

# MARCUM

## Commercial Construction

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**MARCUM**  
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## A Noisy Expansion

By Anirban Basu, *Chief Construction Economist, Marcum LLP*

### Tech Leads the Way

When Amazon announced that it was searching for a second headquarters, 238 communities across the continent scrambled to put together expansive applications. As of this writing, 20 finalists remain in the race, with a number offering billions of dollars in subsidies to a company founded by the world's wealthiest individual. At stake is a \$5 billion facility that will employ 50,000 people, will substantially expand a region's local tax base, and position a community for leadership in global e-commerce. Among the finalists are predictable cities like Boston and Atlanta and arguably less obvious choices such as Indianapolis and Columbus, OH.

But Amazon represents only one of a number of blockbuster real estate deals involving America's tech giants. A report from online technology news website Geek Wire states that Internet search giant Google is planning on doubling the size of its Seattle campus. Vulcan Real Estate announced that it would begin developing a third block, with more than 600,000 square feet already

under construction. The new block will house a 12-story office building along with an additional 23,000 square feet of retail space. Construction is set to begin late next year.

An article supplied by Construction Dive states that Facebook has filed for more than \$900 million in construction permits in and around its Menlo Park campus in San Francisco. The combined permit value of all of Facebook's planned projects easily exceeds \$1 billion.

That tech companies are driving commercial real estate and significant volumes of construction activity is hardly new. A 2007 article from DataCenter Knowledge indicates that more than a decade ago Google paid about \$3,000 per square foot (\$3,597 in today's dollars) for a data center it was building in North Carolina. The specialized needs of tech giants tend to produce disproportionate levels of construction investment. The Google data center's per square foot cost was roughly three times the average rate for that year.

Apple, the world's first \$1 trillion company as measured by market capitalization, recently finished construction and renovation of a 1.3 million square foot data center in Mesa, Arizona. At a total cost of \$2 billion, the project cost the computer giant roughly \$1,500 per square foot. Data centers continue to be among the fastest growing construction segments in America, and with the growing appetite for cloud computing, no end appears to be in sight.

And while many eyes have been on Amazon's HQ2, Apple has been more surreptitiously searching for a location for its next major campus. According to recent media reports, the maker of the iPhone may be on the verge of selecting Research Triangle Park in North Carolina atop its list of possible sites. As indicated by Fortune, the company's second campus is slated to house technical support employees, but could add other types of professional staff going forward. It doesn't hurt that Apple CEO Tim Cook is an alumnus of Duke University.

In my experience, one of life's great challenges is getting and, most of all, keeping perspective. I think of this as I look out my office window in New Haven, CT, and see multiple large job sites buzzing with new construction. If that were all of the information I had, it would inform my opinion of the commercial construction industry as a whole in one direction. But an informed opinion isn't the same thing as fact. That's why each quarter Marcum goes to the lengths it does to deliver to you the Marcum Commercial Construction Industry Index. For better or worse, we want you to have the facts in your subspecialty, your town, and around the country. As trusted advisors to the industry, we feel it is imperative that when we talk to you about your business, we're coming from a scientific and fact-based perspective. Your business isn't just a balance sheet, and we respect that. For many of you, it's a legacy, a heritage, and so much more. I've deviated from my usual style of comments for this edition to reinforce our appreciation for all you go through and to recommit to being a useful resource and trusted advisor to you all, our friends and clients.

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National Construction Industry Group  
Leader, Marcum LLP

### More than Tech

The ongoing strength of the tech sector is becoming increasingly important. That's because many other segments of the economy are facing growing headwinds. There are few segments for which this is truer than for housing. With prices rising in the wake of shrinking for-sale inventory and with mortgage rates also edging higher, Americans are facing the worst housing affordability in about a decade.

Meanwhile, builders are wrestling with higher materials prices, including softwood lumber, the price of which recently expanded 20 percent over a 12-month period. While it is true that the number of single family housing starts achieved a post-recession high last November, they subsequently slipped significantly and have been swerving sideways ever since. Moreover, what is being built is meaningfully smaller than the typical homes of the past. In 2015, the average new single family home encompassed nearly 2,750 square feet. Since then, average new home size has declined by nearly 200 square feet.

### ▼ Exhibit 1. Nonresidential Spending, June 2018, Millions of Dollars, Seasonally Adjusted Annual Rate

Subsector	June 2018	1-month % Change	12-month % Change	36-month % Change
Nonresidential	\$742,412	-1.6%	4.2%	7.3%
Lodging	\$31,706	-0.4%	10.7%	39.2%
Office	\$72,758	0.1%	10.8%	27.3%
Commercial	\$90,991	-1.9%	1.1%	39.1%
Health care	\$42,086	-0.9%	1.5%	2.8%
Educational	\$87,855	-9.3%	-5.5%	0.2%
Religious	\$3,096	-1.8%	-13.7%	-7.6%
Public safety	\$9,377	0.9%	20.2%	2.8%
Amusement and recreation	\$26,075	3.3%	2.5%	9.1%
Transportation	\$51,223	0.2%	14.5%	12.0%
<b>Communication (incl. data centers)</b>	\$24,556	-0.8%	-0.8%	<b>30.5%</b>
Power	\$103,487	-0.9%	8.5%	16.0%
Highway and street	\$94,091	-1.3%	6.2%	2.6%
Sewage and waste disposal	\$22,563	0.9%	11.7%	-14.1%
Water supply	\$14,199	-0.6%	17.7%	-5.0%
Conservation and development	\$7,711	-2.6%	10.4%	-1.4%
Manufacturing	\$60,638	1.1%	-5.7%	-30.2%

Source: U.S. Census Bureau

Then there's the consumer, who has been stung in recent months by rising inflationary pressures. While it is true that more people are working and fewer people are unemployed, consumer sentiment as measured by the University of Michigan declined to an 11-month low in August. The dip in sentiment is concentrated among households in the bottom third of the income distribution. This group has become somewhat concerned by rising home prices (many of them are aspirational homeowners) and prices for other big-ticket items. For instance, consumers' perceptions of motor vehicle prices are the least ebullient since 1984.

Should consumers respond by ramping down expenditures, growth in future quarters is unlikely to resemble anything like the 4.1 percent annualized GDP growth performance of the second quarter. To date, the consumer has remained a willing participant in the expansion. Consumer spending rose at a 4.0 percent annualized clip during the second quarter. Retail sales in July were 6.4 percent higher than a year ago in nominal terms. That's impressive.



### SAVE THE DATE

**New Haven, CT**  
September 25, 2018

**Nashville, TN**  
October 1, 2018

**Irvine, CA**  
October 18, 2018

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Whatever their psychological state, typical American consumers must feel good about a nation that has added 19.4 million net new jobs since the end of the downturn. July brought another 157,000 net new positions, which brings the consecutive monthly streak for job growth to a record 94. Unemployment stands at 3.9 percent as of this writing, and there are nearly 6.7 million available job openings in America. This is essentially a record high. That compares to 6.28 million unemployed Americans. There is literally a job for everyone in America presently engaged in a job search (geographical and skills mismatches notwithstanding).

The nation's construction industry added another 19,000 net new positions in July, with industry unemployment falling to 3.4 percent, the lowest level in the 18 years of the series. On a year-ago basis, the industry has added 308,000 jobs, representing an increase of 4.4 percent over that timeframe.

### If We Could Only Turn Down the Volume

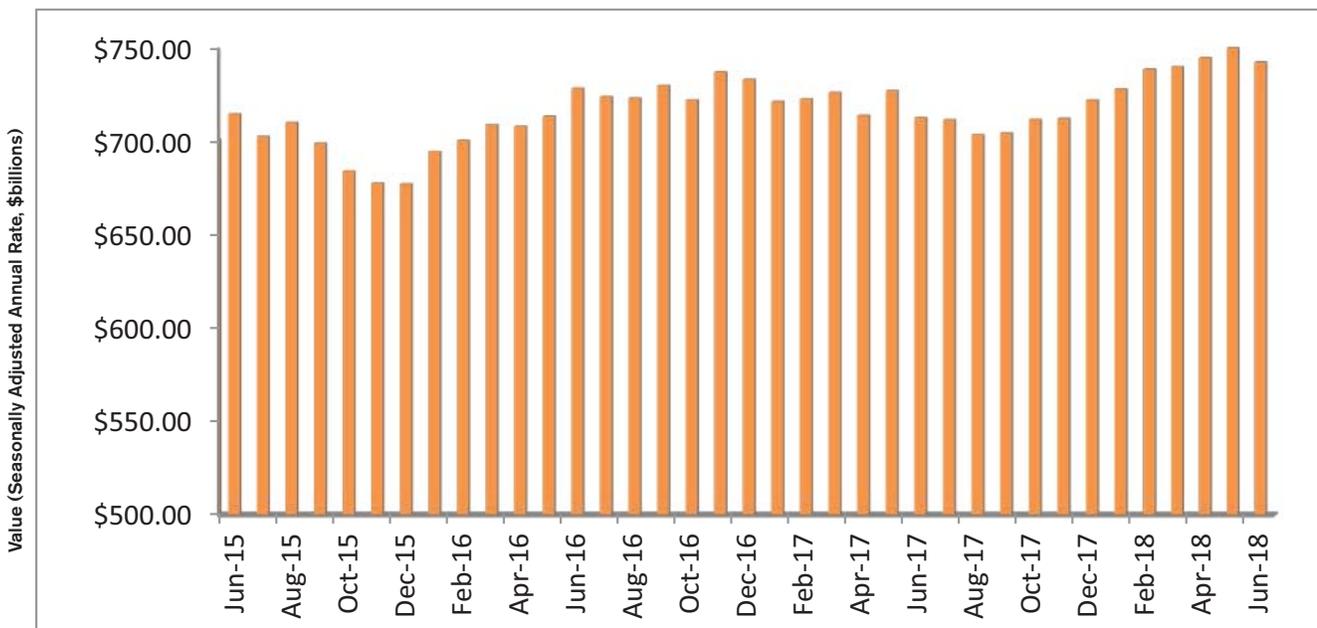
Like a good movie, it's tough to enjoy a healthy economy when the environment is so noisy. For months, economists, business owners, and others have been unnerved by expanding skills shortages and the implications of those shortages for productivity, inflation, and interest rates. Indeed, key long-term interest rates such as the prime rate and mortgage rates have been edging higher. Data supplied by the St. Louis Federal Reserve Bank indicate that rates on 30-year fixed mortgages are more than half a percentage point higher than 12 months ago.

Then came the specter of tariffs, retaliatory tariffs, and fears of full-blown trade wars. Those remain in place, but recent indications suggest that EU and Chinese trade negotiators are willing to sit down with their American counterparts to begin framing what may turn out to be a new global trading order – one that may eventually be more open to American goods and services. The stock market has surged in response to these indications on numerous occasions.

Even more recently, there are new concerns regarding the state of emerging markets like Turkey and Argentina. The Turkish lira lost approximately half its value against the U.S. dollar during a recent 12-month period. Turkey is associated with considerable private debt levels, much of it financed by foreign money. With the lira sliding lower and with annual inflation recently running around 16 percent, fears of emerging market contagion have spread. To date, the crisis (if it can be called that) remains contained, but this represents just one more bit of news and noise that U.S. construction leaders must consider.

Given this rising set of obstacles as well as the fact that many observers are concerned about what appear to be bubbly asset prices, many economists have begun to predict the onset of the next recession in 2020 or 2021. That said, there is little indication of recession presently.

### ▼ Exhibit 2. Nonresidential Construction Spending, June 2015 through June 2018



Source: U.S. Census Bureau

### Looking Ahead – It Won't Get Quieter

According to Census Bureau data, nonresidential spending is up 4.2 percent from the same time one year ago. While that's not awful, it isn't nearly what one might expect given the general performance of the U.S. economy. Many factors have served to constrain construction spending growth, including a lack of available workers, weakness in a number of infrastructure construction segments, and growing concerns regarding over-valued and over-built real estate markets in certain parts of the country. It is also conceivable that a growing scarcity of certain construction materials is resulting in project delays. The hope is that these delays will not eventually become cancellations. While construction backlog as measured by Associated Builders and Contractors among others remains elevated, backlog has manifested a tendency to disappear in prior business cycles as projects that are planned and scheduled are canceled; the result of economic uncertainty and the response of financiers to that uncertainty.

For now, such dynamics are not especially apparent. Business confidence remains high. Those who purchase construction services are well aware of the labor and materials challenges. Nonetheless, projects proceed. Among the leading sources of construction growth are data centers, office buildings, hotels, and fulfillment centers.

### ▼ Exhibit 3. Construction Employment Growth, 20 Largest U.S. Metropolitan Areas July 2017 v. July 2018, Not Seasonally Adjusted

Rank	MSA	% Change	Rank	MSA	% Change
1	Phoenix-Mesa-Scottsdale, AZ	11.4%	11	Minneapolis-St. Paul-Bloomington, MN-WI*	3.7%
2	Miami-Fort Lauderdale-West Palm Beach, FL	10.2%	12	Riverside-San Bernardino-Ontario, CA	3.3%
3	Houston-The Woodlands-Sugar Land, TX	8.9%	13	Seattle-Tacoma-Bellevue, WA	3.1%
4	Atlanta-Sandy Springs-Roswell, GA	6.9%	14	Los Angeles-Long Beach-Anaheim, CA	3.0%
5	Boston-Cambridge-Nashua, MA-NH*	6.8%	15	San Diego-Carlsbad, CA	2.9%
6	Dallas-Fort Worth-Arlington, TX*	5.5%	16	New York-Newark-Jersey City, NY-NJ-PA*	2.6%
7	Chicago-Naperville-Elgin, IL-IN-WI	5.1%	17	Baltimore-Columbia-Towson, MD*	1.6%
8	San Francisco-Oakland-Hayward, CA	4.7%	18	Washington-Arlington-Alexandria, DC-VA-MD-WV*	1.1%
9	Detroit-Warren-Dearborn, MI*	4.6%	19	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD*	0.1%
10	Tampa-St. Petersburg-Clearwater, FL	3.9%	20	St. Louis, MO-IL*	-2.6%

Source: U.S. Bureau of Labor Statistics \*Construction, Mining, and Logging are included in one industry.

Second Quarter 2018 Performance		Values			% Change from	
Gross Domestic Product (Quarterly % Growth)		2018Q2 <sup>(1)</sup>	2018Q1	2017Q4		
Overall Real GDP		4.1%	2.2%	2.3%	NA	NA
Nonresidential Fixed Investment in Structures		7.3%	11.5%	4.8%	NA	NA
Construction Spending, SA (\$Millions)		Jun-18	May-18	Jun-17	May-2018	Jun-2017
<i>Total Construction</i>		\$1,317,231	\$1,332,177	\$1,241,302	-1.1%	6.1%
<i>Residential</i>		\$574,819	\$577,692	\$528,807	-0.5%	8.7%
<i>Nonresidential</i>		\$742,412	\$754,485	\$712,494	-1.6%	4.2%
Lodging		\$31,706	\$31,820	\$28,649	-0.4%	10.7%
Office		\$72,758	\$72,674	\$65,656	0.1%	10.8%
Commercial		\$90,991	\$92,761	\$89,979	-1.9%	1.1%
Health care		\$42,086	\$42,473	\$41,474	-0.9%	1.5%
Educational		\$87,855	\$96,873	\$92,967	-9.3%	-5.5%
Religious		\$3,096	\$3,153	\$3,589	-1.8%	-13.7%
Public safety		\$9,377	\$9,291	\$7,800	0.9%	20.2%
Amusement and recreation		\$26,075	\$25,246	\$25,444	3.3%	2.5%
Transportation		\$51,223	\$51,133	\$44,730	0.2%	14.5%
Communication		\$24,556	\$24,762	\$24,743	-0.8%	-0.8%
Power		\$103,487	\$104,419	\$95,341	-0.9%	8.5%
Highway and street		\$94,091	\$95,325	\$88,614	-1.3%	6.2%
Sewage and waste disposal		\$22,563	\$22,367	\$20,192	0.9%	11.7%
Water supply		\$14,199	\$14,282	\$12,059	-0.6%	17.7%
Conservation and development		\$7,711	\$7,915	\$6,987	-2.6%	10.4%
Manufacturing		\$60,638	\$59,994	\$64,270	1.1%	-5.7%
Employment, SA (in thousands)		Jul-18	Jun-18	Jul-17	Jun-18	Jul-17
<i>National Total Nonfarm</i>		149,128	148,971	146,728	0.1%	1.6%
<i>Construction</i>		7,242	7,223	6,934	0.3%	4.4%
Residential building		797	796	748	0.1%	6.5%
Nonresidential building		812	808	785	0.5%	3.4%
Heavy and civil engineering construction		1,016	1,015	989	0.1%	2.7%
Residential specialty trade contractors		2,027	2,022	1,936	0.3%	4.7%
Nonresidential specialty trade contractors		2,591	2,582	2,476	0.3%	4.6%
Producer Price Index, NSA <sup>(2)</sup>		Jul-18	Jun-18	Jul-17	Jun-18	Jul-17
Finished Goods (SA)		115.4	115.3	110.5	0.1%	4.4%
Inputs to Construction Industries		235.7	236.1	215.3	-0.2%	9.5%
General Contractors (New Nonresidential Building Const.)		109.6	109.3	106.3	0.3%	3.1%
New Nonresidential Building Construction (U.S.)		110.4	109.8	106.8	0.5%	3.4%
Northeast		110.7	110.3	107.2	0.4%	3.3%
South		109.9	109.4	106.9	0.5%	2.8%
Midwest		107.9	107.4	105.1	0.5%	2.7%
West		112.8	112.1	107.6	0.6%	4.8%

Source: U.S. Bureau of Economic Analysis; U.S. Census Bureau; U.S. Bureau of Labor Statistics.

<sup>(1)</sup> Advance (1st) Estimate.

<sup>(2)</sup> The **Producer Price Index (PPI)** program measures the average change over time in the selling prices received by domestic producers for their output. The prices included in the PPI are from the first commercial transaction for many products and some services. All figures are indexed from a base year, that base year being different for each individual index.

<sup>(3)</sup> SA: Seasonally Adjusted. NSA: Not Seasonally Adjusted.

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- ▶ Business Valuations
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- ▶ Marital Dissolution



### ▼ Joseph Natarelli

Joseph Natarelli is the national leader of Marcum's Construction Industry Practice and an office managing partner in New Haven. For more than a decade, he has served as a technical reviewer for the AICPA's Audit Risk Alert for Construction Contractors and the AICPA Accounting Guide – Construction Contractors. Joe has also chaired the annual AICPA National Construction Industry Conference.



### ▼ Anirban Basu

Anirban Basu is Marcum's chief construction economist. He is also a member of the Firm's National Construction Practice, as well as chairman & CEO of Sage Policy Group, Inc., an economic and policy consulting firm in Baltimore, Maryland. Anirban leads Marcum's research and analysis of the economic health of the commercial construction industry in America. Additionally, he writes the quarterly Marcum Commercial Construction Index and annual Marcum JOLT Survey analysis and is a keynote presenter at the Firm's construction industry summits.

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