an occupation as a college-type job if the majority of the workers in that occupation (greater than 50 percent) have a bachelor's degree or more. We can then evaluate whether the probability that a college graduate takes a college-type job has decreased during the recession.

Before the recession, about 62 percent of recent college graduates aged 25–29 worked in majority-college-graduate occupations. Conversely, this means that 40 percent of college graduates worked in occupations where the majority of workers are not college graduates. If slack labor market condi-

Median Education Score for Jobs Held by College Graduates



Sources: American Community Survey, authors' calculations.

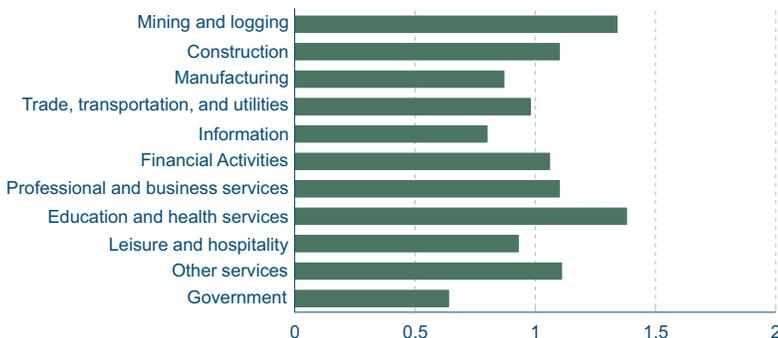
tions forced college graduates to take jobs typically held by those with no college degree, then we would expect the share of college graduates working in majority-college-graduate occupations to fall. However, no such decline has occurred, with the share in majority-college-graduate occupations remaining relatively steady around a little more than 60 percent over the last decade.

There appears to be little evidence that the economic downturn produced any meaningful change in the composition of the types of jobs available to college graduates. However, in evaluating the underemployment of college graduates, one could ask if the pre-recession mix of jobs held by college graduates is a good benchmark of efficiency to begin with. Many college graduates work in occupations that employ substantial numbers of noncollege graduates, which has been true for at least the last decade, and it is unclear whether such an allocation represents an underutilization of these workers' college skills.

Going forward, as the share of the population with college degrees continues to increase, it will become even more important to not only understand the extent to which these skills are being utilized or underutilized in the economy, but also policies that can encourage a better allocation of these skills.

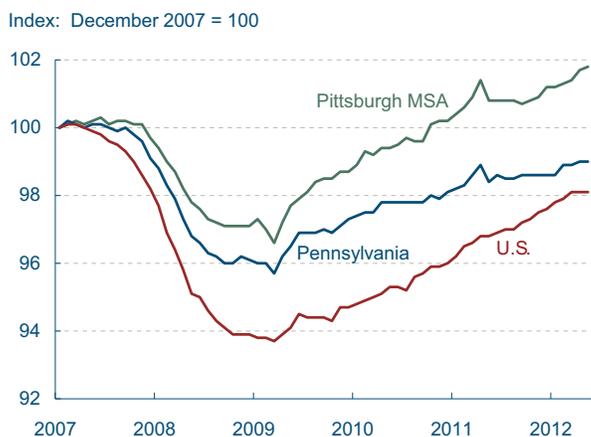
The Pittsburgh Metropolitan Statistical Area

Pittsburgh Metropolitan Statistical Area Location Quotients, 2012



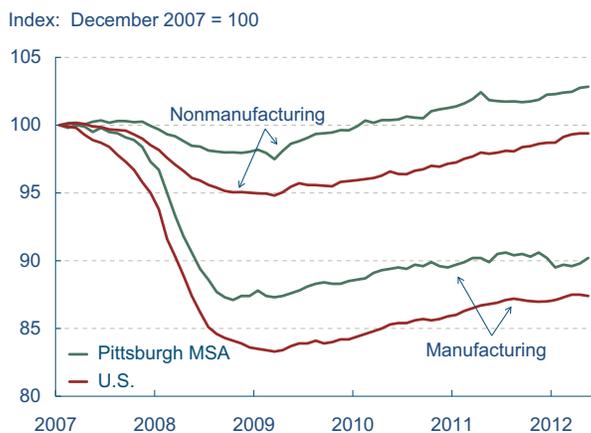
Note: The location quotient is the ratio between a given industry's employment share in two locations. Sources: Bureau of Labor Statistics, Haver Analytics.

Payroll Employment since December 2007



Sources: Bureau of Labor Statistics, Haver Analytics.

Payroll Employment since December 2007



Sources: Bureau of Labor Statistics, Haver Analytics.

07.02.13

by Kathryn Holston and Kyle Fee

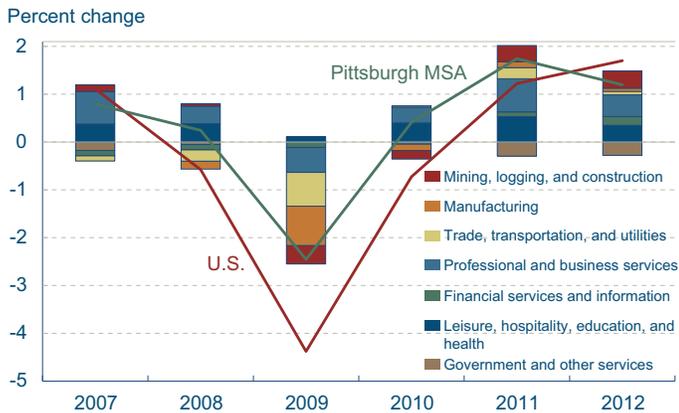
The Pittsburgh Metropolitan Statistical Area (MSA), home to almost 2.4 million people, is the District's largest metropolitan area. (The MSA is composed of Allegheny, Armstrong, Beaver, Butler, Fayette, Washington, and Westmoreland Counties.) Surprisingly, Pittsburgh's share of employment in manufacturing is smaller than the nation's. This wasn't the case in the 1970s and early 1980s, but since then, manufacturing's share of total employment has fallen faster in Pittsburgh than in both the U.S. and the rest of the state. Manufacturing accounts for 8 percent of employment in the Pittsburgh MSA, compared to 10 percent in Pennsylvania and 9 percent in the nation as a whole. On the other hand, the metro area's share of employment in the education and health services industry is 1.4 times larger than the nation's. In 2008, it surpassed trade, transportation, and utilities to become the MSA's largest sector. It has remained the MSA's largest sector following the recession, accounting for one-fifth of total employment in 2012.

Since the last business cycle peak in December 2007, jobs in Pittsburgh have increased by 1.1 percent, compared to Pennsylvania's loss of 1.2 percent and the nation's loss of 2.7 percent. Pittsburgh's employment growth remained stronger than the state's and the nation's throughout the recession. In contrast, Pittsburgh fared worse than Pennsylvania and the nation in the period from 2001 to 2006.

Since the last business cycle peak, Pittsburgh has increased its nonmanufacturing employment by 2.2 percent, whereas the U.S. is down 1.4 percent. In addition, manufacturing employment losses over this period were more severe in the nation (14 percent) than in the metro area (10.6 percent).

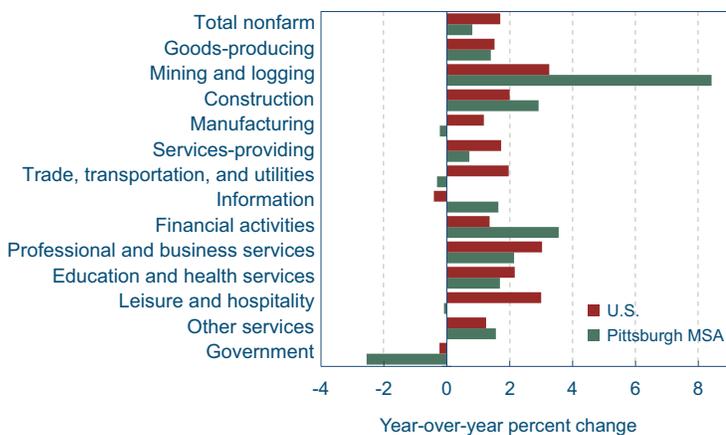
Almost every component of employment growth fell during 2009, when overall nonfarm employment growth for the metro area and the nation were at their lowest levels in the past six years. However, every sector with the exception of govern-

Components of Employment Growth, Pittsburgh MSA



Note: The U.S. and Pittsburgh MSA lines represent total nonfarm employment growth.
Sources: Bureau of Labor Statistics, Haver Analytics.

Payroll Employment Growth, December 2012



Sources: Bureau of Labor Statistics, Haver Analytics.

Unemployment Rate



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

ment and other services posted positive employment growth in 2011 and 2012. For every year except 2009, professional and business services and the leisure, hospitality, education and health sectors were drivers of job growth. This is not surprising considering that the education and health services sector is the largest in the MSA in terms of employment.

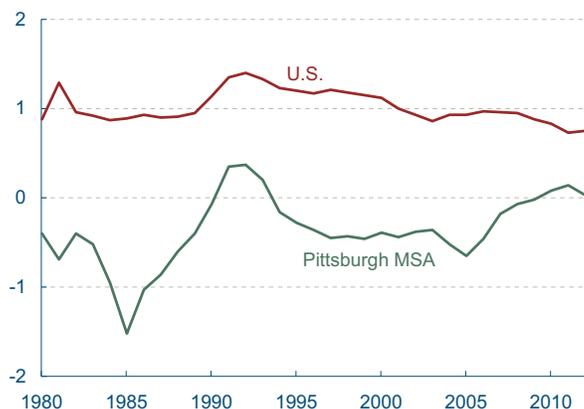
Since December 2011, Pittsburgh's employment has increased 0.8 percent, compared to the nation's gain of 1.7 percent. Although U.S. employment growth outpaced that of the metro area, the only industries that posted job losses in Pittsburgh were trade, transportation, and utilities; manufacturing; and government. Moreover, Pittsburgh's rate of employment growth in mining and logging industries outpaced the nation's by more than 5 percent. The MSA also saw significant growth in construction, which increased by 3 percent, and financial activities, with 3.6 percent growth.

The MSA's unemployment rate closely tracked the nation's from 2000 until 2007. During the most recent recession, Pittsburgh had a lower unemployment rate than the U.S., and in the years following the recession the MSA's unemployment rate has been significantly less. In December, the MSA's seasonally adjusted unemployment rate was 7.3 percent, compared to 7.9 percent in Pennsylvania and 7.8 percent in the U.S.

With the exception of three years in the early 1990s, Pittsburgh's population growth rate was consistently negative between 1980 and 2009. By contrast, the nation's population grew steadily during that period, at an annual rate of about 1 percent. In the past three years, the metro area has had a small but positive population growth rate. In contrast, the nation's population growth rate has declined slightly since 2009.

Population Growth

Year-over-year percent change



Sources: Bureau of the Census, Haver Analytics.

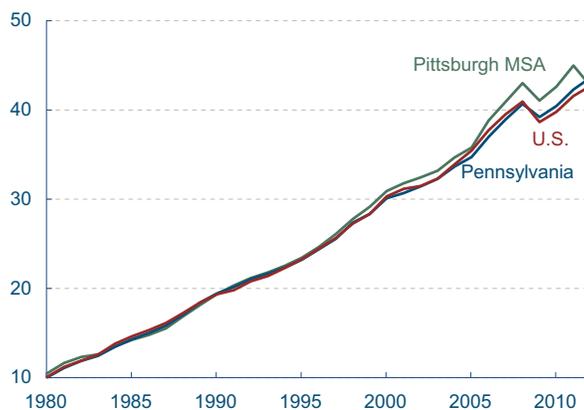
Selected Demographics

	Pittsburgh	Pennsylvania	United States
Total population (millions)	2.4	12.7	311.6
Percent by race			
White	87.7	82.3	74.1
Black	8.4	10.8	12.6
Other	3.9	6.9	13.3
Percent by age			
0-19	22.6	24.8	26.6
20-34	18.4	19.0	20.4
35-64	41.9	40.8	39.6
65 and older	17.2	15.5	13.2
Percent with bachelor's degree or higher	29.4	27.0	28.5
Median age	42.6	40.3	37.3

Source: U.S. Census Bureau, 2011 American Community Survey.
Update, 7/17/13: 2007 data were replaced with 2011 data.

Per Capita Personal Income

Dollars, thousands



Sources: Bureau of Economic Analysis, Haver Analytics.

Pittsburgh's population, like Pennsylvania's, has a smaller percentage of minorities than the U.S., although the MSA is still more homogenous than the state. Of Pittsburgh residents aged 25 and older, 29.4 percent have attained a bachelor's degree, compared to 28.5 percent for the nation and 27.0 percent for the state. Pittsburgh is home to more elderly residents (65 and older) than either the state or the nation and has a higher median age.

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