Correlation of construction spending to equipment

A Market Intelligence Product

It is often said that construction spending drives construction equipment sales but do all types of construction spending correlate well with that of construction equipment?

To examine this, the correlation coefficient of construction spending to the Construction Equipment Value Index was calculated using data from 2005 through 2010. The construction data was the value of construction put in place, as published by the US Department of the Census. Construction data that was not seasonally adjusted was selected because the CE Value Index is not seasonally adjusted.

The correlation coefficient is a measure of the strength of the linear relationship between two variables. The coefficient's value can range between a maximum of 1 and a minimum of -1. If the coefficient is high, then the two variables tend to move in the same way - if one has a high value so will the other. If the coefficient is below zero, then the opposite is true and we could expect one variable to decrease when the other increases.

The results are interesting to say the least. Private residential construction has the highest coefficient at .89, with religious construction, total construction, and commercial coming in lower. After commercial the coefficients drop off quickly, down to values below -0.7.

Some kinds of construction actually have a fairly strong negative correlation, although these are small in total spending over the five year period. As would be expected, the larger coefficients have the largest amounts of spending, but neither nonresidential nor public construction correlate well with the equipment index.

It should be noted that the timing of the CE index and construction spending have not been adjusted to account for difference in timing between when construction spending would occur and when equipment would be bought as a result of that spending. The values for the dates as published were used. It's possible that adjustment of the timing could affect correlations.

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