Midyear Economic Impacts of COVID-19 on the U.S. Commercial Real Estate Development Industry

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Introduction

At the beginning of 2020, forecasts for the U.S. economy predicted a solid performance during the year. The historic economic expansion that began in mid-2009 was expected to continue through 2020 without threat of a recession. The outlook for the building industry saw continued growth in housing starts that would increase toward their equilibrium level in 2022. Paralleling the projected growth of the U.S. economy, nonresidential building construction was forecast to gain 2.1%, with increases continuing into 2021.

However, beginning in February, the underlying conditions that supported the year's early economic forecasts—low unemployment and continuing job growth, rising personal income and strong consumer spending, and expanding construction expenditures—experienced significant and rapid disruption from the onset of the coronavirus pandemic (COVID-19). The economic consequences in the U.S. and across the global economy have been staggering. The full measure of these impacts and what the recovery will look like is continuing to change as new monthly data are reported.

Clearly, 2020 will not be the year economists expected. The longest economic expansion in history ended in February after 128 months. Unemployment rates went from the lowest in 50 years to the highest since the Great Depression. In March, GDP experienced its fastest one-month contraction in history.

However, not all sectors of the economy have experienced this unprecedented contraction with the same severity. The construction industry, while slowed by supply chain and workforce disruptions, efficiency losses due to social distancing and market uncertainty, has not been as severely impacted as other sectors. Its path forward appears potentially more favorable as well.

The future of the economy depends on the course of COVID-19, including the development and distribution of an effective vaccine. Vaccinations would significantly reduce the health threat to the general population, which would increase personal mobility and commercial exchange. These conditions could be achieved during the second half of 2021, making 2022 a "near-normal" year. Still, the consequences of the pandemic (e.g., national debt load, shifting consumer preferences, delayed or reduced business investment) will impact the nation's future economic performance. The projected post-pandemic GDP trajectory will most likely track below its pre-pandemic level throughout the coming decade.

The NAIOP Research Foundation commissioned this report to provide an understanding of the conditions affecting the U. S. economy, how these conditions have impacted the building industry as of midyear, and how the deep contraction in the second quarter of 2020 may influence the commercial real estate development industry going forward.



Key Findings:

- Overall, construction employment proved somewhat resilient and declined at half the rate of total unemployment in the U.S. However, nonresidential building construction unemployment increased to 6.2% in July 2020, from 5.5% in June.
- As of midyear 2020, commercial nonresidential building construction accounted for \$514.1 billion, or 37.9%, of the year's projected \$1.355 trillion of spending for all types of construction. This is a decline of 2.1% from midyear 2019.
- Construction expenditures and building activity for office, industrial (excluding warehouse) and retail buildings declined from June 2019 to June 2020. Only warehouses showed a modest improvement. Total spending dropped dramatically (-23.4%) from midyear 2019 to midyear 2020. Overall construction activity dropped 11% in the same period.
- The midyear 2020 value of nonresidential construction put in place was down 23.2% from midyear 2019. It is estimated that the value of nonresidential construction put in place for all of 2020 will decline by 18.1% from 2019.
- Real estate development is a proven, significant contributor to U.S. GDP. The recovery of private-sector nonresidential building construction could assist an accelerated national economic recovery in 2020 and 2021, as it did after the Great Recession. The failure to re-establish a positive business environment in support of the real estate development industry will constrain its recovery and reduce its potential for stimulating broad-based economic growth.
- U.S. GDP could return to pre-pandemic levels in mid-2022 if forecasts for growth are realized, with full employment achieved possibly by the end of 2023.

The U.S. Economy: Contraction and Recovery

The U.S. Department of Commerce's Bureau of Economic Analysis reported in August that the U.S. economy (GDP) shrank 9.1% during the second quarter of 2020, the largest quarterly decline in the 70 years since these data have been collected. If the quarter's loss were annualized, it would represent a decline of 31.7%.

Unemployment peaked at 14.7% in April, up from a 50-year low of 3.5% in February. The April figure compares to peak unemployment during the Great Recession of 10% in October 2009. While unemployment has decreased in each succeeding month since April—13.3% in May, 11.1% in June, 10.2% in July and 8.4% in August—there are an estimated 29 million people drawing some form of unemployment aid according to the Department of Labor.

Consumer spending also declined sharply with the onset of the pandemic. Personal consumption expenditures (for goods and services) were flat in February, decreased 6.7% and 12.9% respectively in March and April, and increased 8.5% and 5.6% respectively in May and June as the economy began to reopen. The overall effects of lost wages and productivity, declining consumer spending and disruptions to commerce nationally are seen in the revised U.S. GDP projections for 2020 (see Table 1).

GDP growth of 3.0% in 2018 was the second-highest annual rate since the Great Recession. The 2019 growth rate moderated due to factors that included trade wars and higher tariffs; higher interest rates; a sharp decline in energy prices; spot labor shortages and rising labor costs; reductions in aircraft manufacturing (Boeing's 737 Max) and the diminishing stimuli from the Tax Cuts and Jobs Act of 2017 (its benefits to consumers were largely realized in 2018). Additionally and unexpectedly, residential construction slowed in 2019, reflecting a decline in consumer confidence, growing price pressures that appear to have discouraged first-time buyers, and demographic shifts that reduced for-sale housing demand and strengthened rental housing demand.

TABLE 1	U.S. GDP Forecasts (Annual Real Percent Change)		
Year		January Forecast	August Forecast
2018		2.9	3.0
2019		2.3	2.2
2020		2.1	- 4.8
2021		2.1	3.1
2022		1.7	4.1

Source: IHS Markit, Executive Summary, U.S. Economic Outlook, January 2020 and August 2020, reflecting BEA's GDP revisions.



At first reading, the GDP gains projected for 2021 and 2022 in Table 1 appear substantial. However, these higher growth rates are somewhat misleading as the annual percentage increases are building from a lower base; that is, they are largely measuring regained GDP losses that occurred during the 2020 contraction. It will take these rates of growth to bring GDP back to its pre-pandemic value, possibly by mid-2022, with full employment achieved by the end of 2023. However, even with the economy back to its pre-pandemic performance levels, its structure will have evolved in response to accelerated changes in the work place, retailing and investing.

Multiple factors will shape the size and speed of an economic recovery. Beyond the most important—the development and widespread availability of an effective vaccine for COVID-19— overall uncertainty will slow the growth of consumer spending thereby delaying the full reopening of the economy. Uncertainty will also be reflected in slower gains in fixed investments in nonresidential buildings and equipment. Employment growth will be impacted due to some jobs being permanently lost and workers choosing to retire earlier than planned. Local and state government spending will be disrupted by losses in tax revenues during the economic shutdown and shifting expenditure demands associated with the pandemic. The multi-trillion-dollar federal stimulus programs will also play a role, but their full effects remain to be seen.

Impacts on the Building Sector

The dramatic contraction of the U.S. economy during the second quarter was felt differently across the economy's components, and each component will experience its own pace of recovery. For the construction sector overall, employment trends provide a real-time measure of current activity. Construction employment (building and nonbuilding combined, see Table 2) outperformed employment growth overall in the U.S. in 2018 and 2019. However, both rates slowed along with GDP growth, which reached its peak in 2018 (see Table 2).

The impact of 2020's economic contraction is apparent by comparing employment growth overall with employment growth in the construction sector for the 12 months between June 2019 and June 2020. Total employment during this period declined 9.2% while construction employment fell 4.4%. In other words, construction employment declined at less than half the rate of total employment in the U.S.

When considering subsets of the construction sector, workers involved in the construction of buildings were slightly less vulnerable to the economic contraction than those working on infrastructure or nonbuilding projects. The residential building sector was the least susceptible but still lost 2.5% of its job base. Reasons for these lower employment losses include the industry being considered "essential" by many states and thus permitted to continue operations; the outdoor work settings that allowed effective social distancing to meet public health directives; and favorable interest rates that bolstered housing demand.

TABLE 2	U.S. Construction Employment Trends at Midyear, 2018–2020 (Percent Change, June to June, Not Seasonally Adjusted)				
Type of Construction		2018 ^a	2019 ^a	20	20
				June ^a	July ^b
Total Private Nonfarm		1.9	1.6	- 9.2	- 7.7
All Construction ^c		3.9	2.7	- 4.4	- 4.3
Construction of Buildings		4.3	1.6	- 4.0	- 3.7
Residential B	uilding	6.6	3.4	- 2.5	- 1.2
Nonresidentia	al Building	2.2	- 0.1	- 5.5	- 6.2

Source: U.S. Bureau of Labor Statistics, CES Tables and Charts.

^a Percent change from the previous June for the year indicated.

^b Percent change from July 2019.

^c Includes construction of buildings, heavy and civil engineering construction and specialty trade contractors.

Historically low mortgage interest rates and strong demand for housing boosted residential construction employment in July. During that month, there was a 22.6% increase in starts from June that extended an upward trend to a third month. Multi-family and single-family unit starts were higher—56.7% and 8.2%, respectively.

Nonresidential Construction

Compared to residential construction, nonresidential building construction saw its rate of unemployment rise to 6.2%, up from 5.5% in June. This one-month change in employment may be explained by the fact that residential construction can be restarted more quickly than nonresidential projects. These differences in employment recovery trends, reflecting different market conditions, should diminish as the recovery gains momentum.

As of midyear 2020, commercial nonresidential building construction accounted for \$514.1 billion or 37.9% of the year's projected \$1.355 trillion in spending for all types of construction (see Table 3).¹ The midyear amount for 2020 is down 2.1% from 2019. The construction value data combines estimates of hard costs, soft costs, site development costs and tenant improvements for June 2018, 2019 and 2020.

TABLE 3	Value of U.S. Nonresidential Construction Put In Place, Midyear 2018, 2019 and 2020 (In Billions of Current Year Dollars)				
Type of Structure	2018	2019	Percent Change 2018–2019	^a 2020	Percent Change ^a 2019–2020
Transportation	\$52.8	\$57.6	9.0	\$57.4	- 0.4
Health Care	41.9	44.6	6.4	45.4	1.7
Retail	93.0	81.4	- 12.4	83.0	2.0
Manufacturing ^b	64.7	79.7	23.0	72.4	- 9.1
Amusement/ Recreation	26.6	28.4	6.8	26.6	- 6.3
Education	91.3	102.0	11.7	101.5	- 0.5
Public Safety	9.4	10.3	8.8	14.3	39.2
Office	72.5	83.0	14.4	81.2	- 2.2
Religious	2.8	3.7	30.3	2.9	- 21.0
Lodgings	31.6	34.4	8.8	29.4	- 14.6
Totals ^c	\$486.6	\$525.1	7.9	\$514.1	- 2.1

Source: U.S. Census, Value of Construction Put in Place, June 2018, 2019, 2020.

^a Percentages based on unrounded construction values.

^b Includes warehouse/flex space.

^c Totals include some miscellaneous state and local government buildings but exclude spending for nonbuilding construction on items relating to communications, power, highways, sewer and water.

Total construction values have fallen in 2020 compared to 2019. These declines are widespread across building types—eight building types declined, and three increased. While the reduction in construction value put in place for these eight building types is consistent with the broad-based contraction in the general economy, it does not indicate a significant structural shift that would alter future commercial real estate investment patterns in the future.

Retail building construction is notably inconsistent. For the year ending in June 2019, it was the only building type that decreased in value, falling 12.4%. This year's 2.0% increase in retail building construction value appears to contradict other trends in the retail sector. However, it might not be sustained over the course of the full year, considering retail employment is down 7.7% between June 2019 and June 2020 due to store closures in response to the pandemic. The Census Bureau notes that it may take as long as eight months to establish an underlying trend for specific categories for construction. Nevertheless, retail construction costs are well below 2018 levels.

Office, Industrial, Warehouse and Retail Development Trends

Construction data provided by Dodge Data & Analytics for office, industrial, warehouse and retail buildings provide a more narrowly defined accounting of hard construction expenditures within these building types. Construction expenditures for the first six months, comparing 2018 and 2019 with 2020, show an accelerating decline in the first half-year for the four building types (see Table 4). A comparatively mild decline in total expenditures took place from midyear 2018 to midyear 2019 (-4.1%), whereas they decreased dramatically (-23.4%) from midyear 2019 to midyear 2020.²

TABLE 4	Comparing First Half–Year Construction Expenditures (Hard Costs), 2018–2020 (In Billions of Current Dollars)				
Building Type	2018	2018 2019 2020 Percent Change			t Change
				2018–19	2019–20
Office	\$22.084	\$25.852	\$18.707	17.1	- 27.6
Industrial	17.841	10.920	6.762	- 38.8	- 38.1
Warehouse	10.940	12.528	12.589	14.5	0.5
Retail/Entertainm	ent 9.232	8.309	6.083	- 10.0	- 26.8
Totals	\$60.097	\$57.609	\$44.141	- 4.1	- 23.4

Sources: Dodge Data & Analytics; Stephen S. Fuller, PhD.

The national economy's contraction of 9.1% in the second quarter of 2020, the changing investment climate, and the availability of credit that paralleled the collapse of the economy in March and April most likely contributed to the decline in construction expenditures. Other factors affecting construction expenditures may include newly altered demand patterns in response to the changing nature of work and consumer spending.

Some of these factors will be self-correcting with renewed economic growth, while others may become permanent. They may accelerate trends that were already underway before the pandemic, such as the changing nature of retail shopping. They also may establish new requirements not anticipated previously, such as a significant shift of centralized office work to private residences or remote locations. The impact of remote work on future demand for office space will need further study. It is too early to project the long-term effects of this change.

The effects of the pandemic on building construction expenditures during the first six months of 2020 reflect a combination of both short-term and long-term trends. Normal seasonal factors or short-term supply and workforce issues cannot explain the 23.4% decline in total hard construction expenditures during the first half of 2020.

This overall decrease in construction expenditures for the first six months of 2020 was accompanied by an overall decline in the square feet of new construction (see Table 5). Only warehouse construction avoided a decline in both categories registering modest gains in expenditures and total square feet. Office construction expenditures experienced a decrease of 27.6% from midyear 2019 to midyear 2020, while total square feet of new office construction also declined 18.5% during that same period.

TABLE 5	Comparing First Half-Year Construction Activity, 2018–2020 (In Millions of Square Feet)				
Building Type	2018 2019 2020 Percent Change				t Change
				2018–19	2019–20
Office	61.818	68.373	55.697	10.6	- 18.5
Industrial	32.975	38.149	24.183	15.7	- 36.6
Warehouse	135.853	145.287	149.990	6.9	3.2
Retail/Entertainme	ent 44.238	37.494	27.460	- 15.2	- 26.8
Totals	274.844	289.303	257.330	5.3	- 11.0

Sources: Dodge Data & Analytics; Stephen S. Fuller, PhD.

Industrial (not including warehouse) and retail building construction were the hardest hit. Industrial expenditures declined by 38.1% during the first half of 2020, and the square feet of new industrial space was down significantly during this year's first half, falling 36.6%. For the full year of 2019, industrial building expenditures were down only 1.3%, while total industrial space added that year increased by 9.8%.

Retail building construction expenditures saw an accelerating decline, with outlays down 10.0% during the first half of 2019. They declined even further during this same period in 2020, falling 26.8%. Retail building space that was delivered during these two periods also decreased, down 15.2% in 2019 and 26.8% in 2020.



One general trend that is apparent in the expenditures and activity data is the decline in construction cost per square foot. In 2020, it fell 13.3% from 2019 (see Table 6).

TABLE 6	Construction Cost per Square Foot by Building Type: First Half 2019 and First Half 2020				
Year	2019	2020	Percent Change		
Office	\$378.10	\$335.87	- 11.2		
Industrial	286.25	279.62	- 2.3		
Warehouse	57.19	40.55	- 29.1		
Retail/Entertainm	nent 221.61	221.52			
All Building Type	es \$199.13	\$172.60	- 13.3		

Sources: Dodge Data & Analytics; Stephen S. Fuller, PhD.

While a decline in construction expenditure per square foot may be only a short-term trend reflecting the realities of this year's contraction, it could also encompass other trends that will shape the industry in the future. Examples include technology that introduces cost-saving efficiencies to the construction process, the use of new materials, and changing design priorities that produce less expensive but equally serviceable buildings. These trends could accelerate a fundamental shift in building design and construction.

Construction Spending and GDP Growth

The construction sector is a significant contributor to the U.S. economy. In 2019, it accounted for more than 19% of GDP when all construction spending was included (hard costs, soft costs, site development costs and tenant improvements). This substantial contribution reflects the construction sector's broad base of business activities and its high total output multiplier of 3.0195 (for each \$1 of direct investment, GDP increases by \$3.02), one of the highest multipliers of any economic sector. These positive impacts are deepened by the sector's high value added per worker. It generates significant personal earnings as well as a large number of jobs directly and indirectly in the national economy—20.3 jobs per \$1 million in direct construction outlays.

The total value of construction put in place—residential, nonresidential and public including infrastructure—totaled \$1.355 trillion in June 2020, up 0.1% from June 2019. With GDP declining over the year's second quarter to \$19.409 trillion (down from \$21.330 trillion in the second quarter of 2019), the construction industry's total contribution (\$1.355 trillion times the construction multiplier of 3.0196) to GDP as of midyear was 21.1%, up from 19.2% in midyear 2019. While this increased contribution to GDP during a time of economic decline demonstrates the importance of construction spending to economic growth, the gains in construction spending over the first half of 2020 were in public construction, which was up 6.2%. Private construction spending was down 1.9%, while private-sector residential and nonresidential construction values were down 0.8% and 3.2%, respectively.

If the current forecasts hold through 2020, the overall value of construction put in place residential, nonresidential and public—would account for a projected 20.0% of GDP and register marginally positive growth for the year. In the absence of this positive contribution to GDP, the U.S. economy will have contracted significantly more than currently forecast.

The potential value of these contributions was clearly established during the last business cycle. Following the Great Recession, nonresidential building construction spending (hard costs, soft costs, site development and tenant improvements) was a significant driver of the expansion. The nonresidential construction sector began its recovery during the first half of 2011 (see Table 7) and led GDP growth during the following nine years. This helped accelerate and extend the trajectory of the business cycle to 128 months. During its growth cycle, nonresidential building construction spending led the national recovery. It averaged a 5.7% annual increase during the last nine years of the expansion, while GDP growth averaged only 2.3% during this same period.

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Nonresidential Construction Spending Leads GDP Growth During the Last Business Cycle (Annual Real Percent Change)

Year	GDP	Nonresidential Construction Spending ^a
2010	2.5	- 21.2 ^b
2011	1.6	2.8
2012	2.2	5.7
2013	1.8	3.4
2014	2.5	7.9
2015	3.1	15.6
2016	1.7	6.2
2017	2.3	1.8
2018	3.0	4.2
2019	2.2	3.4

Sources: IHS Markit, Executive Summary, U.S. Economy Outlook, August 2020; U.S. Census, Value of Construction Put In Place, December 2010-2019.

^a Value of Construction Put in Place, non-residential excluding infrastructure construction.

^b The construction sector did not begin its recovery from the Great Recession until April 2011.

Some actions could contribute to a faster rebound from the COVID-19 recession. Beyond those required to re-establish normalcy in the economy, culminating in the development and distribution of an effective vaccine, actions designed to renew business and consumer confidence are essential in the short term. Creating a positive environment within the public sector to support and encourage private-sector nonresidential building construction activity has been shown to generate a positive GDP effect. In an August 2020 survey of NAIOP members, 76.6% of respondents cited "added delays in permitting" of new projects by local governments as a major cause of the industry's slowdown during the early months of the pandemic.³ Establishing a streamlined review-and-approval process would help local, state and national economies achieve the higher multiplier effects generated by construction expenditures, including the strong impacts on personal income and positive job growth.

Government officials, elected representatives and professionals should be aware of the critical contributions of construction expenditures, private and public, in strengthening and advancing the economy, especially during the early stages of the recovery. The failure to re-establish a positive business environment in support of the real estate development industry will constrain its recovery and reduce its potential for stimulating broad-based economic growth. The building industry's continued underperformance will dampen the GDP recovery in 2020 and put downward pressure on the trajectory of GDP growth in 2021.

Conclusion

Real estate development is clearly a driver of the U.S. economy and essential to a recovery. Taken as a whole, construction contributed almost a fifth of U.S. GDP in 2019, and it is forecast to increase slightly to 21.1% in 2020. During the last business cycle, the value of nonresidential building construction put in place grew more than twice as fast as GDP between 2011 and 2019, underscoring its important role in leading and accelerating the economy's expansion.

Despite the economy's rapid contraction during the second quarter of 2020, construction spending has outperformed GDP with the total value of construction put in place up 0.1% in June 2020 as compared to June 2019. This positive performance was driven by publicly financed construction; private-sector construction expenditures declined during the first half of the year with the value of nonresidential buildings put in place declining more than residential buildings. Additionally, unemployment across the construction sector increased less than unemployment overall, reflecting the industry's inherently greater resilience.

If nonresidential and residential construction spending lags GDP growth, the recovery will be slower and its long-term trajectory will be lower. Supporting construction activity through public policy, creating a positive business climate, and enabling state and local governments to accelerate the project review and approval processes will further boost affected economies and contribute to the broader economic recovery.

Endnotes

- ¹ Residential and non-building construction comprised 40.0% and 22.1% respectively, based on the U.S. Census estimates of the value of construction put in place.
- ² For the full year 2019 in comparison to the full year of 2018, Dodge Data & Analytics reports that total construction expenditures for these four building categories nationwide increased by 8.3%—outperforming the 2.2% GDP growth for that year. Total construction expenditures (hard costs) increased from \$121.9 billion in 2018 to \$132.0 billion in 2019, with the total square feet of new construction increasing from 598.4 million to 642.2 million, for a gain of 7.3%. Among the four building types, construction expenditures for industrial and retail declined slightly for the full year, -1.3% and -4.1%, respectively, while construction expenditures for office and warehouse buildings increased, 11.4% and 24.1%, respectively.
- ³ Shawn Moura, "NAIOP August Coronavirus Impacts Survey Suggests Continued Gradual Improvement for CRE," NAIOP Market Share, August 27, 2020, <u>http://blog.naiop.org/2020/08/</u> <u>naiop-august-coronavirus-impacts-survey-suggests-continued-gradual-improvement-for-cre/</u>

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Disclaimer

The data collection measures included in this report should be regarded as guidelines rather than as absolute standards. The data may differ according to the geographic area in question, and results may vary accordingly. Local and regional economic performance is a key factor. Further study and evaluation are recommended before any investment decisions are made.

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