



Oaklins



TM CAPITAL  
SUCCESS. REALIZED.

# Building Products Report

Sustained growth supercycle

DECEMBER 2021



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## About TM Capital

TM Capital is a founding member of Oaklins, the world's most experienced mid-market M&A advisor, with over 850 professionals globally and dedicated industry teams in more than 45 countries. Our dedicated teams across the USA have a wide range of expertise in a number of sectors. Founded in 1989, TM Capital is the client-first investment banking team advising industry leading companies across North America and around the world. In everything we do, our professionals share a relentless commitment to engineering extraordinary outcomes with an unmatched standard of client care. Over the last three decades, we have completed more than 350 transactions with a combined value in excess of US\$25 billion. With offices in Atlanta, Boston and New York, our mission-critical capabilities include: complex mergers and acquisitions; debt and equity financings; minority and majority recapitalizations; restructurings; and board advisory services.



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# Recent transactions



has acquired



US\$160m  
M&A BUY-SIDE

Construction & Engineering Services



has sold

CALI

to



US\$104m  
M&A SELL-SIDE

Construction & Engineering Services/Private Equity



has been acquired by



TRESCHOW-FRITZØE

M&A SELL-SIDE

Construction & Engineering Services



has been acquired by



M&A SELL-SIDE

Construction & Engineering Services/Private Equity



has been acquired by



M&A SELL-SIDE

Construction & Engineering Services/Private Equity



has sold



to



M&A SELL-SIDE

Construction & Engineering Services



has been acquired by an

Employee Ownership Trust

M&A SELL-SIDE

Business Support Services/Construction & Engineering Services



has been acquired by



M&A SELL-SIDE

Construction & Engineering Services/Private Equity



has been acquired by



EQUITY MANAGEMENT

M&A SELL-SIDE

Construction & Engineering Services/Private Equity

# Overview



Demand for housing and purpose-built commercial spaces far outstrips supply and will propel sustained growth for residential and non-residential building products for the foreseeable future.

Large demographic waves, a new-home construction market lagging in starts for years, and an aging existing home stock are driving demand for new housing as well as consumer demand for both do-it-yourself (DIY) and do-it-for-me (DIFM) renovation projects. Non-residential market demand for building products is structurally driven by an aging commercial building stock, over 70% of which was built prior to 2000.<sup>1</sup> This aged commercial building inventory,

coupled with evolving usage demand for commercial spaces, will continue to drive both new construction and renovation projects. In addition to this supercycle of demand, innovations in building materials and production processes as well as investments by large multinational corporations and institutional private equity firms will enhance efficiencies and continue to be a catalyst for growth.

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<sup>1</sup> US Energy Administration



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# Residential market trends



Oaklins

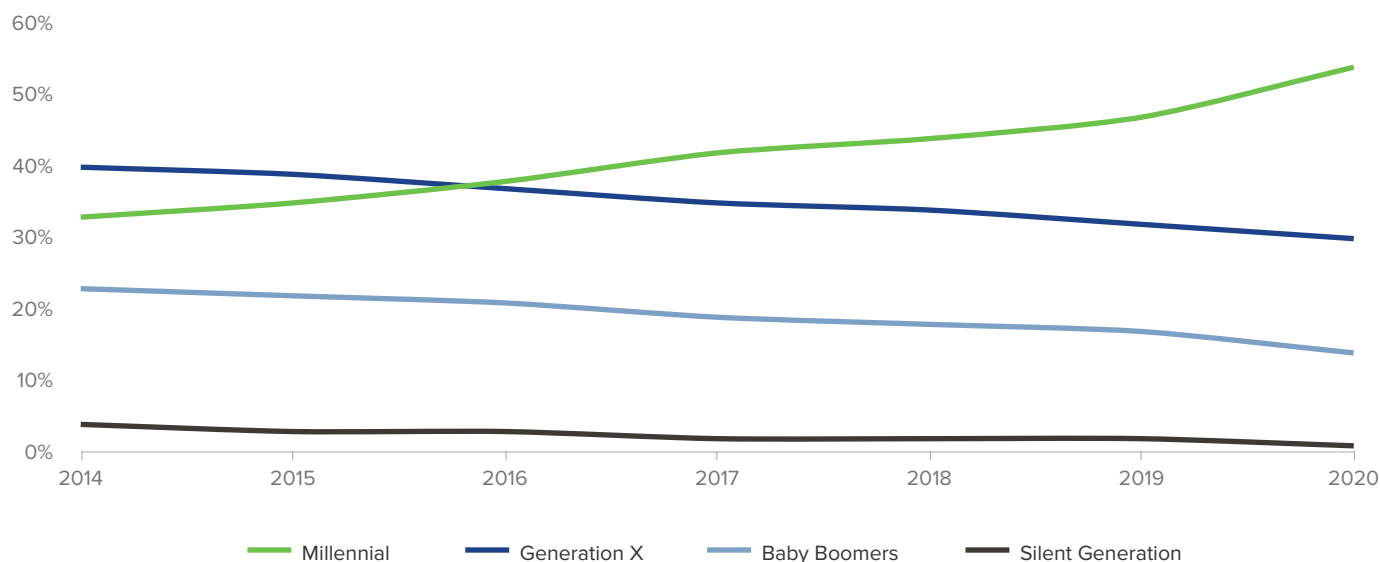
Demographics continue to drive residential demand with new construction supply constraints fueling remodeling and renovation activity.

## PERSISTENT DEMOGRAPHIC-DRIVEN DEMAND

Millennials entering the housing market in recent years have fueled homeownership growth in the US. Beginning in 2019 and continuing through today, Millennials account for more than 50% of all new home loans.<sup>2</sup> Having lived through the Great Recession, Millennials found themselves crippled with student loan debt and unable to find employment, and many

witnessed family members lose their job, home or savings. On unstable financial footing, and with a cynical view of the housing market, experts long predicted Millennials would participate in the lowest levels of homeownership among recent American generations.

### Share of new mortgages by generation



Source: CoreLogic

“Millennials could be responsible for 15 million home sales in the next decade.”

FIRST AMERICAN FINANCIAL CORPORATION

<sup>2</sup> Wall Street Journal

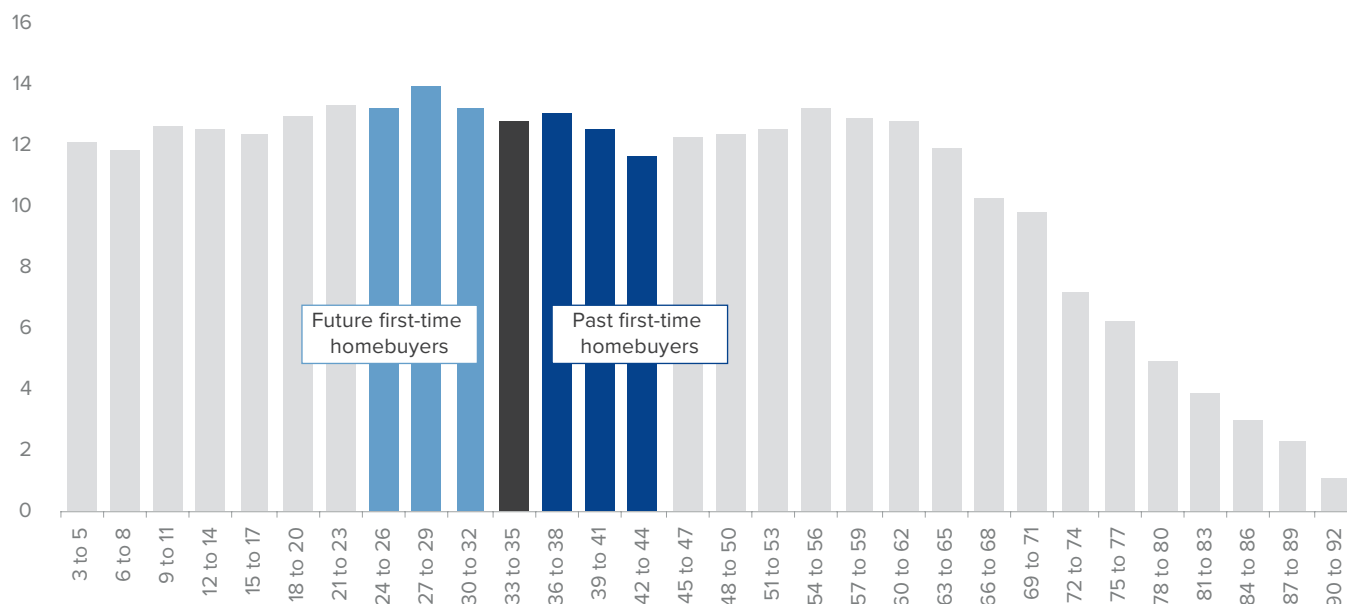
Rather than continuing in a predicted perpetual renter-mode, Millennials simply delayed entrance into the housing market, waiting until they developed a strong financial footing, paid off student loan debt and found a partner, before ultimately deciding on a first home purchase.

The National Association of Realtors (NAR) defines an “up-and-coming first-time buyer” as a prospective home-buying household that is currently under the age of 34 — of which there are currently 25 million in the Millennial generation. Millennials are now the largest home-buying cohort with much of the generation still well below the median US home-buying age of 34. In 2019, Millennials surpassed Baby Boomers to become the largest living adult generation, with the largest group of Millennials currently those who are 31 years of age.<sup>3</sup> According to US Census Bureau population data, 47 million individuals will turn 34 in the decade beginning in 2021 and ending in 2030 — an increase of 15.5% (6.3 million people) over the previous 10-year span. With 87.7% of Millennials indicating intentions to own a home in the future according to the 2019 Millennial Homeownership Report, the result is likely to be millions of home purchases by Millennials, which will meaningfully boost the residential housing market for years to come.

## GEN Z IS ENTERING THE MARKET, PROMISING TO EXTEND DEMOGRAPHIC TAILWINDS

Walking in the shadows of the largest home-buying cohort ever seen by the nation is an even larger group of up-and-coming homebuyers known as Generation Z (Gen Z) — a population that will overtake Millennials by between one and four million depending on year designations. While precise definitions vary, members of Gen Z are typically defined as individuals born between 2000 and 2020 — a cohort that is nearing entry to the housing market.

Age distribution in the US (millions of people)

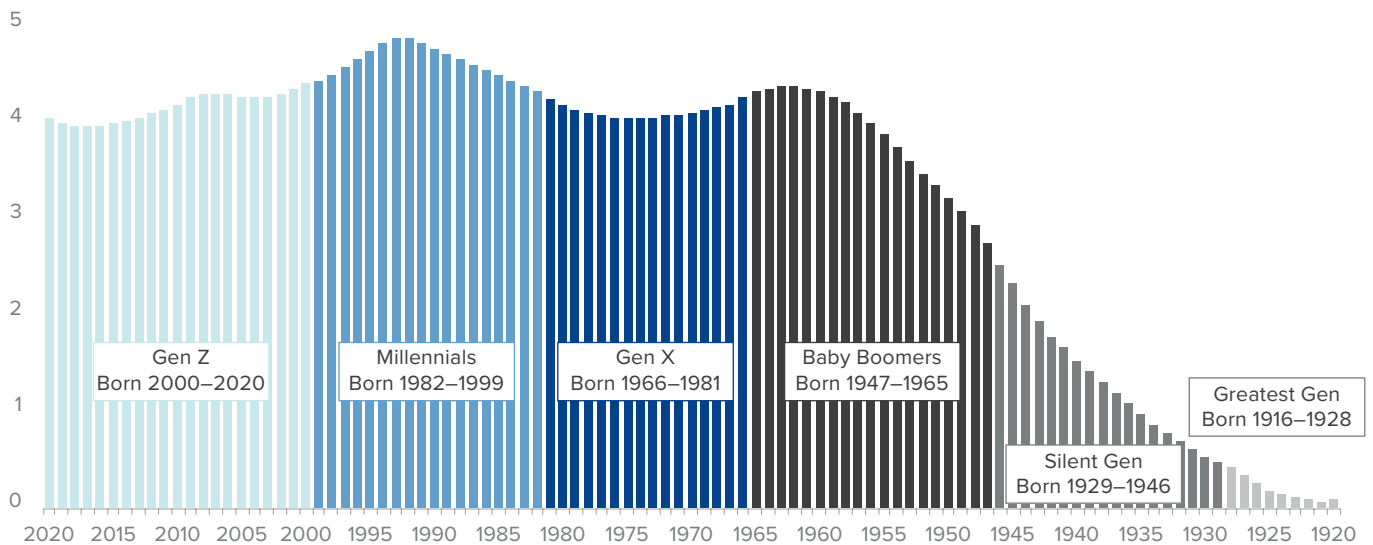


Source: Zillow

<sup>3</sup> Wall Street Journal



Total US population by birth in 2020 (millions of people)



Source: Knoema

Despite just starting their working years, Gen Z has clearly embraced the American dream of homeownership. In a Bank of America survey<sup>4</sup> administered to the Gen Z cohort between the ages of 18 and 23, 59% responded that they want to own a home within the next five years, and 33% said they want to buy a home, but are waiting at least six years to do so. This aligns with a similar survey administered by Zillow, in which 97% of Gen Z renters were confident they would be homeowners in the future, and 82% identified homeownership as the core tenet of the American dream. Gen Zers living on their own are primarily renters which, in part, is driving motivations for homeownership. Rising rent prices and less-than-ideal living situations — half of Gen Zers live in less than 1,000 square feet and 82% share rent with another person — are forcing the hands of Gen Zers to explore homeownership at an earlier stage in life than their Millennial counterparts.<sup>5</sup>

Gen Z understands its biggest challenge to becoming a homeowner is financial — saving money for a down payment, closing costs and monthly homeowner expenses were cited as the top obstacles to homeownership in Bank of America's survey. Gen Z, having lived through historic events such as 9/11, the Great Recession and the COVID-19 pandemic, is proving to be practical and conservative with their spending and reaching financial milestones earlier in life than Millennials while trudging through an unpredictable economy. Of those indicating hopes to own a home within five years, 52% are already saving money to do so. Further, the majority of interested homebuyers in Gen Z hope to accomplish this goal between the ages of 26 and 30, far earlier than previous generations.

“Gen Zers don’t just want to become homeowners, they want to do it at a younger age and we found that they’re saving or planning to save for it accordingly. Their desire for homeownership may be similar to that of Millennials and Gen Xers, but graduating into one of the best labor markets in generations might give them the boost they need.”

**DANIELLE HALE**  
CHIEF ECONOMIST, REALTOR.COM

<sup>4</sup> 2019 Fall Homeowner Insights Report

<sup>5</sup> MarketWatch

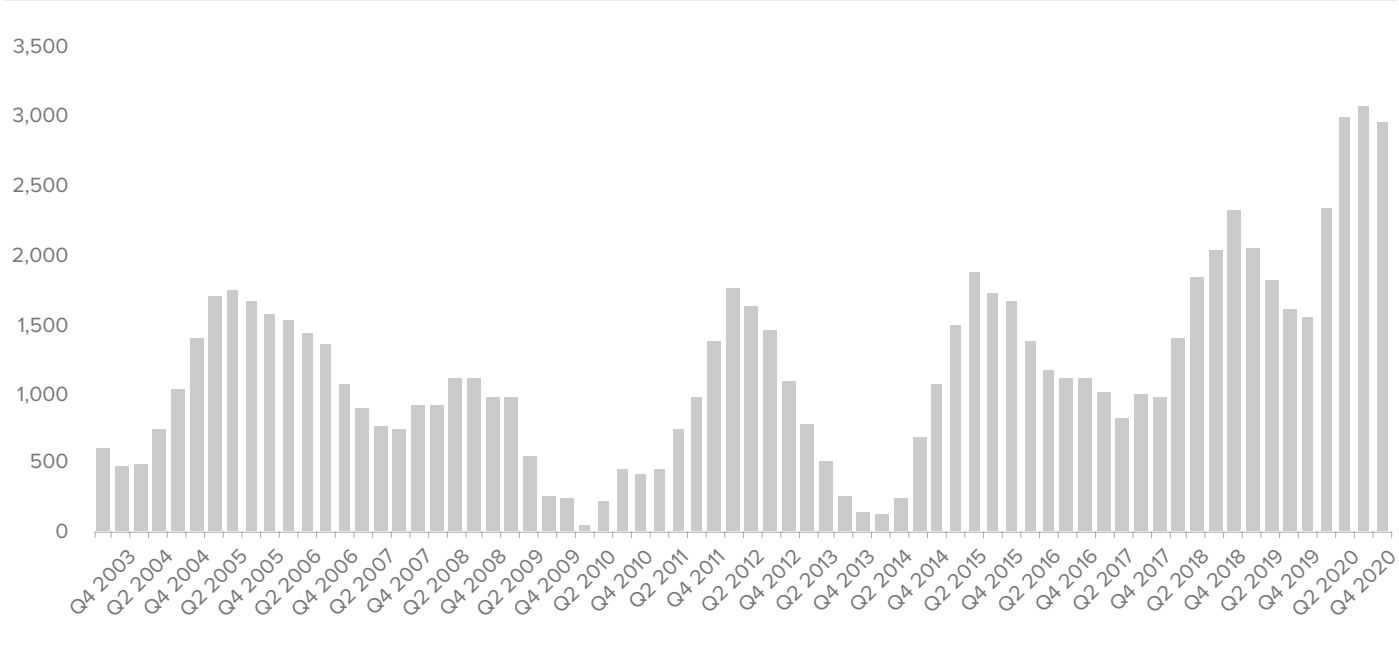


GEN Z IS DRIVING AN INCREASE IN HOUSEHOLD FORMATION AND HOMEOWNERSHIP RATES

**Household formations increase and are set to accelerate:** Household formations remain a strong indicator of housing demand. Despite remaining flat from 2019 to 2020, likely due to household consolidation because of financial hardship brought on by the COVID-19 pandemic, the long-term trend over the previous two decades has been a steady and sustained increase in total American households. From 2000 through 2019, total American households increased by 23.9 million, or 22.8% overall – in fact, 2020 marked the first year since 1984 that the total number of American households

did not increase.<sup>6</sup> A primary driver of this flatline in household formations was the postponement of weddings amid the COVID-19 pandemic, with certain studies estimating over 70% of expected weddings from March through June of 2020 were delayed.<sup>7</sup> Among newly formed American households, the pendulum has largely swung in favor of homeownership – through the end of 2019, the ratio of owned household formations to rented household formations averaged more than 4:1.

Total household formation (thousands, yearly change in four quarter average)



Source: US Census Bureau

<sup>6</sup> W.S. Census Bureau (should it be US?)

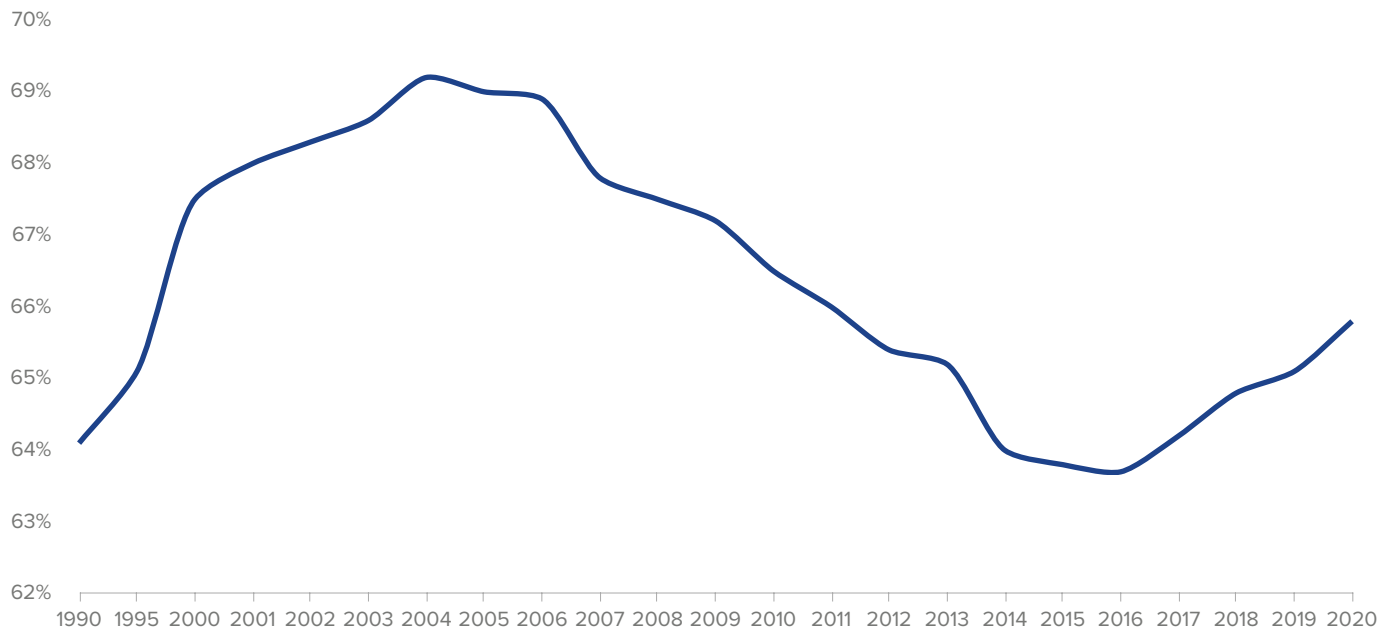
<sup>7</sup> Statista



**Homeownership rates increasing:** Coming off a peak in the early 2000s, American homeownership rates took nearly a decade to begin their post-Great Recession recovery. Buoyed by rising wages, increased consumer confidence and an accommodating lending environment, homeownership rates have steadily climbed since the 2016 trough of 63.7%. The national homeownership rate closed 2020 at 65.8%,

its highest level since 2012. Despite the steady ascent, homeownership rates remain near a 25-year low. However, the desire for homeownership among Americans has never been higher — 94% of Americans responded that if money was no object, they would own their home, per Zillow’s Housing Aspirations Report.

### US homeownership rate



Source: Statista

### INCREASED HOUSEHOLD FORMATION AND HOMEOWNERSHIP SUPPORT BOTH URBAN AND SUBURBAN MIGRATION

A series of identical surveys administered by the National Association of Homebuilders (NAHB) in 2007, 2012, 2015 and 2018 unveiled an unwavering preference among Millennials for urban living. The eldest members of Gen Z find themselves just a few years removed from college and continuing the trend of young adult affinity for city living. Due to the fact that much of the generation is still years away from adult life, the majority of research is focused on college-aged and post-graduate Gen Zers.

The onset of the coronavirus pandemic brought with it frothy rhetoric insinuating a “mass exodus” from cities as individuals sought safety from COVID-19 infection and aimed to escape

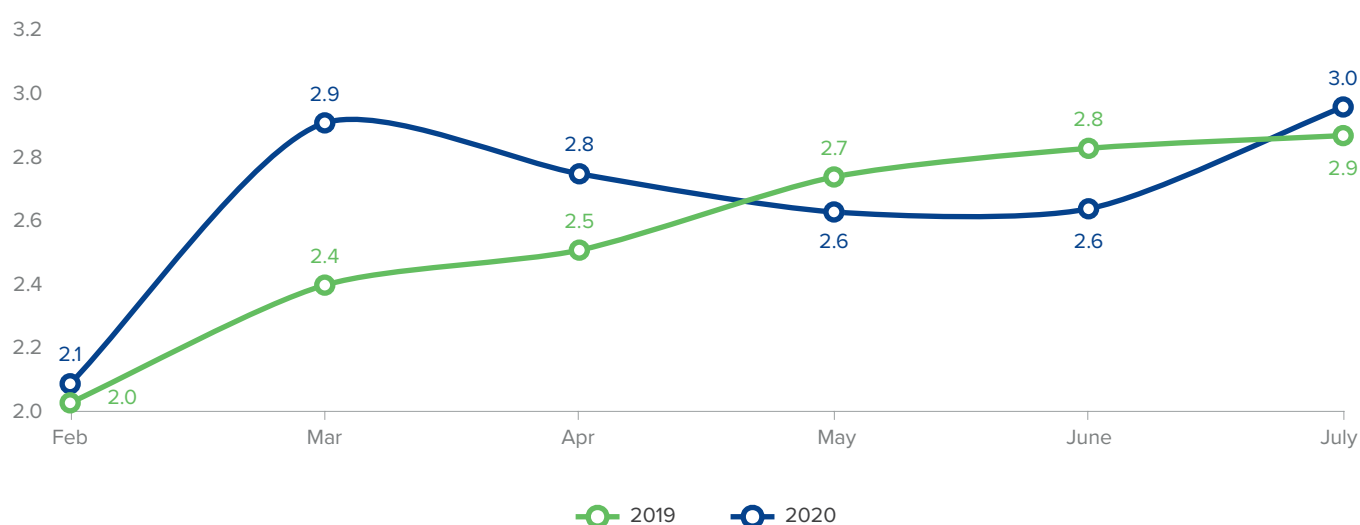
densely packed cities as long lockdowns commenced. Within months, dire pictures of America’s largest cities, particularly New York City and San Francisco, were painted by public rhetoric. The top eight cities in the nation, all of which experienced rising demand prior to the pandemic, experienced precipitous declines in rents in the opening months of the pandemic – rents dropped 19.7% and 24.0% in NYC and San Francisco, respectively, as of November 2020.<sup>8</sup> Many portended that with the rise of remote work and the allure of suburban and rural living amid the pandemic, Americans would largely turn away from urban living moving in the future.

<sup>8</sup> Zumper.com

As movement data emerges, one conclusion has risen to the fore: there is little support for dramatic claims that people are permanently fleeing cities at significantly higher rates than recent migration patterns. To better understand COVID-19's impact on US movers, data was collected from the United States Postal Service's change-of-address archive from February 2020 through July 2020. In the opening six months of the pandemic there was just a 3.9% increase in total movers relative to the same period a year prior — 15.9 million move requests in the 2020 period, compared to 15.3 million move requests in the same period of 2019.

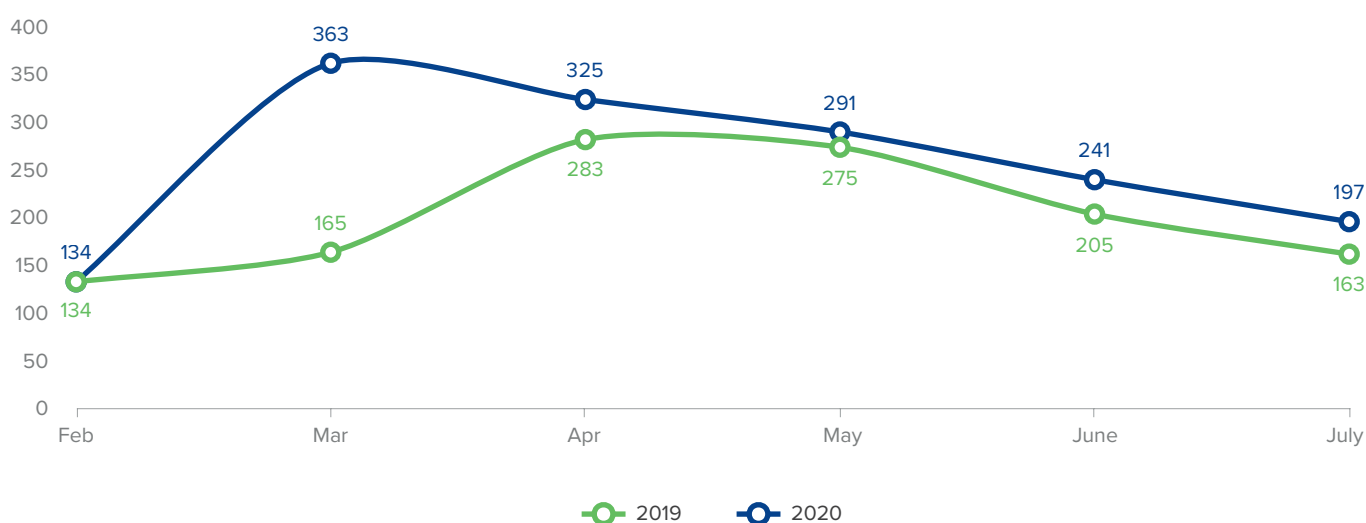
However, much of this increased movement was temporary — there was just a 2% increase in permanent moves, but a 27% increase in temporary moves. Temporary moves spiked dramatically in March and April, the time in which the pandemic was establishing its footing in the US and disrupting daily life. Urban dwellers likely fled cities, albeit temporarily, for a variety of reasons — a highly contagious and rapidly spreading virus can cause the average person to want to get away from a densely populated urban area, particularly with a high cost of living and the beginning of lockdowns that would stretch into the fall, closing most public spaces for use indefinitely.

**Total monthly moves – permanent change-of-address requests (in millions)**



Source: USPS

**Total monthly moves – temporary change-of-address requests (in thousands)**



Source: USPS





A Pew Research Center Study found that just 3% of permanent movers in the opening months of the pandemic reported COVID as their primary catalyst. Aside from COVID-induced moves being exaggerated, the data shows that movers are not actively fleeing cities. A Zillow report published in August 2020 demonstrated that the share of search traffic for properties in suburban areas was down compared to the previous year, with a similar report from Apartment List concurring. The Zillow report showed that, nationwide, the share of people looking to move to a higher-density city increased by a little over 1%, concluding that “the data show subtle regional shifts, but no overwhelming evidence of large-scale urban exodus.” Additionally, urban areas where residents departed amid COVID have begun to register strong net inbound migration. New York City saw first-quarter migration occur more than twice as fast in 2021 as it did in 2019. Further, leasing has begun to rise — real estate firm Corcoran Group reported nearly 4,000 signed residential contracts in the first quarter of 2021, an increase of 58% year-over-year and the strongest start to any year for signed contracts since 2007.<sup>9</sup>

Although there may not be a wholesale departure from the urban lifestyle, there is no denying that the pandemic provoked a renewed interest in suburban living that is likely to continue.

Population migration trends have held steady over the past decade, driven by an exodus from the northeast and influx to the sunbelt region. Over the past decade, four of the top seven states for outbound migration hail from the northeast, while no northeast state lands in the top eight for inbound migration. The entirety of the southern United States has seen more Americans migrate to the area than away from the area over the past decade. Arizona and South Carolina have landed among the top five states for inbound migration since 2015, while Tennessee and North Carolina have made the top five since 2016. The sunbelt is home to nine of the top 10 counties in terms of inbound migrants in the past decade, while also being home to eight of the 10 fastest-growing counties. Americans are flocking to the sunbelt for its higher job availability, lower cost of living (including lower state taxes), warmer weather, and an opportunity to escape the densely populated urban areas of the northeast while retaining access to conveniences and cities.<sup>10</sup>

The data in the table below relates to 2020, showing the proportion of total movers moving into state (Top Inbound States) or out-of-state (Top Outbound States).

Top Inbound States	
Idaho	70%
Arizona	64%
South Carolina	63%
Tennessee	63%
North Carolina	61%

Top Outbound States	
Illinois	69%
New York	65%
California	64%
New Jersey	64%
Maryland	61%

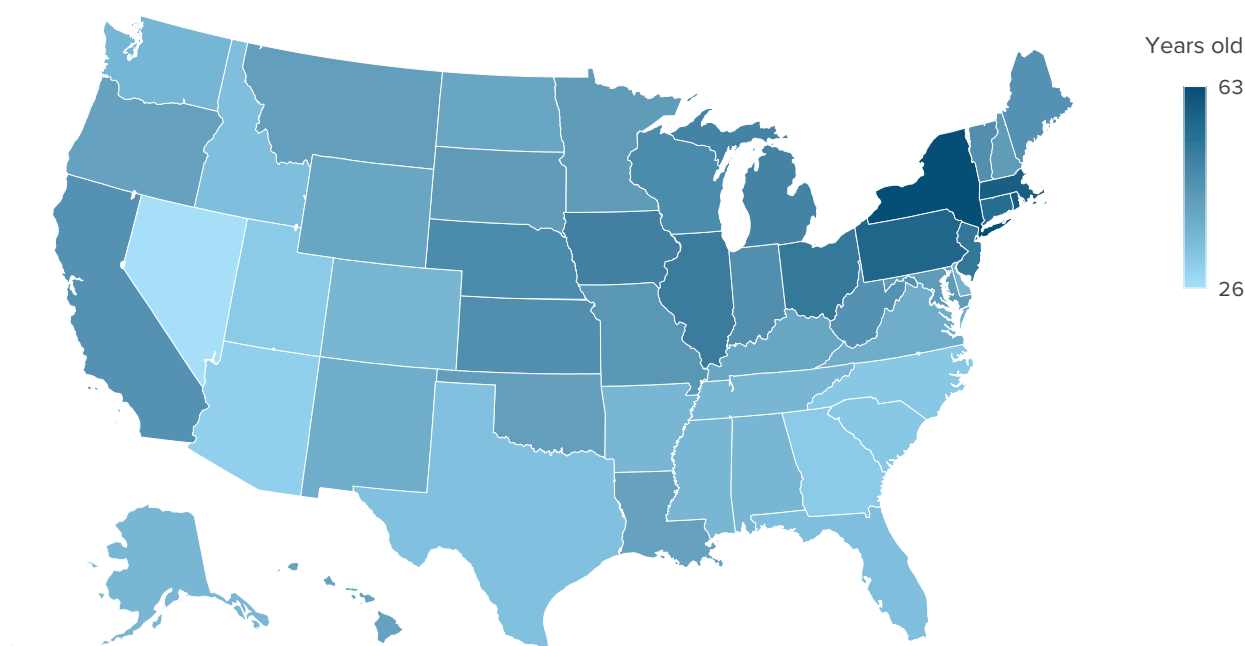
<sup>9</sup> The Corcoran Report 1Q 2021 Manhattan

<sup>10</sup> North American Moving Services

Given the continued, decade-long, net outbound migration from the northeast and net inbound migration to the sunbelt, homebuilders have calibrated their efforts to capitalize on these trends. The geographic distribution of median home age is highly correlated to the population migration trends of the recent decades. The states with the oldest median home age — New York, Rhode Island, Massachusetts, Pennsylvania and Connecticut — are all located in the northeast, the hub of settlement and early growth in America. Likewise, it comes as no surprise that the states with the youngest median home age — Nevada, Arizona, Utah, Georgia and the Carolinas — are

in areas that have seen large population increases in recent decades. Fourteen of the 15 sunbelt states have a median owner-occupied home age below the national median of 39 years; only California, with a median home age of 43 years, is located within the sunbelt but has an older median home age than the national median. Nevada, the state with the youngest median home age at 23 years, also happens to be the fastest-growing state for five consecutive decades, outpacing Georgia and Arizona, two states in which half of all housing was built in the last 27 years.<sup>11</sup>

## Median home age by state



Powered by Bing  
© GeoNames, Microsoft, TomTom

Source: House Method

Limited inventory of single-family homes is driving renovation and remodeling activity, with room for both DIY and DIFM trends to accelerate.

<sup>11</sup> House Method



## CONSTRAINED SUPPLY AND INVENTORY

The current housing supply crunch facing the nation results from the growing demand for residential housing overlaid with depressed single-family housing start levels.

The late 1990s and early 2000s were characterized by rapidly increasing rates of single-family housing starts as the residential housing sector boomed — single-family

starts averaged between 1.25 and 1.75 per 100 households throughout the 1990s and 2000s. However, in the aftermath of the Great Recession, construction significantly declined and even with housing starts rising 20% in 2020, they remain far below the national averages of the 1990s and early 2000s.<sup>12</sup>

New privately owned housing units started: single-family units (thousands of units)



Source: Fred

“For over a decade, we’ve had a chronic lack of housing supply. We need 1.62 million units a year to keep pace with organic demand, but we produce significantly less. We’re about 370,000 units short each year.”

**MARCO SANTARELLI**  
CEO, NORADA REAL ESTATE INVESTMENTS

<sup>12</sup> Wall Street Journal

Exacerbating the single-family home supply gap is the emerging trend over the past decade of Americans opting to remain in their homes longer, therefore fueling competition between potential homebuyers for a scarce number of homes. Further, COVID-induced hesitation toward prospective homebuyer tours over the past year or so has served to further tighten on-the-market housing supply. According to 2020 data from Redfin Corp., the average American homeowner has now been in their home for 13.0 years, meaningfully up from the

2010 level of 8.7 years. The result has been the tightest supply of single-family housing inventory ever, with existing housing inventory appearing to have bottomed out at the end of February 2021, when housing inventory hit a record low of 1.03 million homes — equivalent to a 1.9-month supply at the current sales price. For-sale housing inventory has climbed month-over-month since February, albeit slowly, closing June with 1.25 million homes on the market — equivalent to a 2.6-month supply.

“We are in a really huge supply crunch ... it becomes a cycle where people don’t want to move because it’s so difficult to buy a home, and then that in turn makes it even more difficult to buy a home because people aren’t moving and freeing up inventory.”

**DARYL FAIRWEATHER**  
CHIEF ECONOMIST, REDFIN

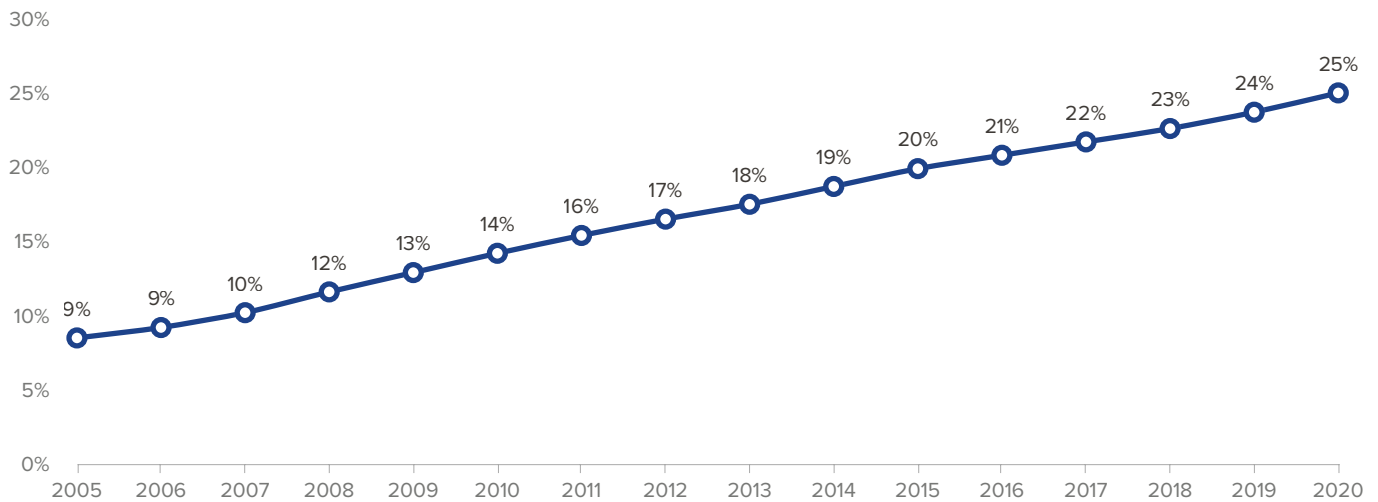
Number of months it would take to exhaust existing home supply at current sales price (months)



Source: National Association of Realtors



## Proportion of US homeowners in current home &gt; 20 years

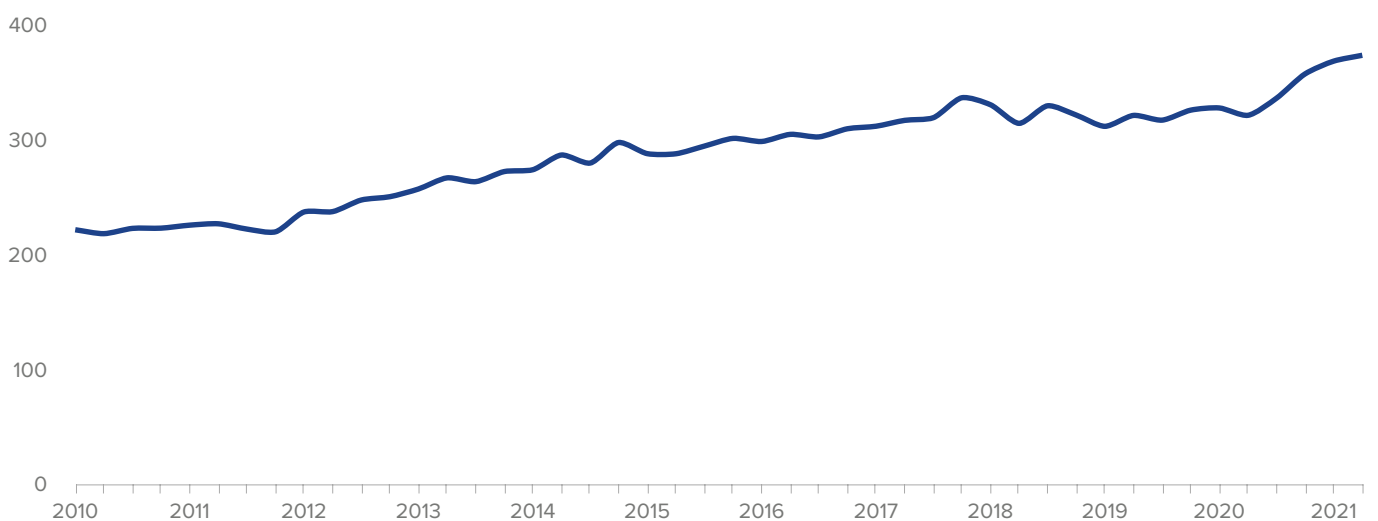


Source: Redfin

A tight supply of housing inventory combined with robust housing demand fosters a home-buying environment highlighted by intense competition, rising prices and shortened sale times. As of June 2021, single-family homes sold for the highest prices ever recorded. The median sale price for a home in the US reached US\$364,160 in June, an all-time high — 20% higher than the same period a year prior.

A record 55% of homes sold above their list price in June, a rise of 29% compared to the same period a year prior. Such price pressure has raised the average sale-to-list price ratio, which measures how closely homes sell to their asking price, to 102.3% — the metric crossed 100% for the first time in March 2021 and has steadily climbed since.<sup>13</sup>

## Median sales price for a home in the US (US\$ in thousands)



Source: FRED

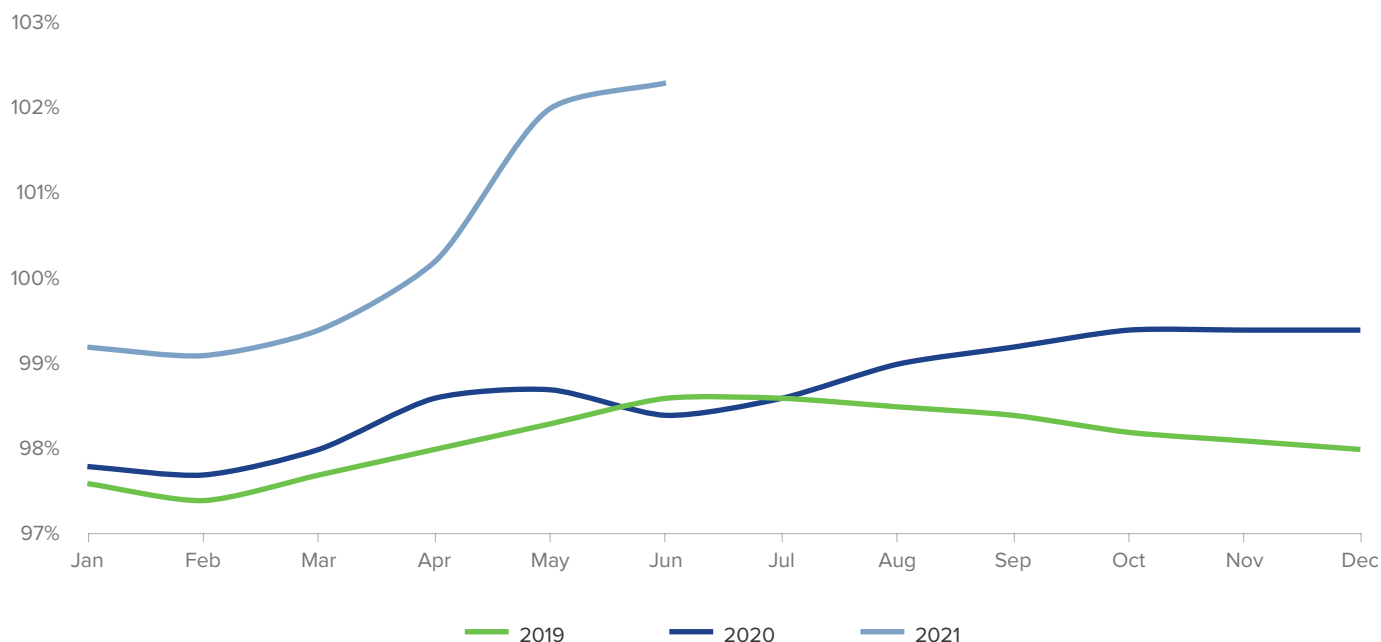
<sup>13</sup> Redfin



As further evidence of the tight supply in the market, in June 2021, homes sold were on the market for a median of 15.2 days, just barely up from the all-time low of 15.0 days recorded in May, and down from 37 days a year earlier. Additionally, June continued near all-time highs for the proportion of homes

sold within two weeks of entering the market (52%), as well as within just one week (38%). These rates are slightly down from all-time highs of 58% and 45%, respectively, recorded in March 2021.<sup>14</sup>

#### Sale-to-list price ratio



Source: Redfin

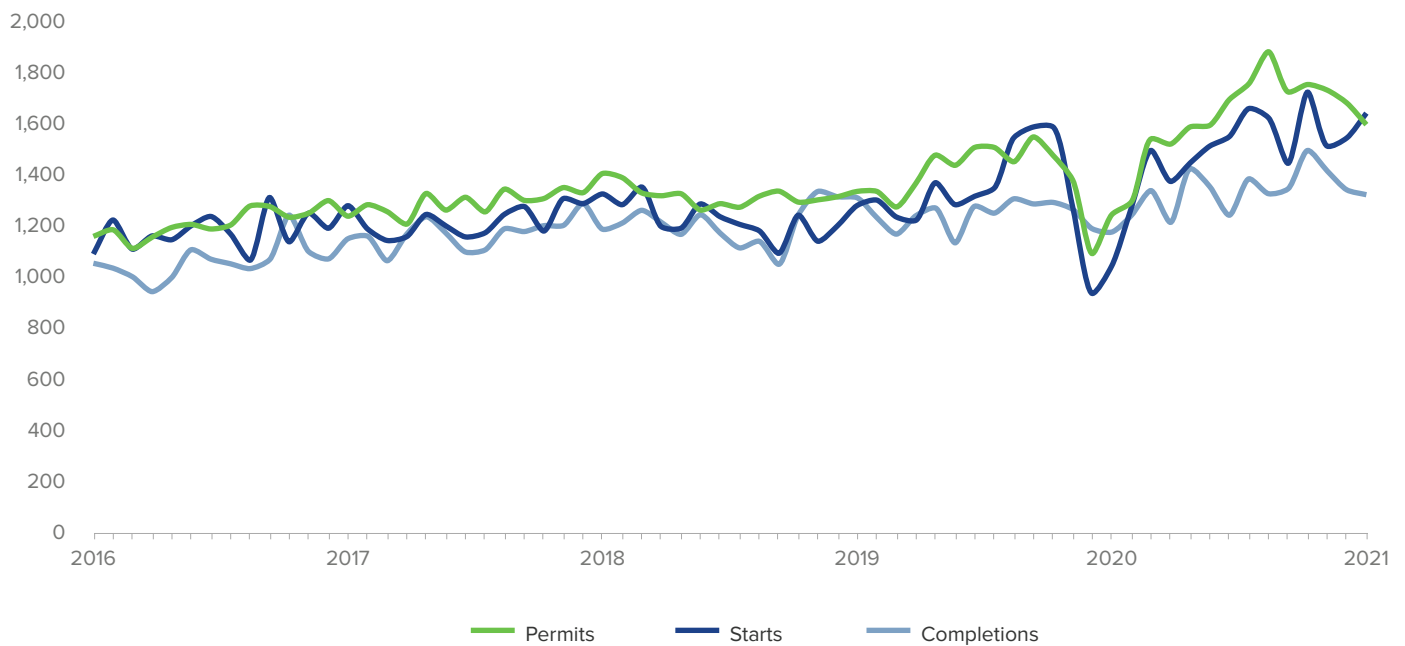
<sup>14</sup> Redfin

## AN INCREASED PACE OF NEW CONSTRUCTION AND R&R ACTIVITY

Following a revitalization of residential construction in the early spring of 2021 — March saw single-family authorizations and starts register 35.6% and 40.7% higher than the year prior<sup>15</sup> — activity slowed due to rising input prices and labor shortages, resulting in homebuilder confidence declining to 10-month lows in June. However, with lumber prices retreating and labor loosening, building accelerated at the outset of the summer. June 2021 saw single-family housing starts rise to a seasonally

adjusted annual rate of 1.16 million, 6.3% higher than May 2021 and 28.5% higher than June 2020. Single-family authorizations fell slightly month-over-month in June 2021 by 6.3%, but still remain 25.1% higher than June 2020.<sup>16</sup> Despite this rapid pace of new construction, residential renovation and remodeling is poised for continued growth to satisfy the needs of those unable to find affordable new homes.

New residential construction – seasonally adjusted annual rate (thousands of units)



Source: Redfin

“As the housing market gets leaner, potential buyers are turning in record numbers to new construction. About 1 in 4 homes for sale are now newly built, the highest share ever. Historically, new homes make up about 1 in 10, but fierce buyer competition is behind that shift.”

CNBC

<sup>15</sup> US Census Bureau

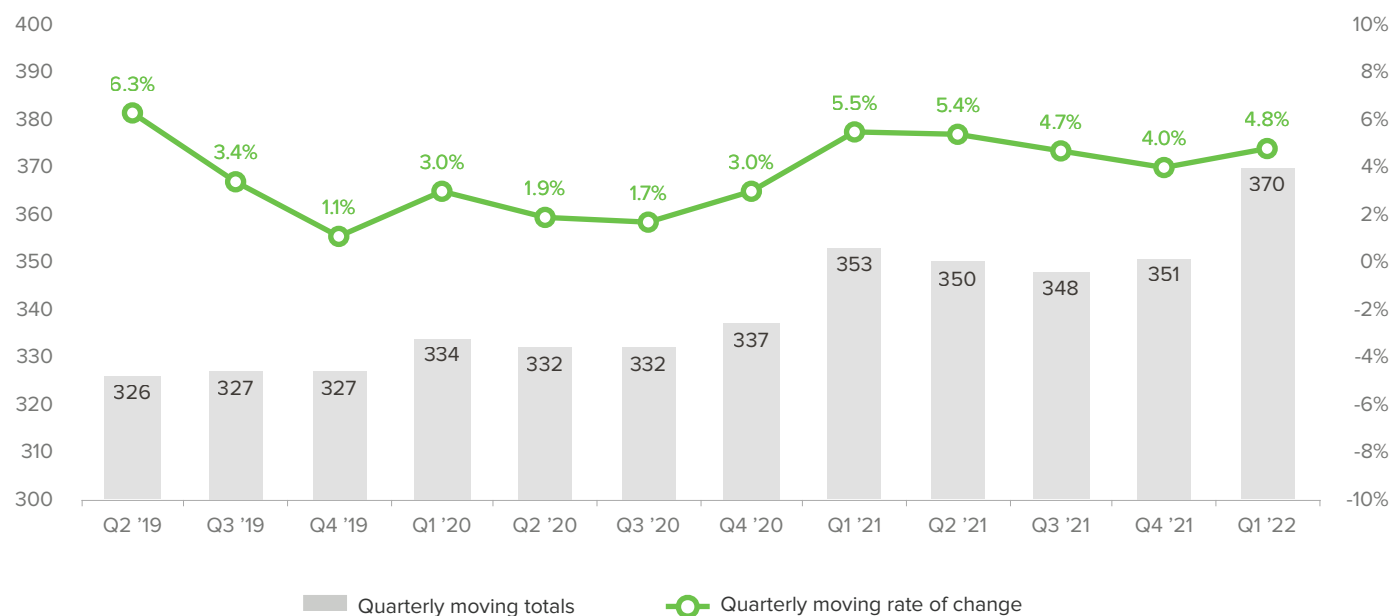
<sup>16</sup> US Census Bureau



The latest Leading Indicator of Remodeling Activity (LIRA), released by the Remodeling Futures Program at the Joint Center for Housing and Studies at Harvard University (JCHS),

currently projects a pace of mid-single digit gains in annual home renovation and repair spending in 2021, with 4.8% annual growth in spending by the first quarter of 2022.

#### Homeowner improvements & repairs (US\$ in billions)



Source: JCHS

A near year-long concern in the residential remodeling market has been the impending potential slowdown in remodeling spending, as the American economy reopens and consumers shift their spending patterns back to discretionary spending options like travel, dining and entertainment. LIRA reports released during the early months of the pandemic echoed these concerns, with reports from the first two quarters of 2020 projecting declines in remodeling spending by the

middle of 2021. However, as greater clarity has emerged on the impact of the virus on the overall economy and the residential housing market demonstrated resilience, the LIRA began to project moderate gains for homeowner spending on remodel and repair projects through 2021 — LIRA projections for YoY spending growth in the second and third quarters of 2021 are now 2.5% higher than in the previous report.

“With a financial boost from recent federal stimulus payments and strong house price appreciation, homeowners are continuing to invest in the upkeep and improvement of their homes. This shift in incomes and ongoing strength of the housing market are providing homeowners with incentives to make even greater investments in their homes this year.”

**CHRIS HERBERT**  
MANAGING DIRECTOR FOR THE JCHS

With fears of a drop-off in remodeling spending as a result of the reopening of the American economy quelled, the path forward for residential remodeling spending is clear. A rapidly aging residential building stock, combined with Americans opting to stay in their homes for longer periods, is forcing the hands of homeowners to maintain and improve their properties. Further, record levels of homeowner equity, personal savings and low interest rates are providing homeowners with the means and motivation to pursue projects they once saw as financially infeasible. With this perfect storm of variables, steady increases in remodeling spending in the mid-single digits are almost certain in the near-to-medium term.

The tight housing market has particularly impacted the approach of first-time homebuyers, ie. Millennials. Due to low levels of inventory and rising home prices, Millennials are settling for less than their dream home and instead choosing to invest heavily in remodeling immediately upon purchase. Angi, a platform that connects handymen with aspiring remodelers, surveyed 1,000 Millennials in May 2021 who had become first-time homebuyers in the past year. Angi found that respondents overwhelmingly ended up in homes needing more renovations than intended and, if they didn't exceed their budget in the cost of the home, they were likely to do so in renovations. The survey found that Millennials are going deep into their pockets for first-home renovations – nearly 70% had renovation budgets of \$25,000+.

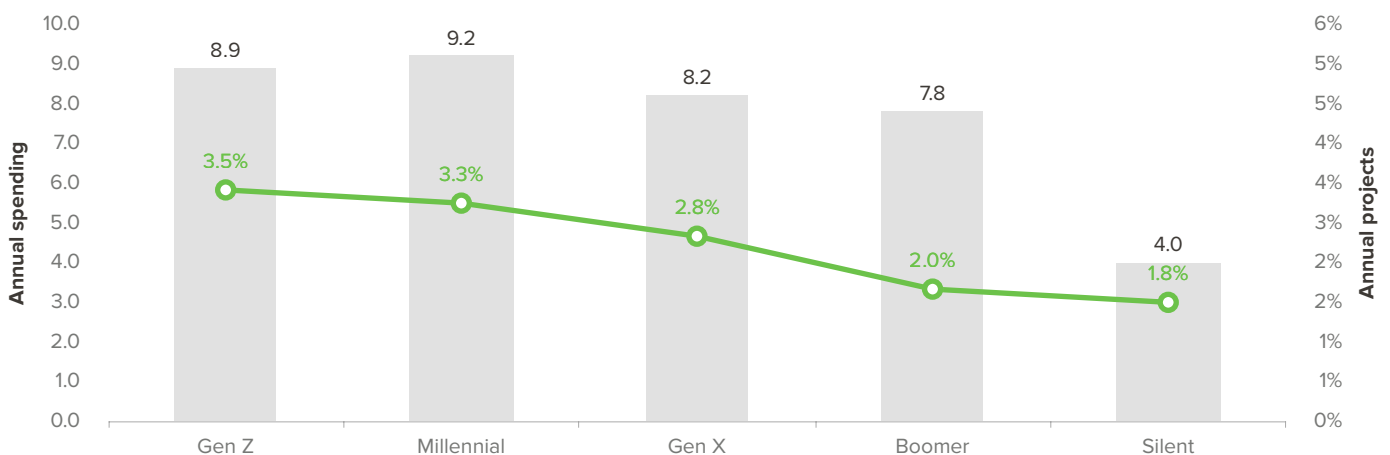
“Millennials are driven by family considerations and a desire for safety and stability after the pandemic. Low inventory levels and the tight housing market have driven them towards homes that need work, with over half purchasing homes that need renovations.”

OISIN HANRAHAN  
CEO OF ANGI

Research performed by HomeAdvisor, a similar platform aiming to connect homeowners with local service professionals to carry out home improvement projects, found

that Millennials led the way in home improvement spending in 2020 across all generations.

2020 US home improvement spending (US\$ in billions)



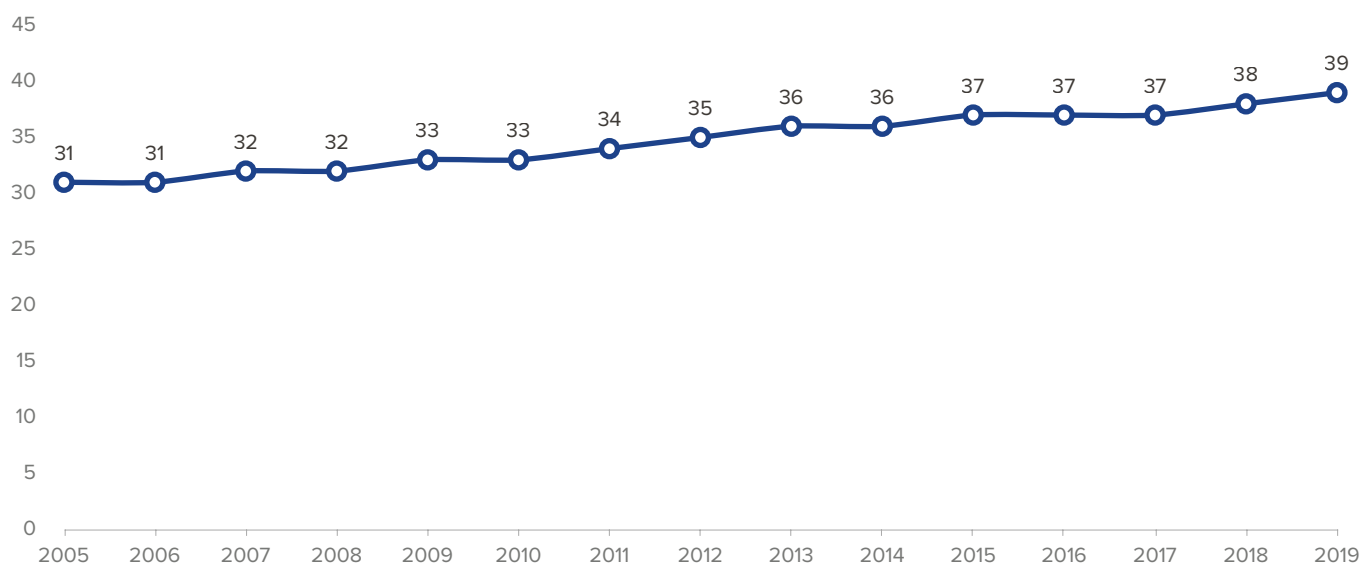
Source: JCHS

## TAILWINDS DRIVE INCREASED REMODELING

One of the most important remodeling market indicators is the median age of the existing residential housing stock. Relative to new construction, older homes tend to be less energy efficient, stylistically outdated, less tech-equipped and victim to general wear-and-tear that requires maintenance and repair. According to the latest data from the 2019 American Community Survey (ACS), the median age of owner-occupied

homes in the United States was 39 years. This is starkly up from the 2005 reading of 31 years, reflecting the status of a construction industry that continues to fall behind on the number of homes built each year. Nearly two-fifths (38%) of the residential building stock in the US was constructed prior to 1970, making it over 50 years old.

Median age of owner-occupied housing (in years)



Source: NAHB

As previously mentioned, a new trend has emerged among Americans in the past decade of opting to stay in one's home for a longer period. There is a proven link between the time spent in a single home and the likelihood to forgo relocating in favor of remodeling; of those who have lived in their home for over six years, 61% will choose to renovate instead of move, thus staying in their homes and spending significant amounts on remodeling, renovations and redecorating.<sup>17</sup> This is critical to note, as roughly one in four Americans have lived in their current home for over 20 years.<sup>18</sup> In many major metropolitan areas around the country, homeowner tenure has rapidly risen over the past decade. For example, major metropolitan areas in

Texas (Austin, Dallas, Fort Worth, Houston and San Antonio) have collectively seen median homeowner tenure rise by nine years in the decade from 2010 to 2019, while the median home sale price has risen over 50% in all metro areas. Boston, Indianapolis, Los Angeles and Salt Lake City have all seen median homeowner tenure rise by more than five years in the decade from 2010 to 2019, while the median home sale price has risen over 60% in all metro areas.<sup>19</sup> This trend of increasing homeowner tenure has created a virtuous remodeling cycle, as it has led to fewer existing homes on the resale market, thus driving up home prices and furthering a proclivity towards remodeling one's current home.

<sup>17</sup> iProperty Management

<sup>18</sup> Redfin

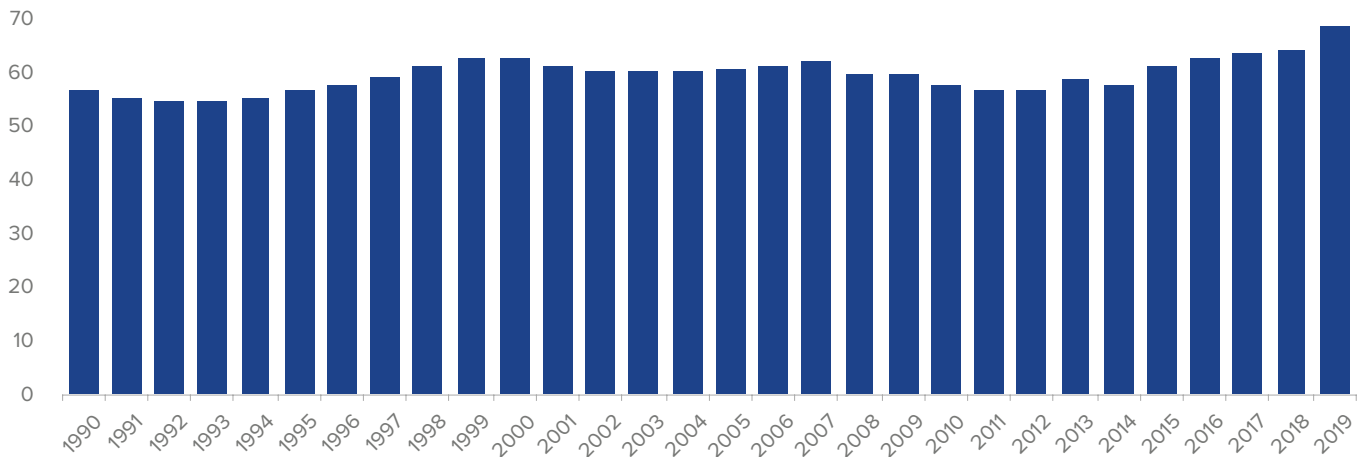
<sup>19</sup> Redfin



Alongside the growth in total US households has been a growth in US real median household income. After reaching a post-Great Recession low point in 2012, US real median household income has risen steadily. The most recent data from 2019 indicates the US real median household income is US\$68,703,

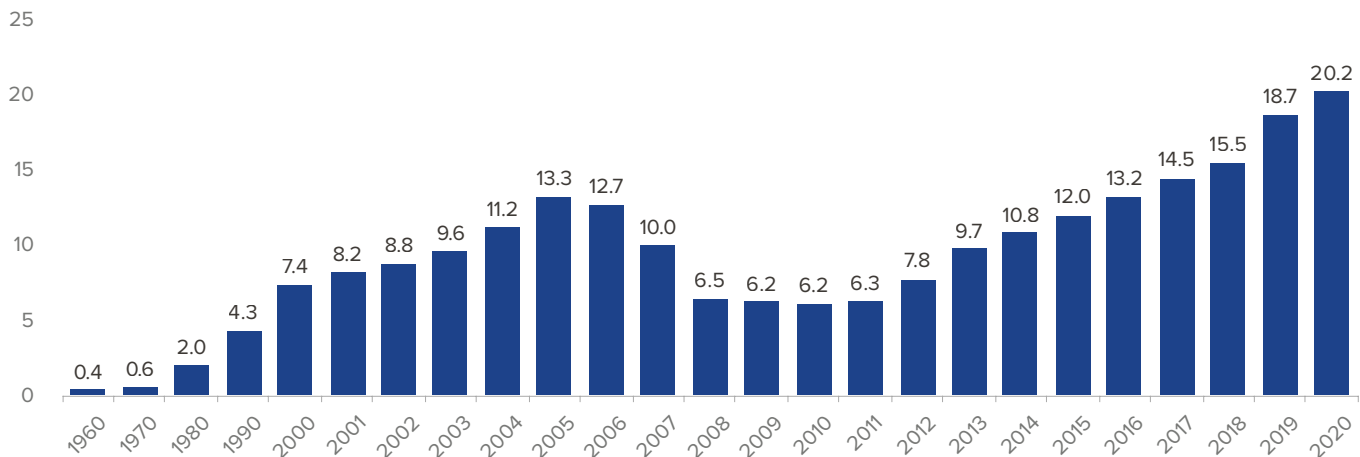
a 7.2% increase over 2018 and 22.9% higher than the trough in 2012.<sup>20</sup> Consensus projections for 2020 place real median household income at US\$68,400 – flat over 2020, as job loss due to the COVID-19 pandemic temporarily disrupts the long-term positive trend in real median household income growth.

#### Real median household income in the US (US\$ in thousands)



Source: FRED

#### Value of homeowner equity in real estate in US (US\$ in trillions)



Source: Statista

Arguably the biggest winners of the explosion in home prices during 2020 were Americans who originated homeownership prior to 2020, as the group saw a collective US\$1.5 trillion gain in equity, or roughly US\$26,300 per homeowner, according

to CoreLogic's 2020 Homeowner Equity Insights Report. The report showed that the average equity increase per homeowner ended the year at 16.2% relative to the end of 2019.

<sup>20</sup> US Census Bureau

As home prices across the country skyrocketed in 2020, millions of Americans found themselves thrust into the “equity-rich” category, a group defined by having a mortgage on a property that is 50% or less than the value of the home. At the conclusion of 2020, 17.8 million of 59 million mortgaged properties were “equity-rich,” equating to 30.2% of all mortgaged properties in the US. Similarly, as home prices across the country rose precipitously in 2020, the number of Americans who were

underwater on their properties (defined as owing more on a mortgage than the property is currently worth) dropped significantly. The number of mortgaged properties considered “underwater” declined by 21% year-over-year in 2020 from a total of 1.9 million properties in 2019 to 1.5 million at the conclusion of 2020, representing just 2.8% of all mortgaged properties.<sup>21</sup>

“More property owners rose into the equity-rich category and escaped the seriously underwater lane, putting more money into the average house ... Homeowners are sitting on a growing reserve of wealth.”

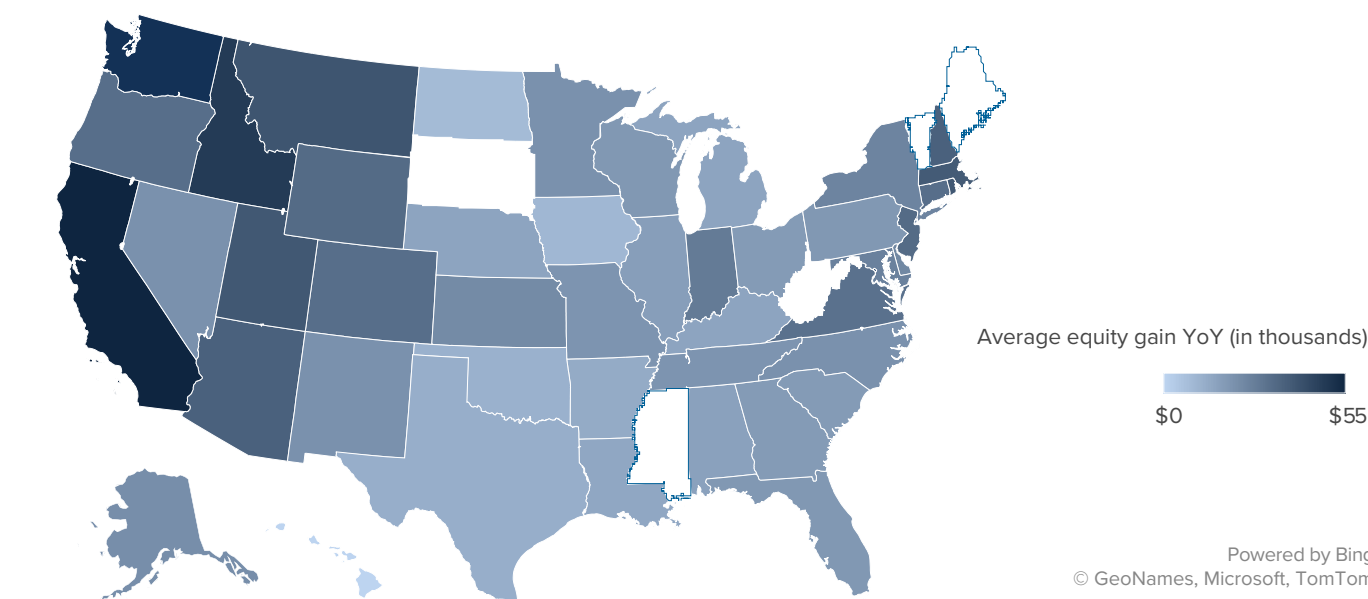
**TODD TETA**

CHIEF PRODUCT OFFICER, ATTOM DATA SOLUTIONS

According to Harvard’s Joint Center for Housing Studies, there is a proven connection between changes in median home value and home improvement spending. With increased equity built into their homes, homeowners are better positioned to afford home improvement projects and additional money can be extracted from their property to fund renovations. Regional

forecasts from the Remodeling Futures Program project remodeling expenditures will increase between 1% and 13% in 42 of the nation’s major metropolitan areas, with the largest remodeling gains occurring in more affordable metro areas in the sunbelt region.

#### Average homeowner equity gain YoY by state



Source: CoreLogic

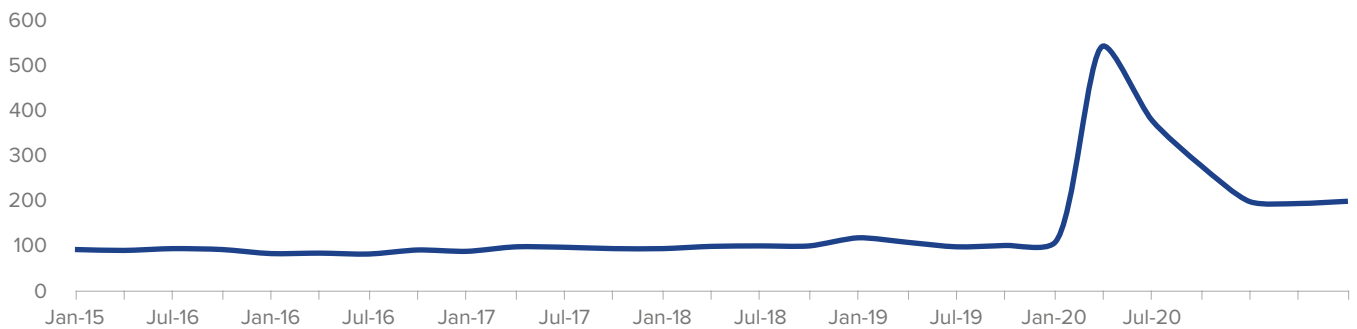
<sup>21</sup> CoreLogic 2020 Homeowner Equity Insights Report

## THE EFFECTS OF INCREASED PERSONAL SAVINGS DURING COVID-19

The onset of the coronavirus pandemic in spring of 2020 shut down local economies and halted large swaths of discretionary consumer spending, catapulting personal savings rates in the United States to never-before-seen levels. April 2020 saw the US personal savings rate rise to a record 33.7%, nearly three-fold the March rate of 12.7%. Even as personal savings rates subsided as the pandemic progressed, the US personal savings rate average over the next nine months through January 2021 averaged 16.7% — nearly twice the average

personal savings rate of 7.3% in the United States over the previous decade.<sup>22</sup> The result has been around US\$1.6 trillion in “excess savings” held by Americans.<sup>23</sup> Americans saved swaths of money by maintaining income in light of reduced spending as local economies closed down, through emergency government relief in response to lost income, and through concerted efforts to increase savings as a precautionary measure due to uncertainty regarding employment, health and the US economy.

### Personal savings, seasonally adjusted (US\$ in billions)



Source: CoreLogic

## TRACTION ON BOTH DIY & DIFM PROJECTS

As the COVID-pandemic established its footing in the US in early spring of 2020, it brought with it the perfect storm of variables to provide a meaningful jolt to the “Do-it-Yourself” (DIY) remodeling sector. Local economies shut down in a matter of weeks, barring Americans from typical spending on dining, entertainment and travel. Subjected to the home, and with ample free time, homeowners sought to improve the functionality of their space. Consumer surveys conducted

by the Farnsworth Group and Home Improvement Research Institute (HIRI) indicated that as of June 2020, just three months into the pandemic, 80% of homeowners reported recently starting a DIY home maintenance replacement, repair or remodeling project. When asked why homeowners chose the DIY route, the top responses were: more spare time (84%), home more often (81%), DIY saved money (34%) and did not want contractors in home (21%).

“Compared with a year earlier, home prices in December were up sharply – 16.2% according to the CoreLogic Home Price Index – boosting the amount of home equity for the average homeowner with a mortgage to more than US\$200,000. This equity growth has enabled many families to finance home remodeling, such as adding an office or study, further contributing to last year’s record level in home improvement spending.”

**FRANK NOTHAFT**  
CHIEF ECONOMIST, CORELOGIC SOLUTIONS

<sup>22</sup> Statista

<sup>23</sup> World Economic Forum



The uptick in DIY activity amid the pandemic is reflected in the performance of national home-improvement retailers Home Depot and Lowe's. DIY customers flocked to these national chains, pushing up same-store sales 25% and 28%, respectively, in 2020. Further, DIY customers homed in on retailers' digital platforms, searching for inputs to their home improvement projects that could be shipped to their home or fulfilled through curbside pickup. Lowe's reported 111% growth in its digital business in the entirety of 2020, topping Home

Depot's 86% digital growth for the year. Despite concerns that DIY activity is likely to soften as economies around the nation reopen, Home Depot is witnessing otherwise. On a fourth-quarter call with analysts, COO Ted Decker said the company is still observing consumers investing heavily in their homes by buying supplies for DIY projects. Consumers are gravitating towards new products like cordless tools and extending the outdoor season with patio furniture and grills.

“As our customers continue to spend more time at home, they’re telling us the project lists are growing. After completing the project, we see many of our DIY customers take on additional and oftentimes more complex projects with a renewed sense of confidence.”

**TED DECKER**  
COO, HOME DEPOT

#### Home improvement stores' share price performance



Source: Capital IQ

Despite piqued interest in DIY projects amid the pandemic, the long-run “Do-it-for-Me” (DIFM) trend developed during the past decade will continue moving forward.

DIFM typically supplements DIY projects, and is poised to continue for a number of reasons. Growth in household incomes in recent decades has enabled more homeowners to hire professional contractors for home improvement projects. Additionally, the modern home, infused with more technical and difficult-to-install products that dissuade homeowner installation, has increased the necessity for professional help. Older homeowners disproportionately focus their improvement

activity on exterior replacement projects such as roofing, siding and window replacements as well as systems upgrades (HVAC, plumbing, electrical). Such projects are particularly geared towards DIFM, as they necessitate professional help due to their nature and complexity. Despite DIFM’s appeal to older homeowners, younger homeowners turn to DIFM to tackle larger projects while still pursuing selected DIY projects. Handy’s, a leading professional services platform that connects in-need homeowners with professional contractors, has observed a clear shift toward DIFM from DIY since its founding in 2012.

“With the growth of the online channel for the purchase of furniture, structures and building materials, many customers are not thrilled with the trade-offs of self-assembly. While there are many who are still willing to DIY to save money, we’ve found that there also exists a huge market of Millennials who prioritize convenience and experience above all else.

They are instead saying ‘do it for me’.”

**XAVIER DE GARCIA**

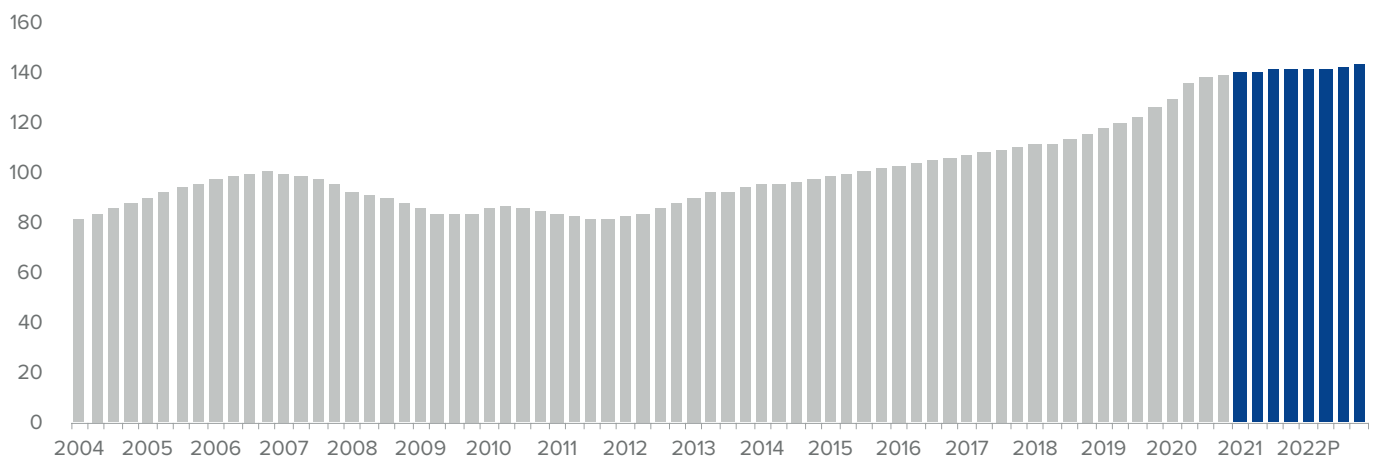
DIRECTOR OF STRATEGY, HANDY’S

As the influence of the COVID-19 pandemic fades from American lives, it is likely the DIFM trend will continue. 2020 saw particularly strong growth in “big-ticket” remodeling projects, which are defined as those worth US\$1,000 or more and so favor professional contractors over DIY. There were 14.4 million such projects completed in 2020, an increase of 9.9% over 2019. Per project spending also increased, as Q4’s YoY “big-ticket” residential remodeling spending registered growth of 10.3%. The fourth quarter marked the 35th consecutive quarter of annual and quarterly gains since remodeling activity bottomed in 2011.<sup>24</sup> Zonda, which focuses on “big-ticket” residential remodeling, now projects annual growth rates in

“big-ticket” remodeling spending of more than 4% through 2023 due to greater optimism regarding the economic outlook and recovery, as well as a strong housing market. The growth in existing home sales, particularly those in the suburbs, bodes well for the future of “big-ticket” remodeling activity over the short-to-medium term. In discussion of fourth-quarter 2020 results, Home Depot COO Ted Decker said that larger professional customers, which comprise 45% of company sales, are experiencing a business resurgence as consumers grow increasingly comfortable with a professional contractor in their home, and the backlog of jobs is growing.

<sup>24</sup> Zonda

## Residential Remodeling Index (RRI)



Source: Zonda

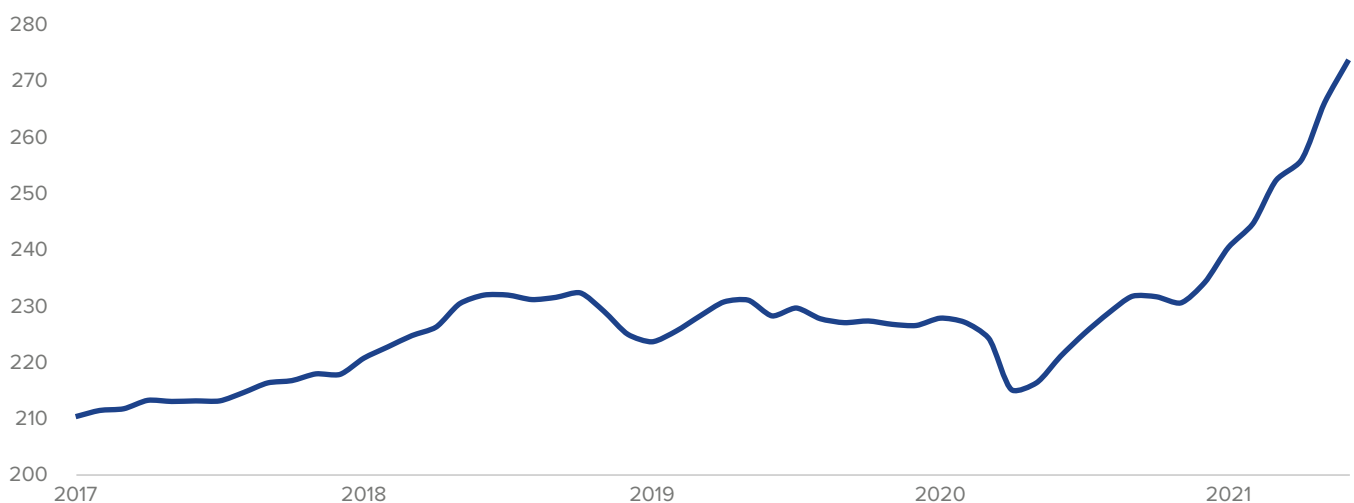
The Q4 2020 reading of 137.9 indicates economic conditions known to impact remodeling are 37.9% higher than the old peak in 2007.

## THE CHALLENGES AHEAD: COMMODITY PRICES, LABOR SHORTAGES, RISING INTEREST RATES AND HOUSING AFFORDABILITY

The nearly year-long ascent in prices of commodities that are key inputs to residential construction presents a risk to the current acceleration in building activity — however, the medium-term outlook remains strong as prices should stabilize over time.

According to the latest PPI Report released by the Bureau of Labor Statistics in July, prices for net inputs to residential construction rose 2.9% in June, bringing their 12-month price increase to 21.6%. Building materials, defined as inputs to residential construction less food and energy, have seen price declines just twice since December 2019.

## PPI index by commodity: Net inputs to residential construction



Source: FRED



Of primary concern is a quartet of key commodities – lumber, steel, copper and aluminum – which have driven up input costs for residential construction over the past year. As of mid-spring, lumber prices were setting new records daily, ascending over 400% year-over-year. At its peak, the surge in lumber prices was estimated to have increased the cost of the average single-family residential home by nearly US\$36,000 due to its integral role in the framing of a home, as well as being a key input to cabinets, doors, windows and flooring.<sup>25</sup>

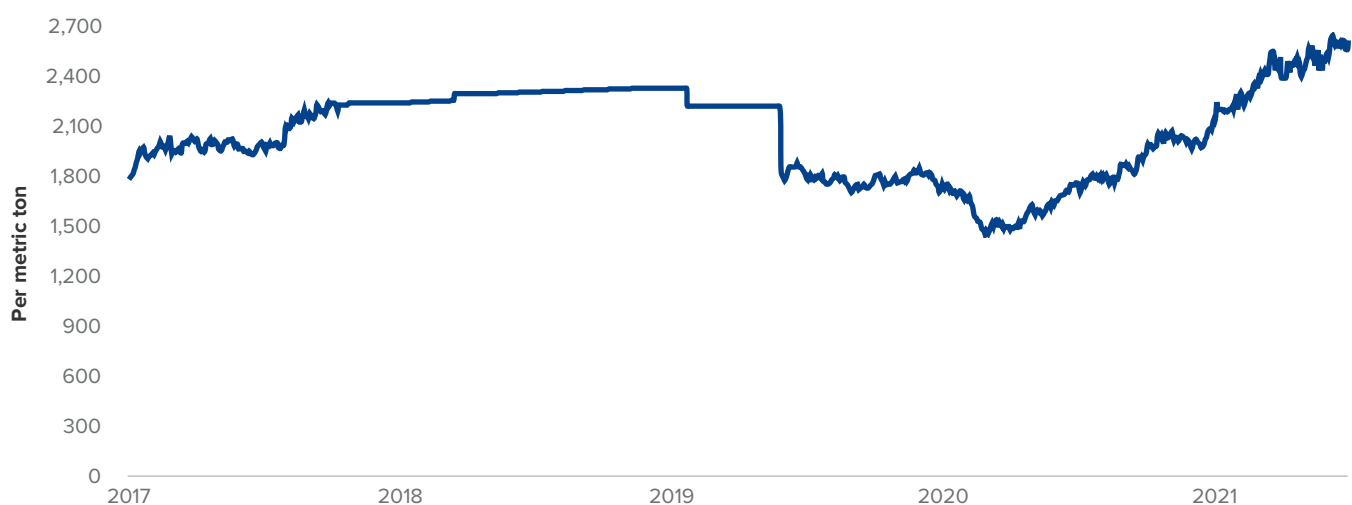
Steel prices are up over 200% since March 2020, hitting all-time highs on a weekly basis and currently hovering in US\$1,800+ territory. The story is similar for copper, which surpassed the US\$10,000 (per metric ton) mark in April for the first time since 2011 and is hovering around all-time highs marked that same year. Aluminum has seen its price climb since the heat of the pandemic, leaving it over 60% higher relative to the year prior.

#### Lumber historical pricing (in US\$)



Source: NASDAQ

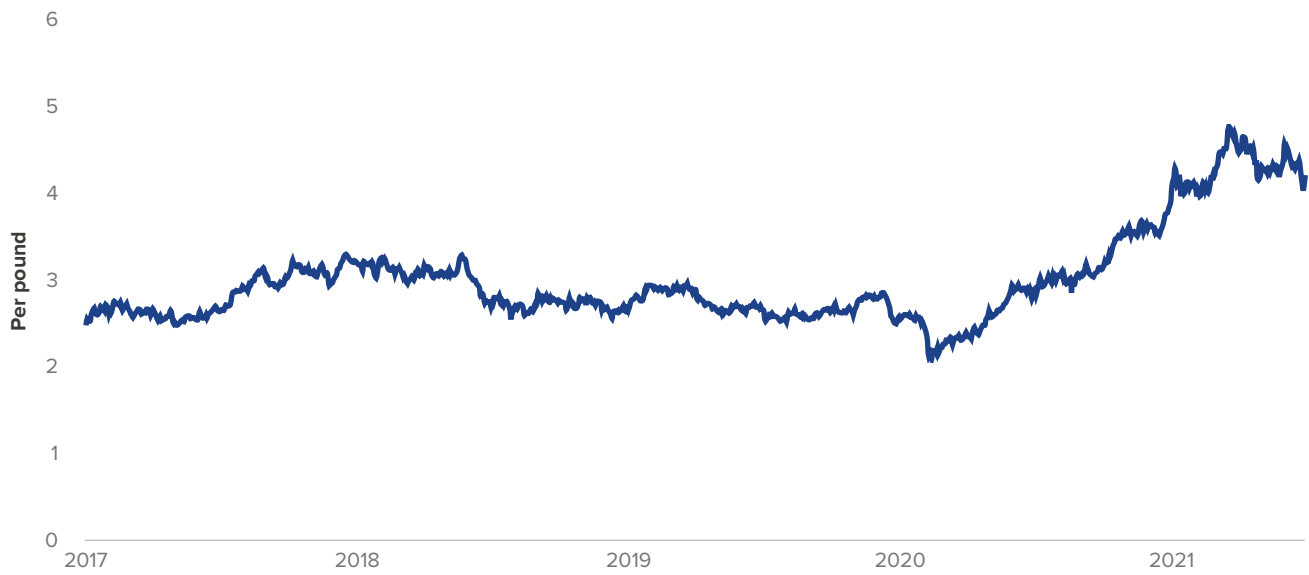
#### Aluminum historical pricing (in US\$)



Source: NASDAQ

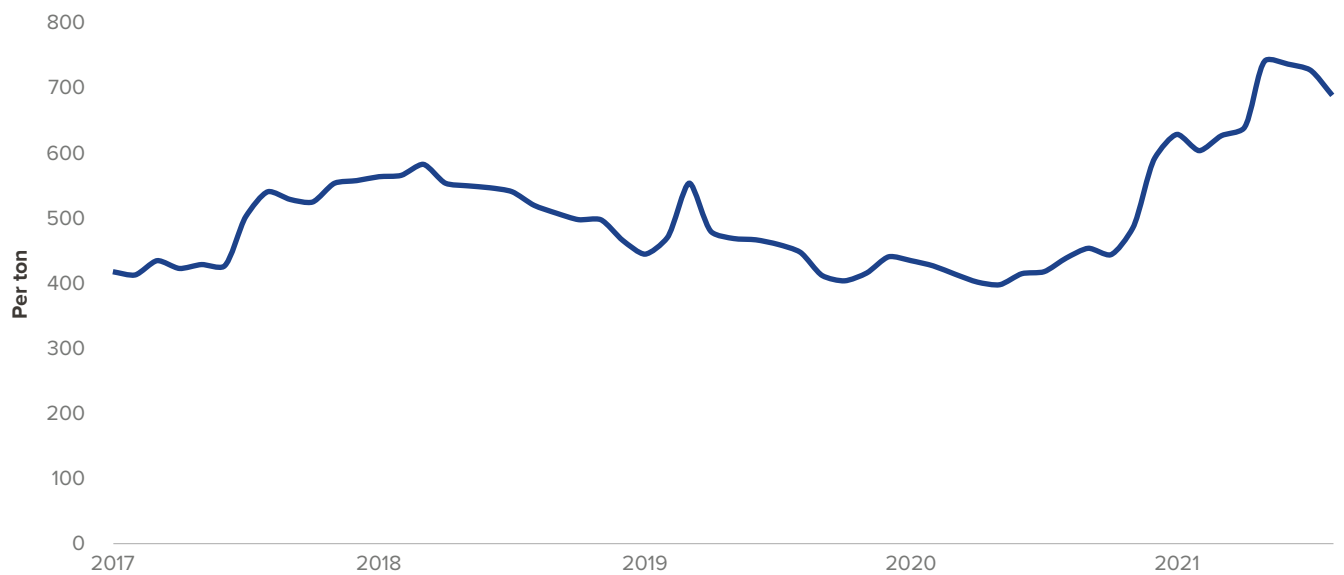
<sup>25</sup> NAHB

### Copper historical pricing (in US\$)



Source: NASDAQ

### Steel rebar historical pricing (in US\$)



Source: investing.com

## PRODUCTION INCREASES ARE ON THE WAY

The run-up in prices across commodity types was primarily driven by the onset of the pandemic, which led to production cuts necessitated by COVID-related safety measures, overlaid with expectations of reduced demand for commodities that are key construction inputs. While commodity demand did indeed decrease in the early stages of the pandemic, the decline was short-lived. Commodity demand returned fervently as spring turned to summer in 2020, eclipsing pre-pandemic levels. With heightened demand, reduced supply and constrained prices, the stage for an unprecedented rise in prices was set. However, upward price trajectories are expected to ease as production ramps up throughout 2021 and beyond.

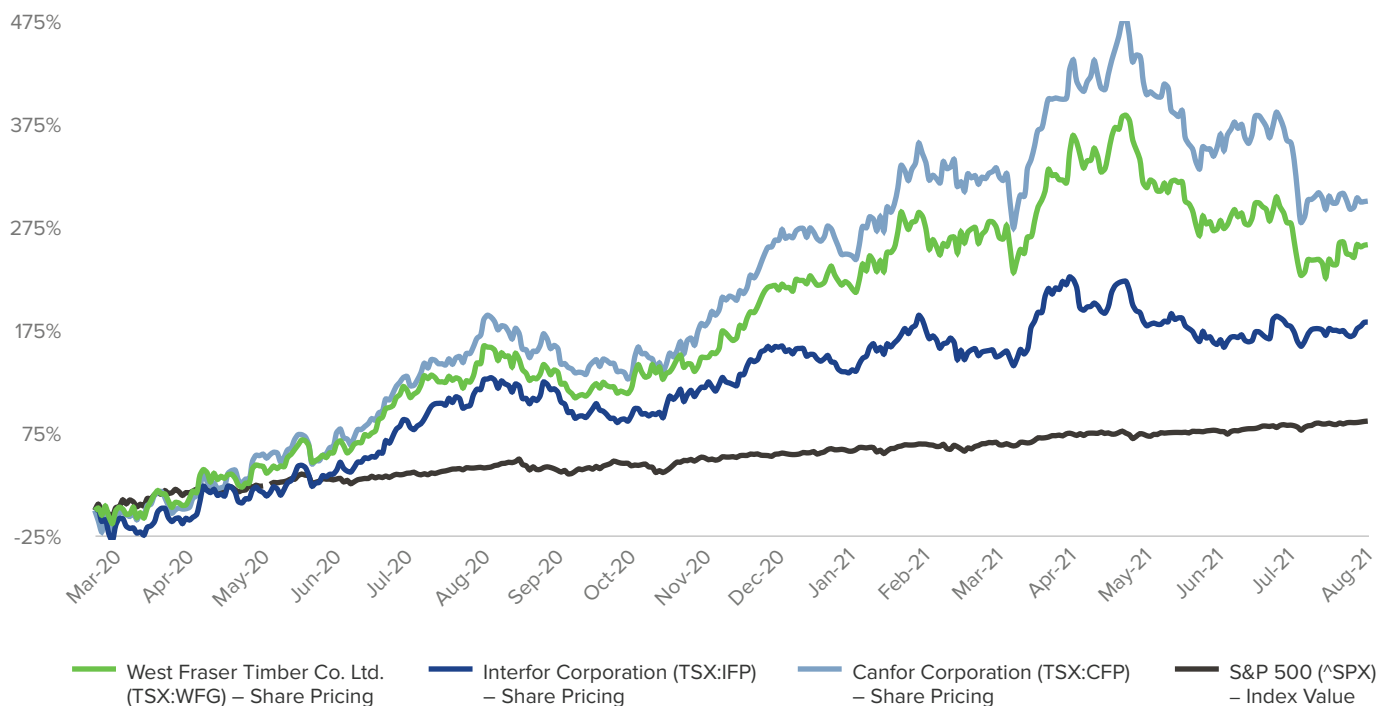
## LUMBER

The main driver of the current lumber shortage lies primarily within the walls of sawmills, where capacity has been limited due to coronavirus-related restrictions. Sawmills are running as close to capacity as currently allowed and are struggling to keep up with demand.

However, as vaccinations have been rolled out throughout the year, production has begun to increase again, enhancing supply while distribution delays are simultaneously dissipating.

Further, the lumber production market is well-positioned for outsized growth. The price of timber, softwood lumber's input, is still yet to recover from the 2007 housing bust; in fact, when adjusted for inflation, timber pricing has gone starkly downhill for the last 30 years and is sitting at its lowest price in 50 years. Meanwhile, despite falling off recent all-time highs, prices for softwood lumber remain at unprecedented levels. Due to these confounding variables, it is highly likely new producers will enter the market, primarily in the southern US (where Canadian-owned firms have been controlling lumber-making capacity), ramping up lumber supply further in 2022 and into 2023.

## Canadian lumber companies' share price performance



Source: Capital IQ

## RIISING WAGES AND DECLINING AVAILABILITY OF CONSTRUCTION LABOR

When the coronavirus pandemic slammed the US last March, it brought with it more than 1.3 million job losses in the construction industry, nearly tripling the unemployment rate within the sector from 5.5% to 16.6%. However, with most construction projects across the country back on

track, contractors are now seeing the industry's persistent labor shortages return. The construction industry displayed resilience throughout the downturn, as it recouped 73% of its pandemic-induced job losses by the end of October, higher than any other major sector of the economy.<sup>26</sup>

“When the pandemic began, some thought (and hoped) that the massive job losses observed in March and April would mitigate the skilled labor shortages that have frustrated firms for years. That simply hasn’t happened to any meaningful degree.”

**ANIRBAN BASU**

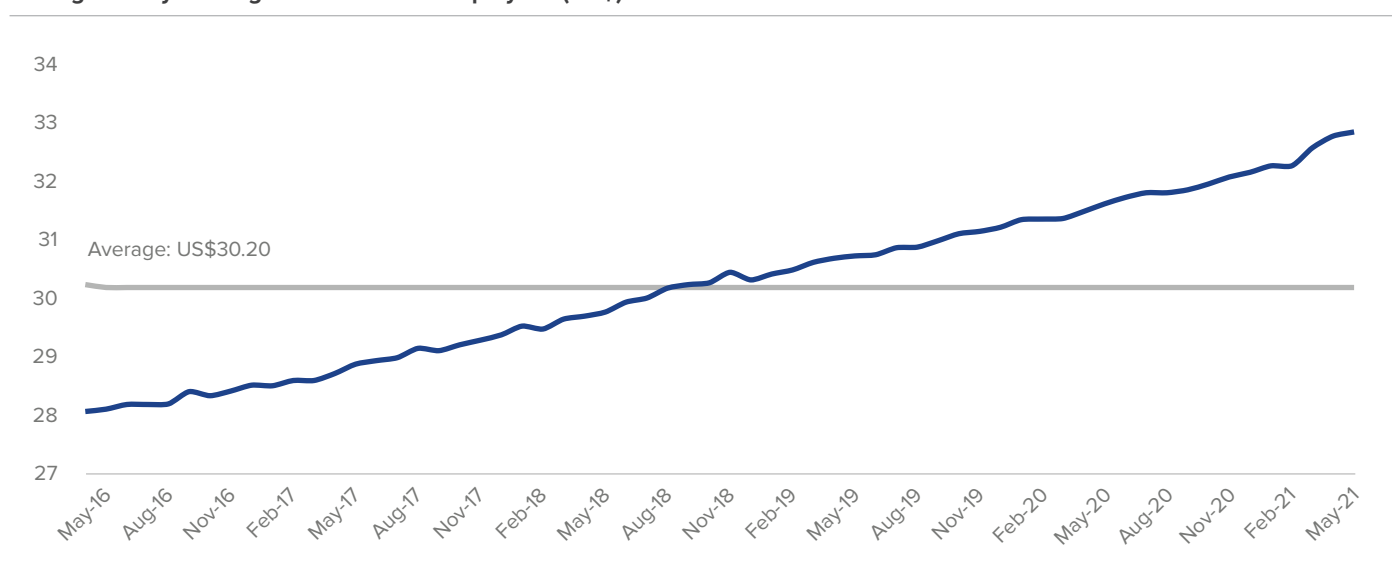
CHIEF CONSTRUCTION ECONOMIST, MERCUM

With construction labor scarce once again, contractors are growing increasingly reluctant to lose workers. December 2020 saw 13,000 more workers quit their construction jobs than those that were laid off or discharged by their employers. This was just the 17th month in the past 20 years during which resignations exceeded layoffs, a clear indication of labor market tightness.<sup>27</sup> Further complicating the outlook is the fact that many construction workers who lose their jobs during an economic downturn never return to the industry. According to the US Census Bureau, more than 60% of construction workers

who lost their jobs during the Great Recession left the sector permanently by 2013.

The struggle to find labor has pushed up average hourly wages across the country, with new records being set near monthly. June saw average hourly wages across all construction employees rise to US\$32.86, their highest level ever recorded. Further, average weekly hours have now eclipsed pre-pandemic levels, as the demand for construction labor among contractors accelerates.

### Average hourly earning of construction employees (US\$)



<sup>26</sup> US Bureau of Labor Statistics

<sup>27</sup> US Bureau of Labor Statistics

Source: FRED (St. Louis Fed)

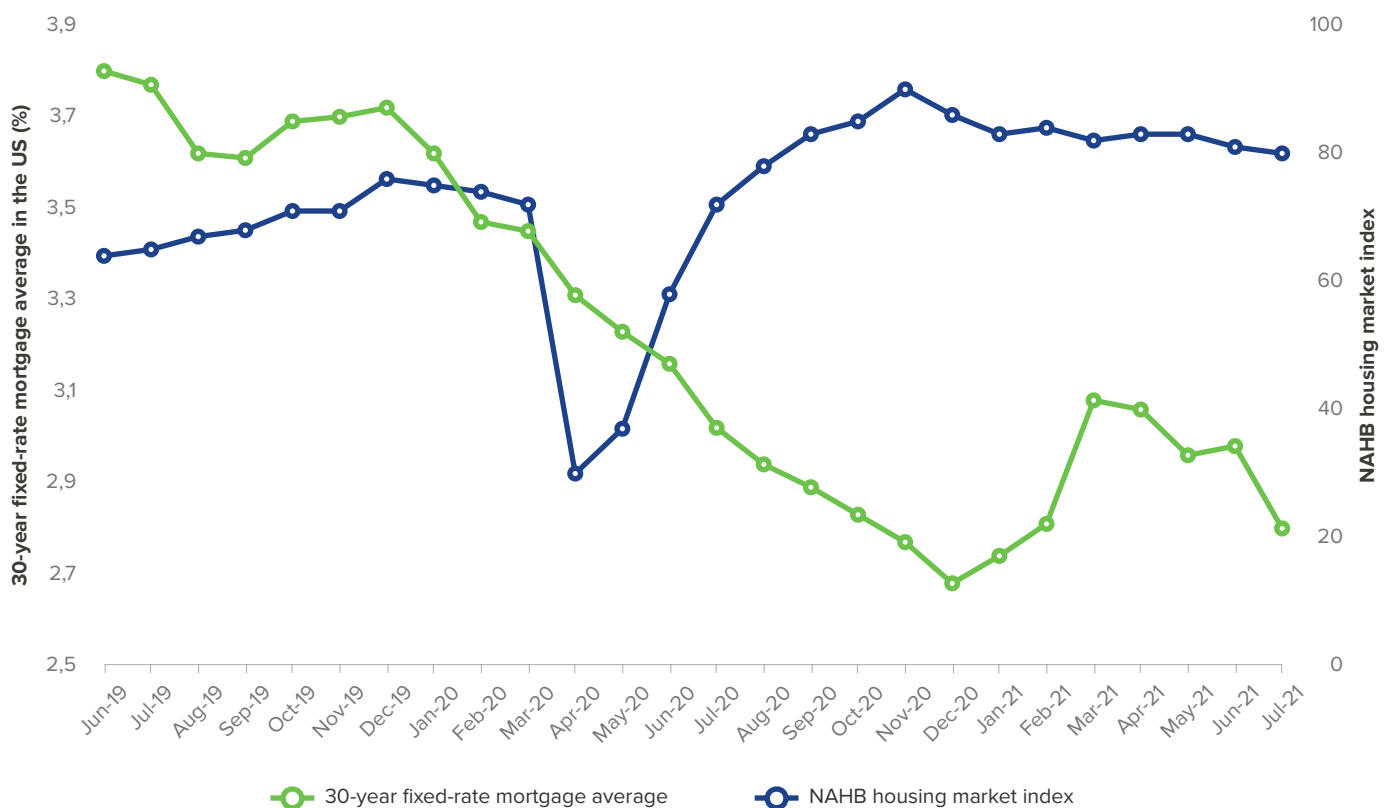


## INTEREST RATES

Low interest rates over the past year have helped fuel home buying, remodeling and development alike. The potential for rising interest rates poses a measurable near-to-medium term threat to building product demand. If interest rates were to rise, it would reduce the allure of residential remodeling and renovation projects. Further, for-sale homes would become effectively more expensive, likely cooling sales volumes and putting downward pressure on both prices and demand. As a result, new starts and project inquiries by homebuilders could

cool, further reducing demand for building products. When mortgage rates rose 30 basis points in March, which equates to a reduction in home affordability to the tune of 5–6%, it precipitated a two-point drop in the NAHB Housing Market Index. Overall, long-term interest rates over the past 12 months have demonstrated an inverse relationship to the housing market index, which measures homebuilder confidence in market conditions.

Fixed mortgage rate vs housing market index

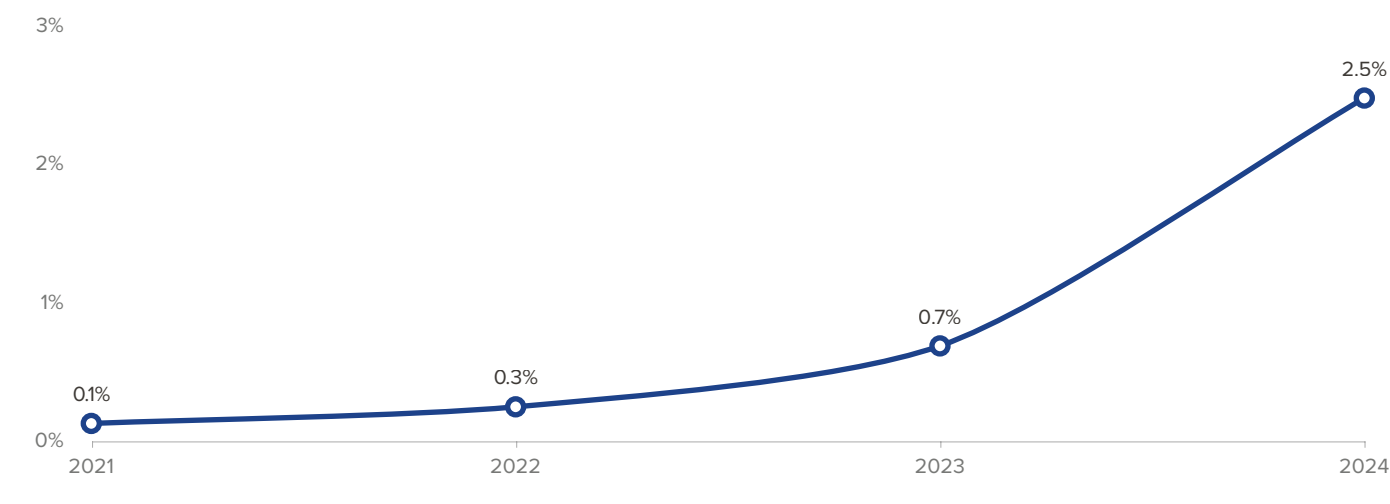


Source: investing.com

Despite worries about interest rate hikes, Federal Reserve Chairman Jerome Powell and the FOMC have continually reiterated that rates will stay near zero for the foreseeable future. At the July 28, 2021 FOMC meeting, Powell and his colleagues decided to not lift interest rates from near zero, and offered no indication of when it would let up on its

US\$120 billion monthly bond purchases. In the March meeting, Powell and his colleagues projected near-zero interest rates through at least 2023, with Powell saying “the strong bulk of the committee is not showing a rate increase during this forecast period ... the economic recovery remains far from complete”. The committee is yet to publicly back down from this strong rhetoric.

## Fed's year-end projected interest rates



Source: Federal Reserve

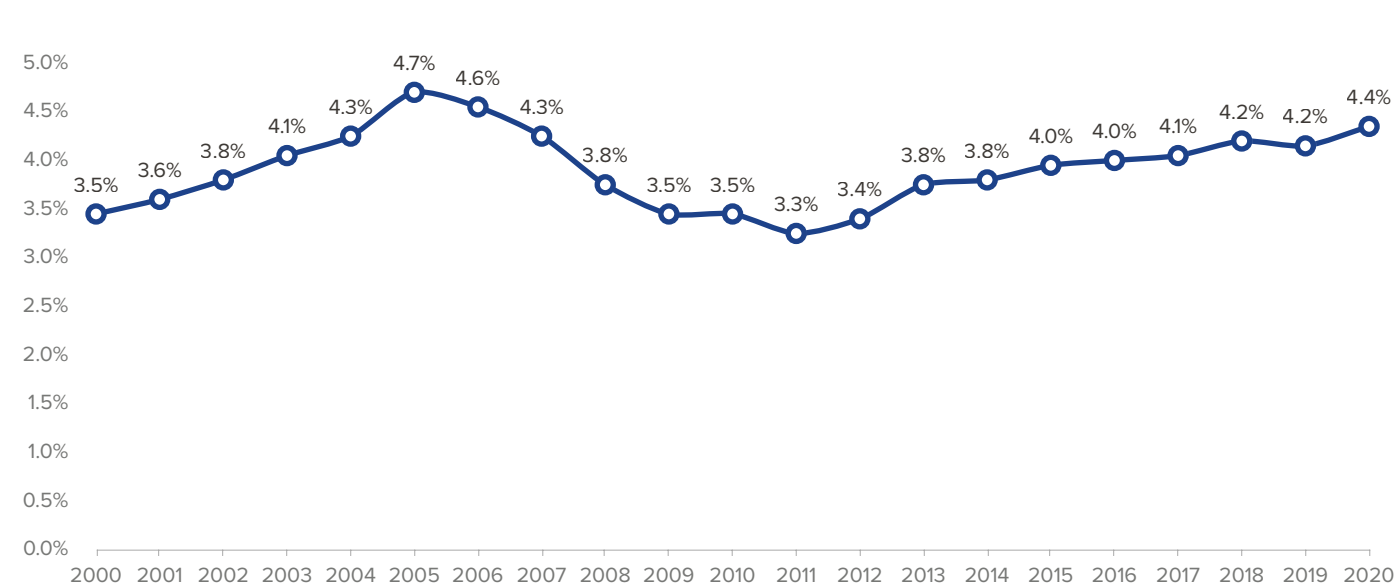
Projected interest rates derived from June 2021 Dot Plot from FOMC Committee  
Commodity Pricing & Stock Pricing Charts updated through 7/28/2021

## HOUSING AFFORDABILITY

The combination of robust demand for residential housing underlaid by historically tight supply and near-floor interest rates has lifted home prices at the fastest pace in over a decade. According to the CoreLogic Case-Shiller Home Price Index, home prices rose 13.2% nationally in March 2021, up from 4.2% in the first quarter of 2020. The FHFA House Price Index shows a similarly large year-over-year increase in the

first quarter of 2021, with home prices up by double-digit percentages in 85 of the 100 large metro areas it tracks. These outsized increases have raised concerns that a home price bubble is emerging, with many pointing to falling housing affordability — from 2012 through 2020 home prices appreciated over 60%, while incomes and rents rose just 20% and 30%, respectively.<sup>28</sup>

## Average US home price-to-income ratio



<sup>28</sup> Federal Reserve Economic Data

Sources: JCHS tabulations of NAR, Metropolitan Median Area Prices, Moody's Analytics Estimates



While homes are becoming less affordable, as evidenced by steadily rising home price-to-income ratios, there is still cause for optimism. For starters, home price-to-income levels remain below the 2005 peak of roughly 4.7x, closing 2020 around 4.3x. Further, it's the rising cohort of prospective new-home buyers that are accelerating home prices and the robust,

organic demand. Prior to the bursting of the housing bubble in 2008, mortgage-lending standards were loose, at best, allowing underqualified homebuyers to purchase properties far beyond what they could afford. However, buyers in the current market both have higher credit ratings and are putting down more cash up front.

“On \$1 million purchases, people are putting down US\$500,000  
... you didn't see that before.”

**ANTHONY LAMACCHIA**

BROKER AND OWNER OF A REAL ESTATE COMPANY NEAR BOSTON

Unlike in the early 2000s, current homeowners aren't drawn to the housing market due to an abundance of easily accessible credit, but rather less-readily-accessible credit with historically low interest rates. Mortgage originations reached record highs in the fourth quarter of 2020, and, on average, seven of every

10 went to borrowers with high credit scores of above 760.<sup>29</sup> The combination of organic demand, strong homebuyer credit and rising down payments makes a mid-2000s-esque housing crash unlikely.

<sup>29</sup>New York Fed Consumer Credit Panel/Equifax





# Commercial market trends

Oaklins



Potential non-residential investment supercycle driven by aging commercial infrastructure combined with favorable demand trends supported by institutional capital.

Despite disruption in some non-residential sectors, there is a compelling case for sustained demand across a diverse range of end markets. Aging building stock in need of upgrades and repurposing, together with shifting demand in commercial space, will drive significant activity in both remodeling and new construction.

## AGING COMMERCIAL INFRASTRUCTURE

The median age of commercial building stock in the US is rising rapidly, reflecting the narrative of a non-residential construction market that has struggled to match demand with new supply over the past few decades. Just one-quarter (25%) of commercial buildings have been built since the year 2000.<sup>30</sup> As a result, the current commercial landscape is comprised of outdated structures lacking the contemporary design,

features, amenities and technological advancements found in modern construction.

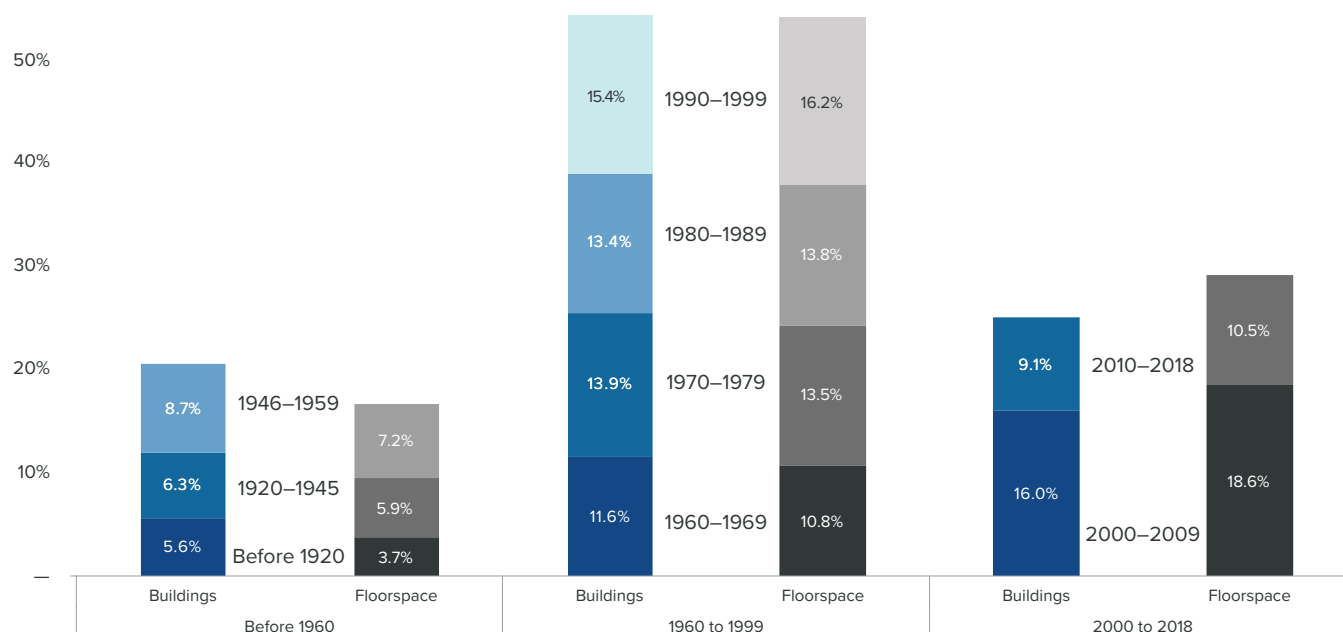
The current commercial building stock in the US has a median construction year of 1982. In terms of floorspace, nearly half (46%) of all commercial floorspace in the US is over 50 years old.<sup>31</sup>



<sup>30</sup> US Energy Administration

<sup>31</sup> US Energy Administration

## Commercial buildings by year constructed



Source: US Energy Information Administration

Older buildings generate demand for new construction or remodeling for a myriad of reasons. As buildings age, they more frequently suffer from general wear-and-tear that necessitates periodic maintenance. Additionally, older buildings become stylistically outdated and as processes evolve across industries, functionality standards and aesthetic trends change. In certain cases, buildings can become obsolete altogether as the configuration is ill-suited for alternative uses and mandates retrofitting or complete demolition and new construction to support new uses. Modern building technology advancements such as enhanced features and a focus on energy efficiency through superior “smart” HVAC systems and LED lighting, will also drive investment. Most modern buildings have been designed to reduce energy usage by increasing reliance on natural light through floor-to-ceiling glass, energy-efficient windows and skylights.

## A SHIFT IN DEMAND

The coronavirus pandemic sent shock waves through the commercial real estate market, thrusting the typical “core” asset classes — retail, office, multifamily and lodging — into disarray, as demand plummeted, rents fell precipitously and vacancies climbed. As we emerge from the pandemic, a fundamental shift in demand will continue to evolve towards more niche asset classes such as warehouse & storage and life sciences, rather than any true evaporation of demand.

**“We’ve had 41 straight quarters in a row of more net absorption than new supply.  
Just as soon as someone builds speculative warehousing it’s already leased.”**

**JACK FRAKER**

VICE CHAIRMAN AND MANAGING DIRECTOR OF CAPITAL MARKETS AND INDUSTRIAL PROPERTIES, CBRE

**Warehouse & Storage:** The onset of the COVID pandemic rapidly accelerated the trend for online shopping in unprecedented volumes for a variety of categories. The surge in e-commerce activity catalyzed the need for businesses to increase warehouse and storage space, thrusting demand into

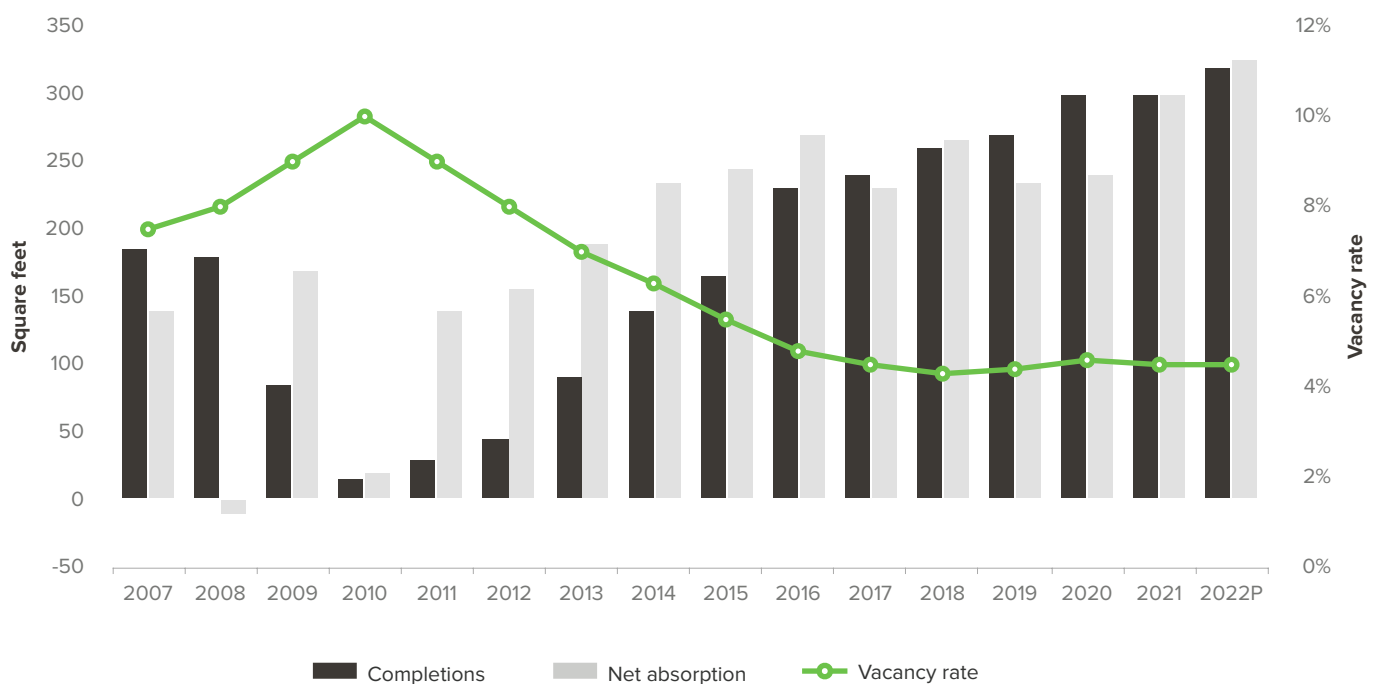
overdrive through 2020 and into 2021. The surge in demand has extended itself into the cold storage sector as well, as the American consumer continues to adopt the online channel for more than just traditional retail purchases.

“E-commerce will help generate demand for more than 200 million square feet for logistics space in 2021 with an additional 200 million square feet required in 2022.”

**ASON TOLLIVER**

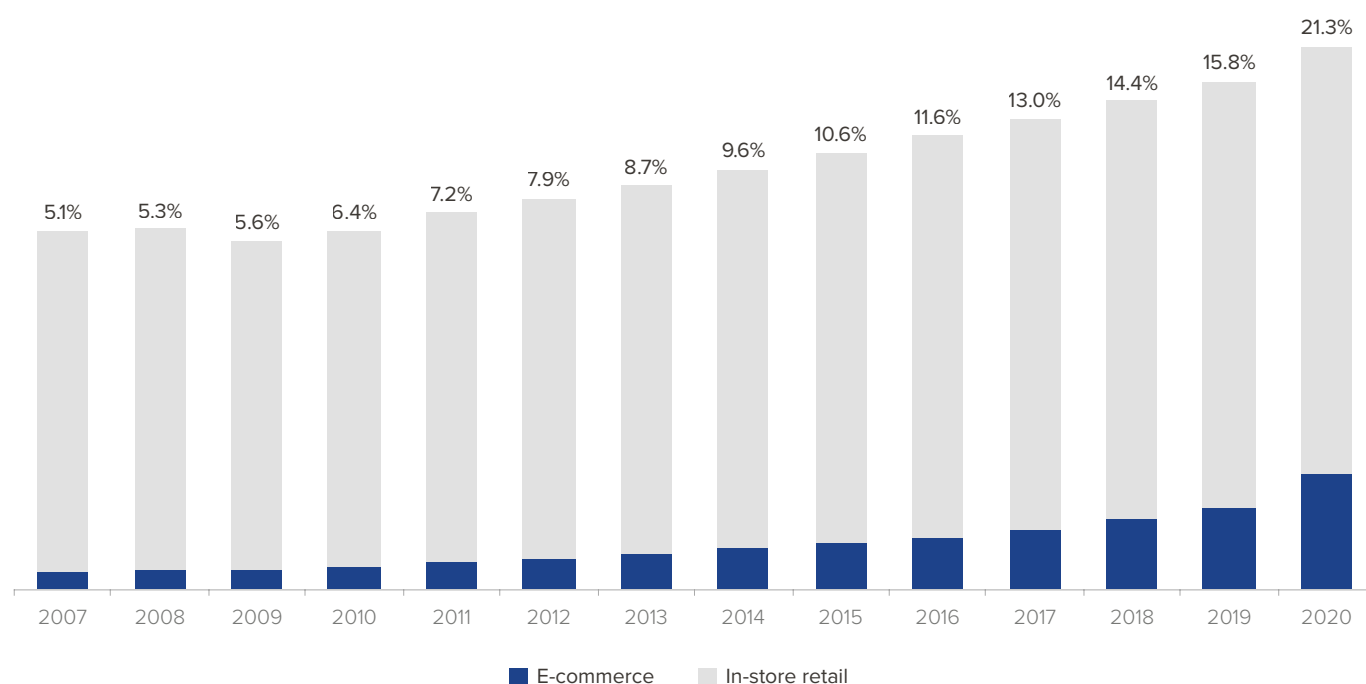
GLOBAL HEAD OF LOGISTICS AND INDUSTRIAL RESEARCH AND MANAGING DIRECTOR  
OF INVESTOR SERVICES, CUSHMAN & WAKEFIELD

#### Warehouse space in the US



Sources: CBRE, JLL, Gerald Eve, Cushman & Wakefield, Colliers, Prologis Research

## E-commerce penetration of US retail sales



Source: Digital Commerce 360

Enduring COVID-related impacts, combined with prevailing tailwinds, are increasing the demand for warehouse space for three primary reasons:

**1. Increased inventory:** Shocks to the supply chain perpetuated by the coronavirus have forced retailers to keep additional inventory on hand, therefore driving up demand for warehouse and storage space. Aiming to avoid supply-chain disruptions and shortages, most retailers have begun to build safety stock into their requirements, “it’s an average of 5% safety stock or four or five weeks of additional inventory. That’s hundreds of millions of square feet of additional demand that wasn’t there,” according to Jack Fraker of CBRE.

**2. Higher return rates:** At around 30%, e-commerce purchases have starkly higher return rates than bricks-and-mortar retail purchases.<sup>32</sup> Additional space is needed to process the increased volume of returns resulting from online sales – CBRE estimates that an additional 400 million square feet of industrial space will be needed over the next five years just to process these additional returns.

**3. Focus on urban logistics:** Urban logistics facilities are typically cross-docking facilities situated close to cities or population centers whereby bulk cargo is transferred to vans for the final stage of delivery. The facilities allow not only for the delivery of goods to storefronts, but directly to consumers as well. The emergence of e-commerce as a primary retail channel has energized demand for this property type, as it allows for the rapid order fulfillment desired by customers. It is projected that more than two-thirds of industrial North American markets will grow by over one million square feet by the end of 2022, according to CBRE.

A compelling growth sub-sector in warehouses is infrastructure to support cold storage and logistics. Demand for cold storage facilities has been increasing for many years as consumers slowly move to purchasing groceries and other perishable items online. It will take years to meet the accelerating demand for space in cold storage primarily due to an aged existing infrastructure, an acute shortage of cold storage facilities, and consumer demand driving a focus on nimble urban logistics.

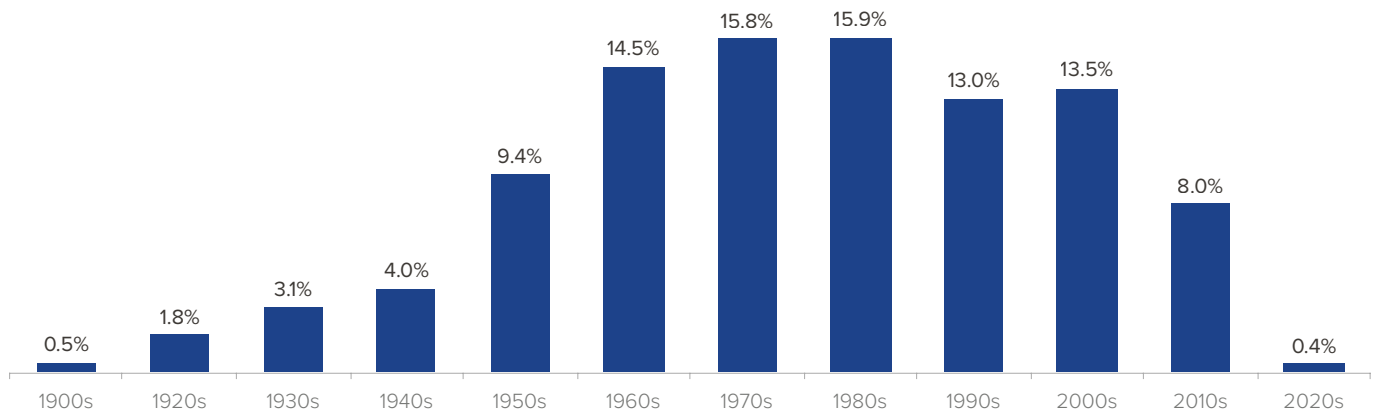
<sup>32</sup> CBRE Research



**Aging building stock:** The average age of a US cold storage facility is 42 years, while more than 78% of cold storage buildings in the US were built before 2000.<sup>33</sup> Older cold storage facilities lack the dimensions of modern cold operations, which require ceilings that are 40–50 feet high and

with wide spaces between columns to store pallets and racks efficiently. Further, older buildings are less energy-efficient and lack many technological advancements and automation that come with new buildings.

Percentage of total US cold storage warehouse inventory built in a given decade

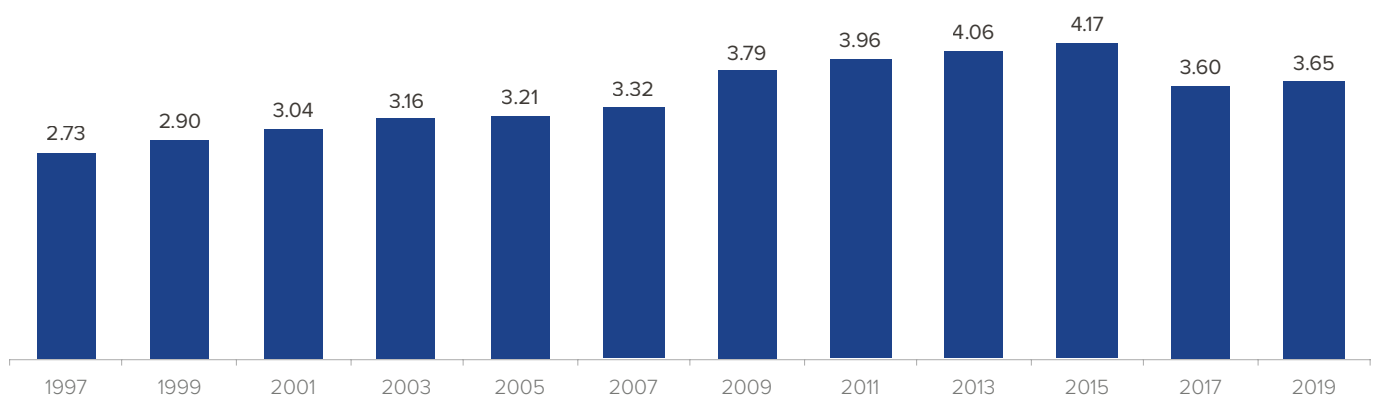


Source: JLL Research

**Shortage of supply:** As the American consumer has shifted their grocery-buying habits as a consequence of the COVID-19 pandemic, one result has been a shortage of cold storage space. Commercial real estate services firm JLL concludes that

the US needs another 100 million square feet of cold storage just to keep up with current consumer demand and sales trends.

Gross refrigerated storage capacity in US (In billion cubic feet)



Source: Statista

**Desire for urban logistics:** To an even greater degree than traditional retail, cold storage facilities necessitate being located near population centers for quick delivery times and

rapid order fulfillment, as long delivery times are antithetical to the operation of the cold chain.

<sup>33</sup> Cold Storage in the post-COVID Economy, JLL Research

**Life sciences:** The demand for commercial lab space had been on the upswing for years heading into 2020. The effective development of COVID vaccines promises to only further the acceptance of biotech innovation.

This, combined with increasing commercial and public funding for biotech research & development, portends continued increases in demand for commercial lab space over the coming decade.

“The biotech sector may be the single most attractive sub-sector within commercial real estate today. Not only because of the pandemic, which accelerated many trends, but because of the megatrends which existed prior to it, including an aging demographic, the importance of personalized medicine, and the importance of venture capital in this sector, which is only increasing.”

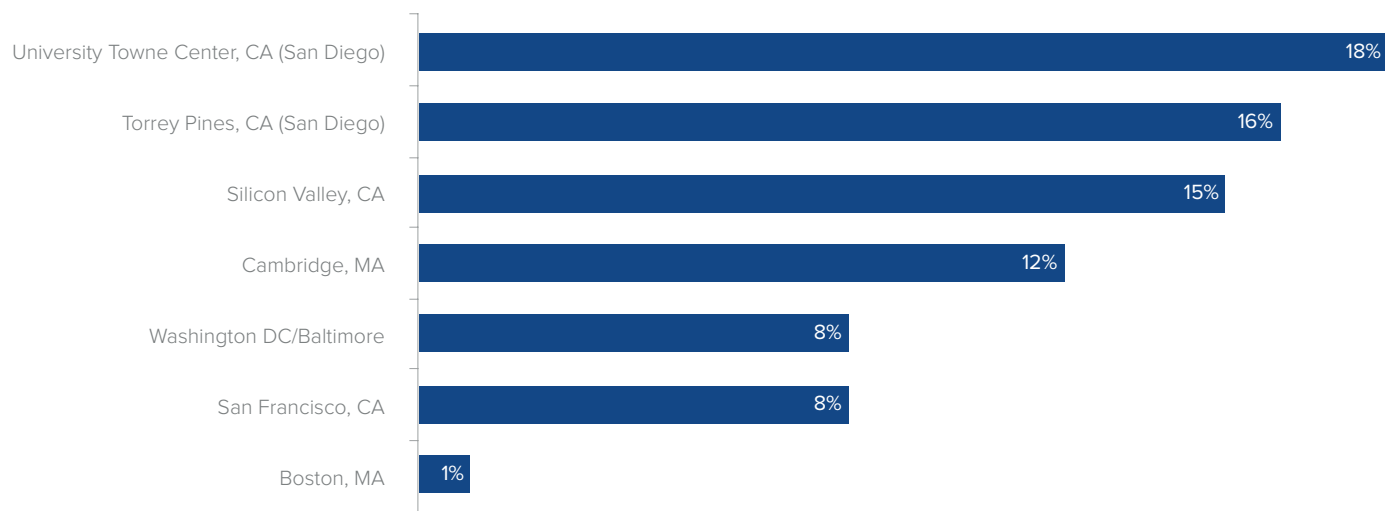
SPENCER LEVY

CHAIRMAN OF THE AMERICAS RESEARCH AND SENIOR ECONOMIC ADVISOR, CBRE

After a brief pullback in demand early in the coronavirus crisis, demand for lab space has grown through the end of 2020. Total commercial laboratory space increased by 12%, or 95 million square feet, in 2020, with another 11 million square feet under

construction.<sup>34</sup> Despite the rapid increases in supply, lab rents are still rising while vacancies are falling, reflecting strong tenant demand.

Commercial lab growth



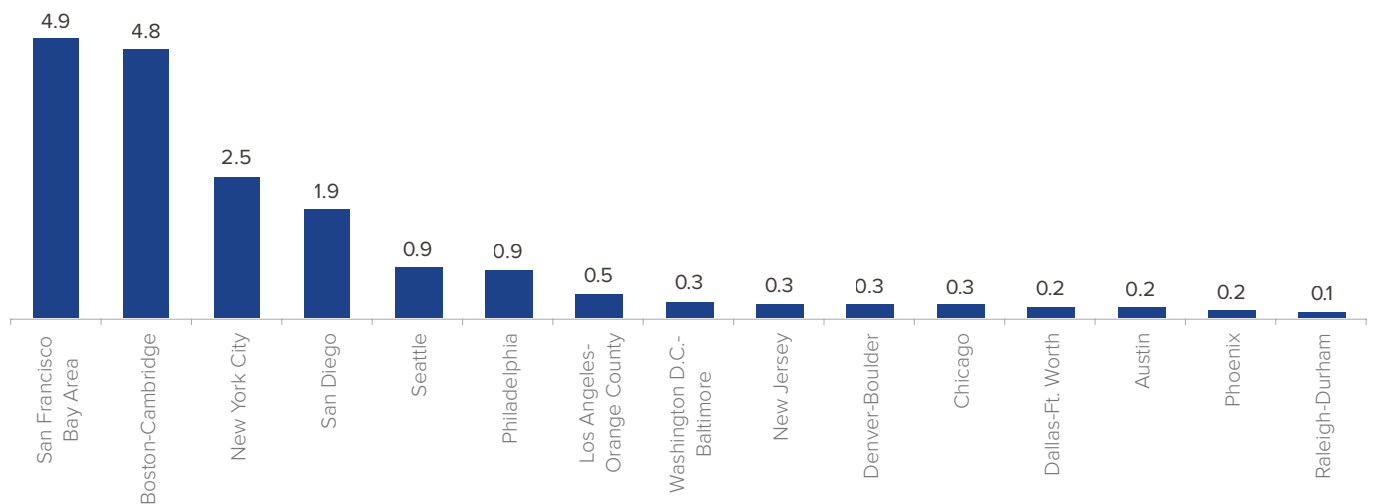
Source: CBRE Research

<sup>34</sup> Leading Life Science Clusters, CBRE Research

**Increased investment:** The US life sciences industry had its largest quarterly total of venture capital investment in Q2 2020, continuing a run of consecutive quarterly records since Q4 2019. The record quarterly investment brought the rolling annual total venture capital investment for the year ended Q2 2020 to a record US\$17.8 billion. The surge in investment is in direct contrast to US venture capital investment in all other industries, which has been on the decline since Q3 2019.

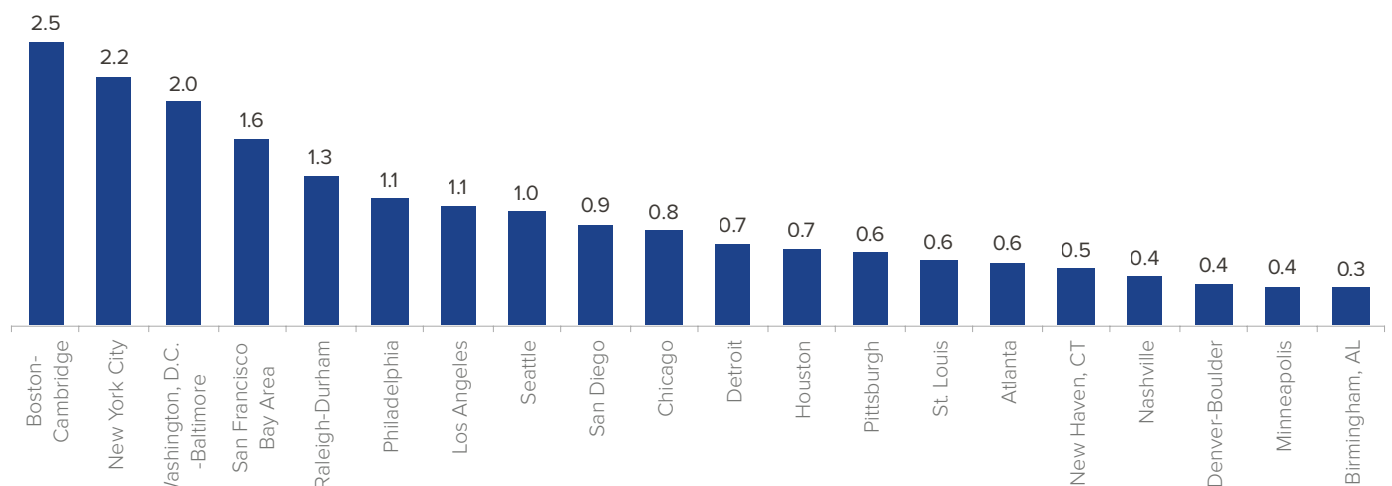
Further, another major funding source for the life sciences industry is the National Institutes of Health (NIH), which funnels billions of dollars to major universities and research institutions. After growing at an average annual rate of 0.9% from 2003 through 2015, funding from the NIH has accelerated in recent years, growing 29.7% between 2015 and 2019, or an annual average of 6.7%.<sup>35</sup>

#### Life sciences venture capital investments by market (US\$ in billions)



Sources: NIH, CBRE Research

#### Top 20 markets for NIH Funding, 2019 (US\$ in billions)



Sources: NIH, CBRE Research

<sup>35</sup> US Life Sciences, CBRE Research

**Demand increases likely to continue:** The record-breaking amount of venture capital funding to the life sciences industry, combined with growth in NIH funding, suggests future employment growth. Funding in the life sciences industry historically preceded employment gains by about one year, so employment is likely to continue to grow in 2021 and into 2022. Funding aside, life sciences has been one of the fastest-growing employment sectors of the past decade. Within the life sciences sector, biotech research & development surpassed technology in 2018 to become the fastest-growing employment sub-sector, according to data from the US Bureau of Labor Statistics. As of July 2020, biotech R&D employment was up 4.9% from a year prior, compared to a 7.6% decline in total nonfarm employment.<sup>36</sup>

**Need for new construction:** In the face of strong increases in demand, there remains a shortage of lab space. The top life sciences markets currently have 13.9 million square feet of office space under construction, short of active tenant demand which is running at 14.7 million square feet.<sup>37</sup> Further, with sustained increases to demand likely over the medium term, increases in lab space will need to continue. Much of this required space is likely to come from new construction, as conventional office space cannot be used by the biotech sector without significant retrofits due to unique requirements. Biotech spaces require additional air exchange and mechanical systems, significant amounts of power, and specific drainage that classic office users would never need.

## RETROFITTING TRADITIONAL ENVIRONMENTS

**Office:** The transition to a remote-working environment inflicted uncertainty upon the traditional office sector. A return to in-person work is accelerating, and with it will come the actualization of a reimagined modern workspace that enables effective collaboration and teamwork. This will trigger a wave of office remodeling to update a building stock that is not configured for modern working.

Despite the success of remote work, the technology industry is aggressively investing in the office environment. The technology sector invested in 26 million square feet of office space in 2020, the of among any sector and 17% of total leases. This was the eighth consecutive year that the technology sector led the way in terms of office space leasing.<sup>38</sup> Top locations were Seattle, Manhattan, Washington, D.C., Atlanta and Austin, and the lessees were largely software companies, e-commerce companies, and firms providing business services.

“I think we sort of moved into that phase where people actually struggle mentally, people are – they’re not enjoying it. One of our employees said to me the other day, ‘I don’t mind the option of working from home. I don’t like being forced to work from home’.”

**CHUCK ROBBINS**  
CEO, CISCO

Four companies considered a part of the prestigious “Big Tech” cohort — Apple, Amazon, Facebook and Google — are enhancing their Manhattan office footprint. Facebook added an additional 730,000 square feet at the Farley Post Office Building, while Apple subleased 336,000 square feet of office space in Penn Plaza throughout 2020. Both Amazon and Google are rapidly acquiring space to stitch together

corporate campuses in the city. Amazon specifically paid US\$1 billion in March 2020 for the iconic Lord & Taylor building on 5th Avenue and announced it would employ 2,000 people in the building. Since Amazon’s proposed HQ in Queens, NY was abandoned in 2019, it has acquired more than two million square feet of office space for corporate workers in New York City.<sup>39</sup>

<sup>36</sup> US Life Sciences, CBRE Research

<sup>37</sup> US Life Sciences, CBRE Research

<sup>38</sup> Tech Retains Office Space Leasing Crown, CBRE Research

<sup>39</sup> New York Times

“Executives at the companies said their investments even during one of the city’s darkest periods reflect their belief that the features that set New York apart – its diversity, culture, regional transportation network and numerous colleges and universities – will keep luring people after the pandemic. The big takeaway here is that New York will always be a tech hub.”

**WILLIAM FLOYD**

DIRECTOR OF EXTERNAL AFFAIRS (NEW YORK), GOOGLE

“We know talent attracts talent, and we believe that the creative energy of cities like New York will continue to attract diverse professionals from around the world.”

**ARDINE WILLIAMS**

VP OF WORKFORCE DEVELOPMENT, AMAZON

## HIGH DEMAND FOR OFFICE SPACE MAKES REMODELING NECESSARY

**Aging office inventory:** Like the majority of commercial building stock, the available inventory of office space is largely outdated and aging. Just over 20% of office buildings in the US have been built since 2000, while nearly 25% were built before 1960. Although some old buildings have been renovated,

buildings can still present drawbacks due to their age. Of buildings that have not been recently renovated, two-thirds (66%) have a build year before 2000, meaning at the minimum they are approaching 25 years of age.<sup>40</sup>

### Share of unrenovated office inventory (2019)



<sup>40</sup> US Energy Information Administration

Source: Statista



**COVID-induced remodeling:** An expected driver of office remodeling over the short-to-medium term is the demand for reconfigured office space. Before COVID, workplaces were primarily designed around their functionality – desks, conference rooms and kitchens that served basic employee needs. However, COVID proved that these functional activities are easily replicable in the home or some third-party site. Employees have highlighted that the true shortcomings of alternative workspaces are the qualitative aspects of

work — community, culture, inspiration, collaboration, teamwork, impromptu conversation and leadership vision. Herein lies the true opportunity emerging from the COVID remote-work environment. The post-COVID workplace will be modeled less as a functional workplace and more as an experiential meeting point. The functionality of an office should be to allow colleagues to work together, understand a company's culture more deeply and intimately, and engage in ways that are inconceivable virtually.

“I think everybody is thinking of the home as a private office, and then the office as the place you go for collaboration. So, I don't think it's going to get more compartmentalized. I actually think it's going to get less compartmentalized.”

**LESLEY BRAXTON**

PRINCIPAL, PERKINS+WILL ARCHITECTURAL DESIGN FIRM

## INSTITUTIONAL CAPITAL

After a tumultuous 2020 in the commercial real estate market, institutional investors are eager to opportunistically deploy capital in 2021 and beyond. Equipped with dry powder, record low interest rates and a market with emerging sectors, institutional investors have made it clear they see opportunities in historically non-traditional commercial asset classes, and are poised to deploy more capital in 2021 than they did in 2020. These plans have begun to come to fruition based upon examination of recent Architecture Billings Index (ABI) readings, as development activity accelerates across the country.

The 2021 Intentions Survey of Institutional Investors conducted by the Pension Real Estate Association (PREA) indicated that 95% of surveyed investors plan to deploy more capital into commercial real estate investments in 2021 than they did in 2020. Institutional investors are eyeing unique opportunities, as the market expands, and interest is driven by what were once alternative classes such as life sciences. Investors are eager to pounce on distressed assets such as office space that needs retrofitting – 38% of investors saw distress in the 2020 CRE market, with 54% expecting to see continued distress throughout 2021 that will give rise to opportunities.<sup>41</sup> Equipped with capital and long-term fortitude, institutional investors will increase allocations into the CRE market in 2021 with an ardent focus on distressed and trending asset classes.

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<sup>41</sup> FTI Consulting & Real Estate Intelligence Fund

**Increasing ABI readings with growth spread across**

**geographies:** Recent readings from the ABI, a leading indicator for non-residential construction activity, signals a shifting narrative for non-residential construction from the depths of the coronavirus crisis. The ABI measures month-over-month changes in key categories related to non-residential construction and is closely watched by investment professionals, media outlets, firms and businesses alike to assess business conditions and track the market.

ABI levels, which serve as a proxy for development projects in the pipeline and market conditions, have consistently risen up from pandemic lows throughout the spring months and into the summer. June 2021 registered strong growth in project activity, with an ABI score of 57.1. While slightly fewer firms overall reported an increase in billings in June compared to May, the current pace of billings growth remains near the highest levels ever seen in the history of the index. Firms reported their highest backlogs in two years in June, with an average backlog of 6.5 months, making it clear that capital is being deployed to address demand and opportunity across the commercial real estate landscape.<sup>42</sup>

**Billings increase:** Business conditions for architectural firms continued their turnaround in June, registering a strong ABI reading of 57.1 (a reading over 50 indicates an expansion in activity). The June results follow May's expansionary reading of 58.5, which scored as one of the highest ABI readings ever reported. Further, although fewer firms reported a rise in billings in June compared to May, the current pace of billings growth remains near the highest levels ever seen in the history of the index. With increased interest in development, architectural firms in all regions of the country reported improving business conditions in June, with billings coming in the strongest in the Midwest (62.0) and West (59.7).

**Project inquiries and design contracts grow:** New project inquiries, which signify levels of development-interested capital, surged to a new all-time high of 71.8 in June, signifying the pipeline is even stronger than current development activity. This comes after May and April readings of 69.2 and 70.8, respectively, with the April reading being an all-time high at that point. The Design Contracts Index registered a 58.9 reading in June, down from 63.2 in May, but still squarely in expansionary territory, strengthening the notion that not only are builders looking to commence projects, but they are committing money behind them as well.

**“In general, US-based institutional investors expect transaction volume will be significantly higher in 2021: 44% of respondents believe 2021 transaction volume will be above average or at record highs.”**

**JOSH KERRENKOHL**

SENIOR MANAGING DIRECTOR AT FTI CONSULTING

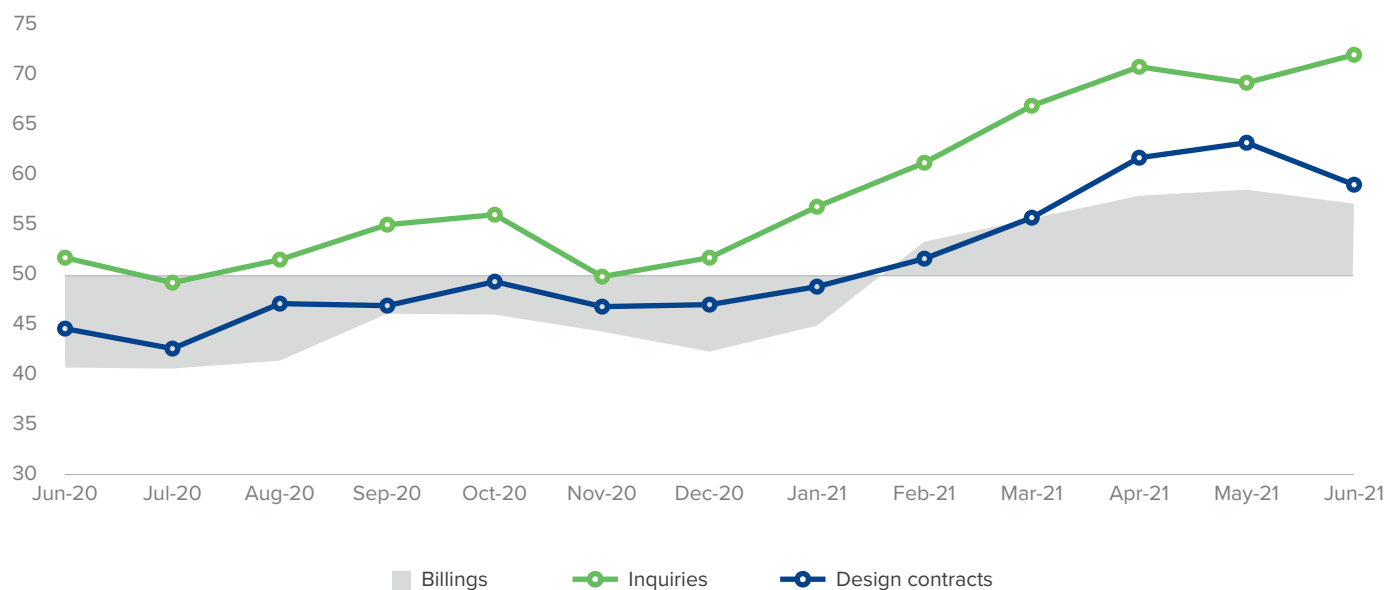
(TAKEN FROM A Q3 2020 FTI SURVEY OF CRE INSTITUTIONAL INVESTMENT PROFESSIONALS)

<sup>42</sup> American Institute of Architects

**Business conditions improve nationwide:** The simultaneous strong growth in project inquiries and design contracts increased architectural firms' backlogs dramatically (measured as the current remaining value of projects divided by the previous fiscal 12 months of revenue). The average per firm backlog grew to 6.5 months in June, an all-time high and the first time the index has registered backlog above pre-pandemic

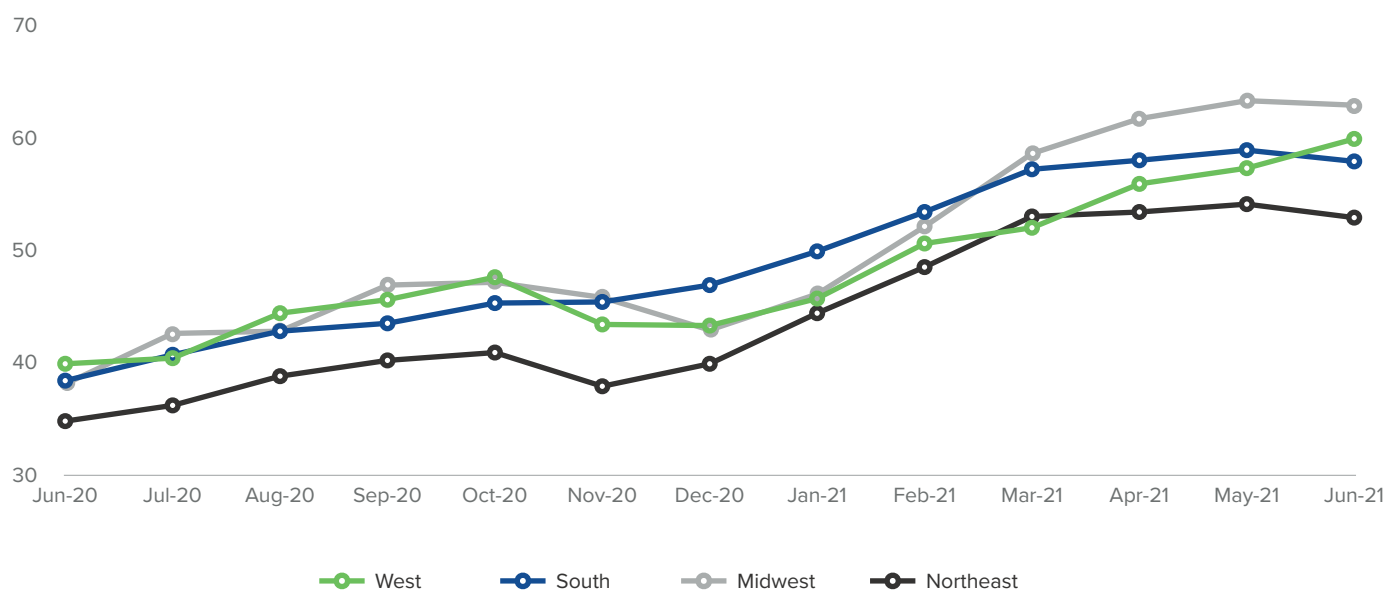
peaks. Business conditions improved nationwide in June, with billings increasing in every region. The West was the only region that saw growth accelerate, registering a billings reading of 59.7, up from 57.4 in May. While the Northeast, South, and Midwest didn't see growth accelerate, all stayed firmly in expansionary mode with billings readings of 53.2, 57.3, and 62.0 respectively.<sup>43</sup>

## Architectural billings index (ABI)



Source: American Institute of Architects

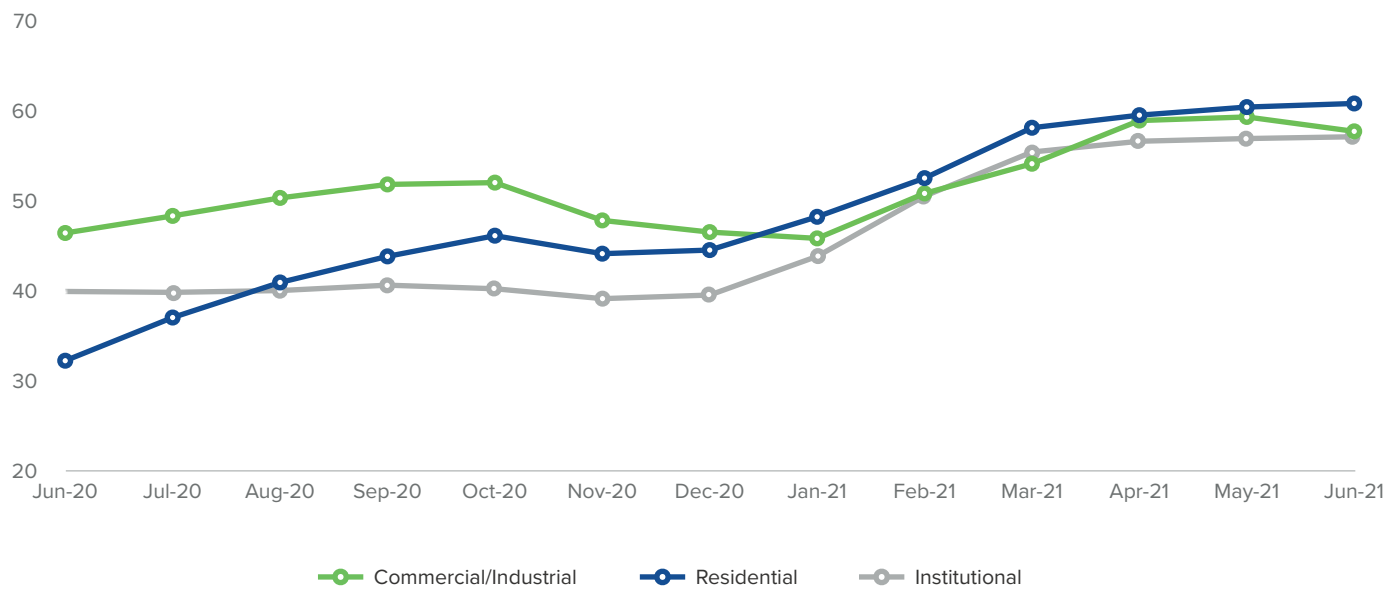
## ABI – business conditions by region



<sup>43</sup> American Institute of Architects

Source: American Institute of Architects

## ABI – business conditions by sector



Source: American Institute of Architects

## M&A trends

The building products sector has experienced robust M&A activity in the YTD 2021 period following a COVID-related slowdown in 2020.

Building products companies are experiencing strong growth in 2021 as a result of healthy new commercial and residential construction backlog levels, elevated housing starts and pent-up construction demand, all of which are supporting elevated transaction volume and strong valuations in the sector. The active building products M&A environment is further supported by uncertainty regarding impending capital gains tax rates, heightened financial and strategic acquiror competition, low interest rates and robust dry powder, all of which are resulting in strong seller and buyer activity.

Both private equity firms/family offices and strategics have been active acquirors in the Building Products sector in 2021. Buyers are focused on platform and add-on acquisition targets who are in line with the following key trends:

1. “next generation” disruptive platforms
2. leading brands with established market positions
3. solutions to increasingly stringent building codes/regulations
4. complete solutions providers
5. “next generation” building products (e.g. energy saving/environmentally friendly products)
6. direct-to-consumer or direct-to-professional business models.

See following pages for select Private Equity investments and exits in the building products industry in the year-to-date period ended 31 July 2021.



# Private equity

M&A activity

Oaklins





## Recent acquisitions of North American building products companies by private equity firms (YTD July 2021)

Date	Target	Investors	Description
28-Jul-21	Trimlite	Wynnchurch	Manufacturer and distributor of residential doors and related door products
17-Jul-21	Window Nation, Inc.	AEA Investors	Distributes building products, including vinyl and clad wood windows
15-Jul-21	Master's Lumber and Hardware, LLC	Boyne Capital Partners	Develops, manufactures, distributes and sells moldings and flooring supplies and related building materials
7-Jul-21	Paramount Global Surfaces	Platinum Equity	Manufactures and distributes porcelain tile and other hard surface floor coverings
2-Jun-21	Great Floors	Artisan Design Group (The Sterling Group)	Provider of premier floor covering catering to businesses as well as homeowners
26-May-21	Cavan Carpets	Quad-C Management	Designer and manufacturer of wool-based carpets and rugs
7-May-21	Arrowhead Building Supply	SRS Distribution (Leonard Green & Partners)	Distributor of building supplies intended for commercial and residential projects
3-May-21	Frontier Products	Meridian Adhesives Group (Arsenal Capital Partners)	Manufacturer of high-performance flooring solutions
3-May-21	Higginbotham Brothers	US LBM (Bain Capital)	Provider of building products intended for professional builders, remodelers and do-it-yourselfers
30-Apr-21	Kabinart	Hyperion Capital Partners	Manufacturer of premium, semi-custom and custom cabinets intended for the high-end residential market
26-Apr-21	First Impression Ironworks	Digital Fuel Capital	Designer, manufacturer and installer of custom ornamental ironwork serving the residential repair and remodeling market
21-Apr-21	Hudson Fence Supply	Eastern Wholesale Fence (Center Rock Capital Partners)	Manufacturer and distributor of quality fencing products intended for contractors and builders
16-Apr-21	Ozco Building Products	The Hillman Companies (CCMP Capital Advisors)	Manufacturer of outdoor hardware and building material
5-Apr-21	Storm Smart	Rotunda Capital Partners	Manufacturer of storm protection products intended for homeowners and businesses
2-Apr-21	Foley Fuel and Lumber Company	US LBM (Bain Capital)	Manufacturer and supplier of lumber products
1-Apr-21	H.L. Flake	Banner Solutions (Tailwind Capital)	Distributor of security hardware and access control products
31-Mar-21	H&H Door	The Cook & Boardman Group (Littlejohn & Co.)	Supplier of doors and hardware products catering to the commercial, industrial and residential markets
17-Mar-21	Universal Lighting Technologies	Atar Capital	Manufacturer and distributor of LED lighting solutions for the commercial market
5-Mar-21	Packard	DiversiTech (Permira)	Distributor and supplier of HVACR (heating, ventilation, air conditioning and refrigeration) motors and parts
2-Mar-21	Binford Supply	Fencing Supply Group (The Sterling Group)	Manufacturer and distributor of fences
26-Feb-21	Louis T Ollesheimer and Son	SRS Distribution (Leonard Green & Partners)	Distributor and supplier of building materials and products to residential and commercial roofing contractors
26-Feb-21	Merchants Metals	Fencing Supply Group (The Sterling Group)	Manufacturer and distributor of fence systems for the industrial, commercial and residential markets
23-Feb-21	Alabama Metal Industries	Pacific Avenue Capital Partners	Manufacturer and distributor of industrial flooring, grating and expanded metal products for residential, commercial and industrial customers
18-Feb-21	Oldcastle Infrastructure (Building Services Division)	Fabcon Precast (Platinum Equity)	Manufacturer of precast products for the multifamily, commercial and student housing sectors
8-Feb-21	J.B. Wholesale	SRS Distribution (Leonard Green & Partners)	Distributor of residential and commercial roofing products
2-Feb-21	Florida Metal Products	OmniMax International (Strategic Value Partners)	Manufacturer of residential and commercial metal roofing components
2-Feb-21	Villaume Industries	US LBM (Bain Capital)	Designer and manufacturer of wood trusses for residential and commercial construction
29-Jan-21	Foundation Building Materials	American Securities	Specialty distributor of wallboard and suspended ceiling systems
20-Jan-21	Builder's Resource Group	US LBM (Bain Capital)	Supplier of building materials and lumber products
15-Jan-21	Easy Way Products	Insight Equity	Manufacturer of custom furniture textile products serving indoor and outdoor furniture retailers
8-Jan-21	Parterre Flooring System	AHF Products (American Industrial Partners)	Designer, manufacturer and supplier of vinyl flooring products to the commercial flooring market

## Recent exits of North American building products companies by private equity firms (YTD July 2021)

Date	Target	Seller	Buyers	Description
17-Jul-21	Window Nation, Inc.	Cortec Group	AEA Investors	Distributes building products, including vinyl and clad wood windows
23-Jun-21	Cali Bamboo, LLC	High Road Capital Partners	Victoria plc (AIM:VCP)	Manufactures flooring, fencing, plywood, poles and recycled composite decking products
25-May-21	American Construction Source LLC	Clearlake Capital Group	US LBM (Bain Capital)	Distributes lumber and building materials
18-May-21	ENERGI Fenestration Solutions	OpenGate Capital	Novatech Group	Comprises patio door manufacturing business
18-May-21	THERMOPLAST Extrusions Limited	OpenGate Capital	Vision Group	Designs, manufactures and trades polyvinyl chloride windows and door
3-May-21	NWI Enterprises, Inc.	Harbour Group Industries	PrimeSource Building Products (Clearlake Capital Group)	Manufactures and supplies specialty hardware to OEMs, distributors and installers in the fence and gate, railing and patio markets
3-May-21	Prime Window Systems	Morris Capital Management	Cornerstone Building Brands (NYS: CNR)	Manufacturer of vinyl window and doors
26-Apr-21	First Impression Security Doors, Inc.	MCM Capital Partners	Digital Fuel Capital	Manufactures doors and security panels
24-Mar-21	National Concrete Accessories Canada Inc.	Nova Capital Management	White Cap Supply Canada	Manufactures and distributes concrete accessories
23-Mar-21	Discount Drainage Supplies	Foundation Investment Partners	Winsupply	Supplier and distributor of drainage and construction products
23-Feb-21	Alabama Metal Industries	Gibraltar Industries	Pacific Avenue Capital Partners(Christopher Szniewajs)	Manufacturer and distributor of industrial flooring, grating and expanded metal products
29-Jan-21	Foundation Building Materials	Lone Star Funds	American Securities	Specialty distributor of wallboard and suspended ceiling systems
1-Jan-21	Groupe LMT	Calvert Street Capital Partners	Muraflex	Manufacturer of steel doors and hardware for commercial, industrial, institutional and multi-residential construction projects
1-Jan-21	Piedmont Hardware Brands	Nova Capital Management	Ferguson Enterprises	Provider of home improvement and hardware products

## FAVORABLE OUTLOOK AHEAD

We are nearly 18 months into the economic recovery following the initial COVID-19-related shock, and the outlook for the building products market is highly positive. Demand for both residential and non-residential building products will be supported by powerful demographic, consumer spending and investment dynamics. Favorable trends in home ownership, population age distribution, urban and suburban migration, single-family housing, new construction, renovation and

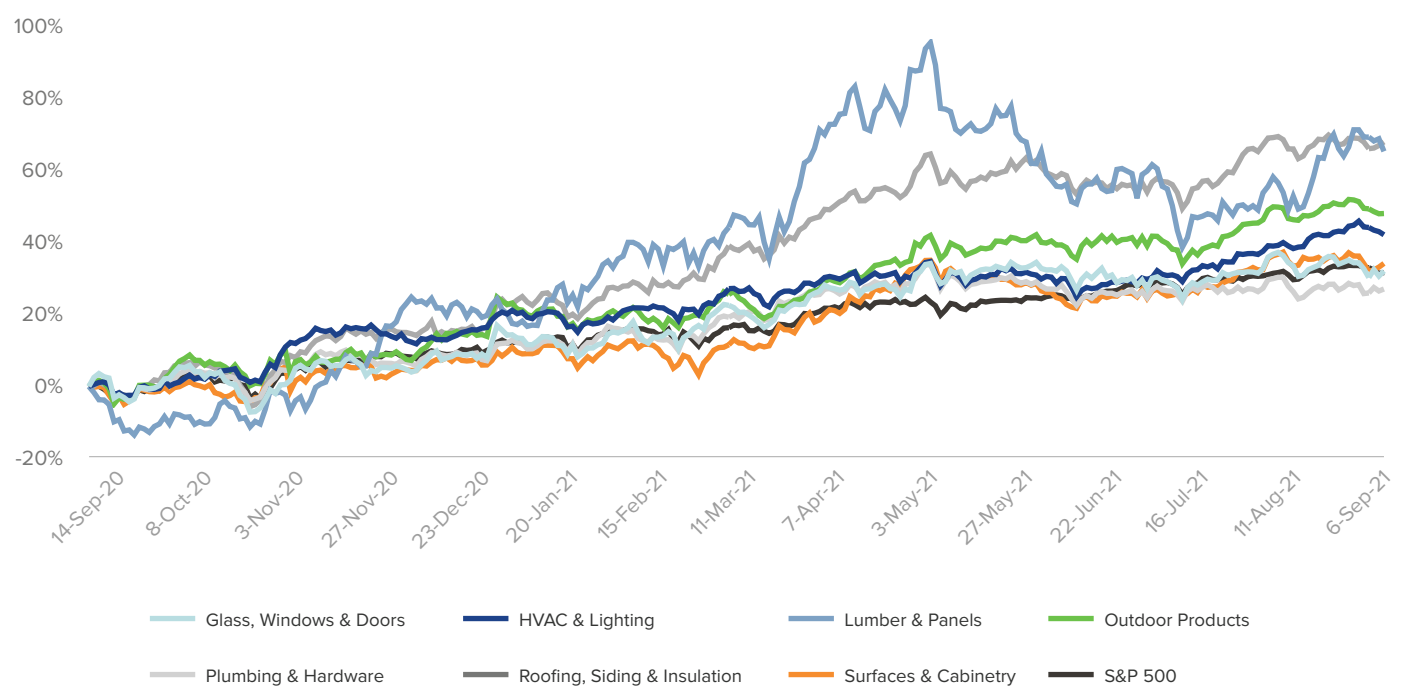
remodeling, household income, personal savings and e-commerce spending are just some of the many drivers that will propel the market. Our expectation is that large corporations and financial sponsors will continue to allocate meaningful investment dollars to leading building products companies that are at the cutting-edge of innovation and boast differentiated manufacturing, distribution and service capabilities.

**GUIDELINE PUBLIC COMPANY PERFORMANCE — BUILDING PRODUCTS**

Emerging from COVID-19-induced market troughs, nearly all major building products sectors have outperformed the S&P 500, with only plumbing and hardware narrowly underperforming the broad market index. Building products companies continue to capitalize on robust activity in planning, development and construction in both residential and commercial markets. Two sectors, Lumber & Panels and Roofing, Siding & Insulation, have particularly benefitted from

the uptick in construction activity, registering one-year stock returns of 66.2% and 68.9% respectively, more than twice the S&P 500 return of 32.1% over the same period. The long-term drivers surrounding development and construction activity, many of which have been highlighted in this report, are being well received by the public markets and reflect confidence in the longer-term, sustained growth prospects of the building products sector.

**One-year stock performance**

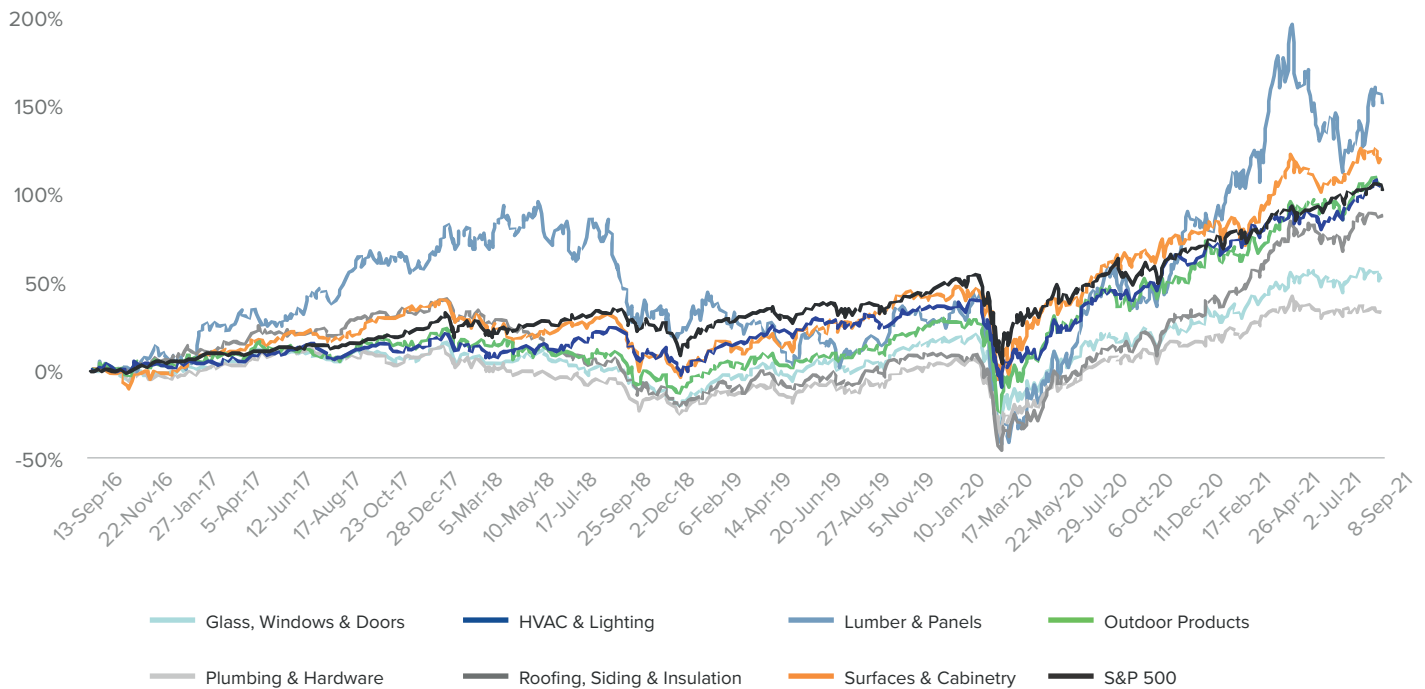


Source: Capital IQ. As of 13 September 2021





## Five-year stock performance



Source: Capital IQ. As of 13 September 2021

**TM CAPITAL BUILDING PRODUCTS SECTORS, EQUALLY WEIGHTED COMPRISING THE FOLLOWING COMPANIES:**

1. Glass, Windows & Doors: American Woodmark Corporation, Apogee Enterprises, Assa Abloy, CRH, Fortune Brands Home & Security, Masonite International Corporation, PGT Innovations
2. HVAC & Lighting: Acuity Brands, Daikin Industries, Eaton Corporation, Johnson Controls, Koninklijke Philips, Lennox International, Schneider Electric, Trane Technologies
3. Lumber and Panels: Canfor, LPX, Norbord, West Fraser
4. Outdoor Products: CRH, Maytronics, Pentair, Pool Corporation, Trex
5. Plumbing & Hardware: Assa Abloy, Fortune Brands Home & Security, Masco Corporation, Mueller Water Products, Newell Brands, Rexnord Corporation, Richelieu Hardware, Spectrum Brands Holdings, Stanley Black & Decker, Toto, Tyman, Villeroy & Boch
6. Roofing, Siding & Insulation: Beacon Roofing, Carlisle Companies, Compagnie de Saint-Gobain, James Hardie Industries, LPX, Owens Corning
7. Surfaces & Cabinetry: Caesarstone, Fortune Brands, Interface, Mohawk Industries, Panariagroup Industrie Ceramiche, Sherwin Williams, Tarkett, The Dixie Group.



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