Denver Region Data Brief

The COVID-19 pandemic's effect on construction

November 2021

Colorado deems construction sector unique and essential

Following the state's initial pandemic-related stay-at-home order on April 1, the Colorado Department of Public Health and Environment issued guidance around continuing construction as an essential sector. Supply chain issues and economic uncertainty due to the pandemic — along with social distancing measures — contributed to sizable slowdowns in the construction sector.

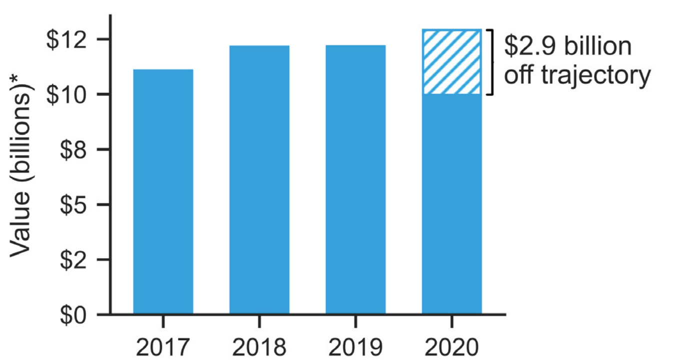
Construction off trajectory

Based on the estimated value of construction upon initial permit approval, investment was down 23%, or $2.9 billion, in 2020 when compared with the trajectory established in the previous three years. With this slowdown, the number of newly permitted housing units was 29% lower than the trajectory. Construction in 2020 ultimately produced 9,600 fewer housing units than expected.

Just the numbers

- *Investment in the region's[1] construction was 23% or $2.9 billion lower in 2020 when compared with the trajectory established in the previous three years.[2]*
- *The number of newly permitted housing units in 2020 was 29% lower when compared with the trajectory established in the previous three years.*
- *After a slow first quarter in 2021, quarter two showed signs of recovery with the number of newly permitted housing units 67% above the quarter two average for 2017-2020. Investment through construction was 24% above the second-quarter average for the same period.*

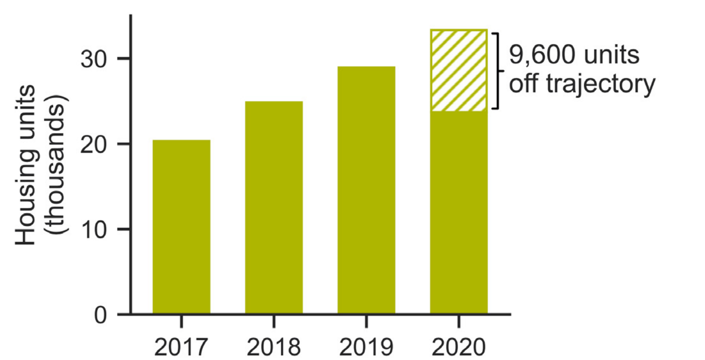
Annual construction investment, 2017-2020



Data source: Construction Monitor, Weekly Editions, retrieved Feb. 22, 2021.

Adjusted to June 2021. U.S. Bureau of Labor Statistics, Producer Price Index by Commodity: Construction, retrieved from FRED, Federal Reserve Bank of St. Louis, Sept. 9, 2021.

Annual number of housing units given permits, 2017-2020



Data source: Construction Monitor, Weekly Editions, retrieved Feb. 22, 2021.

1 Analysis geography
For the purposes of this analysis, the Denver region includes all jurisdictions in the DRCOG area that are available within Construction Monitor (constructionmonitor.com). This excludes all jurisdictions in Clear Creek and Gilpin counties, as well as any other jurisdiction that may not consistently provide permitting data.

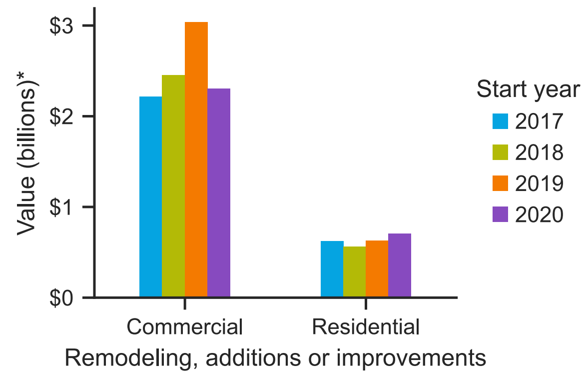
2 Three-year trajectory is based on the least squares regression from 2017-2019 extrapolated out to 2020 to construct a counterfactual to 2020 under COVID-19 restrictions and material shortages.

Renovation, additions and other improvements

In one of the few year-over-year increases since the beginning of the COVID-19 pandemic, the value of permits issued for investment in existing residential properties through remodeling, renovation, additions or other improvements was up 15%, or $91 million, in 2020 when compared with the trajectory established in the previous three years. Anecdotal evidence suggests that additional time at home — combined with greater practical needs for using one's home — and fewer outlets for discretionary spending could have contributed to the increase.

The residential improvement increase was not enough to offset the decline in the value of investments for permits issued to improve existing commercial property. Investment in existing commercial properties was down 32%, or $1.1 billion, in 2020 when compared with the trajectory established in the previous three years. This may indicate reduced ability or capacity among building owners to invest in improvements or lease and fit-out new space in existing commercial buildings.

Value of commercial and residential improvements, 2017-2020



Data source: [Construction Monitor](), Weekly Editions, retrieved Feb. 22, 2021.

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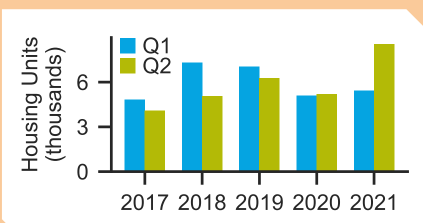
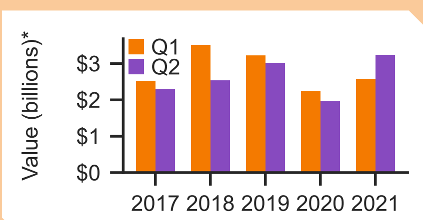
First and second-quarter housing units given permits, 2017-2021



Data source: [Construction Monitor](), Weekly Editions, retrieved Feb. 22, 2021 and Aug. 31, 2021.

First and second-quarter construction investment, 2017-2021



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In practice: Signs of recovery

Federal and local grants helped keep businesses open in 2020. Businesses focused on operating expenses, such as payroll, utilities and temporary improvements to accommodate safer operations during the pandemic. With little funding, time or capacity available for many businesses, starting permanent improvements or expansion was likely out of the question. Business closure, bankruptcy and vacancy were common.

The first half of 2021 shows some signs of recovery in building permit activity, however. After decreases in the number of newly permitted housing units in 2020, the Denver region saw a slow first quarter in 2021 with approved units 15% below the quarter one average of the past three years. In stark contrast, quarter two of 2021 saw the number of newly permitted housing units 67% above the quarter two average. This large increase has been aided by what homebuilders note as an easing of material costs — though long delivery times persist.[3] Permitted investment in construction followed a similar trajectory with a slower first quarter (16% below the first-quarter average) and larger gains in the second (24% above the second-quarter average).

Long-term economic recovery will take time. Federal and state funding is available for local governments to help accelerate local recovery under the American Rescue Plan Act of 2021 and a variety of Colorado relief and stimulus funds. Visit the Department of Local Affairs for more information: cdola.colorado.gov/local-government-covid19.

3 National Association of Home Builders September 2021 builder confidence report

The Denver Regional Council of Governments is a planning organization where local governments collaborate to make the region a great place to live, work and play. To support decision-making, DRCOG staff maintains and analyzes various data sets. This briefing is an opportunity to highlight insights from the data sets.

Questions? Ideas for topics? Contact Andy Taylor at ataylor@drcog.org. For more data, visit data.drcog.org.

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