Economic Trends

February 2011 (January 12, 2011-February 7, 2011)

In This Issue:

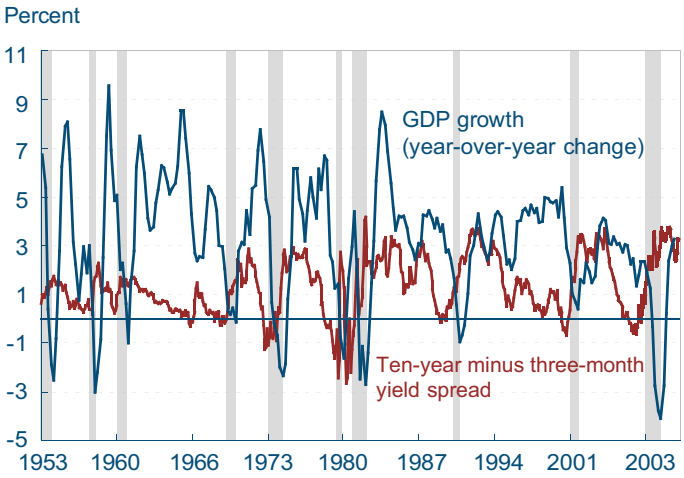
FEDERAL RESERVE BANK
of CLEVELAND

The Yield Curve and Predicted GDP Growth, January 2011

Highlights

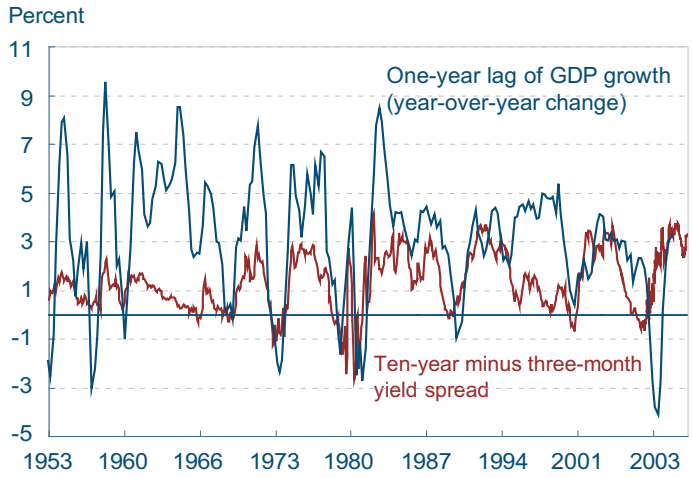
	January	December	November
3-month Treasury bill rate (percent)	0.15	0.14	0.14
10-year Treasury bond rate (percent)	3.36	3.18	2.89
Yield curve slope (basis points)	321	304	275
Prediction for GDP growth (percent)	1.0	1.0	1.0
Probabilty of recession in 1 year (percent)	1.2	1.5	2.3

Yield Curve Spread and Real GDP Growth



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

Yield Spread and Lagged Real GDP Growth



Sources: Bureau of Economic Analysis, Federal Reserve Board.

Covering December 11, 2010–January 14, 2011
by Joseph G. Haubrich and Timothy Bianco

Overview of the Latest Yield Curve Figures

Continuing a recent trend, the yield curve became steeper over the past month, as long rates increased nearly 0.2 percent, and short rates inched up. The three-month Treasury bill rate moved up to 0.15 percent—just above November and December's 0.14 percent. The ten-year rate rose to 3.36 percent, up from December's 3.18 percent and well above November's 2.89 percent. The slope rose 17 basis points (bp), staying above 300 bp, a full 46 bp above November's 275 bp.

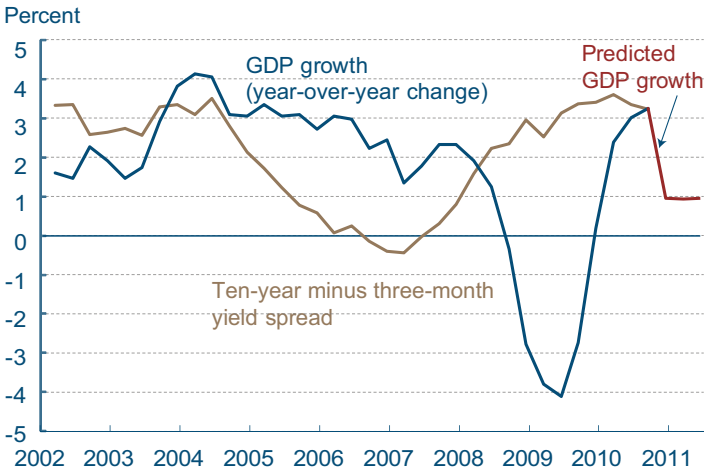
Projecting forward using past values of the spread and GDP growth suggests that real GDP will grow at about a 1.0 percent rate over the next year, the same projection as in November and December. Although the time horizons do not match exactly, this comes in on the more pessimistic side of other forecasts, although, 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 January at 1.2 percent, a slight drop from December's 1.5 percent and November's 2.3 percent.

The Yield Curve as a Predictor of Economic Growth

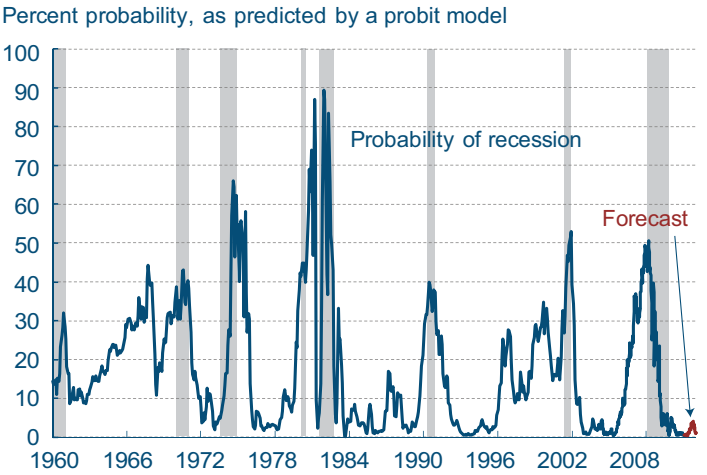
The slope of the yield curve—the difference between the yields on short- and long-term maturity bonds—has achieved some notoriety as a simple forecaster of economic growth. The rule of thumb is that an inverted yield curve (short rates above long rates) indicates a recession in about a year, and yield 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

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.

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.

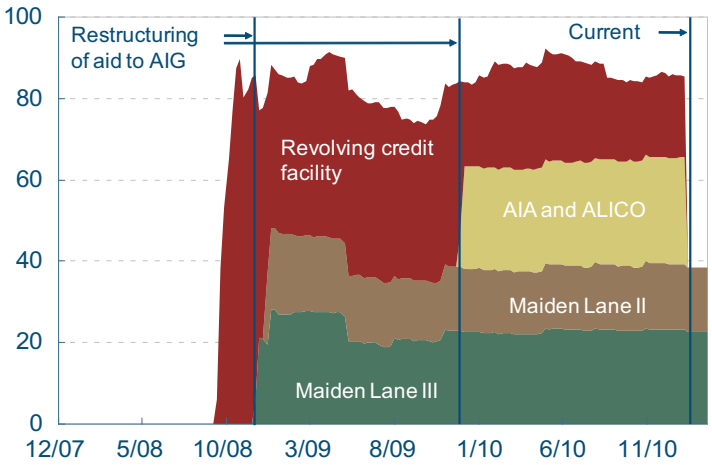
The Execution of the AIG Exit Plan

01.27.11
by John B. Carlson and John Lindner

On January 14, American International Group (AIG), paid down the remaining balances on its loans at the New York Fed—removing the Fed from any direct exposure to AIG, and in accordance with a recapitalization plan announced on September 30, 2010. According to the plan, the revolving credit facility was to be repaid, along with interest and fees, and the preferred interests held by the New York Fed in two AIG subsidiaries (AIA, ALICO) were to be bought by AIG. The figure below shows that those two balances are now at zero.

American International Group

Trillions of dollars, seasonally adjusted

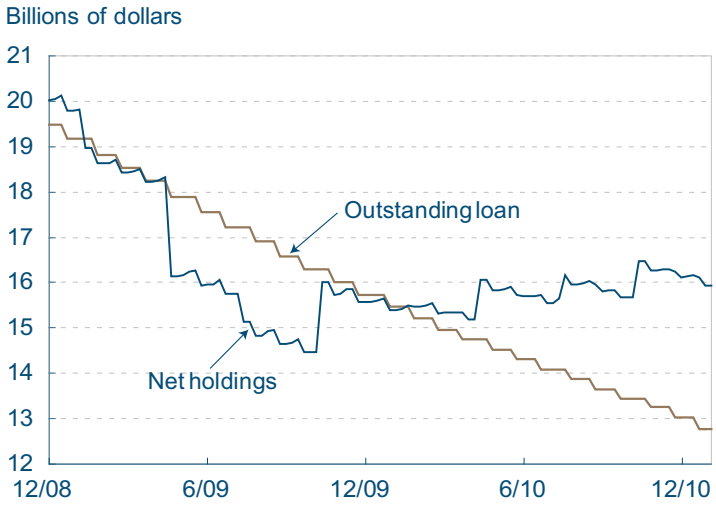


Source: Federal Reserve Board.

The way in which AIG exited from its assistance is worth a closer look. The very first form of assistance extended to AIG was a revolving credit line with a maximum balance of $85 billion. This credit facility was created the day after Lehman Brothers collapsed in September 2008, and it was backed by a nearly 80 percent equity interest in AIG. By November 2008, AIG was facing a potential credit-rating downgrade and a subsequent spike in collateral calls, so the New York Fed restructured its assistance and created the limited liability companies Maiden Lane II and Maiden Lane III. As a result, AIG was relieved of some of the constraints on its liquidity, and the limit on the credit facility was dropped to $60 billion. Similar problems again appeared in March 2009 and were followed by another restructuring of the aid, this time dropping the credit limit to $25 billion in exchange for preferred interests in two of AIG's subsidiaries. The finalization of this second restructuring did not take place until December 2009.

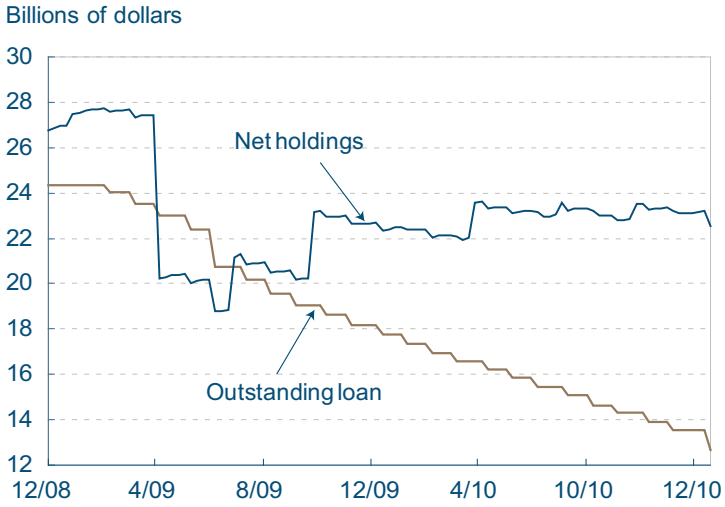
Throughout this extended period, ranging from September 2008 to January 2011, AIG has been raising cash through the sale of many of its subsidiary companies. While the majority of these sales have been relatively small, the two most important and public have contributed the most toward AIG's repayment. The first sale, agreed upon in March 2010, gave MetLife control of American Life Insurance Company (ALICO). AIG received

Maiden Lane II



Source: Federal Reserve Board.

Maiden Lane III



Source: Federal Reserve Board.

$16.2 billion for the sale, $7.2 billion of which was cash and $9 billion was MetLife securities. After a dispute with Prudential Financial and its board over the sale of AIA, AIG eventually conducted an initial public offering of AIA Group (AIA) on the Hong Kong Stock Exchange in October 2010. The offering for two-thirds of the subsidiary brought in $20.5 billion in cash for AIG. The majority of the $27.7 billion in cash collected in these two transactions was held in an escrow account at the New York Fed starting in November 2010. This cash balance is where the funds for repayment were drawn from.

In executing the plan, AIG used the escrow account funds to first pay off the remaining balance of the credit facility, supplying $19.9 billion to eliminate that balance. In addition, the commitment by the New York Fed to lend any further funds was terminated ahead of the credit facility's scheduled expiration in September 2013. Approximately another $6 billion in the escrow account was used by AIG to repurchase preferred interests in AIA and ALICO from the New York Fed. The remaining preferred interests were purchased by AIG using a $20 billion loan from the Treasury's Troubled Asset Relief Program (TARP), and those interests were then transferred to the Treasury. What remains on the Federal Reserve's balance sheet are the two Maiden Lanes, but these are indirect obligations and they have been covered in depth before on this website.

So where does this leave the taxpayer? With respect to the Federal Reserve, AIG is no longer liable for any obligations. Maiden Lane II and Maiden Lane III currently hold portfolios with values greater than their outstanding loans from the New York Fed, so barring any unforeseen financial crises, the Fed will not lose money. In fact, once all fees, interest, and deferred payments have been disbursed, the New York Fed is currently in line to collect roughly $3.9 billion profit. The Treasury retains a large 92 percent equity interest in AIG. This interest is composed of newly converted common shares from a mix of sources, including the 80 percent share initially received by the New York Fed, the preferred shares of AIA and ALICO, and two separate preferred stock series issued to the Treasury through TARP.

Household Financial Position

01.19.11
by Emre Ergungor and Beth Mowry

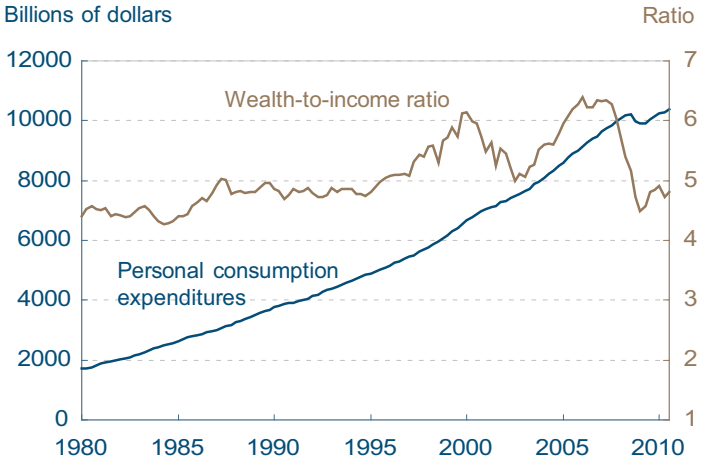
Household wealth took a dive in the recent recession from falling home prices and stock values, causing households to constrain spending and reduce their debt. After peaking in June 2008, consumer spending dropped markedly (3.4 percent) until it reached a trough in March 2009. Since that time, consumption expenditures have resumed growth and climbed 2.7 percent beyond the prerecession peak.

The personal savings rate reached a record low of just 0.8 percent in April 2005 before the downturn and marched up dramatically in the ensuing months. However, it has steadily eased off recent highs exceeding 6 percent since last June and currently sits at 5.3 percent, roughly back to 1998 savings rates. While people often associate the word "savings" with money in the bank, the increase in savings rate also means that people are paying down their debts.

Outstanding home mortgage debt is still contracting, reflecting record write-offs and the decreased appetite for homeownership. Revolving consumer credit plummeted in 2008 and remains 9.8 percent below year-ago levels, while nonrevolving credit is just 0.1 percent shy of year-ago (2009:Q3) levels. Revolving credit primarily includes credit card balances, and nonrevolving credit includes secured and unsecured credit for student loans, auto financing, durable goods, and other purposes.

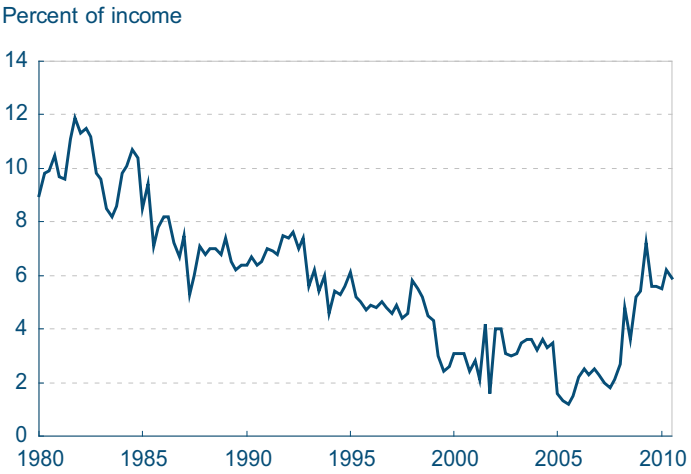
Part of the decline in debt is attributable to people defaulting on their obligations and reducing their debt in bankruptcy. Bankruptcy filings spiked in October 2005—before the federal government enacted the Bankruptcy Abuse Prevention and Consumer Protection Act, a sweeping reform of U.S. bankruptcy code meant to make it more difficult for debtors to file for Chapter 7 bankruptcy. Since that initial postreform setback, bankruptcies have risen more rapidly than ever.

Household Wealth and Consumption



Note: Wealth is defined as household net worth; income is defined as personal disposable income.
Sources: Bureau of Economic Analysis, Board of Governors of the Federal Reserve System.

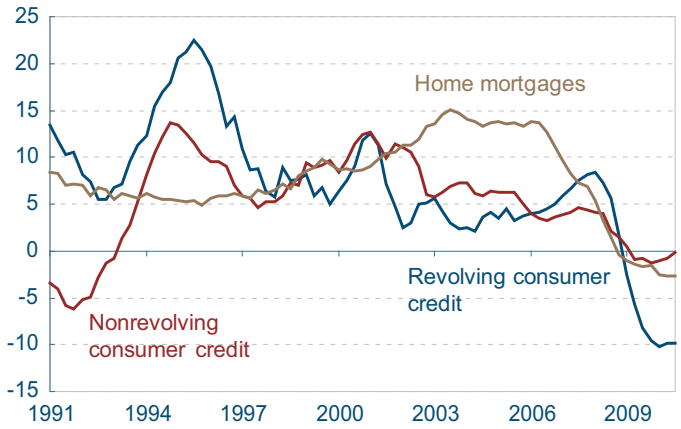
Personal Savings Rate



Note: Quarterly averages of monthly data.
Source: Bureau of Economic Analysis.

Outstanding Debt

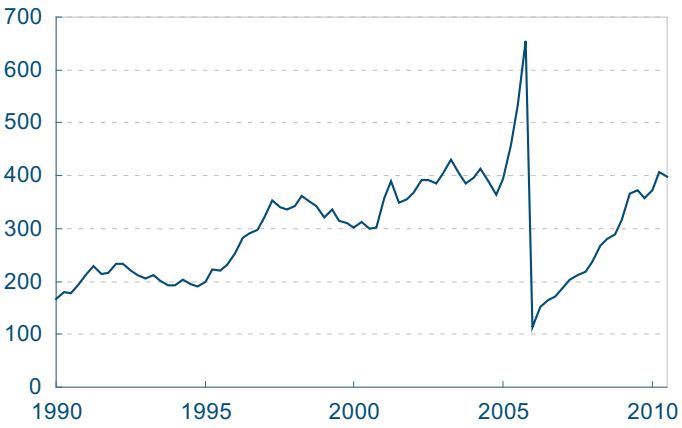
Four-quarter percent change



Note: Seasonally-adjusted quarterly data.
Source: Board of Governors of the Federal Reserve System.

Nonbusiness Bankruptcy Filings

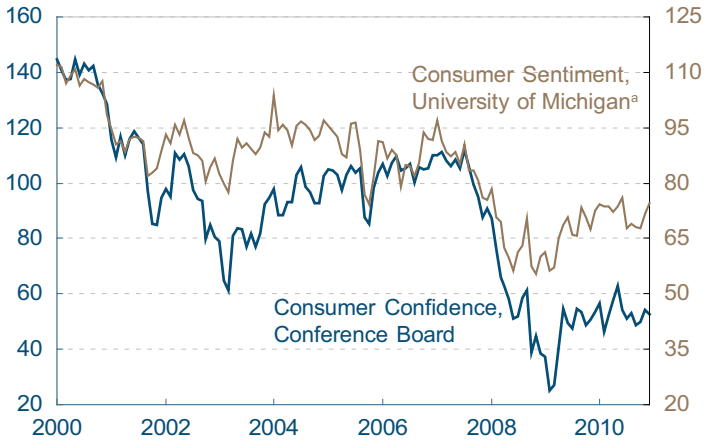
Thousands



Source: Administrative Office of the U.S. Courts.

Consumer Attitudes

Index, 1985=100 Index, 1966=100



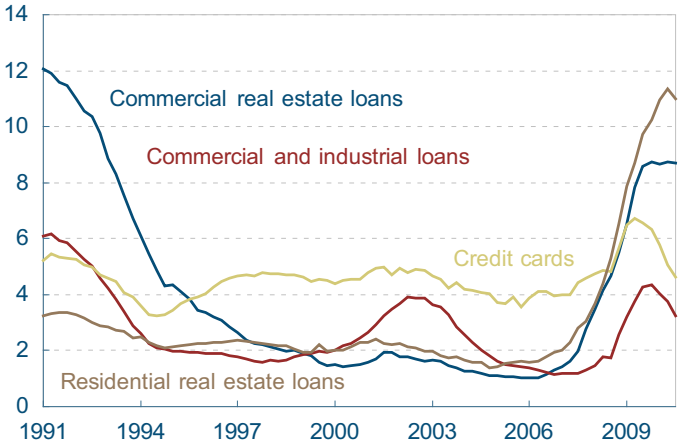
a. Data are not seasonally adjusted.
Sources: University of Michigan and the Conference Board.

Defaults and write-offs are not likely to return to their pre-crisis levels soon. As of the third quarter of 2010, delinquency rates for residential real-estate and commercial real-estate loans remain extremely elevated, while credit card and commercial and industrial (C&I) loan delinquencies have begun to abate.

Indexes of consumer sentiment and confidence still have a ways to go before recovering to pre-recession levels. However, the indexes have gained traction since early 2009, likely due in part to recent small payroll gains, stabilizing (though still depressed) home sales, and stock market performance this past year.

Delinquency Rates

Percent of average loan balances



Note: Delinquency rates are based on loans that are 30 days past due.
Source: Board of Governors of the Federal Reserve System.

Loans and Leases in Bank Credit

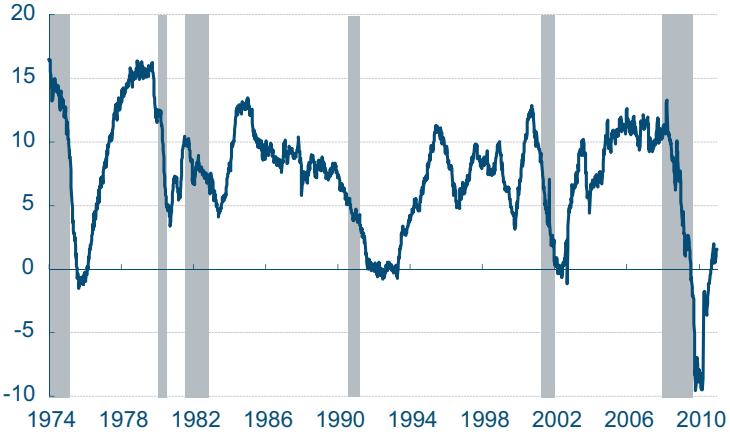
02.01.11

by Ben Craig and Matthew Koepke

The U.S. economy has shown many signs that it is on the mend from the most severe economic contraction since the Great Depression. However, the economy is still facing headwinds on its way to recovery. One significant headwind that is preventing a more robust economic recovery is the challenging lending environment. The financial crisis and the accompanying recession from 2007–2009 resulted in a significant decline in loans and leases in credit, much more than occurred during the previous two recessions. Moreover, it has taken longer for lending activity to recover in this business cycle relative to the 1990–1991 and 2001 cycles. Given the depth of the declines in loans and leases on banks' balance sheets and how long it has taken lending markets to recover, it is likely that the economic recovery will remain subdued until credit market conditions improve.

Loans and Leases in Bank Credit

Year-over-year LOG Difference

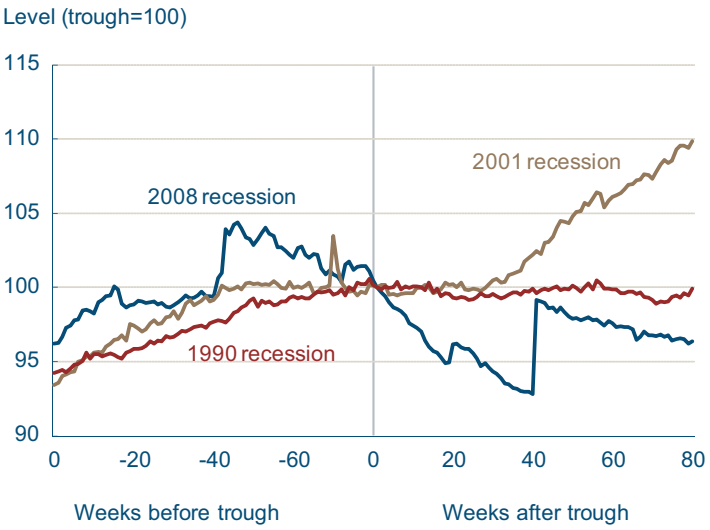


Note: Shaded bars indicate recessions.
Source: Board of Governors/Haver Analytics.

Loans and leases in credit tend to be a lagging indicator due to the time it takes for old loans to be paid off and for banks to reduce lending activity. The 2007–2009 recession saw a significant decline in loans and leases in bank credit. The largest year-over-year decline in loans and leases in bank credit occurred in October 2009 (9.56 percent). In comparison, the largest year-over-year declines of loans and leases in bank credit that occurred as result of the 1990–1991 and 2001 recessions were 0.67 percent and 0.65 percent, respectively. Given the deeper decline in loans and leases in credit in the 2007–2009 recession, it is likely that it will take much longer for credit markets to return to return to normal levels than it did during the previous two business cycles.

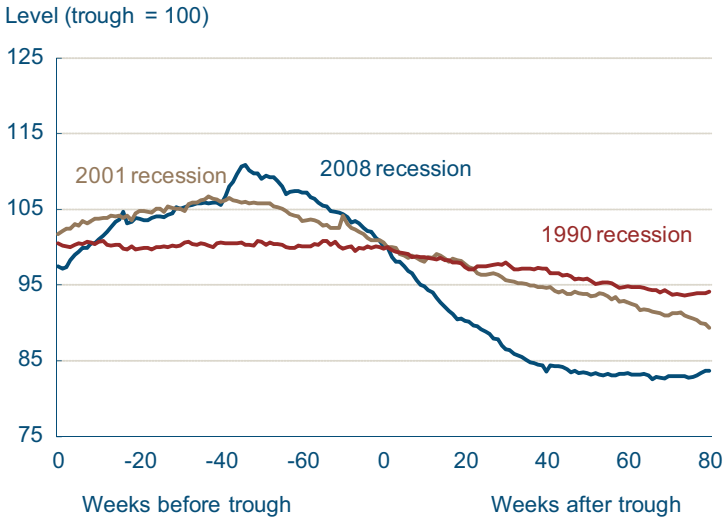
Since lending is a lagging indicator, it is better to examine the change in lending from the trough of the recession than from the peak. The current level of total loans and leases, as a percent of their trough level, remains much lower (96.4 percent) compared to the 1990–1991 and 2001 recessions. During the 1990-1991 and 2001 recessions, the levels of loans

Total Loans and Leases as Percent of Trough



Source: Board of Governors/Haver Analytics.

C&I Lending as Percent of Trough



Source: Board of Governors/Haver Analytics.

and leases in credit 80 weeks after the troughs were 99.6 percent and 109.8 percent, respectively. While it appears that loans and leases in credit increased dramatically 40 weeks after the recession trough, most of the increase in loans and leases in credit was attributed to a change in how banks account for consumer credit card accounts and not new lending. Given the fact that the majority of the increase in loans and leases in credit is attributed to an accounting change and not new lending, it is apparent that the recovery in lending has been much slower in this cycle than the previous two cycles.

The severity in the decline of loans and leases in credit during the 2007-2009 recession compared to the previous two recessions is most apparent in the commercial and industrial (C&I) lending segment. In the 1990–1991 and 2001 recessions, 80 weeks after the business cycle troughs, the levels of C&I lending were 94.1 percent and 89.3 percent of their trough levels, respectively. However, the current level of C&I lending is only 82.7 percent. While all three recessions saw a decline in C&I lending at the trough of the business cycle, the 2007–2009 recession resulted in a much more severe contraction in commercial and industrial lending.

Foreign-Exchange Trading and the Dollar

01.25.11

by Owen F. Humpage and Beth Mowry

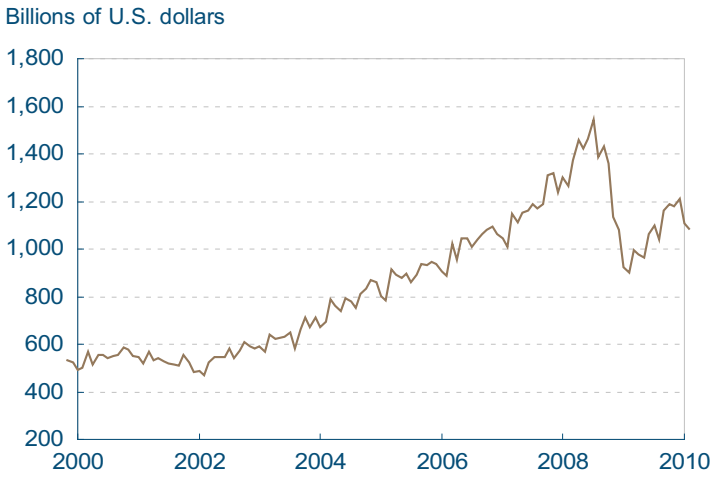
The Bank for International Settlements released its triennial snapshot of the foreign-exchange market in December. Two trends emerge from the survey's wealth of information: Technology is changing the market, and the dollar still dominates trading, despite continued talk of its imminent demise.

Every day across the globe, $4 trillion worth of foreign exchange changes hands. That figure is up 20 percent since 2007, despite the worldwide recession and a serious drop in global trade. Much of the growth in foreign-exchange turnover stems from a relatively new quarter. Past surveys showed that trades among the large traditional foreign-exchange dealers (reporting dealers) and trades between this group and their nonfinancial customers dominated the market. Indeed, they still do, accounting for slightly over half of all foreign-exchange transactions. Nevertheless, their share is shrinking. Since 2001, trades between this traditional group and a set of nontraditional (or other) financial institutions, including small banks, money-market funds, pension funds, and hedge funds have grown rapidly. These nontraditional counterparties now account for nearly half of all foreign-exchange turnover, whereas in 2001, they accounted for less than one-fifth of all activity.

Fostering this growth has been the continued development of electronic methods of executing trades. Increasingly, for example, computer programs place trades automatically in response to small price changes. Electronic trading reduces the costs of transacting in the foreign-exchange market, which encourages greater—more diverse—participation and increases liquidity in the market.

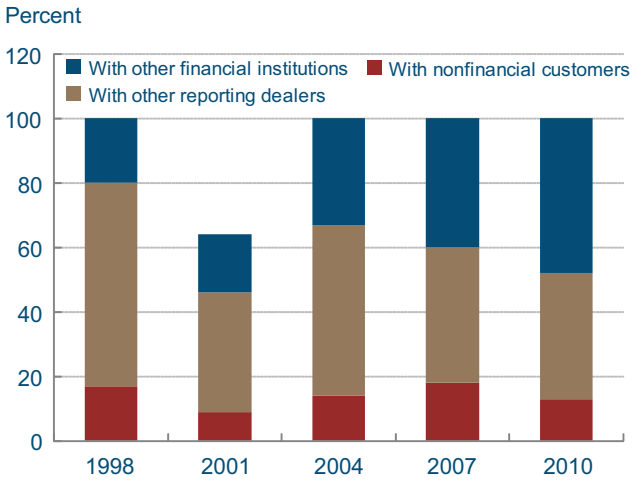
Much of this trading activity reflects currency speculation, price arbitrage, or hedging operations. Foreign-exchange trading is many times larger than economic activity—as measured by either output or international trade—and has grown faster than these measures of economic activity in recent years.

World Trade



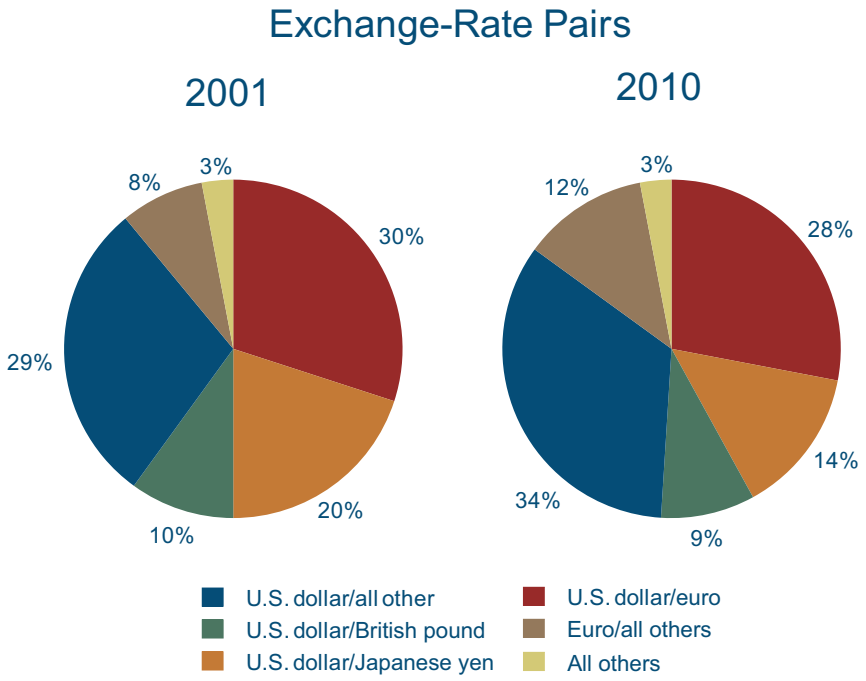
Sources: International Financial Statistics, import series.

Percent of Daily Trade with Foreign Exchange Market Counterparties



Source: Bank of International Settlements.

The BIS survey also shows that the U.S. dollar is still the predominant international currency, with 85 percent of all daily foreign-exchange transactions involving dollars. The dollar has lost some ground to the euro in recent years, but with half as many trades as the dollar, the euro remains a distant second. The widespread use of the dollar is not likely to change quickly. The sheer size, sophistication, and relative stability of the U.S. economy render the costs of holding and transacting in dollars lower than doing so in other currencies that do not share these characteristics.



Source: Bank for International Settlements.

A substantial portion of international trade, even trade not involving U.S. exporters or importers, is routinely denominated in U.S. dollars. This is especially true of trade in fairly standardized commodities like natural resources and agricultural products. Trade in nonstandardized goods is often denominated in the exporter's currency, but to obtain an exporter's currency, an importer's bank will often buy and sell dollars. With all these dollars changing hands, many traders maintain accounts in dollars, seek loans in dollars, and undertake many other financial arrangements in dollars.

A strong and open U.S. financial system facilitates the dollar's international role. The United States offers many different types of financial instruments

and well-developed secondary markets, which enhance the liquidity of dollar-denominated assets. All this makes holding dollars and transacting in dollars convenient and easy. Of course, a high degree of feedback naturally exists between the dollar's role in trade and the growth of an accommodating financial structure. As trade in dollars has expanded, U.S. financial markets have grown, and more foreign financial firms have offered dollar-denominated products, further reducing the costs of transacting in dollars. Once established, people will continue to use this dollar network, even when viable alternative currencies exist. Making the jump from dollars to a new international currency requires everyone—or at least a substantial proportion of people—to make the change in concert. Otherwise the benefits of the network are lost.

Change, of course, is possible. The British pound lost its dominance after World War II, and the dollar could see its international role diminish. Barring persistently bad U.S. economic policy, however, change is likely to evolve, not erupt.

Bank for International Settlements' Triennial Central Bank Survey, Report on Global Foreign Exchange Market Activity in 2010: http://www.bis.org/publ/rpfxf10t.pdf

"The $4 Trillion Question: What Explains FX Growth Since the 2001 Survery?" BIS Quarterly Review, December 2010. http://www.bis.org/publ/qtrpdf/r_qt1012e.pdf

"Replacing the Dollar with Special Drawing Rights—Will It Work This Time?" Economic Commentary, March 2009. http://www.clevelandfed.org/research/commentary/2009/0309.pdf

Is Consumer Spending Really "Driving" the Recovery?

02.03.11
by Pedro Amaral

According to the Bureau of Economic Analysis's advance estimate, in the fourth quarter of 2010, GDP increased at an annual equivalent rate of 3.2 percent. Personal Consumption Expenditures (PCE) alone contributed a whopping 3 percent to this rate, as they grew by 4.4 percent in the quarter. The main drag on GDP growth came from changes in private inventory investment which, while marginally positive, dropped precipitously from their highest level in a decade in the third quarter of 2010. The growth in PCE was the big news, though. For 2010 as a whole its growth rate was 2.7 percent, the fastest over any four-quarter period since 2006.

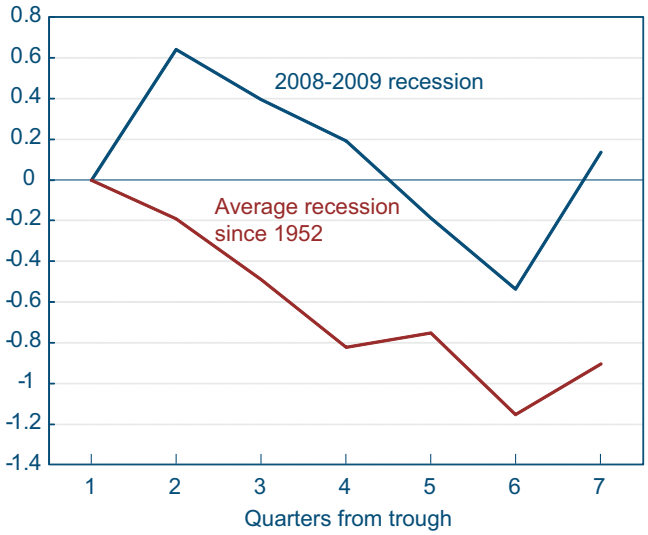
Economists are very fond of their jargon and one example of it that we hear a lot these days is that "consumption must drive the recovery." What this means is that because consumption expenditures are such a large share of GDP (roughly 70 percent currently), for GDP as a whole to grow at a healthy pace it had better be the case that consumption expenditure growth does not lag this pace too much. Notice that this does not mean that consumption expenditures should grow faster than GDP. People tend to smooth consumption, so it tends to decrease at a slower pace than GDP in recessions and increase at a faster pace during recoveries.

Nonetheless, given the recent seemingly stellar behavior of consumption expenditures, a question worth asking is whether they are doing better than in recoveries from past recessions. While there certainly are various ways of measuring such performance, one particularly useful one is to look at the evolution of the consumption share of GDP in recovery periods. The faster consumption recovers relative to GDP's recovery as a whole, the higher this share becomes.

The figure below shows how this share has evolved from the recent recession's trough up until the last quarter of 2010 and compares it to the average

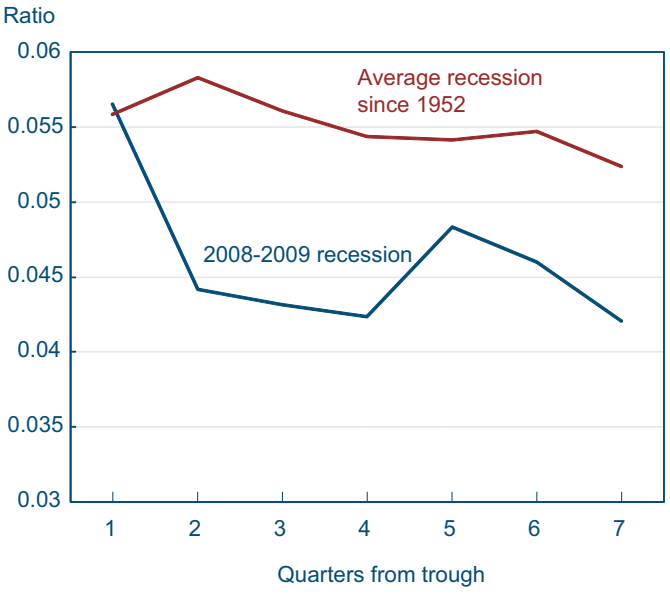
Consumption Shares of GDP in Recoveries

Percent deviations from trough level



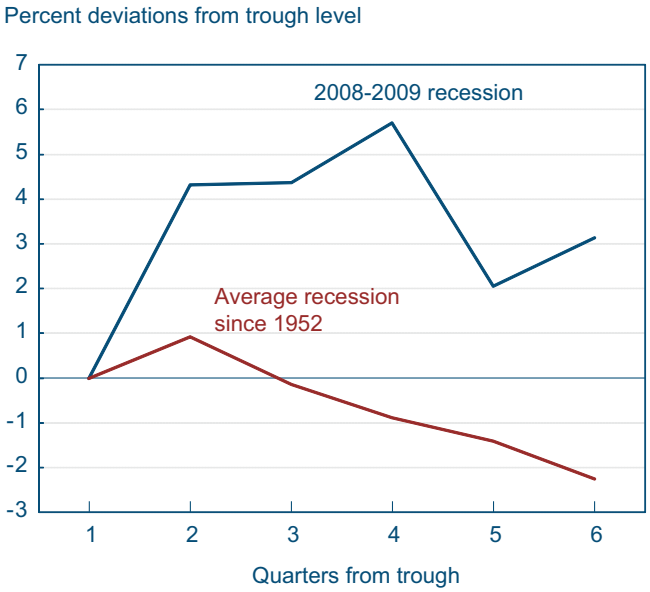
Sources: National Income and Product Accounts, Bureau of Economic Analysis, Department of Commerce.

Personal Savings to GDP Ratio



Sources: National Income and Product Accounts, Bureau of Economic Analysis, Department of Commerce.

Households' Net Worth to GDP Ratio in Recoveries



Sources: Flow of Funds Accounts of the U.S.; Federal Reserve Board.

behavior of the same measure during all recoveries from NBER recessions since 1952.

This figure does show that consumption growth, relative to GDP, is stronger in this recession than in previous ones. Nonetheless, one should be careful in interpreting any sort of causation in this relationship, as both consumption and output are determined together. (They are, to use some more jargon, endogenous variables.) This means consumption is no more a driver of GDP than GDP is a driver of consumption; they are simply determined together. To be able to make one assertion or the other, one needs a theory (demand-side theories, like Keynesianism, for example, emphasize consumption as the driver.)

Since income is, broadly speaking, split between consumption and savings, it might just be that consumers have been saving less than in the average recovery. Indeed, looking at savings rates as a fraction of GDP (not disposable income) reveals that savings rates in this recession have been below average.

Nonetheless, when we look at households' net worth as a fraction of GDP, we get exactly the opposite picture: households have been able to improve their balance sheets while consuming more and saving less (relative to previous recessions.)

The key to reconciling these differences lies with asset prices. A cursory look at the Flow of Funds table reveals that the values of tangible assets (mostly real estate) have not changed much since the trough of the recession, consistent with the view that housing prices have yet to increase. But tangible assetsÂ constitute only roughly one-third of total assets. In the aggregate, financial assets are much more important (I say in the aggregate because this differs considerably across households,)and their value has increased substantially.

How did this increase in asset values come about? Since savings have increased no more than in previous recessions, it must be that financial asset prices have been going up a lot. Noting the S&P 500 has roughly doubled since March 2009 seems to lend some credence to this hypothesis.

Note: This article has been revised substantially since it was first posted. In a previous version the author looked at the real share of consumption in GDP as opposed to the nominal. It turns out the behavior of the two is very different (the author thanks Bernd Weidensteiner for pointing this out.) While the former decreases relative to the average recession, the latter increases. Because the BEA uses a chain-weighted method to compute real GDP, as opposed to a fixed-weighted method, the nominal share ratio (not the real) is the more appropriate measure to look at.

"Households' Balance Sheets and the Recovery," Economic Trends, Septemeber 2010. http://www.clevelandfed.org/research/trends/2010/0910/01gropro.cfm

Educational Attainment Trends in the Fourth District

02.03.11
by Stephan Whitaker

Research in regional economic development has documented a strong link between the education levels of an area's workforce and its economic performance. The percentage of adults (over 25) with a college degree—the most commonly used indicator of skills in a workforce—has been linked to income growth, employment growth, and productivity. I analyze recent trends in the education levels of working age adults in Fourth District metro areas and find that these areas are adding graduates at a respectable pace. In the coming decade, we can expect the rate of workers with a college degree to continue to rise in the larger metro areas, as older workers with fewer degrees retire and younger workers enter the workforce.

Using data from the 2000 Census and the 2008 American Community Survey, I calculate the percentage of working age adults living in the Fourth District metro areas who hold a college degree and the change in that percentage between 2000 and 2008. (I excluded people under 25 and people over 64 who are neither working nor seeking work. Presumably, the latter category consists of people who are retired.) Erie, Akron, Pittsburgh, Columbus, Lexington, Mansfield, and Youngstown all posted impressive increases of over 4 percentage points in their shares of workers with degrees. The national increase in these same data was 3.1 points.

Next, I looked at the six largest metro areas in the Fourth District in terms of whether their graduates and nongraduates were native to the state ("natives") or whether they had moved in from another U.S. state ("migrants") or outside the country ("immigrants"). Across the board, every metro area has more native college graduates in 2008 than it had in 2000. Cincinnati and Columbus have 29 percent and 27 percent more native graduates, respectively. Pittsburgh added 17 percent and Cleveland added 15 percent to their native graduate counts over the period. Gains among the immigrant graduate populations were also substantial. Cleveland-Akron

and Columbus both had over 13,000 more immigrant graduates in 2008 than they had in 2000. Pittsburgh added approximately 9,600 immigrant graduates. However, in terms of attracting interstate migrant college graduates, all of the large Fourth District metro areas lag the national average, with the exception of Columbus. The national average in this category is 11.9 percent of the workforce. In Cleveland, the figure is 7.7 percent and in Pittsburgh, it is 6.8 percent.

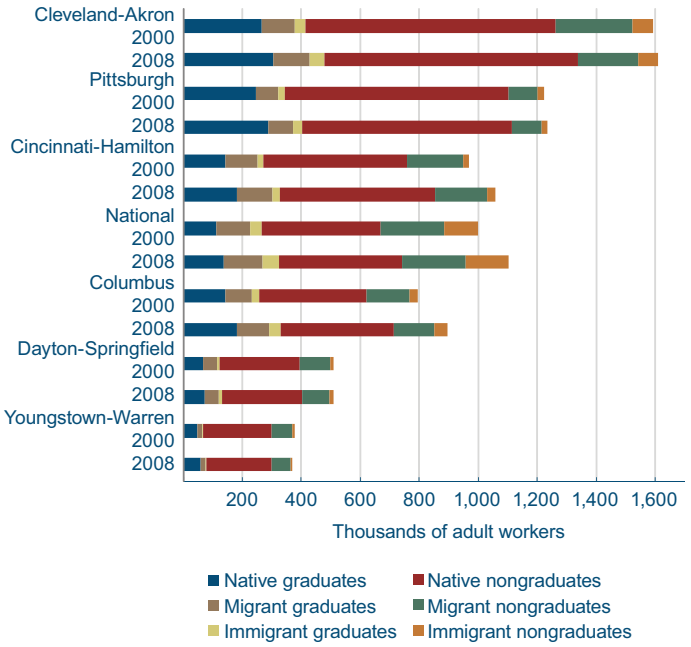
Educational Attainment of Working-age Adults in Fourth District Metro Areas

	Working-age adults (2008)	Degree share 2000 (percent)	Degree share 2008 (percent)	Change (percent)
Erie	151,718	22.5	28.2	5.6
Akron	386,990	26.1	31.6	5.4
Pittsburgh	1,235,251	28.1	32.7	4.6
Columbus	896,440	32.3	36.9	4.5
Lexington-Fayette	161,486	37.1	41.5	4.4
Mansfield	67,839	13.1	17.4	4.3
Youngstown-Warren	306,892	17.5	21.7	4.2
Cleveland	1,223,369	26.0	29.2	3.2
Cincinnati	863,150	28.6	31.7	3.1
United States	167,282,883	26.5	29.6	3.1
Canton	226,427	19.1	20.8	1.8
Lima	80,257	14.9	16.6	1.7
Hamilton-Middleton	195,416	25.9	27.4	1.5
Dayton-Springfield	508,775	24.4	25.8	1.3
Toledo[a]	419,227	21.6	22.9	1.3

a. Due to a definition inconsistency in the data, figures from the Census Bureau's American Fact Finder are used for Toledo.
Sources: Author's calculations from the 2000 Census and the 2008 American Community Survey.

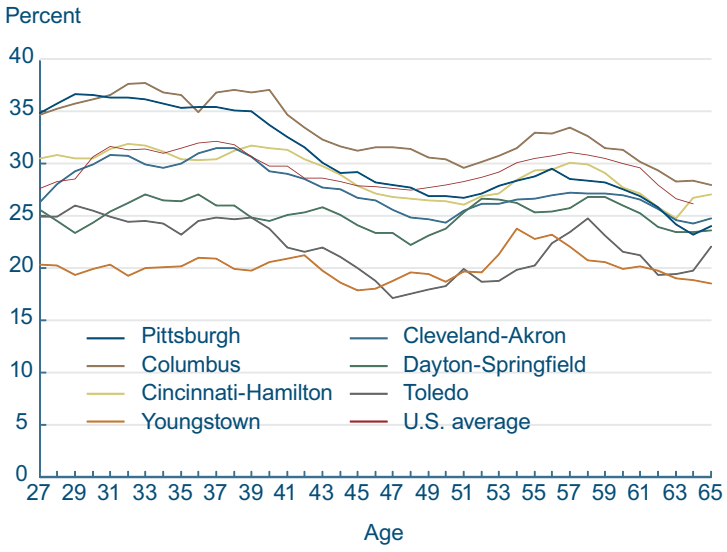
In the numbers of nongraduates, there were a few notable changes. Columbus and Cincinnati both experienced large increases in their populations of unskilled immigrants. In Columbus, the nondegreed immigrant adult population increased from just under 30,000 to over 46,000, and the equivalent population in Cincinnati increased from 19,700 to 29,600. In the Cleveland area, the number of nongraduate migrants declined by 22 percent. Breaking the data down by age reveals that the older cohorts in Cleveland contain large numbers of nondegreed interstate migrants. They could represent the last influx of people who sought industrial jobs before manufacturing

Number of Working-age Adults in Fourth District Metro Areas by Origin and Education



Note: "Native" refers to people living in their state of birth. "Migrant" refers U.S.-born individuals who live in a state other than the state they were born in. "Immigrant" refers to anyone born outside the US. "National" represents a city with 1,000,000 working age adults in 2000 where the subpopulations match the US percentages and growth.
Source: Author's calculations from the 2000 Census and the 2008 American Community Survey.

Share of Population with Bachelor's Degree by Age



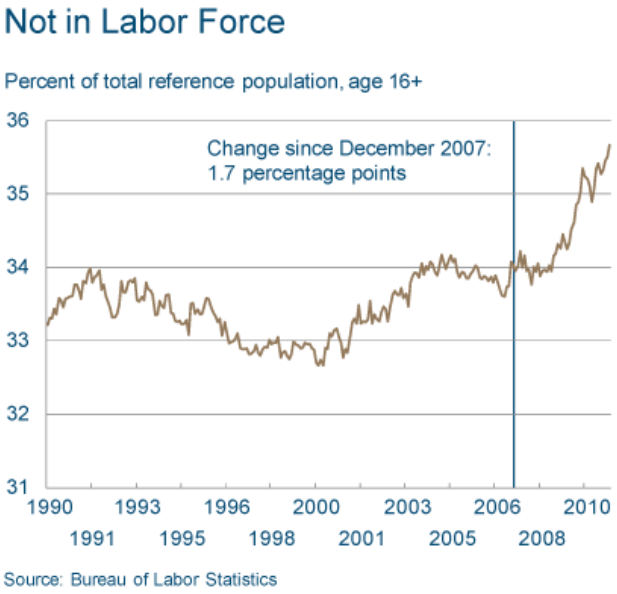
Notes: Figures are five-year moving averages.
Source: Author's calculations from the combined 2006-2008 American Community Surveys.

employment began declining. The decrease in nondegreed migrant workers reflects many of them reaching retirement age.

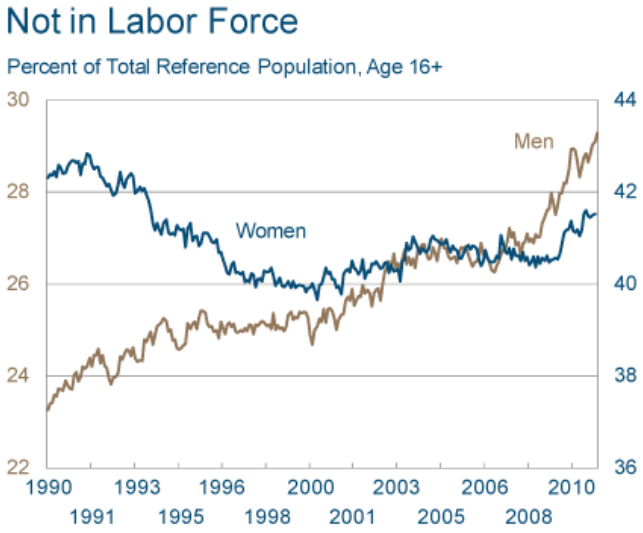
One of the primary trends driving the increase in educational attainment nationwide is the phasing in of more educated cohorts. Because the workers who are now retiring and leaving the workforce—those born in the early 1940s—had lower levels of college attainment, the college degree share of the entire workforce will continue to rise for a couple decades even if attainment among new cohorts is stagnant. The figure below shows these trends are affecting the Fourth District metro areas. (The sample size within a single year's cohorts is small, so I have created five-year moving averages.)

Columbus has the most educated cohorts generally. Across the country, state capitals often have unusually high educational attainment. This is especially true if they are home to a large state university, as is Columbus. The Pittsburgh trend is remarkable. Among older Pittsburgh residents, education levels are below the national average, like those of Cincinnati and Cleveland. For residents younger than 40, however, degree attainment jumps up to the levels of Columbus. If the highly educated cohorts in Pittsburgh continue to phase in, the city will eventually have a workforce like a university town rather than a former industrial center. Cincinnati, Cleveland, and Toledo can also anticipate modestly rising education levels based on cohort replacement. The education levels in the Dayton and Youngstown areas are essentially the same across the age cohorts, so these areas may not experience any rise due to the phasing in of more educated young people.

Who Is Driving the Decline in the Labor Force Participation Rate?



Source: Bureau of Labor Statistics



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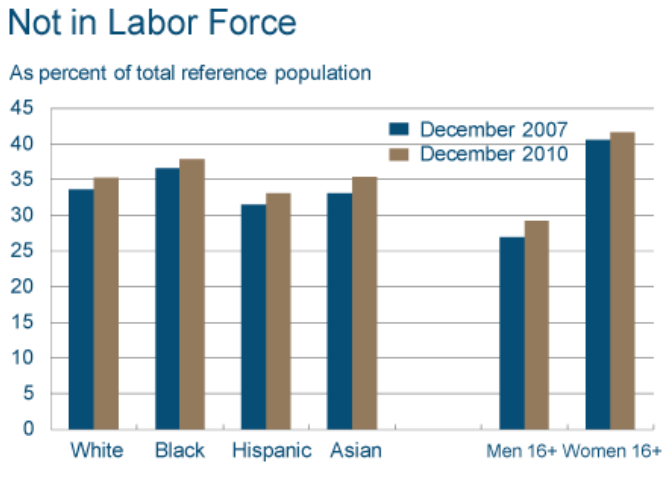


Source: Bureau of Labor Statistics.

02.07.11
by Daniel Hartley and Mary Zenker

The employment data released last Friday by the Bureau of Labor Statistics show that the unemployment rate has fallen by 0.4 percentage point to 9.0 percent. However, there was little or no change to the labor force participation rate, which is at its lowest level since the mid-1980s. The fraction of the population that is counted as not being in the labor force has now risen to a level higher than at any time since 1990. (Those counted include the fraction of the U.S. population that is 16 years old or older, not on active duty in the Armed Forces, not living in an institution such as a nursing home or prison, and not employed or currently looking for work.)

Has one demographic group been driving the increase in the number of workers leaving the workforce, or does the increase just reflect a broad-based departure of all demographic groups? Both factors seem to be responsible to some degree, depending on how you slice the data. Differences show up in the behavior of men and women, while different racial groups are experiencing similar changes to their levels of labor force participation.

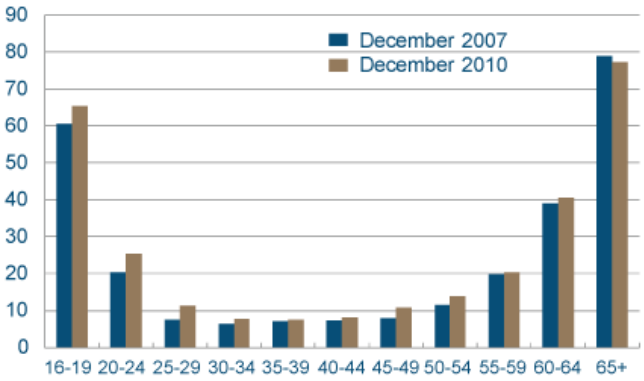
The fraction of women who were out of the labor force declined through the 1990s, then rose a bit during the early 2000s, and held steady until 2009. However, the fraction has been rising in the past two years. Meanwhile, the fraction of men who are not in the labor force has been rising steadily since 1990, and this rise has accelerated since 2007.

Comparing the fractions for men and women over time confirms that the fraction of men not in the labor force rose more than the fraction of women not in the labor force from December 2007 to December 2010. In contrast, the fractions of white, black, Hispanic, and Asian workers who are not in the labor force all seem to have increased by about the same amount over the period.

Finally, some interesting patterns emerge across different age groups. The patterns are broadly similar

Not in Labor Force, White Men by Age

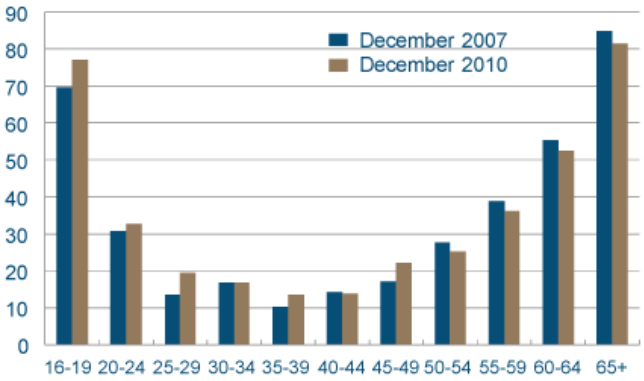
As percent of total reference population



Source: Bureau of Labor Statistics

Not in Labor Force, Black Men by Age

As percent of total reference population



Source: Bureau of Labor Statistics

across gender and race categories, with some small differences across race. Looking at changes in the age distributions of white men who are not in the labor force reveals that for each age group up to 64,the fraction has increased since December of 2007. The largest increases are for white men aged 29 and under. The only group that saw a drop in the fraction that is not in the labor force is white men aged 65 and older.

The pattern for young black men is somewhat similar to that for young white men—the fraction of those not in the labor force has increased. However, labor force participation increased across all age groups of black men aged 50 and above between December 2007 and December 2010.

Similar comparisons for black women and white women reveal decreases in labor force participation among young women and no systematic change in labor force participation among older women.

In summary, the lowest U.S. labor participation rate since the mid-1980s is being driven by lower participation across all demographic groups, and especially by those under 29. The biggest exception is older men, whose labor force participation rate has actually increased since the beginning of the recession.

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