

Economic Trends

May 2013 (May 2, 2013-May 7, 2013)

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FEDERAL RESERVE BANK
of CLEVELAND

The Delayed Recovery of Investment in Nonresidential Structures

05.06.13

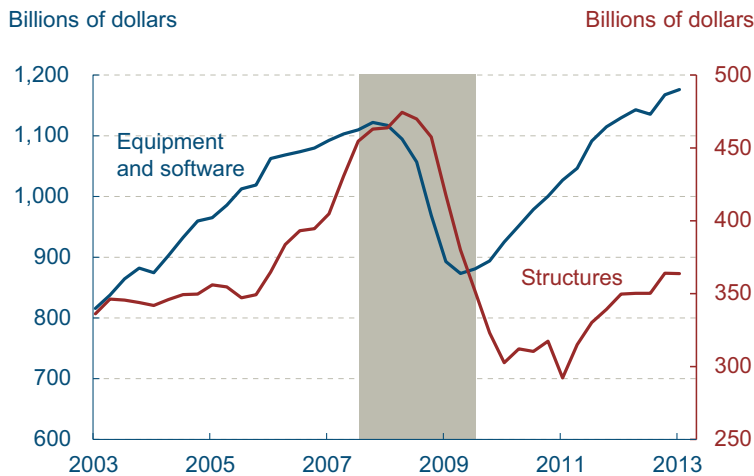
by Margaret Jacobson and Filippo Occhino

While real GDP has long passed its pre-recession peak, business fixed investment is still 4 percent below its previous high. This is mainly due to the delayed recovery of one of its components, investment in nonresidential structures (factories, plants, office buildings, stores, hospitals etc.). This investment category dropped by 35 percent in the years 2008-2009 and didn't begin to recover until mid-2011, two years after the recession ended. Since then, it has been growing fast, but it is still 23 percent below its peak. In contrast, investment in equipment and software, the other component of business fixed investment, dropped by 20 percent during the recession, began to pick up right when the recovery started, rapidly bounced back, and is now 4.8 percent above its previous peak.

Investment activity across industries followed a similar pattern. Investment in equipment and software tended to reach bottom in 2009, the year the recession ended, while investment in structures tended to remain depressed throughout 2011 (the most recent year for which industry data are currently available). This was true both for industries that performed relatively well during the business cycle, like information and health care, and for industries that were hit harder by the recession, like manufacturing (See *The Recession and Recovery from an Industry Perspective*).

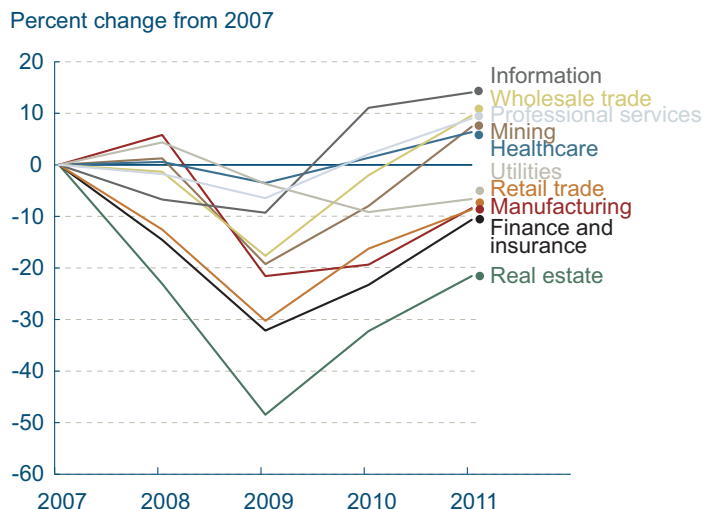
One reason why investment in structures recovered later was that it was held down by the overhang of structures that had been built before the recession. Structures are very long-lived productive assets, with an average age of approximately 24 years, so investment in these assets crucially depends on forecasts of long-term growth. Forecasts of long-term growth were revised down around the beginning of the Great Recession (see *Behind the Slowdown of Potential GDP*). Suddenly, the stock of structures that had been built based on pre-recession forecasts became excessive, and firms had to reduce their investment activity, absorb the overhang, and bring

Real Investment



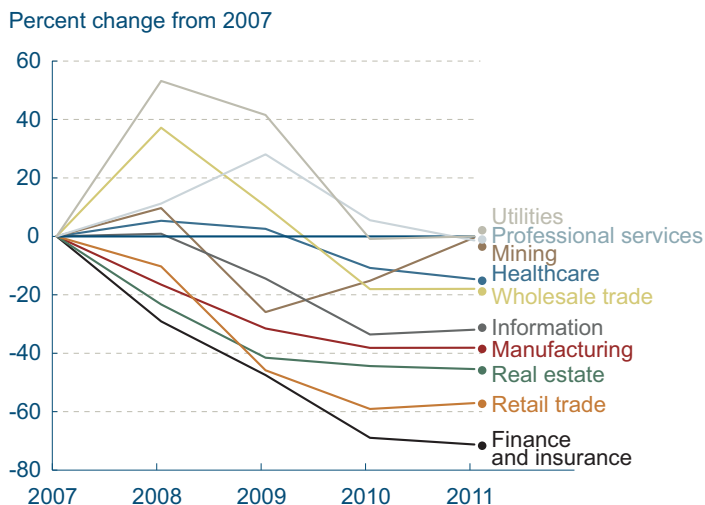
Note: Shaded bar indicates a recession.
Source: Bureau of Economic Analysis.

Investment in Equipment and Software by Industry



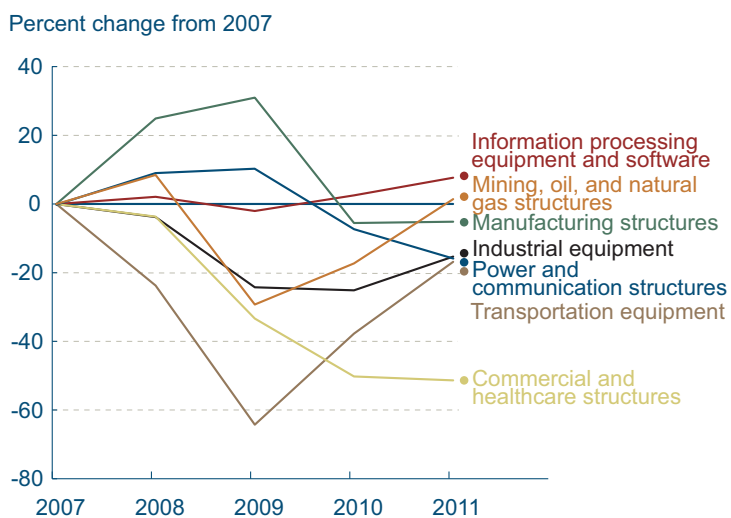
Source: Bureau of Economic Analysis.

Investment in Structures by Industry



Source: Bureau of Economic Analysis.

Investment by Type



Source: Bureau of Economic Analysis.

the stock back in line with the new forecasts. This process took especially long because these assets last so long. Equipment and software, in contrast, are shorter-lived assets, with an average age of approximately 7 years, so the overhang of equipment and software was smaller and quicker to absorb.

Data on investment activity by type confirm our previous observations—Investment in equipment and software tended to behave more in sync with economic activity, dropping during the recession and bouncing back during the recovery, while investment in structures tended to lag. Within each category of investment, however, different types behaved differently. In 2011, investments in industrial and transportation equipment were on their way to recovery, but still well below their peaks. In contrast, investment in information processing equipment and software didn't decline much during the recession, and in 2011 it was already above its previous peak, due in part to its stronger underlying trend growth. Investment in structures tended to decline later, as investing in these long-lived assets is planned more in advance and is more difficult to reverse. In 2011, investments in most types of structures were still below their peaks. Investment in commercial structures, which include office buildings and multi-merchandise shopping structures, was especially depressed, 50 percent less than its 2007 level.

The Evolution of Debt Balances

05.02.13

by Sam Chapman and Yuliya Demyanyk

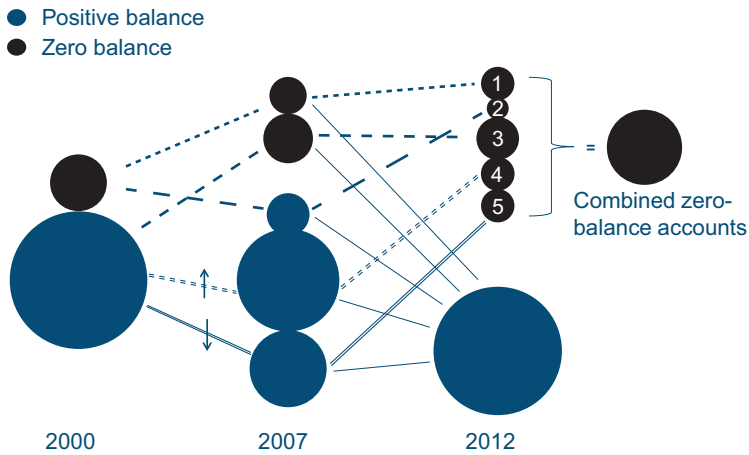
Since the end of the recent financial crisis, individuals have been reducing the large amounts of debt that they had built up prior to the recession. Recent studies show that the percentage of individuals holding debt in 2012 is less than in 2000. (See this Census Bureau study¹ and “Uneven Debt Burdens across the States”²).

As of the end of 2012, 25.6 percent of individuals in a representative sample we analyzed have no debt. This fraction increased from 14.5 percent in 2000 and 17.3 percent in 2007. Forces driving this large deleveraging may include foreclosures, bankruptcy, decreased bank lending, decreased consumer spending, or simply a decreased individual appetite for debt. Whatever the cause, it is informative to follow those individuals with zero debt over the past 12 years to analyze the trends that may have led them to their current deleveraged state.

Using data from Equifax’s Consumer Credit Panel, we look at individuals’ debt in the fourth quarters of 2000, 2007, and 2012 (henceforth referred to as 2000, 2007, and 2012). Equifax provides us with the credit bureau data for a 5 percent random sample of the U.S. population. We restrict all available data to the individuals that existed in all three periods so that we can see the evolution of debt over those years as opposed to the behavior of new borrowers entering or other borrowers exiting the sample. As a result of this restriction our data sample covers about 9 million individuals, for whom we adjust debt to account for joint accounts with other individuals (so everybody’s debt is counted just once).

The chart below shows this evolution of individual debt through the three periods. It shows shifts to and from zero balances and positive balances in each year. The black and blue bubbles represent the proportion of individuals with zero and positive balances, respectively, in the corresponding year. If an individual had a zero balance in 2000 (black

Evolution of Debt Balances



Notes: The size of the bubble represents the proportion of individuals with the corresponding balance. The arrows indicate a change from a positive balance to either a larger positive balance (up arrow) or a smaller positive balance (down arrow). Source: Equifax Consumer Credit Panel; authors' calculations.

bubble), he or she could have a zero balance or a positive one in 2007. In 2012, again their balance could be positive or zero. Those with a positive balance in 2000 could increase, decrease to a smaller positive balance, or decrease to zero in 2007, and then have a zero balance or a positive balance in 2012.

Following the lines next to the numbered black circles allows us to trace consumers' respective balances in 2007 and 2000. The black bubble labeled number 1 represents those who had zero balance in all three periods. The largest black bubble in 2012, labeled 3, represents those individuals who began in 2000 with a positive balance, decreased to zero in 2007, and then remained at zero in 2012.

A more common trend expected during a boom-bust cycle is the one represented by the black bubbles labeled 2 and 4. Number 2 begins with zero debt in 2000, increases to a positive value in 2007, and then returns to zero in 2012. Number 4 begins with a positive debt balance, increases even further in 2007, and then decreases to zero in 2012. These bubbles represent those who increased their debt balances during the "boom" years between 2000 and 2007, but who have since decreased to a zero balance in 2012, four years after the crisis. Number 2 and number 4 combined represent about 29 percent of those with a zero balance in 2012. Finally, the black bubble labeled 5 represents those individuals with some form of debt in 2000, who had a decrease in 2007 (although they are still above zero), and finally a further decrease to a zero balance in 2012.

Of the final 25.6 percent of accounts with a zero balance in 2012, 19.7 percent were zero throughout the three periods (group 1), and 32.1 percent had a positive balance in 2000 and then zero in 2007 and 2012 (group 3). Combined, groups 1 and 3 represent 51.8 percent of zero-balance accounts in 2012, which means over half of those with a zero balance in 2012 had a zero balance in 2007. This implies that many of those zero accounts may have deleveraged prior to the onset of the recession in 2008.

Next, 8.5 percent of the zero-balance accounts in 2012 began with a zero balance in 2000, increased

to some level of positive balance in 2007, and then reverted back to zero in 2012 (group 2). The two remaining groups (4 and 5) had some form of positive debt in 2000 and 2007 and combined represent 39.8 percent of the zero-balance accounts in 2012. Groups 2, 4, and 5 all represent those with some form of positive balance in 2007 who had completely deleveraged themselves by 2012, after the recession occurred.

For more on household debt, please read:

1. "Household Debt in the U.S.: 2000 to 2011"
< <http://www.census.gov/people/wealth/files/Debt%20Highlights%202011.pdf>>
2. "Uneven Debt Burdens across the United States"
<<http://clevelandfed.org/research/trends/2013/0213/01houcon.cfm>>

Employment Growth Slows in Ohio

05.03.13

by Guhan Venkatu

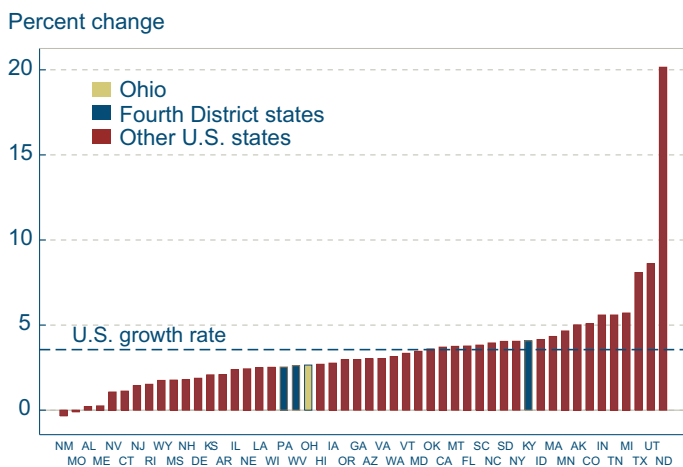
Employment in Ohio has grown 2.7 percent since the start of the recovery (June 2009 to March 2013). Over the same period, national employment grew almost a percentage point more (3.5 percent). Elsewhere in the District, employment in West Virginia and Pennsylvania grew at rates similar to that seen in Ohio, 2.6 percent and 2.5 percent, respectively. By contrast, Kentucky saw growth above the national average at 4.1 percent. Among the other 50 states, North Dakota saw the largest employment gain—driven by a boom in energy production—followed by Utah and Texas, while New Mexico and Missouri experienced employment declines.

Ohio’s employment growth to this point in the recovery puts it close to the middle of the distribution (30th). However, its relative ranking has changed over the course of the recovery. In August 2010, Ohio ranked 25th among the 50 states. Over the ensuing year and a half, its ranking improved, drifting up into the top 15 by the beginning of 2012. But since June 2012, Ohio’s ranking has moved back toward the middle of the distribution.

In part, this movement reflects the weak employment growth Ohio has experienced in the past year. In the twelve-month period ending in March 2013, Ohio’s employment was essentially unchanged, growing a meager 0.1 percent. This represented the third-worst growth rate among the 50 states. (The worst growth rate occurred in another Fourth District state, Pennsylvania.) At the same time, national employment grew 1.4 percent, with the 10th and 90th percentiles of the state-employment change distribution continuing to experience employment gains. This pushed Ohio away from the higher-growth states and toward the lower-growth states.

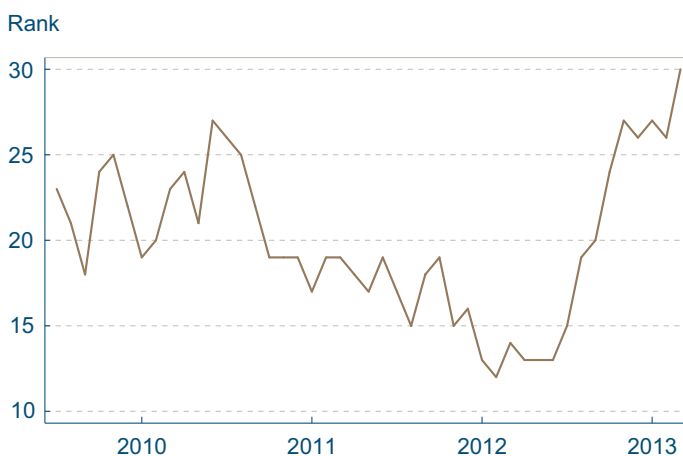
One key difference between Ohio and the U.S. during this period relates to changes in construction employment. Nationally, construction employment grew about 2.9 percent in the twelve months

Employment Change by State Since June 2009



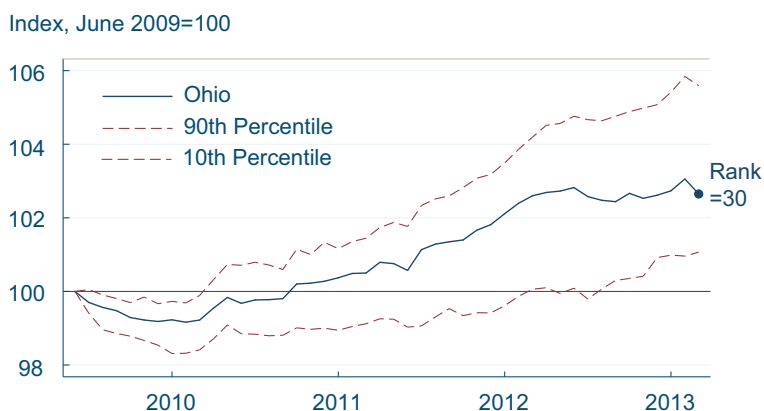
Source: Bureau of Labor Statistics.

Ohio's Relative Growth Ranking Since June 2009



Source: Bureau of Labor Statistics.

Employment Change by State Since June 2009



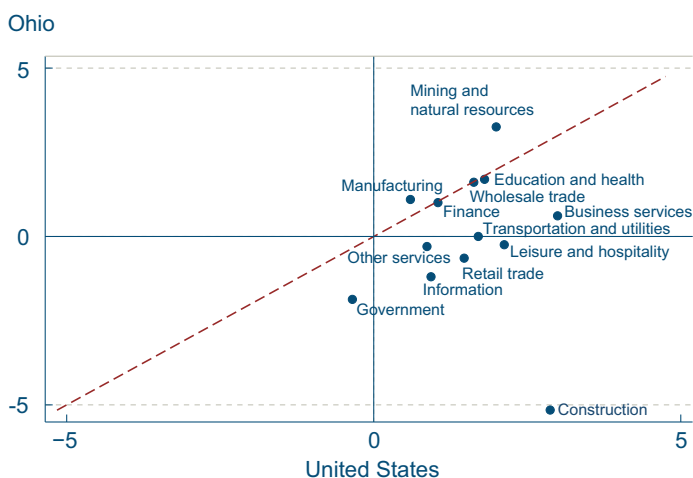
Source: Bureau of Labor Statistics.

ending in March 2013. By contrast, construction employment fell about 5.2 percent in Ohio over the same period. It's important to point out, however, that until the third quarter of last year, year-over-year changes in construction employment had been far stronger in Ohio than in the U.S. throughout the recovery. Additionally, since December 2007, when the recession began, the cumulative change in construction employment in the two geographies has been about the same. Nevertheless, construction has clearly contributed negatively to Ohio's overall employment change in the last year.

While construction is an obvious source of underperformance for Ohio—having grown nationally but not statewide—several other sectors show the same pattern, albeit less dramatically. These sectors include retail trade, transportation and utilities, leisure and hospitality, and information. Collectively, these industries account for about one-third of Ohio's employment.

In the cases of government and businesses services, where the direction of growth was the same—negative for the former and positive for the latter—Ohio still saw either larger declines or less growth than the associated national industry. Manufacturing and mining were the two sectors that grew noticeably more in Ohio over this period. These industries collectively account for about 13 percent of Ohio's employment, though mining represents a small fraction of this total—about 2 percent, or 0.25 percent of Ohio's overall employment.

Percent Employment Change by Industry in Ohio and US Since March 2012



Note: The dashed line indicates 45 degrees.

Source: Bureau of Labor Statistics.

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

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