Three Cost Drivers of Today's Construction Environment: Land, Lumber, and Labor

While we still believe there is a strong need for more commercial real estate investment and development in the United States, today's rising costs concern us.

In a survey of more than 1,600 real estate professionals for the 2018 Emerging Trends in Real Estate®, PwC and the Urban Land Institute found that the most important real estate development issue was land and construction costs, registering a 4.43 on a scale of one (no importance) to five (great importance).

A glance into the underlying data shows why developers, investment managers, lenders, and other survey participants registered this topic as the most important to monitor in 2018.

Consider the March 2017 Multifamily Market Commentary from Fannie Mae that reports the estimated cost per square foot for a three-story apartment building rose from $148 per square foot in 2013 to $192 per square foot in 2017, an increase of nearly 30% in just four years.

These rising costs include land prices, the hard cost of materials, and the soft costs of labor, engineering, permitting, and other fees.

The Lincoln Institute of Land Policy estimates aggregate land prices in the U.S. based on the Federal Housing Finance Agency repeat-sales index each quarter. From the first quarter of 2013 to the first quarter of 2016 (the latest available estimate), the total aggregate value of residential land in the U.S. rose from $6.1 trillion to $8.8 trillion, representing an increase of nearly 42%.

In other words, any developer should expect to pay somewhere between 40% and 50% more per acre for a new development than they would have just three years ago.

However, the nationwide residential land price only paints half the picture. When one considers that figure on a metro-by-metro basis, those numbers become even more eye-opening.

As shown in the chart below, during that same three-year period, Ft. Worth saw the value of its land more than triple, from $14.9 billion to $46.2 billion. Other high-growth cities like Tampa, Columbus, Houston, and Kansas City also all saw their residential land values more than double.

1Q 2013 - 1Q 2016 Residential Land Value Growth

Top 5 Cities

City	1Q 2013 Value ($B)	1Q 2016 Value ($B)	3 Year Growth
Fort Worth	$14.9	$46.1	208.9%
Tampa	$22.4	$57.3	156.1%
Columbus	$11.9	$29.7	149.0%
Houston	$26.2	$62.9	139.8%
Kansas City	$11.2	$26.3	135.3%

Land and Property Values in the U.S., Lincoln Institute of Land Policy

With these significant increases in land costs, cities that formerly offered some of the most attractive return prospects for residential development have largely been priced out on the basis of land costs alone.

Input costs have risen significantly too, especially in the lumber market. With high levels of new construction, a May survey by the National Association of Homebuilders (NAHB) found that 21% of builders reported a framing lumber shortage, the highest rate since 2004.

We have also seen a significant increase in the cost of labor, specifically skilled labor like electricians, masonry workers, plumbers, and welders. In the latest Commercial Construction Index survey produced by USG Corporation and the U.S. Chamber of Commerce, an overwhelming 91% of contractors noted they had a high or moderate level of difficulty in finding skilled workers.

With increasing demand for skilled labor and reduced supply, the average wage paid to construction workers is rising. From 2009 to 2015, the Bureau of Labor Statistics reports the average annual wage increase for construction workers was 1.5%, and the average unemployment rate was 13.9%. Yet in the third quarter of 2017, the average annual wage increase had doubled to 3.0%, and the unemployment rate had fallen to 4.5%.

An important but less quantifiable aspect of the increasing cost and reduced supply of skilled construction labor is the long lead time required to secure labor for essential aspects of development. We have seen construction delays throughout the industry because of forced waits for contractors – electricians, HVAC technicians, and other skilled trades – who are in high demand and short supply.

"We have found that the higher costs of land, lumber, and labor have driven the price of new development to levels that make finding attractive risk-adjusted returns extremely difficult."
– Chris Boggs, President