A Review of Middle-Income Housing
Summer 2020

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Peter Muoio, Ph.D.
Managing Principal
Mast Insights
1 917-593-4995
pmuoio@mastinsights.com

Russell Appel
Founding Principal
Praedium Group
1 212-224-5666
rappel@praediumgroup.com

Peter Calatozzo
Managing Director
Praedium Group
1 212-224-5652
pcalatozzo@praediumgroup.com

Cory Loviglio
Principal
Mast Insights
1 516-317-5726
cloviglio@mastinsights.com

EXECUTIVE SUMMARY

The Praedium Group and Mast Insights have jointly produced this report, which focuses on the outlook of the US apartment market, with an emphasis on middle-income multifamily housing and renters earning 90-140% of National Median Income. We believe that strong demand for middle-income housing is fueled by several long-term economic and demographic trends and a beneficial supply/demand dynamic, providing attractive growth prospects in this sector of the multifamily market.

- Propensity to Rent Among Millennials and Baby Boomers, and the Rising Population of Gen Z – Demographic shifts are fueling long term apartment demand, as Gen Z, Millennials and Baby Boomers all enter notable renting ages and show a higher preference for renting over ownership. At present, a record number of Millennials and older Gen Zers are living at home – which has likely increased as a result of the COVID-19 crisis – representing a potentially huge pool of middle-income housing pent-up demand.

- Deteriorating Attainability of Single-Family Housing – Lower mortgage rates may improve housing affordability in the short term, although opportunities remain limited for potential buyers of single-family homes. The price of single-family homes has increased at more than double the rate of wage growth over the past 8 years. The decline in affordability of single-family homes this past cycle can be attributed to several factors, including: a substantial rise in construction costs over many years, a lack of starter or entry level home inventory, and stricter lending standards. Mortgage availability has declined in the immediate aftermath of the COVID-19 crisis diluting the benefit of lower mortgage rates, and the economic fallout may impede many potential buyers, shifting additional demand towards renting.

- Substantial Middle-Income Housing Renter Pool – Middle-income renters, defined as people earning 90-140% of National Median Income, account for a considerable segment of rental demand. Based on national median household income of approximately $62,000 per household, this equates to household income levels of approximately $56,000 to $87,000. With considerable hurdles to homeownership still in place, many in this sizeable portion of the population will turn towards the affordable rents of middle-income housing.

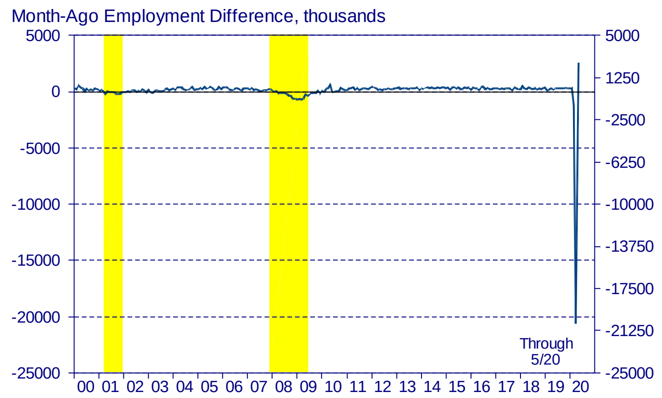
- Lack of Newly Built Supply in Middle-Income Housing – Middle-income multifamily housing demand has been driven by many demographic factors this cycle, but newly built supply additions are minimal, keeping vacancy rates for middle-income apartments in the mid-3% range for several years. As land, labor and construction costs have dramatically escalated for many years, multifamily developers need to achieve luxury rents for projects to be economically feasible and are overwhelmingly building at the high-end of the market. As a result, luxury apartment inventory has also grown more than 40% in the last decade, compared to 0.3% growth in middle and lower-income inventory. Although the demand for affordable and lower-rent multifamily housing has been evident, rising cost structures make it difficult for investors and developers to build new units with non-luxury rents. Costs have increased substantially from both a labor and materials perspective over many years, and though the COVID-19 crisis may provide some shorter term softening in costs, any reduction may not be steep or durable enough to pivot the focus of developers from luxury housing to middle-income housing.

For purposes of this discussion, Class A housing targeting high-income renters is referred to as “luxury;” Class B multifamily housing which targets middle-income renters is referred to as “middle-income housing;” and Class C housing is termed “lower-income housing.”

Economic & Demographic Background

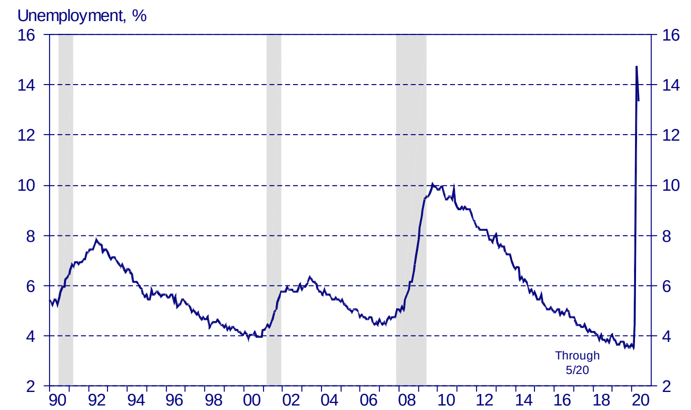
The record-long economic expansion was undone by the COVID-19 crisis. Unprecedented drops in employment, consumer spending and industrial output followed the shutdowns aimed to stop the spread of the virus. As the labor market hemorrhaged more than 20 million jobs, unemployment spiked to the mid-teens, a record level since data has been gathered. With many stores forced to close and consumers losing their jobs and worried about the future, retail sales posted a record decline.

20 Million Jobs Disappeared Immediately Following the Onset of COVID-19 Pandemic



Sources: BLS, Mast Insights

Unemployment Jumped to Record High in Modern Times



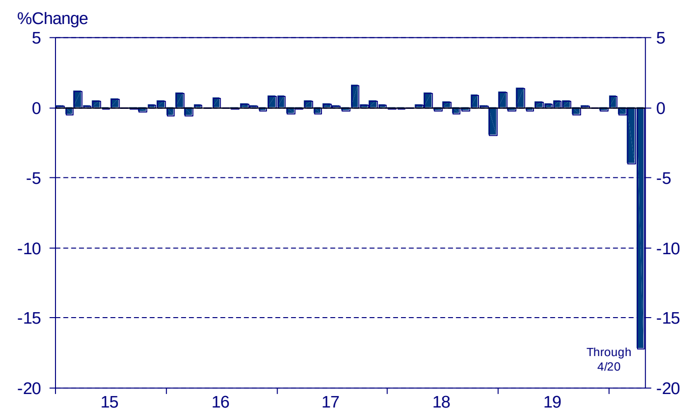
Sources: BLS, Mast Insights

Factories shut down by government order or virus infections led to a drop in industrial output that wiped out the gains of the long expansion that preceded it. Air travel has been decimated and, with it, hospitality demand.

COVID-19 Crisis Wiped Out the Gains of the Entire Expansion

Sources: Federal Reserve, Mast Insights

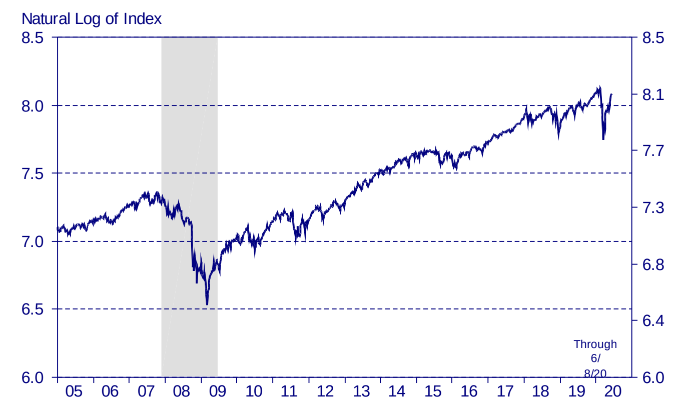
Record Drop in Retail Sales



Sources: US Census Bureau, Mast Insights

Stock markets tumbled at the onset of the COVID-19 crisis but subsequently recovered much of the initial loss. Since then, they have been trading erratically as expectations on the course of the pandemic and economic recovery have shifted. The 10-Year Treasury rate, however, fell to a record low and has remained near that level, as the Fed pumps liquidity into the system and short-term inflation fears lessen.

Stock Market Tumbled but Has Since Regained Much of the Ground Lost and Traded Erratically



Sources: Yahoo Finance, Mast Insights

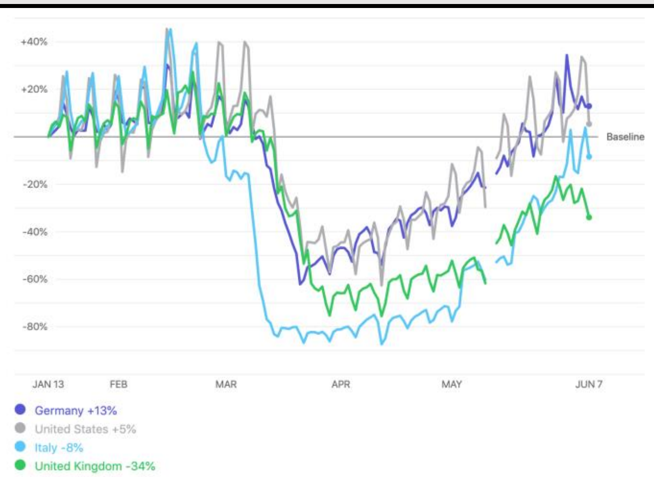
10 Year Treasury Fell to Record Low but Unlike Stocks Has Stayed There

Sources: Federal Reserve, Mast Insights

Signs are pointing to an initial economic rebound, but clearly the environment remains volatile. Apple location data, which captured the sudden, sharp shutdown of the economy, is slowly recovering as states begin to re-open businesses and allow more movement at varying paces. However, an index of uncertainty that has captured the impact of multiple crises over several decades jumped to a record level in March upon the onset of COVID-19, and after an initial small decline, increased to new record territory in May. Since uncertainty holds back spending and investment, it suggests that re-emerging growth as a result of the reopening of many businesses and increasing mobility will nevertheless be uneven.

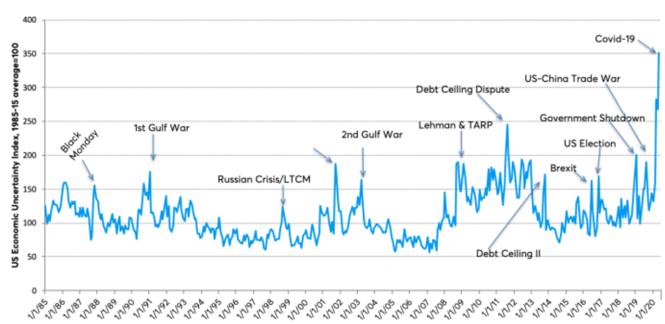
It looks likely that the US economy will see an initial jump from its initial pandemic lows, as states relax closure and distancing regulations and stores and factories begin to reopen, bringing some relief to unemployment and consumer spending. This was evident in the employment gain registered in May. This will likely be followed by a more gradual recovery, as residual effects of social distancing and wariness about the risk of certain activities, such as air travel, attending sporting and cultural events, participating in conferences, dining at restaurants, all subdue certain economic activities. Additionally, still high unemployment is likely to curtail spending. The introduction of instant, self-administered COVID-19 tests might help mitigate this. The advent and rapid roll-out of an effective vaccine may further boost the recovery speed and strength.

Reduced Mobility Underlay the Sudden Economic Contraction; Now Indicates Nascent Recovery



Sources: Apple, Mast Insights

Uncertainty Has Begun to Subside from Record High Level

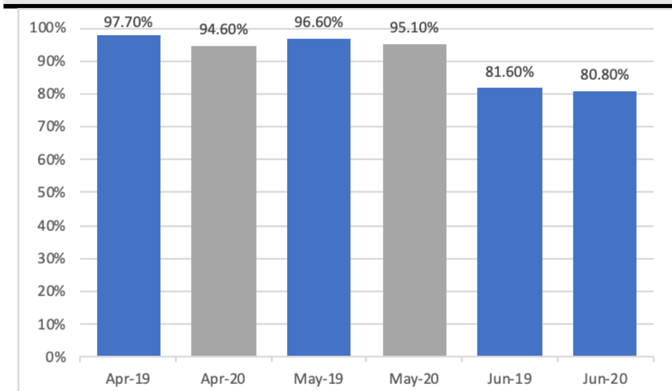


Sources: Economic Policy Uncertainty, Mast Insights

Despite the sharp economic reversal, so far the apartment segment has held up well, as indicated by rent payments. The National Multi Housing Council has collected data on 11.4 million apartments nationwide on rent payment trends since the pandemic began. In April and May, overall payments fell off a little from their pace in the corresponding months in 2019, when the economy was strong and unemployment at record lows. In April in the teeth of the crisis, 94.6% of apartment households made a full or partial rent payment. In May, the statistics were 95.1% this year versus 96.6% for the same period last year.

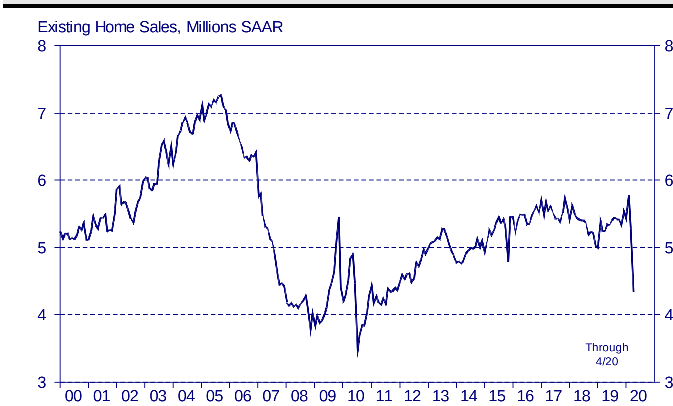
The single-family housing market did see a major hit from the COVID-19 pandemic. Existing home sales skid in March and April, falling to 4.33 million units in April, the largest month-over month drop since July 2010 amid the financial crisis and Great Recession. As people self-isolated, pending home sales plunged nearly 34% from a year ago, the biggest annual decline on record. Mortgage rates have dropped, but not as sharply as the 10-year Treasury, with the spread widening about 100 basis points. Mortgage availability has tightened, limiting the benefit to affordability of lower interest rates. Not surprisingly, pending home sales have dropped amid the lockdowns, though this could rebound as states re-open, though it suggests a lag in how fast sales will recover as it takes time for a home sale to work through the process.

Apartment Full or Partial Rent Payments Have Held Up Relatively Well So Far



Sources: NAR, Mast Insights

Existing Home Sales Plummeted

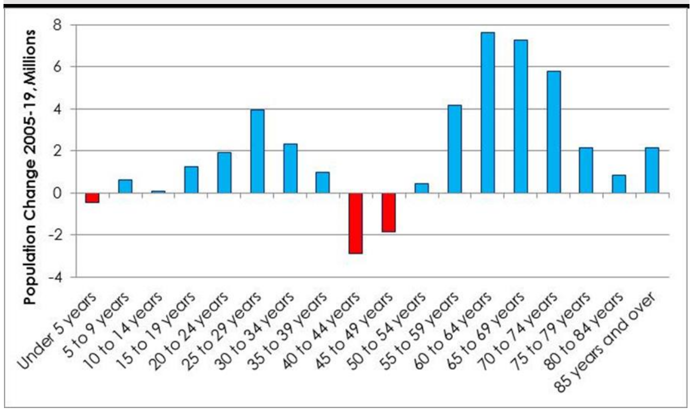


Sources: NAR, Mast Insights

Even with record low mortgage rates offsetting higher prices, housing affordability continues to pose challenges. Prices have continued to rise so far, though that could reflect closing of homes that were in place before the pandemic. If prices drop from their recent level and mortgage rates remain low, affordability of single-family homes could improve. The offsetting factors will be how long high unemployment persists, tighter mortgage lending standards and uncertainty regarding the pace and sustainability of recovery. Longer term, the disadvantages of density and common space could push more people into single-family home ownership or rental. Nonetheless, the economic fallout of the pandemic could limit the pool of potential homebuyers, particularly middle to low income workers and first-time buyers.

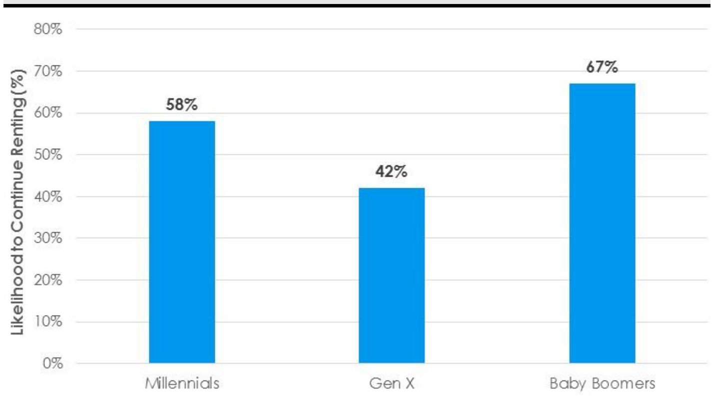
Despite the economic uncertainty brought on by the pandemic, longer term demographic trends have still aligned to drive future rental demand. Gen Z, Millennials and Baby Boomers are the three most prominent generations dominating housing demand, as age groups from 20-39 and 55-74 have seen the largest population gains since 2005. These age groups are notable renting ages; people both enter the workforce and begin renting, as well as retire and look to downsize. Not only are Gen Z, Millennials and Baby Boomers hitting notable renting ages, survey data indicates they prefer renting compared to other generational cohorts. These demographic trends and generational preferences will continue to account for heavy rental demand in the coming years.

Notable Renting-Age Cohorts Seeing the Fastest Population Growth



Sources: US Census Bureau, Mast Insights

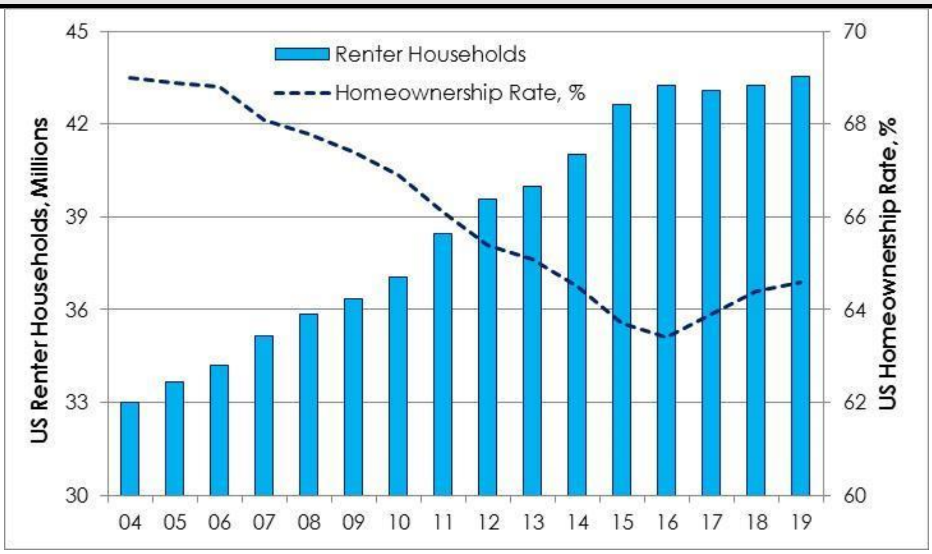
Millennials and Baby Boomers Have Shown a Far Greater Preference for Renting Than Gen X



Sources: Freddie Mac, Mast Insights

As these demographic trends developed, US renter households surged more than 26% between 2006-16 as homeownership plunged in the aftermath of the housing bust and facilitated a shift from owning to renting. Though a recent uptick in homeownership has softened renter household growth, homeownership remains at extremely low levels relative to recent decades while renter households continued to creep to a new high above 43.5 million in 2019. Household formations could slow as a result of the downturn, and lower mortgage rates could improve affordability for home buyers, though mortgage lending has tightened amid the pandemic. Nonetheless renter households continued to rise through the last recession, and homeownership could remain relatively subdued as the harsh economic realities create barriers to homeownership, all pointing to sustained multifamily demand.

Renter Households Rose Substantially this Past Cycle Amid Homeownership Decline, Continued Rising Even as Homeownership Increased from Lows



Sources: US Census Bureau, Mast Insights

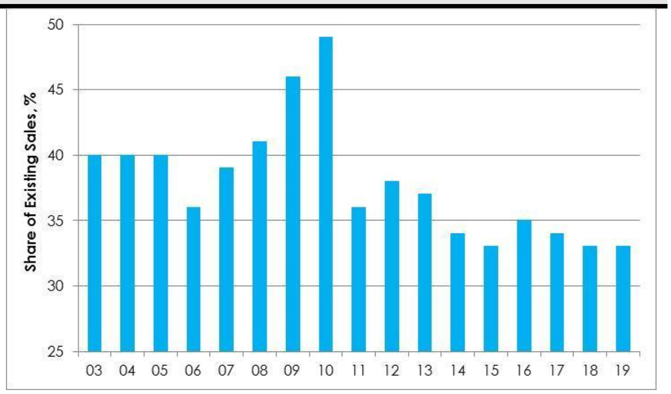
Middle-Income Rental Demand

While broader apartment demand has been fueled by a number of factors, middle-income housing demand has been particularly robust. Middle-income housing renters, focused on households earning between 90% and 140% of the national median income, or approximately $56,000 to $87,000, represent a considerable share of renters that are driven to more affordable middle-income housing apartments rather than upscale luxury apartments. This class of renter is becoming more prominent due to both demographic shifts and limitations encountered by such middle-income households in the purchase of homes, such as stricter lending standards and savings for down payment, which remain major obstacles to many potential buyers. According to the Federal Reserve's Survey on Bank Lending Practices, mortgage lending standards were kept strict in 2019 as banks reported that standards for residential loans remained at the tighter ends of their ranges since 2005. Fannie Mae data on single family mortgages further shows that the average FICO score on single-family mortgages remains over 50 points higher than those originated in the mid-2000's, while the share of mortgages with lower credit (FICO score of less than 680) is down to just 6%, well below the nearly 40% seen from 2005-08. Initial reports also suggest mortgage availability has tumbled in the aftermath of the recent crisis, with the Mortgage Bankers Association reporting that its Mortgage Credit Availability Index fell 12.2% in April to its lowest level since 2014.

Mortgage Lending Standards Remain Tight

Sources: Fannie Mae, Mast Insights

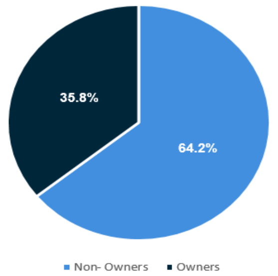
First-Time Homebuyers Remain Subdued



Sources: NAR, Mast Insights

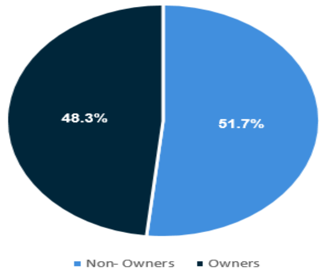
These stringent lending standards are another factor restricting the number of potential buyers in the marketplace. This is particularly acute among first time buyers, whose share of existing sales has plummeted this cycle and measured just 33% in 2019, well below the historical norm of 40% per the National Association of Realtors. This decline is also reflected in comparing generational homeownership rates at age 30. Millennial homeownership at age 30 is just 35.8% compared to a whopping 48.3% for Baby Boomers at age 30, highlighting how middle-income housing demand is further shifting from owning to renting.

Homeownership Among Millennials at Age 30



Sources: Stanford Center on Longevity, US Census Bureau, Mast Insights

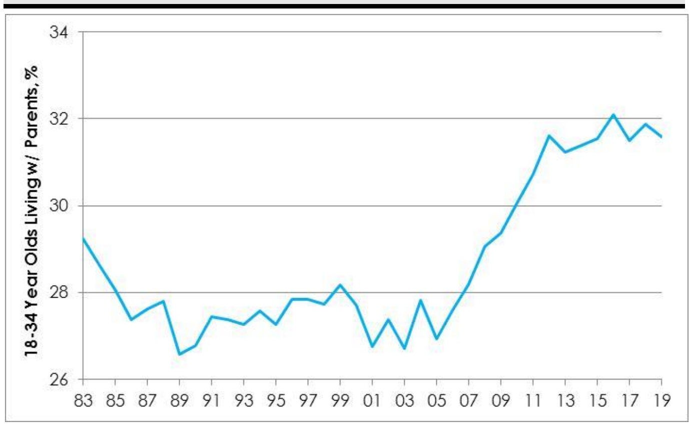
Homeownership Among Baby Boomers at Age 30



Sources: Stanford Center on Longevity, US Census Bureau, Mast Insights

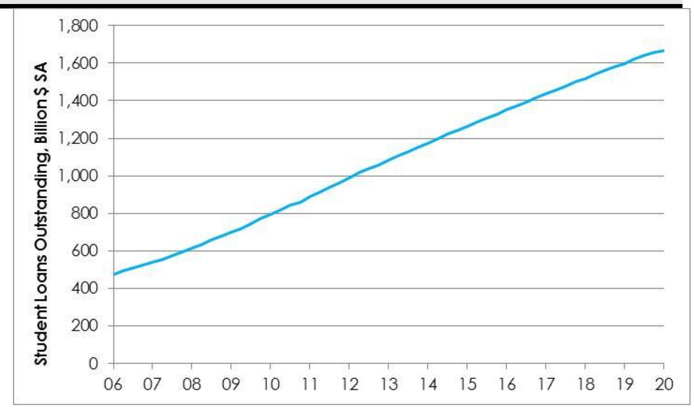
The share of 18-34-year-olds living with their parents substantially increased during the prior recession and has remained high, near 32%, in recent years. While the current state of the economy may keep this number elevated, it still represents a considerable pool of potential new renters as economic conditions improve. When household formations begin to pick up again, they should once again favor rentals. Though the pandemic may prompt some to seek more living space, the aftermath of this recession will make it difficult for new home buyers to enter the market. In addition to tight lending standards, many households will struggle to gather down payments amid the current economic landscape. Further, it is likely economic uncertainty will lead to an increased focus on "saving for a rainy day," with some households choosing flexibility in their living arrangements over long-term monetary commitments. Student debt remains a substantial burden as outstanding loans have more than doubled over the past decade to nearly $1.7 trillion, while the surge in unemployment, however brief, will put tremendous stress on many household budgets. These realities will force a large share of new Millennial households to continue renting, even if some would longer-term prefer homeownership.

Nearly One Third of Millennials Still Live with Their Parents



Sources: US Census Bureau, Mast Insights

Student Debt Continues to Soar, Limiting the Home Buying Potential for Many

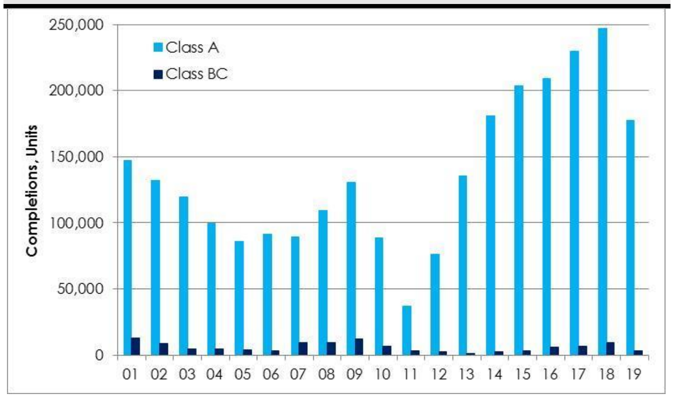


Sources: Federal Reserve, Mast Insights

Class Cut Fundamentals

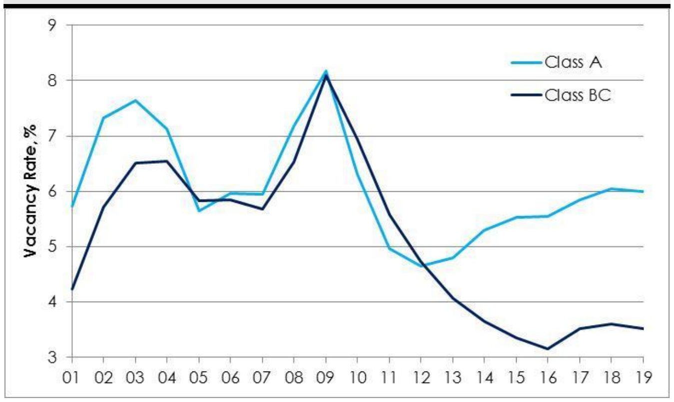
Trends in luxury vs. middle- and lower-income property fundamentals have diverged greatly over the course of this cycle. Supply continues on the luxury side, and luxury apartment vacancies have increased from a low point of 4.7% in 2012 to a new cycle peak of 6.0% in 2019 (although this figure does include newly constructed properties undergoing lease-up). Conversely, vacancies in middle- and lower-income apartments remain low, as newly built supply additions are minimal at that end of the market. Middle- and lower-income vacancies, per REIS, measured 3.5% in 2019, a scant 40 bps increase from the cyclical low set in 2016.

Class A Completions Are Considerably Surpassing Newly Built Class B & C Supply



Sources: Reis, Mast Insights

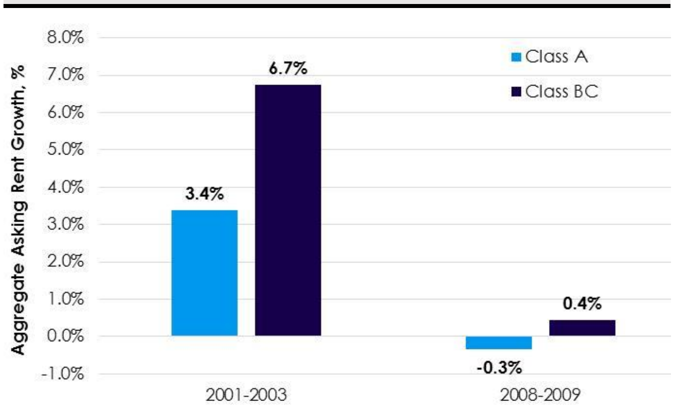
Class A Vacancies Are Well Above Class B & C Apartments



Sources: Reis, Mast Insights

Middle- and lower-income apartment rents have also exhibited some outperformance relative to luxury during the two recent U.S. economic downturns of 2001-2003 and 2008-2009, a critical point to consider at this time. Middle- and lower-income apartment rents grew an aggregate 6.7% during the 2001-2003 downturn, outpacing 3.4% luxury growth. Both class cuts performed worse during the 2008-2009 financial crisis, but middle- and lower-income apartment rents managed to eke out marginal growth while luxury rents contracted. Although middle- and lower-income apartment rental rate performance here is viewed as a single group, we believe that in the event of a disruption in the overall economy, middle-income housing would potentially fare better than that of lower income properties, due to the inherent credit risk of the tenant profile of lower-income properties. This pandemic thus far has also had a more profound effect on low wage workers, with the Federal Reserve finding job losses reported in nearly 40% of households earning less than $40,000, further suggesting that middle-income properties would outperform lower-income properties in this downturn.

Class B & C Apartment Rent Growth Outpaced Class A in Each of the Last Two Downturns

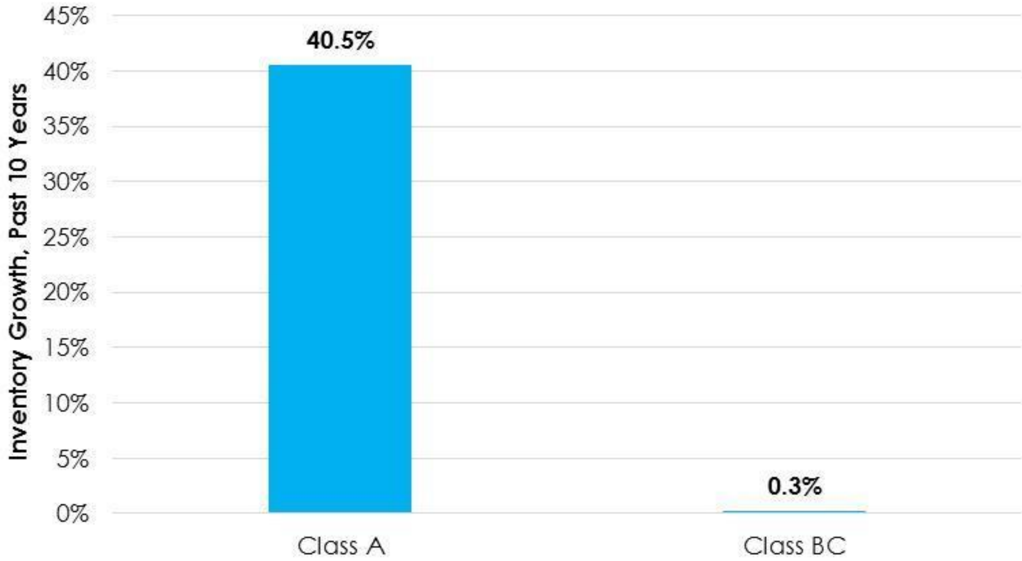


Sources: Reis, Mast Insights

Class Cut Inventory Trends

Newly built multifamily inventory has been heavily concentrated at the high-end of the rent spectrum this cycle. This ongoing trend is further supported by Reis data on new multifamily inventory cut by building class. Since 2009, luxury inventory has increased an aggregate 40.5%, while middle- and lower-inventory has grown just 0.3%. Middle- and lower-income apartment inventory is nearly identical to where it was at the start of the economic cycle a decade ago, while total U.S. renter households have increased by more than 7 million in that span.

Class A Inventory Has Grown Over 40% in the Past Decade, Compared to 0.3% Class B & C Growth



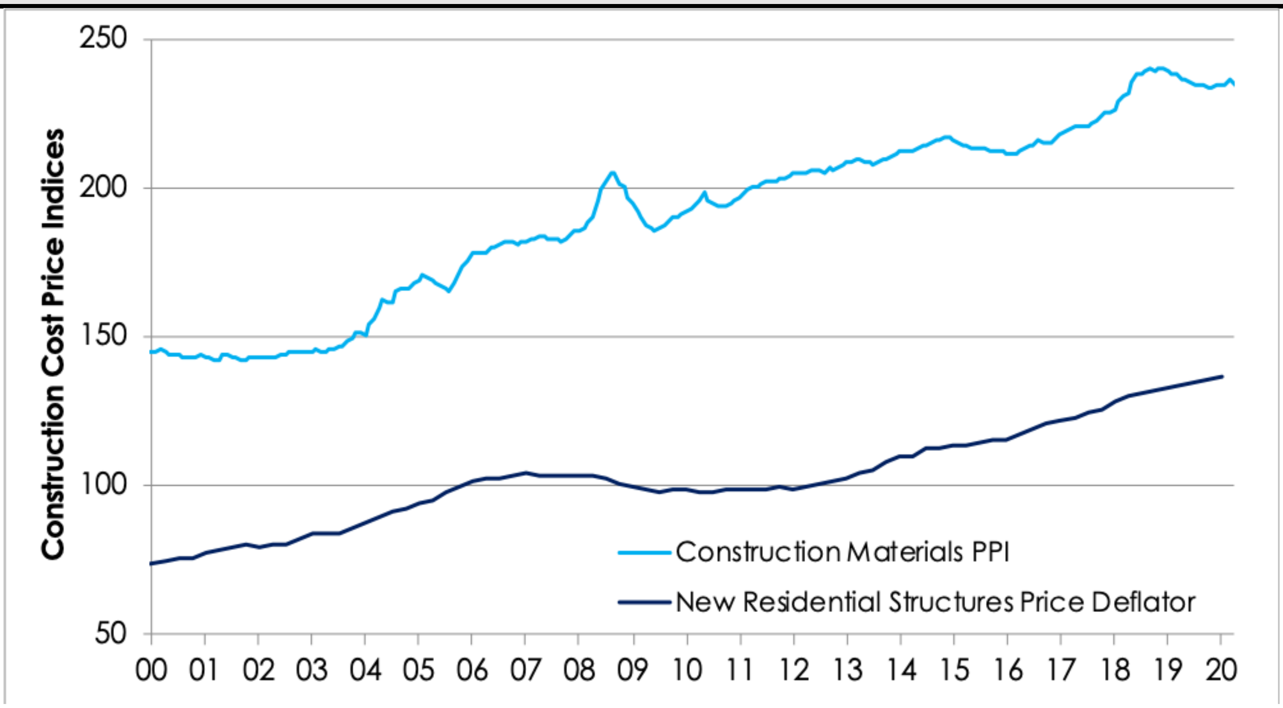
Sources: Reis, Mast Insights

Construction Costs

The substantial rise in residential construction costs over many years has forced builders to focus on high-end apartments in order to turn a profit, as evidenced by the surge in luxury supply compared to muted growth in middle- and lower-income housing. While this downturn could prompt some softening in construction costs, any relief is likely not durable or sharp enough to cause a re-prioritization in projects towards more affordable apartments. The pandemic may have a sharper economic impact than the great recession, though it is worth noting that the construction industry is also not faced with some of the same circumstances as the aftermath of the housing bust. In addition, workplace social distancing guidelines may extend construction timelines and raise labor costs, while costs for certain materials may rise in the short term as trade and manufacturing have been disrupted.

Data on construction costs in the aftermath of the pandemic have yet to fully emerge, though residential construction costs began 2020 at or near all-time peaks according to multiple pricing indicators. The construction materials producer price index fell 0.7% in April, its largest monthly drop since 2010, but is more than 25% higher than its recessionary low point in 2009. Meanwhile the new residential structures price deflator in the first quarter measured nearly 40% above its prior trough. In addition to these broader indices, the producer price indices for many construction materials per the BLS have seen a considerable rise this cycle. For instance, even after recent drops, gypsum and softwood lumber indices are up 72% and 63% from their recessionary lows, while the cement and concrete index continued rising in April to 33% beyond its prior trough. The rapid growth in residential materials and construction labor prices this past cycle has forced housing developers to build to higher rents to meet project profitability benchmarks, which is a key explanation for why developers have been concentrating at the high-end tier of the rental market this cycle. Even if this downturn leads to some softening in costs, the overwhelming gains from this past cycle will continue to pressure builders.

Construction Input Costs Have Risen Substantially Over the Past Two Decades, Steering Developers Away from Middle-Income Housing



Sources: BLS, BEA, Mast Insights

Much like the overall U.S. labor market, the construction sector has seen a large increase in unemployment due to COVID-19-related lockdowns and drop in economic activity. Seasonally adjusted construction unemployment measured just 4% in February after trending below 5% since mid-2018 but jumped to 14.7% in both April and May. Still, this spike in unemployment is lower than the peak in the wake of the last housing bust, when unemployment reached a seasonally adjusted 22.7% in 2010. So far, the rise in unemployment has not had a large effect on construction wages, though the previous downturn saw wages increase even as unemployment surged above 20%. Average hourly earnings in the sector hit a new peak of $31.46 in May, up 2.5% year-over-year and 15% over the past five years. Though the downturn could ease construction wage growth, wages managed to continue rising during the last recession, suggesting a dip, if any, would be minor.

U.S. Construction Sector Unemployment Has Increased to Over 14% in April and May, But Is Below Housing Bust Peak

Sources: BLS, Mast Insights

Construction Wages Have Risen Considerably This Cycle and Did Not Retreat During the Last Recession

Sources: BLS, Mast Insights

Other constraints on the construction labor market also warrant consideration. Limits on immigration can have a severe impact on the construction labor pool. The construction industry has the second-highest proportion of immigrant labor in the US after agriculture. Ongoing regulatory moves to limit immigration could exacerbate US construction labor cost increases, and if the pandemic additionally limits mobility or interrupts immigration, this could tighten the available labor pool and continue putting upward pressure on wages. Considering these labor costs and the substantial growth of broader construction costs this past cycle, developers are continually forced to focus on building upscale units to see profits, making middle-income housing supply expansion extremely unlikely at this time.

Conclusion

As the economy begins to recover from the COVID-19 disruption, there are a number of long- and short-term market dynamics at play which may support middle-incoming housing. Key factors include: (1) limited supply stemming from a lack of new construction; (2) a growing cohort of middle-income renters; (3) rising costs of homeownership coupled with “save for a rainy day” mentalities and need for optionality in housing arrangements, each of which is caused by economic uncertainty, and; (4) an increasing interest in renting among different generations. To date, middle-incoming housing has remained stable, and it has shown resiliency in past down cycles. As the COVID-19 disruption takes shape over the coming months, it is our belief that economic factors and demographic trends may help middle-income multifamily assets maintain stability during – and recover faster after – the economic disruption.

Notes