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California Nonresidential Construction Trends

This edition of the Economic Perspective analyzes nonresidential construction trends before and after the “Great Recession” of 2008 and 2009.

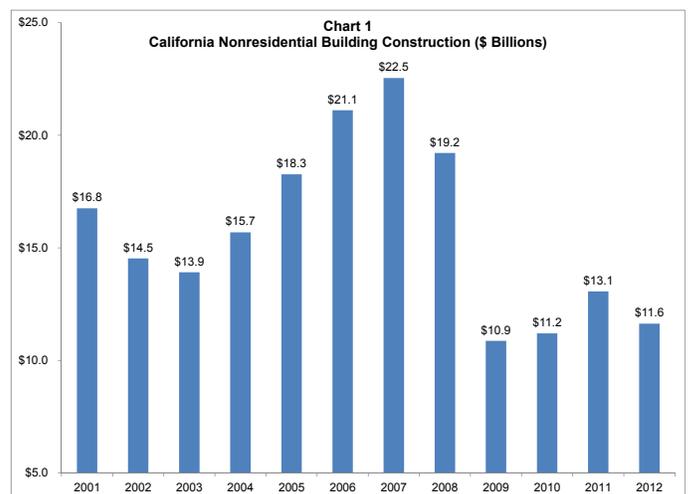
- In 2012, the value of California nonresidential construction permits issued was only 52 percent of 2007 value, before the recession started.
- Alterations and additions to existing nonresidential buildings, an important component of total nonresidential construction activity, increased from an average of 38 percent of total nonresidential construction values for the eight years before the recession to 55 percent for the five years during and after the recession.
- Alterations and additions is the only category to average more than its pre-recession values after the recession, averaging 108 percent of pre-recession period values.
- Hotel construction is currently the weakest major nonresidential category, averaging only 38 percent of its pre-recession period average value.

Nonresidential construction values are tabulations of all California values of building permits issued for new commercial, industrial, and other nonresidential buildings, along with alterations and additions to existing private nonresidential structures. Such buildings include stores, offices, and hotels. Nonresidential construction is a critical part of economic activity, contributing to jobs and employment in construction and related industries.

Nonresidential construction also comprises an important source of sales and use tax revenue derived from materials used in construction, and is a major factor related to assessed values and changes in property tax revenues. This kind of construction is also very sensitive to general economic conditions, growing faster than the overall economy following periods of economic expansion and contracting at a faster rate following recessions.

We obtained data from the California Department of Finance for total California nonresidential construction values and also for specific types of nonresidential construction from 2000 to 2012. These data were originally reported by the Construction Industry Research Board (through March 2012) and the California Homebuilding Foundation (from April 2012 and onward). The 2012 data were just released this spring. The figures are unadjusted for inflation.¹

Chart 1 shows total California nonresidential construction values from 2001 to 2012. As revealed in the chart, nonresidential construction activity is very sensitive to economic conditions. Some nonresidential construction projects require long construction periods; for example, a large office complex may take years to complete. Because of the often long time periods involved, changes in nonresidential construction often lag behind the economic business cycle (periods of growth and recession) by a couple years.



Nonresidential activity fell in 2002 and 2003, following the recession of 2001. It then rose briskly, reaching a peak of \$22.5 billion in 2007. Nonresidential construction declined precipitously in 2008 and 2009 during the recession, reaching a low of \$10.9 billion in 2009. This is less than half the value of the 2007 peak. Since 2009,

¹ Source: California Department of Finance, www.dof.ca.gov/HTML/FS_DATA/LatestEconData/FS_Construction.htm

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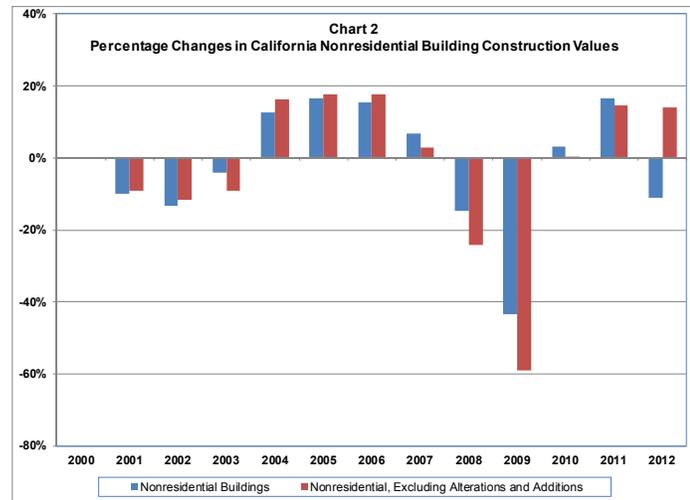
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annual nonresidential construction values have been up and down, most recently \$11.6 billion in 2012. This is more than half the value of the 2007 peak.

Chart 2 displays the same basic data as Chart 1, replacing values with annual percentage growth. The chart also breaks out alterations and additions from other nonresidential construction. For purposes of discussion, we will define this category as “new nonresidential construction.” This breakout more clearly illustrates the sensitivity of completely new projects to economic conditions.

As displayed in Chart 2, new construction generally grows faster than total nonresidential construction during periods of economic growth and declines more sharply than total nonresidential construction during recessions. For example in 2009, total nonresidential construction declined 43 percent; while new nonresidential construction sunk 59 percent, a much steeper decrease. With the exception of 2012, growth of nonresidential construction has paralleled the growth of new nonresidential construction in direction (whether rising or falling in any one year), but not at the same rate.



Alterations and additions typically comprise a large component of total nonresidential construction. However, they became more important following the recession. This is evident in the data shown in Chart 3.

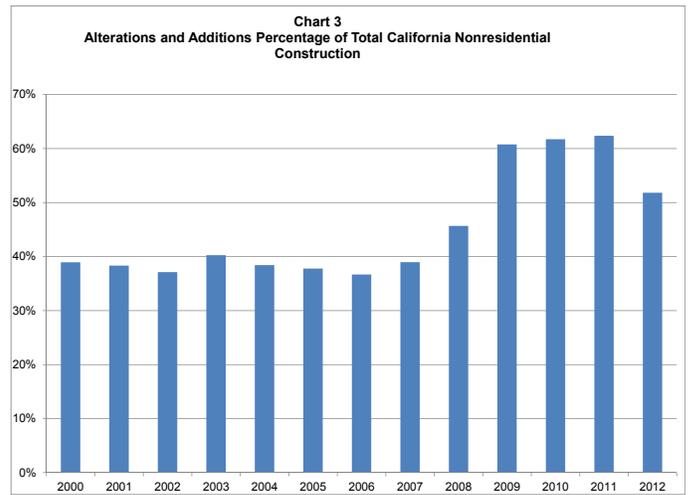


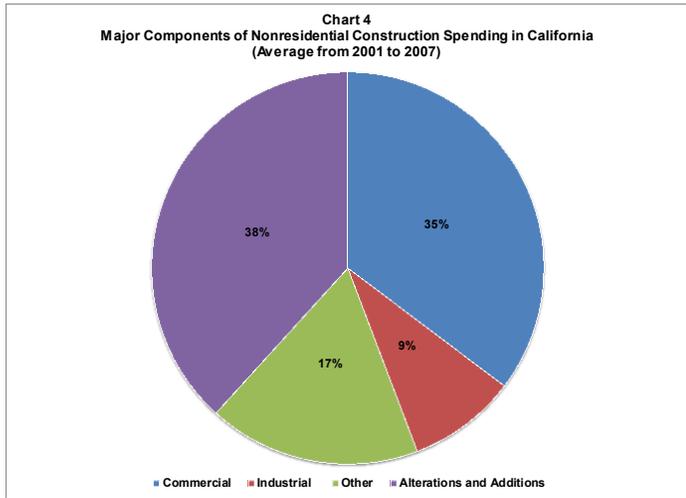
Chart 3 sets forth annual alterations and additions values as percentages of total nonresidential construction. As shown in the chart, from 2001 through 2007 alterations and additions were close to 40 percent of total nonresidential construction, whether the economy was growing or in recession. However, since 2007, the percentage of alterations and additions has risen dramatically, reaching over 60 percent of total nonresidential construction from 2009 to 2011. The latest year, 2012, shows the percentage more than 50 percent, much higher than the pre-recession period.

To further analyze the impact of the Great Recession, we divided the data into two time periods, pre-recession and post-recession. We defined the pre-recession period from 2000 to 2007, and calculated an average of annual values for these years. We did the same calculations for the post-recession period, which includes the recession, and runs from 2008 to 2012.

² Source: Annual Energy Review:2011, U.S. Energy Information Administration, September 2012, www.eia.gov/totalenergy/data/annual/index.cfm

³ Source: U.S. Energy Information Administration website, www.eia.gov/dnav/pet/pet_pri_gnd_dcus_nus_w.htm

Chart 4 presents a pie chart of pre-recession components of nonresidential construction. As shown in the chart, 38 percent of total pre-recession nonresidential value resulted from alterations and additions.



As shown in Chart 5, this percentage increased to 55 percent following the recession. Commercial values declined from 35 percent to 23 percent.

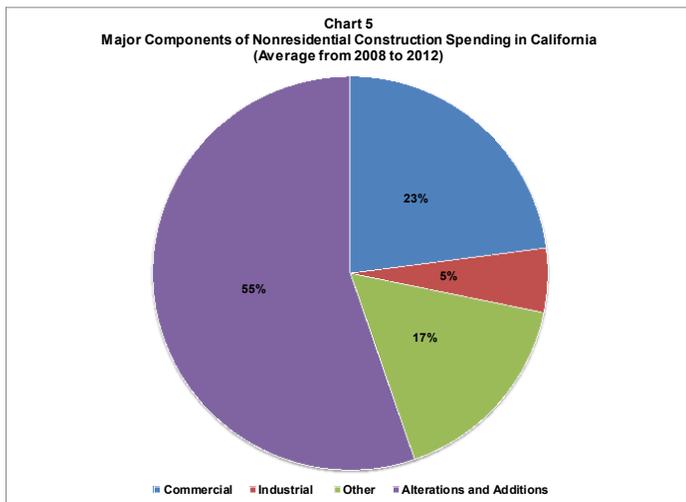


Chart 6 illustrates the composition of commercial construction after the recession. Stores (42 percent) and offices (33 percent) combined to constitute the bulk of commercial building activity.

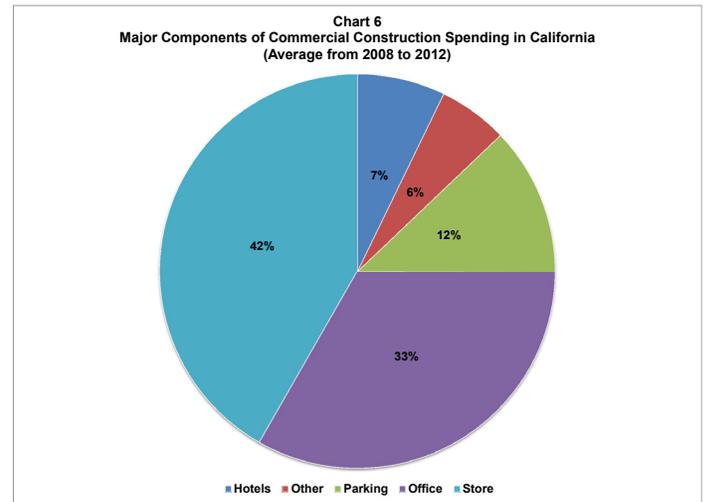


Table 1 shows post-recession values as percentages of pre-recession values for each major construction category, sorted from lowest to highest. The only category with a value greater than its respective pre-recession value is the alterations and additions category. This category grew to 108 percent of its pre-recession average.

Hotel construction constitutes the weakest category since the recession. Post-recession hotel construction activity is only 38 percent of the value of the pre-recession average. Industrial buildings, offices, and stores are all averaging less than half of their pre-recession values.

| Type of Nonresidential Structure | Post-Recession (2008 to 2012) as a Percentage of Pre-Recession (2000 to 2007) |
|--------------------------------------|---|
| Hotels | 38% |
| Industrial Buildings | 44% |
| Offices | 45% |
| Stores | 48% |
| Total Commercial Buildings | 49% |
| Service Stations | 56% |
| Amusements | 57% |
| Other Nonresidential Structures | 70% |
| Parking | 71% |
| Total, All Nonresidential Structures | 75% |
| Alterations and Additions | 108% |

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www.boe.ca.gov/news/epcont.htm

Taxpayers' Rights Advocate: 1-888-324-2798

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www.boe.ca.gov/members/board.htm

Online Resources

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California Department of Finance
www.dof.ca.gov

California Employment Development Department (EDD),
Labor Market Conditions in California
www.labormarketinfo.edd.ca.gov

Federal Reserve Bank of Philadelphia, *Survey of Professional Forecasters*
www.phil.frb.org/econ/spf/index.html

National Association for Business Economists
www.nabe.com

U.S. Bureau of Economic Analysis
www.bea.gov

U.S. Bureau of Labor Statistics
www.bls.gov/cpi

U.S. Census Bureau
www.census.gov