economics

REACHING THE PEAK?

A look at the construction economy in 2018 and beyond.

BY JOHN CROSS, PE

ADMIT IT: Your favorite amusement park ride is the roller coaster. If it wasn't, you wouldn't be a design and construction industry professional. More than any other domestic industry, the construction industry in the United States is noted for its dizzying peaks and rapid drops. Some peaks are higher than others, some drops are gentler and sometimes it seems as if the car you are riding in hangs at the top for a while after a long climb. But no matter where you are during the ride, there will always be another climb, another peak and another drop.

The building construction market over the past several years has been slowly reaching a new peak. The peak we will experience in 2018 will continue through early 2019 before the roller coaster heads downhill. The good news is that the drop beginning in mid-2019 will not be the stomach-wrenching drop experienced in 2008 and 2009, but rather a much more gradual dip before a new climb begins.

The prime building construction market in the United States for structural steel is the combination of all nonresidential building construction and residential construction five stories and greater. When measured in square footage of construction starts, the highest peak for this segment of the overall construction market since 1970 was in 2000, with 1.87 billion sq. feet of building construction starts; 2006 came close, with at 1.77 billion sq. ft. The lowest level of construction starts occurred in 2010 at just 0.68 billion sq. ft. The fastest drop occurred between 2008 and 2009, with the market decreasing in volume by 45%, while the sharpest climb occurred between 1983 and 1984, with the market increasing by 20%.

Bouncing Back

Following the low point of the Great Recession (2010) the market rebounded quickly, with climbs of 8% in 2011, 15% in 2012, 16% in 2013 and 17% in 2014. These increases were followed by a relatively flat period from 2015 (flat), 2016 (+4%), and 2017 (+6%). It is anticipated that growth in 2018 will be near 2%, with 2019 flat to slightly decreasing, followed by a continuing decrease in 2020, hitting bottom in 2021 and an expansion in 2022. This is not going to be a one of the scarier parts of the roller coaster ride, but only a slight undulation in advance of another climb.

One of the features of a roller coaster is that you can't see what's coming until you go over the top of the peak. The same could be said of the construction market. The predictions regarding 2018 and the years beyond are just that—predictions. But just like you might have a sense of the what's at the bottom of the next drop on a roller coaster—based on your memory of what the ride looked like when you got in line, a sense of what the designer might have been trying to accomplish and the screams of the riders that preceded you—there are indicators of what may happen next in the building construction market. Likewise, our view of 2018 and beyond is currently being driven by the cyclical nature of construction, the balance between nonresidential and residential construction, supply and demand fundamentals, the labor market, the political climate and the overall economy.

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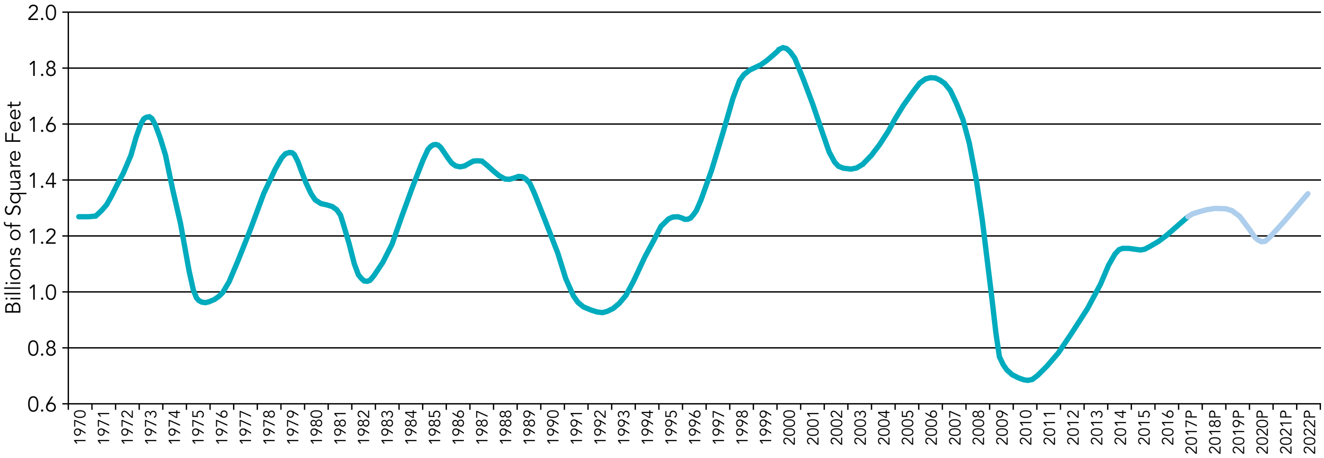
Building Construction Starts 1970 to 2022



▲ The roller coaster ride that is building construction.

Peak to Peak

The building construction market is cyclical, with peak-to-peak cycles ranging from 8 to 10 years. The last peak was in 2007, which would indicate that a new peak (followed by a downturn) is drawing near. Several real estate developers have speculated that this cycle will be slightly longer than the typical cycle because of 1) the depth of the trough in 2010 and 2) the more disciplined approach to building construction that has been evident ever since. This will probably result in pushing out the next peak until the late 2019/early 2020 time frame. There has been much discussion regarding the peak of 2007 and whether that peak actually short-circuited a normal downturn, resulting in a deeper dip in 2010. There is little debate that the overall economy was super-heated in the years leading up to 2007 by the excesses of what led to the financial crisis, particularly with respect to loaned dollars flowing to consumers through equity financing. This did ratchet up construction activity and resulted in an overbuilt market.

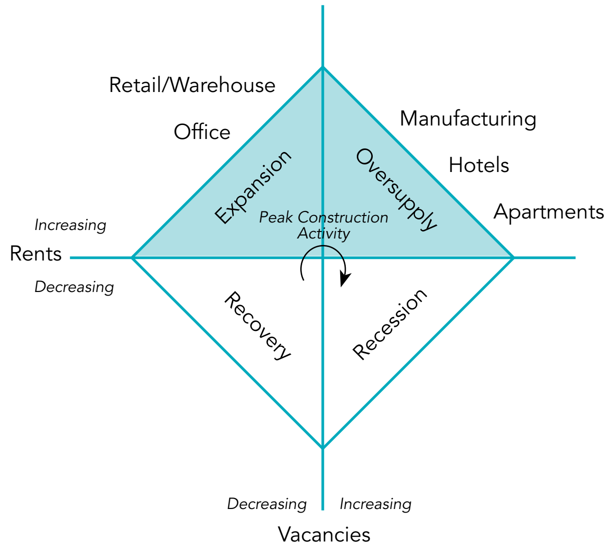
The rebound in building construction activity since 2010 has been driven by activity in the multi-family apartment market, particularly in the segment of that market that is five stories and above; a similar growth has not occurred in the single-family residential market. This increase in multistory residential construction was the result of a reticence on the part of buyers due to the recent losses in home value, high debt levels among college graduates and a preference among Gen-Xers to live in urban rather than suburban or rural areas. In 2010, at the lowest point of the recession, multistory residential construction comprised only 5.4% (41 million sq. ft) while by 2015 it represented 22.9% (264 million sq. ft) of the overall building market. Since 2015, the volume of multistory residential construction has plateaued and is beginning to decline. At the same time, nonresidential construction is expanding. This trade-off between multistory residential and nonresidential construction will result in the overall market remaining flat to slightly rising over the next two years.

Changing Balance

This slowing of multistory residential construction is the predictable result of a changing balance between supply and demand. The construction market moves through four phases in response to imbalances in supply and demand, which are best measured by the interaction between vacancy and rental rates. When vacancy rates are increasing and rents are falling (or rising less than the rate of inflation) construction activity is falling during a recessional period. A recovery begins at the point where vacancies start to decline and rents are still stagnant or falling, providing the basis for future expansion of construction activity. As rental rates begin to increase faster than the rate of inflation and vacancies are still decreasing, construction activity accelerates in a period of expansion. But as with all expansions, the momentum of construction activity drives the marketplace in an oversupply condition where the vacancy rate increases even as rents increase. It is during the times of expansion and oversupply that the greatest level of construction activity occurs. In today's market, all of the major construction segments are in either an expansion or an oversupply situation. Apartments, condominiums and manufacturing facilities are in a state of oversupply, while office and retail/warehouse construction is still in a period of expansion. Over the next two years, it is anticipated that all of these sectors will move past the oversupply condition and experience increasing vacancy rates and slowing increases of rental rates, signaling a recessional status.

Labor Availability

Expansion of construction activity depends on the availability of a skilled labor force. Recent surveys conducted by the Associated General Contractors (AGC) have indicated that both general and specialty contractors are finding it increasingly difficult to hire workers and fill open positions. As of the end of October, the unemployment rate cited by government officials was 4.1%. This rate (U3) measures the percentage of unemployed workers actively seeking employment. The other unemployment rate (U6),



which stands at 7.9%, measures the percentage of unemployed workers who are employable. Whenever the U3 rate falls to 4% or below and the spread between U6 and U3 is less than 4%, it is considered to be a period of full employment. The United States is nearing full employment, at which time hiring new employees becomes difficult. According to the AGC survey, 70% of the firms surveyed indicated challenges in filling open positions. In today's marketplace, there are only 1.1 workers for every open position, down from 6.5 in 2010, and it currently takes 31 days on average to fill an open position compared with under 15 in 2009. We have reached the point at which the availability of workers to support construction activity expansion is actually limiting that expansion.

Public Projects

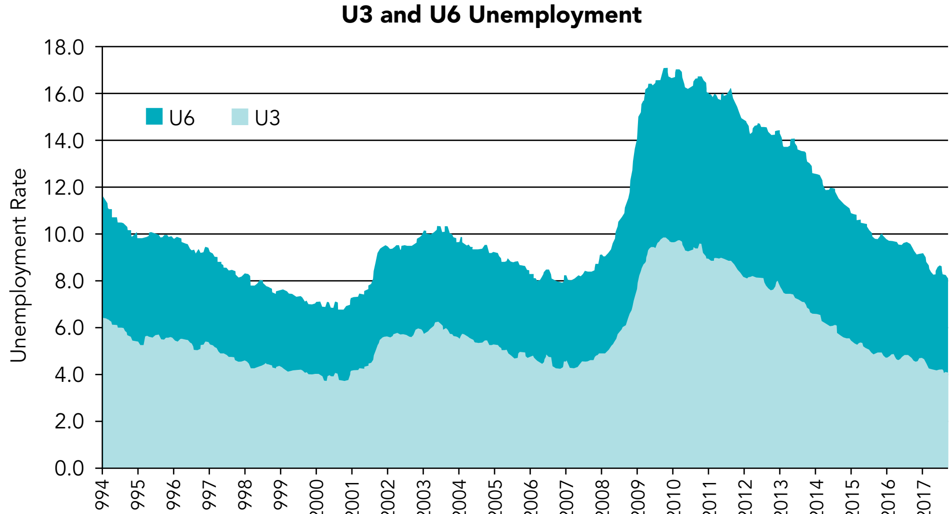
As a construction cycle begins to peak and activity moves lower, it is often publicly funded projects that sustain construction activity. The current unsettled political climate in Washington, D.C., and across the country has slowed progress on proposals related to construction. The infrastructure plan, which was supported in various forms by both parties, is now bogged down behind other legislative issues. States are wrestling with deficits, pension funding and growing infrastructure demands. Probably the only bright spot with respect to publicly funded projects scheduled to start in 2018 will be school construction funded through local referendums, particularly in California, Texas, Colorado and Washington.

Economic Growth

The gross domestic product (GDP) of the U.S. is expected to grow at a 2.6% rate in 2018. While this is an increase over the 2.2% growth experienced in 2017, it still is below the 3% growth rate that has traditionally accompanied robust expansion of the building construction market or the lengthening of a typical construction cycle. Discussion of GDP growth rates inevitably raises the question of when the next recession will occur in the overall U.S. economy. A recession is commonly defined as two consecutive quarters of negative GDP growth. Economists generally agree that there will be a mild recession lasting only two quarters at some point over the next three years, but they vary with respect to when that recession will begin. Some see it beginning in the first half of 2019 while others push it back to the last half of 2020. In either case, it will occur at about the same time as the downturn in building construction activity. Also, the 2% growth anticipated in 2018 will not be uniform across different project types, as indicated in the below table.

So what's the bottom line? You made the choice to get on the building construction roller coaster—and once the ride begins, it's impossible to get off. So make sure you are strapped in, holding on tight and prepared for what lies ahead. The good news is that the next dip isn't going to be as dramatic as the last one, and the climb from the bottom should take the market to levels above what we saw in 2017.

U3 and U6 Unemployment



Anticipated 2018 Growth by Project Type	
Stores	1%
Warehouses	4%
Offices	6%
Parking	9%
Manufacturing	3%
Industrial	Flat
Schools	6%
Hospitals	-1%
Government	3%
Religious	-1%
Arenas	5%
Misc. Nonresidential	2%
Hotels	-3%
Dormitories	1%
Apartments/Condos	-10%