



Construction and the Great Recession

The boom in real estate prices during the early 2000s and the subsequent bust were key factors underlying the recessions in the United States and Europe. How could housing prices affect the entire economy so drastically? When the price of a good or service goes up, people usually supply more of it. In this case, higher house prices led construction firms to build more houses. Once housing prices crashed, no one wanted to build houses anymore. This directly reduced the most common measure of output: gross domestic product (GDP). A logical expectation might be that the resources—workers and capital equipment—that had been producing houses would switch to producing other things that consumers did want (e.g., using those resources to build roads, provide health care, or make breakfast cereal). However, because construction workers cannot transfer their skills quickly or without cost to produce other goods, unemployment in the construction sector rose, directly reducing aggregate employment.

In this essay, I use industry-level data from the United States and European countries to estimate the direct negative effect of the construction sector crash on GDP and aggregate employment. The results are summarized in two charts. The chart on the left shows the direct effect of the changes in construction sector employment from 2008 to 2010 versus total employment for 31 different countries. The change in construction sector employment is the construction sector’s proportion of 2008 employment times the percentage change in this sector’s employment from 2008 to 2010. This chart also contains a statistically fitted line

that illustrates the strong relation between the two variables. The fitted line implies that declines in construction employment can directly account for about half of the observed changes in total employment.

The chart on the right shows a similar analysis for the direct effects of construction sector output declines and declines in total GDP. The statistically fitted relation between these two variables is still positive, but a little weaker as the dots do not follow the line as closely. This weaker relation may be explained, at least in part, by the fact that the share of total employment in the construction sector is considerably higher than its share in GDP.

These findings suggest that the direct impact of the crash of the construction sector is very important in understanding the changes in U.S. and European GDP and employment, but it is not the whole story. In addition to the direct effect of the decline in the construction sector on GDP and employment, the housing bust also indirectly affects the economy through other economic sectors. A construction slump reduces construction firm purchases from other sectors, which reduces employment and purchases in those sectors. These interconnections amplify the direct impact of the negative shock to the construction sector on GDP and employment. Further work is needed to better understand the forces driving the persistently high unemployment rate and lackluster economic growth since the recession.

—Adrian Peralta-Alva

Relation Between Construction Sector and 31 Countries (2008 vs. 2010)

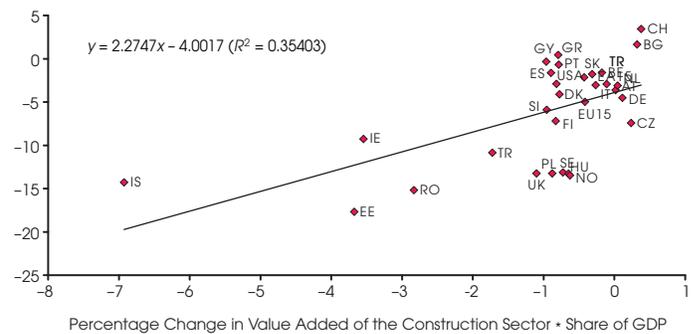
Employment

Percentage Change in Total Employment



GDP Growth

Percentage Change in GDP



NOTE: AT, Austria; BE, Belgium; BG, Bulgaria; CH, Switzerland; CY, Cyprus; CZ, Czech Republic; DE, Germany; DK, Denmark; EA15, euro area (15 countries); EE, Estonia; ES, Spain; EU15, European Union (15 countries); FI, Finland; FR, France; GR, Greece; HU, Hungary; IE, Ireland; IS, Iceland; IT, Italy; LT, Lithuania; LU, Luxembourg; LV, Latvia; MT, Malta; NL, Netherlands; NO, Norway; PL, Poland; PT, Portugal; RO, Romania; SE, Sweden; SI, Slovenia; SK, Slovakia; TR, Turkey; UK, United Kingdom.

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