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A Funny Thing Happened on the Way to the Longest U.S. Expansion

The Housing Sector (Mostly) Stayed Home

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A Funny Thing Happened on the Way to the Longest U.S. Expansion:

The Housing Sector (Mostly) Stayed Home

If the current U.S. economic expansion continues past June 2019, this will officially become the longest expansion in the nation's history, surpassing the 120-month expansion from March 1991 to March 2001. The recession dating committee of the National Bureau of Economic Research, the group tasked with officially defining U.S. business cycles, has identified 33 distinct periods of recessions and expansions beginning as far back as 1854 (see Figure 1). Interestingly, nine of the ten longest U.S. expansions have occurred since the creation of the Federal Reserve in 1913 and the establishment of a policy mandate designed to maintain full employment and, later, price stability as well as the advent of active (Keynesian) monetary policy during the 1930s.

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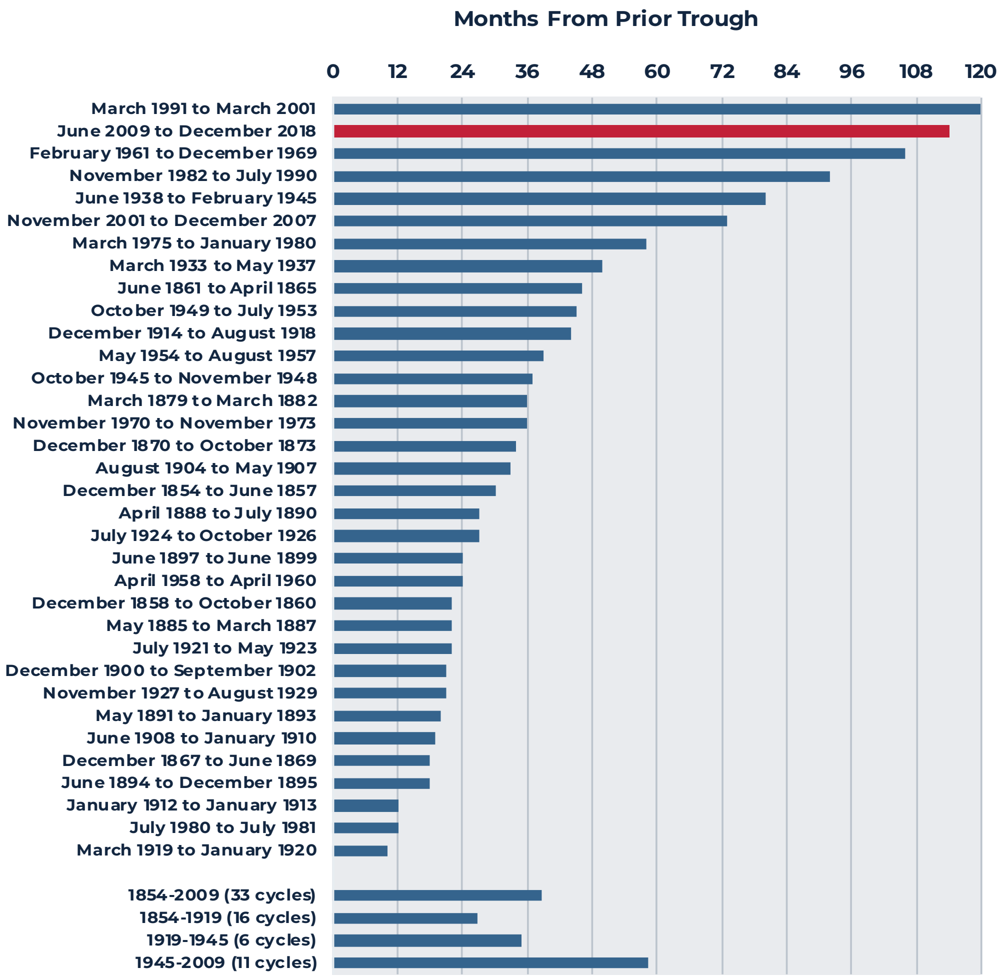
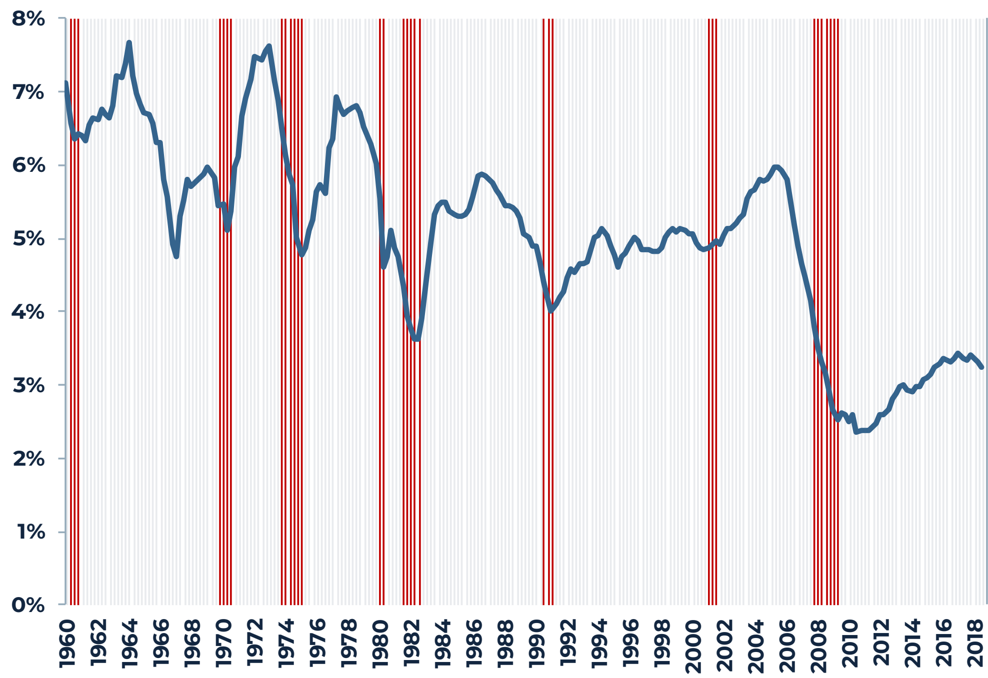
Figure 1: Length of U.S. Economic Expansions



Source: National Bureau of Economic Research (NBER)

While each economic cycle is unique, there have been some common factors over time. Long economic expansions typically display myriad similarities in their later stages such as very low unemployment, accelerating wage growth and building inflationary pressures, which usually lead to generalized policy responses to dampen growth. Most often, these responses are found in monetary policy, typically manifested in changes in overnight lending rates and, more recently, expansion or contraction of central bank balance sheets. Interest rates, of course, influence large swathes of the economy by changing the borrowing cost for large capital items such as houses and automobiles while the balance sheet impact is largely one of dollar liquidity through the buildup or draw down of excess reserves in the banking system.

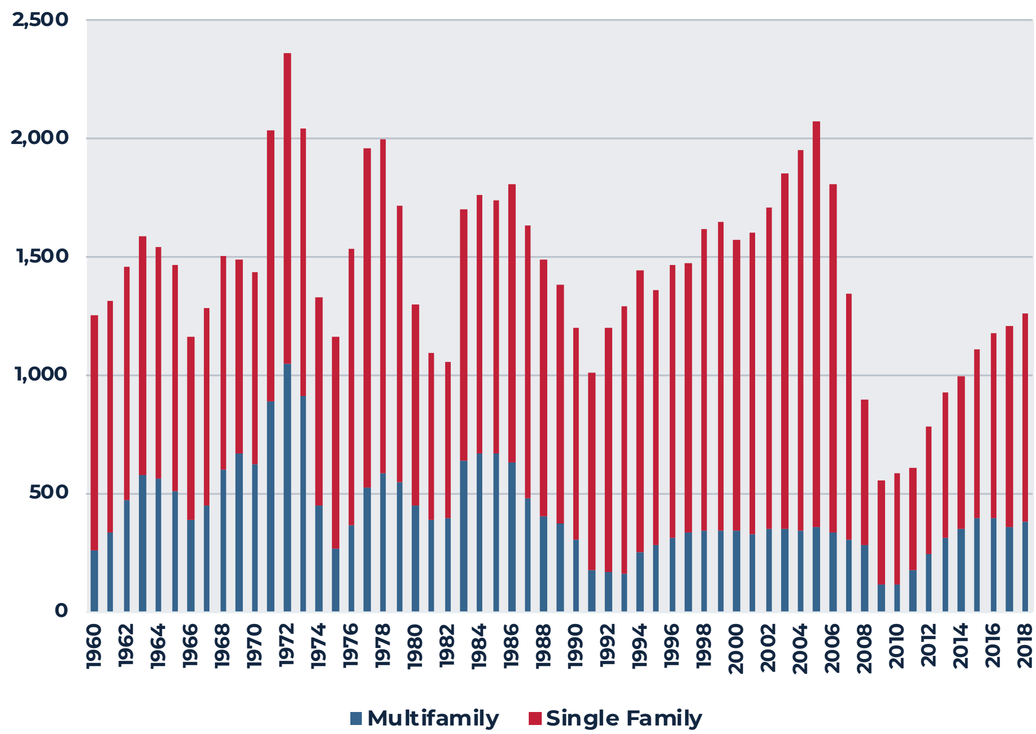
Figure 2: Real Residential Fixed Investment as a Share of GDP and Prior Economic Recessions



Source: Bureau of Economic Analysis (BEA), National Income and Product Accounts (NIPA)

In the current expansion cycle, there are a number of atypical economic developments occurring. Most notable, economic growth has accelerated over the past year, largely in response to significant tax cuts at the end of 2017 and a large increase in government spending since the beginning of 2018. Despite this anomalous late-cycle acceleration of growth, one aspect of this expansion that remains strikingly different from prior post-war cycles is the extraordinarily muted response of the housing sector to the economic recovery and expansion. Figure 2 shows real residential fixed investment as a share of GDP. Following the financial crisis of 2008 and 2009, this measure reached a post-war low of less than 2.4% and, as we enter the tenth year of this expansion, has recovered to a cycle high of slightly less than 3.4%, a level that is lower than the trough of all prior post-war recessions. During the 1950s and 1960s, residential investment often reached levels between 6%-7% of GDP and even in the 1990s averaged above 5%. More significantly, in prior periods of economic recovery, the housing sector was typically one of the forces driving growth with recessions usually ending in response to an increase in housing investment. In the current cycle, residential fixed investment continued to decline for a full two years after the recovery began in mid-2009. To a large degree, this alone likely explains the oft lamented slower than normal growth rate of the current expansion relative to prior cycles. The National Association of Realtors estimates that the economic multiplier of housing purchases to be between 1.3 and 1.6 in the local economy as homebuyers also purchase furniture, fixtures and myriad services for their new homes[1]. Much of this multiplier was simply missing earlier in this cycle.

Figure 3: Annual Housing Starts (000s)



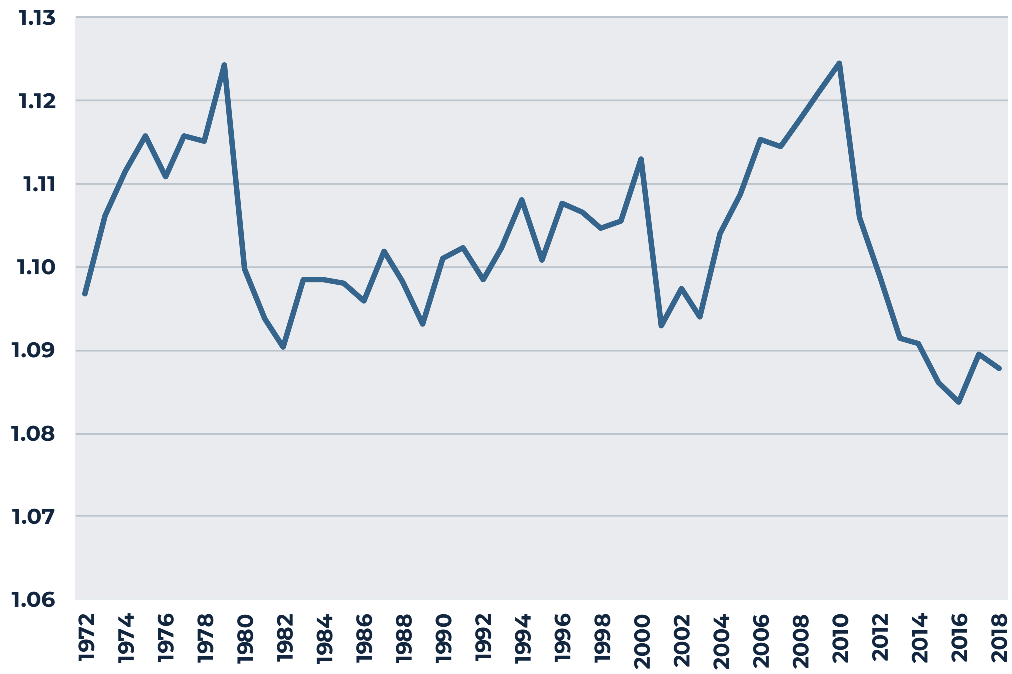
Source: Census Bureau

The drop off in housing sector investment has been particularly acute in the single-family portion of the market. As shown in Figure 3, U.S. housing production reached a cyclical high of nearly 2.1 million units in 2005 with more than 1.7 million single-family units and approximately 350,000 multifamily units. Indeed, for the ten years prior to 2008, the U.S. averaged more than 1.4 million single-family and 340,000 multifamily housing starts per year. For ten years following 2008, single-family housing starts have averaged only 640,000 per year with multifamily contributing less than 300,000 units per year. For its part, multifamily construction has returned to, and even surpassed, typical pre-recession levels with approximately 380,000 units started in 2018, but single-family construction has recovered to only 885,000 units over the past year, approximately 65% of typical pre-recession volume and comparable to the levels reached in the 1990/1991 recession period.

[1] Hale, Danielle. “Economists’ Commentary: How Home Sales Stimulate the Economy”. March 27, 2009. National Association of Realtors. http://archive.realtor.org/article/how-home-sales-stimulate-economy

Perhaps the only positive aspect of the Great Financial Crisis is that housing affordability improved significantly, as average home prices fell approximately 25% between February 2007 and February 2012

Figure 4: Ratio of U.S. Housing Stock to Total Households



Source: Census Bureau

Since 2008, the U.S. has added 10.8 million new households, but has started only 9.2 million new housing units. Additionally, some portion of the existing housing stock becomes unusable each year due to physical depreciation and obsolescence. Moody's Analytics estimates this rate to be between 0.9% and 1.5% of the stock or, relative to the current estimated stock of 138.8 million units, somewhere between 1.25 and 2.1 million units[2]. Additionally, while difficult to quantify, there is growing concern over the degree to which the growth of the residential sharing economy, best represented by AirBnB, further removes housing units from the available stock. For example, AirBnB alone currently has over 660,000 U.S. listings[3]. Reflecting the combination of these developments, the ratio of housing units to households has declined sharply over the past decade and is now at the lowest level since the early 1970s.

Affordability

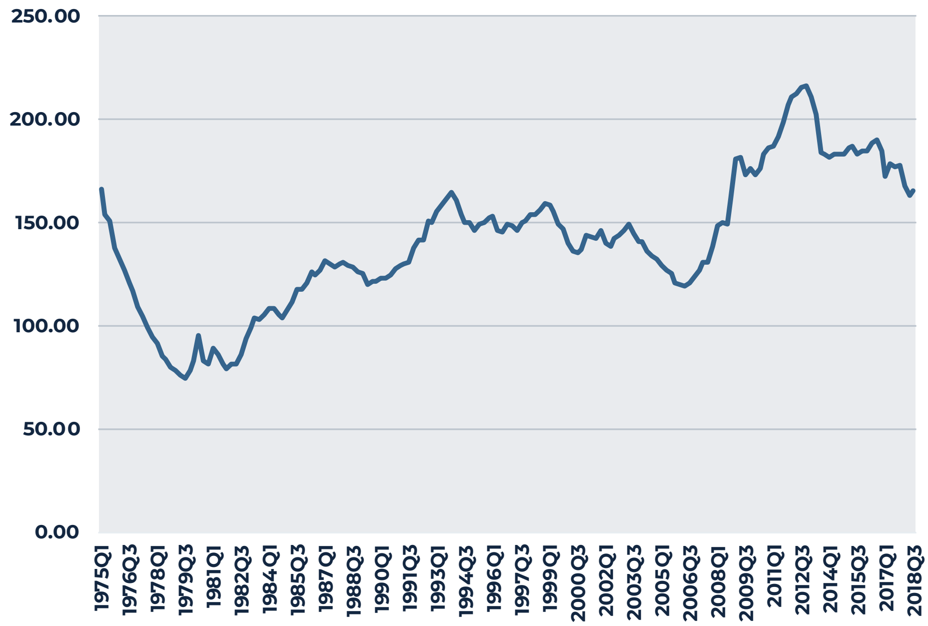
Perhaps the only positive aspect of the Great Financial Crisis is that housing affordability improved significantly, as average home prices fell approximately 25% between February 2007 and February 2012[4]. As such, the median household in the U.S. briefly enjoyed income more than twice the level required to afford the median home. Still, even with the 25% decrease (see Figure 5), affordability had declined so much from 2005 - 2008, it actually remained well above recent historical norms. Since February 2012, housing prices increased more than 50% through October 2018, far outstripping growth in household income and reducing the affordability to less than 170% of the income needed to purchase the median home.

[2] Zandi, Karl. "Methodology: U.S. - Housing Stock Estimates by MEDC". February 26, 2008. https://www.economy.com/support/blog/buffet.aspx?did=C95C8225-790D-4C2A-82B2-621C021FE7A4

[3] See, for example, iPropertyManagement. "Airbnb Statistics for Demographics and Growth". https://ipropertymanagement.com/airbnb-statistics/

[4] S&P/Case-Shiller U.S. National Home Price Index

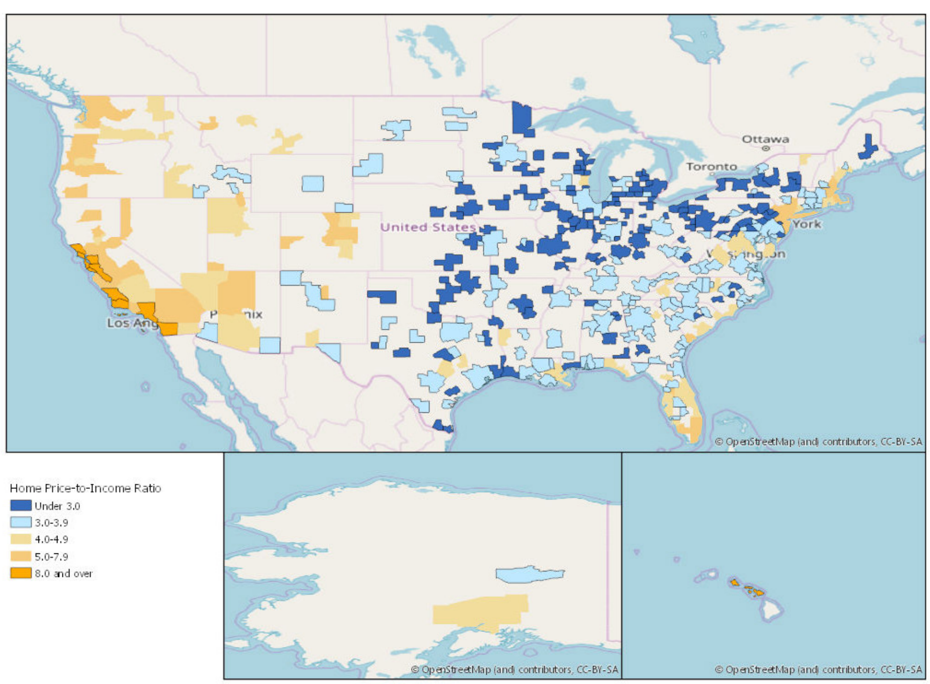
Figure 5: U.S. Housing Affordability Index (100 = Median Household Can Afford Median Home)



Source: Moody's Analytics

While housing affordability declined across all of the nation's metropolitan areas over the past decade, four markets (Los Angeles, San Diego, San Francisco and San Jose) have the distinction of being the least affordable major U.S. markets. Indeed, San Jose is now the least affordable metropolitan area of any size and California is home to eight of the ten least affordable markets with Hawaii (Honolulu and Kahului/ Wailuku) holding the other two. Nationally the ratio of median home price to median household income is 4.15. In the least affordable markets, this ratio ranges from 7.9 to 10.8.

Figure 6: Ratio of Median Home Price to Median Household Income by Metropolitan Area



Source: Moody's Analytics

Table 1: Ten Least Affordable Housing Markets

METROPOLITAN AREA	RATIO OF MEDIAN HOME PRICE TO MEDIAN HOUSEHOLD INCOME
San Jose-Sunnyvale-Santa Clara, CA	10.8
Santa Cruz-Watsonville, CA	10.3
Honolulu, HI	9.3
Los Angeles-Long Beach-Anaheim, CA	9.2
Kahului-Wailuku-Lahaina, HI	9.1
San Francisco-Oakland-Hayward, CA	9.0
Santa Maria-Santa Barbara, CA	8.7
San Luis Obispo-Paso Robles-Arroyo Grande, CA	8.5
Santa Rosa, CA	8.4
San Diego-Carlsbad, CA	7.9

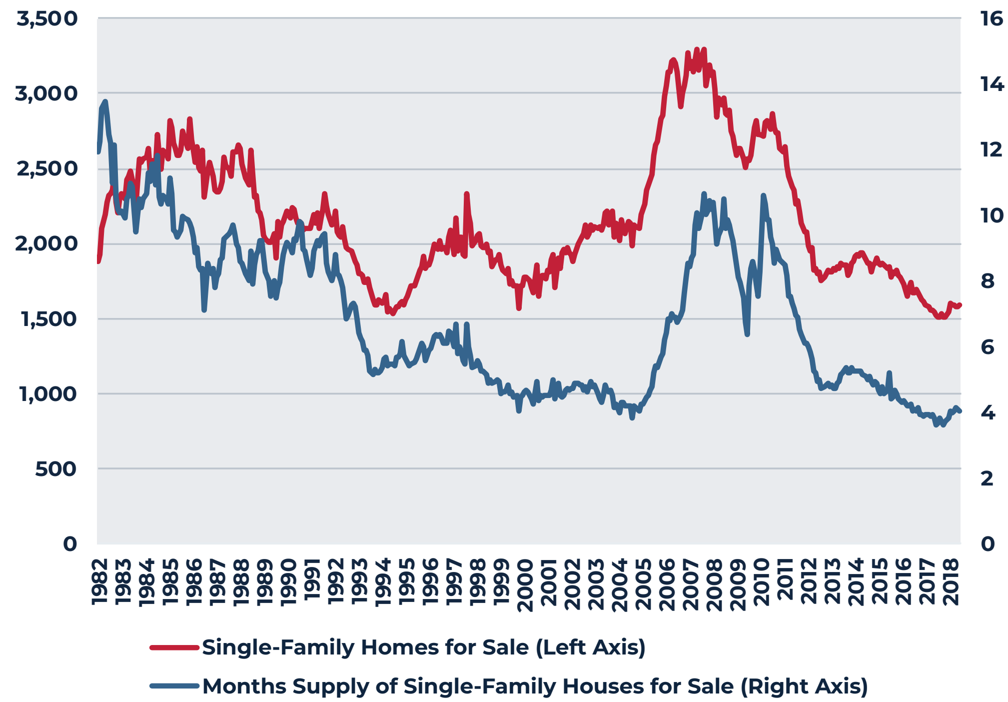
Source: Moody's Analytics

The absolute number of single-family homes for sale, as well as the number of months of homes for sale inventory, are now at the lowest levels since the early 1980s. In part, this reflects the relative undersupply of new housing units over the past decade but more significantly, it reflects a much broader trend of slowing population and labor force mobility over the past several decades. As shown in Figure 8, the share of the population that moves in any given year has declined steadily from 20% in the mid-1980s to only 10% today. In large part, this steady slowing of mobility simply reflects the aging of the population in general and the baby-boom cohort in particular.

> Young workers are more mobile than their older peers, partly because they have a longer period over which to recover the costs of moving, and also because they are less likely to have found a good match for their skills. Mobility of the young lends flexibility to the workforce in the face of sector- or location-specific shocks. An older workforce, if age-specific mobility rates do not change, will be less mobile...[5]

[5] Weil, David N. The Economics of Population Aging. Handbook of Population and Family Volume 1, Part B. Chapter 17.

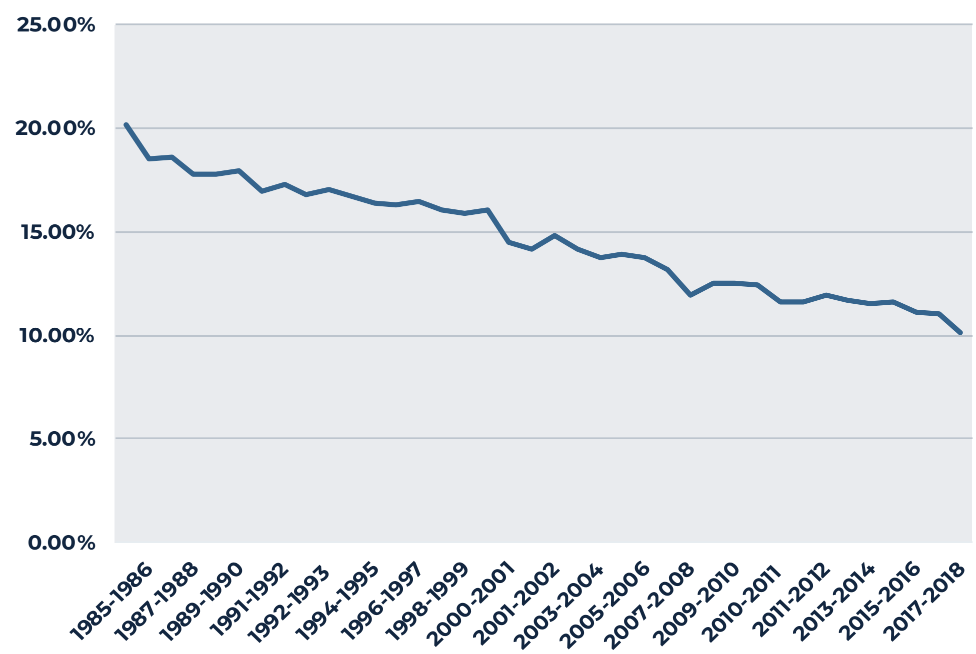
Figure 7: Single-Family Homes for Sales (000s) and Months of Supply of For-Sale Inventory



Source: National Association of Realtors

Compounding the effect of aging, many housing market analysts also express concern that the period of extremely low mortgage rates in the years following the financial crisis may further reduce the likelihood of moving as existing homeowners have become accustomed to lower mortgage payments[6].

Figure 8: Share of U.S. Population that Changed Residence By Year



Source: Census Bureau

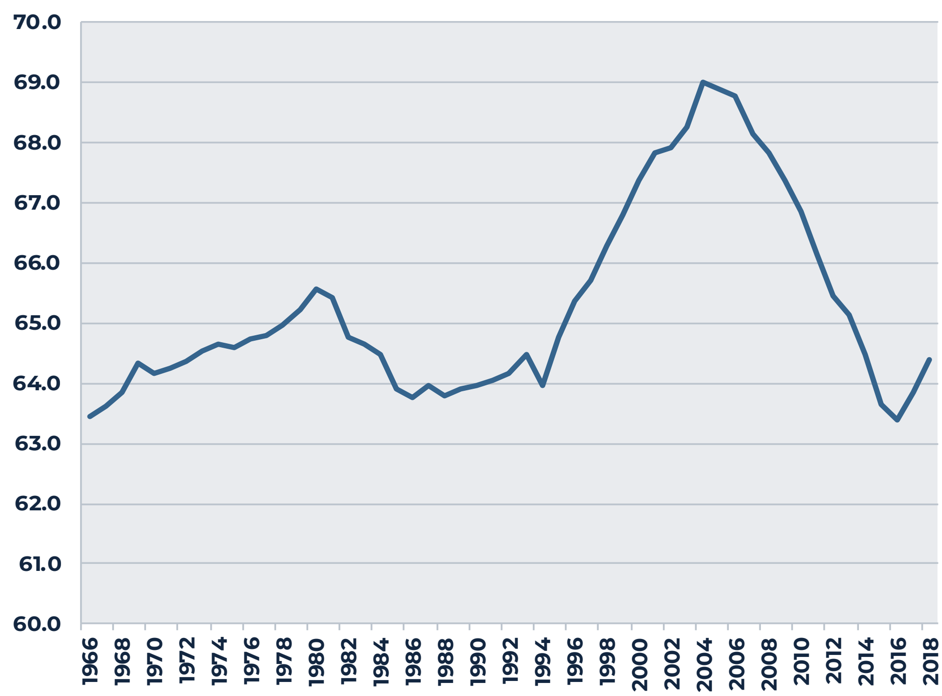
[6] See, for example, Dougherty, Conor. " Real Estate's New Normal: Homeowners Staying Put". The New York Times. March 14, 2017.

Rent Versus Own

Reflecting both favorable demographics as the baby boomers moved into high home ownership years, as well as concerted policy efforts to encourage home ownership, the share of the U.S. population that owns their home increased from 64% in 1994 to 69% in 2004. Between 2004 and 2016, the ownership share declined sharply to a low of 63.4% in 2016 before recovering slightly over the past two years. This decline largely reflects several factors:

- millions of homeowners lost their home to foreclosure during the financial crisis;
- mortgage-underwriting standards such as size of down payment and required credit score became more restrictive;
- the age structure of the population became less favorable as the large millennial cohort was not yet in prime home owning years;
- and student loan debt increased by more than $1 trillion between 2008 and 2018, limiting the ability of younger potential buyers to enter the market.

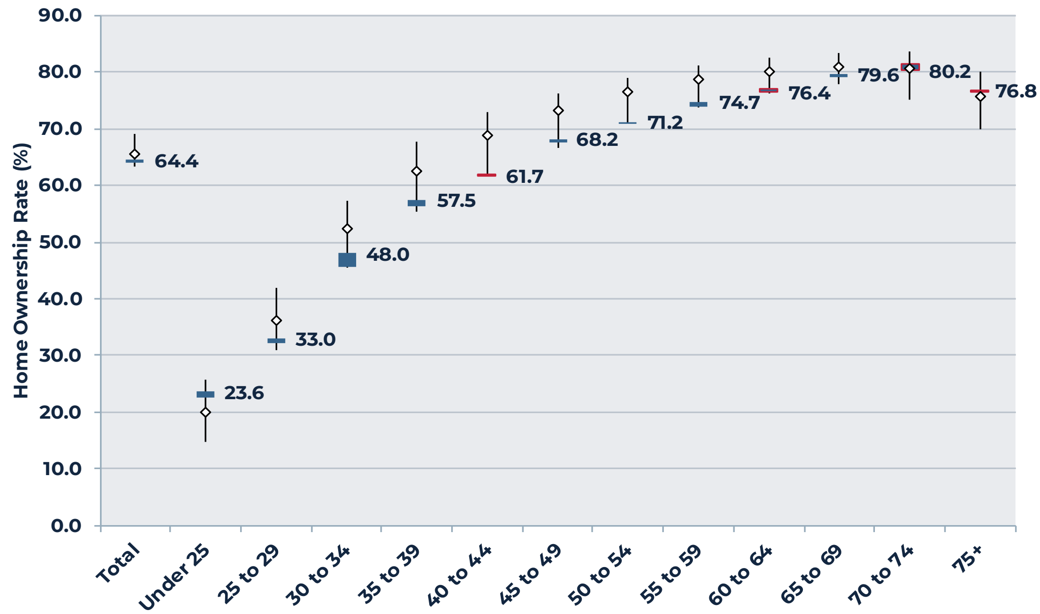
Figure 9: National Home Ownership Rate (%)



Source: Census Bureau

Home ownership for most age groups moved to its lowest recorded level during the post-crisis period and have only recently begun to rise. As shown in Figure 10, the current home ownership rate for most age groups remains well below historical averages, with notable exceptions for the very oldest groups (over age 70) and the very youngest group (under age 25). It is also worth noting that the home ownership rate for the 40-44 year old age group remains close to an all-time low of less than 62%. During the 1980s and 1990s, this age group typically enjoyed ownership rates above 70%. With baby boomers retiring and downsizing at a rapid pace, this particular age group will become increasingly important as one of the potential buyers of baby-boomer homes.

Figure 10: Home Ownership Rate by Age 1982-2018 Q3[7]



Source: Census Bureau

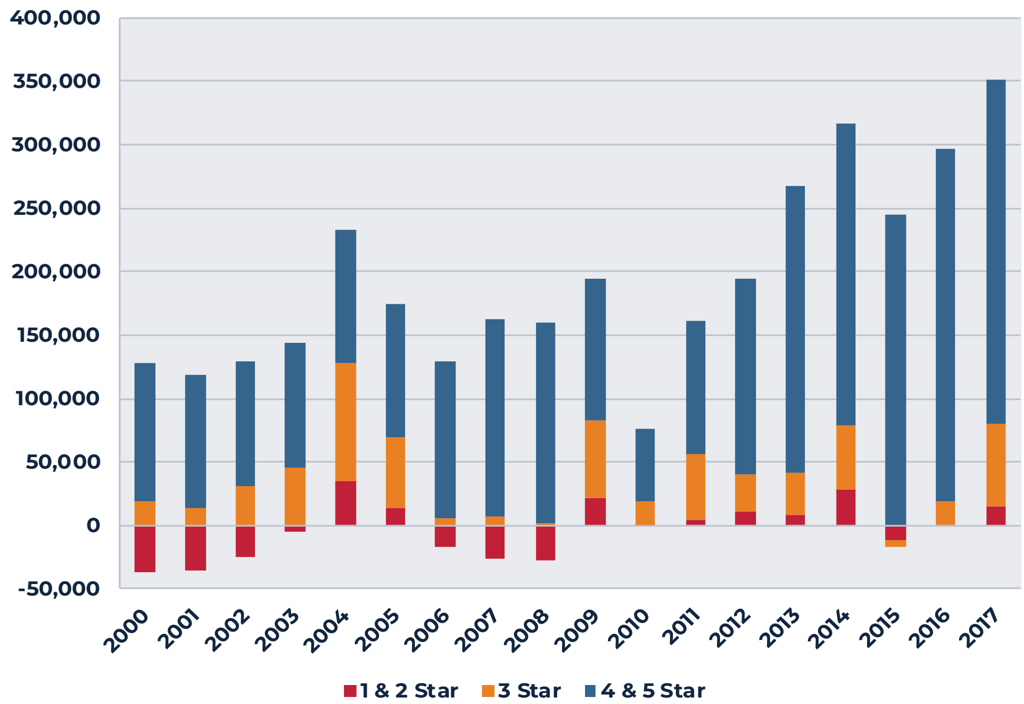
Between 2016 and 2018, total owner households increased by approximately 3% while total renter households actually declined by 1.4%

According to the latest Census Bureau estimates, the slight increase in aggregate ownership during 2017 and 2018 combined with healthy overall household growth has resulted in a sharp uptick in the growth rate of owner households and a small decline in the total number of renter households. Indeed, between 2016 and 2018, total owner households increased by approximately 3% while total renter households actually declined by 1.4%. Despite this, apartment unit absorption in the institutional property market continues to show extremely strong growth, particularly in the higher quality (e.g. 4 & 5 star) properties. If both measures are correct, this suggests an increased migration by renters from non-institutional to institutional multifamily units.

Between 2016 and 2018, total occupied units, as measured by CoStar, increased 4.4% while 4 & 5 star quality occupied units increased by 17.1%. This growth in demand for higher quality/better located units reflects both growth in the number of "renters by choice," people who likely could be owners if desired, as well as an industry-wide supply response that has greatly increased the stock of higher quality apartment units. Indeed, since 2010 the share of the measured apartment stock that is rated 4 or 5 stars has increased from 16% to 24% (see Figure 12).

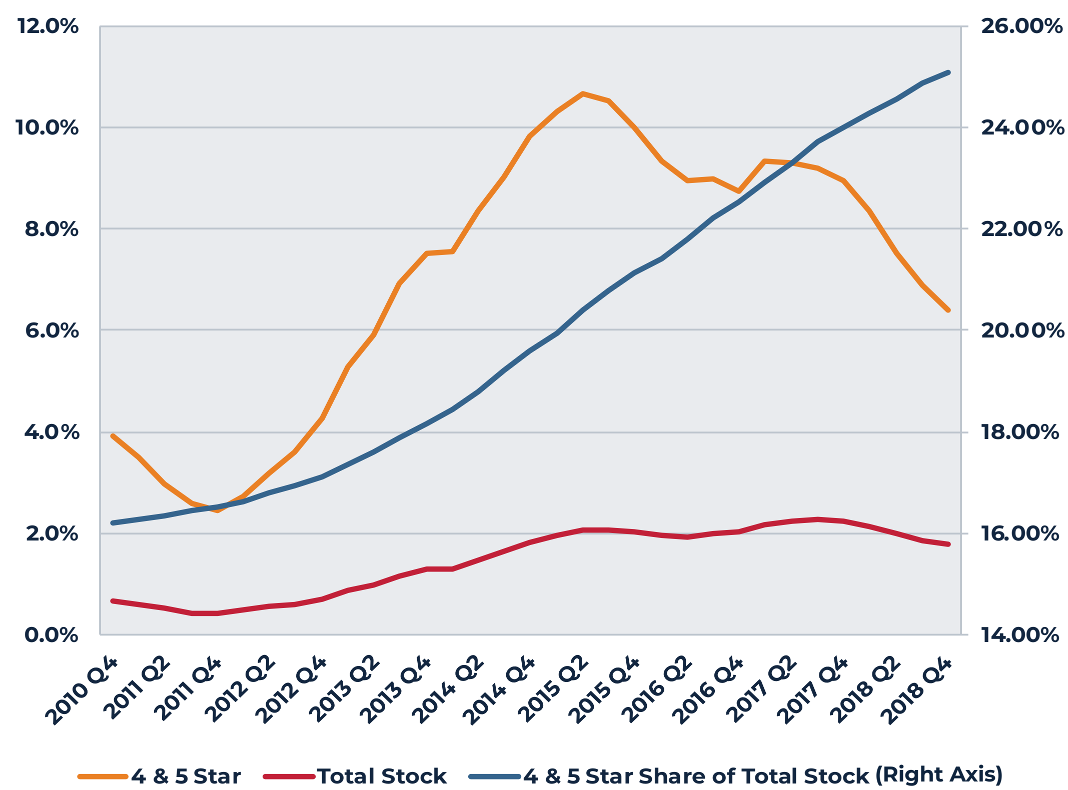
[7] The number displayed is the current home ownership rate for each group. The diamond represents the average over the period 1982 to 2018 Q3 and the length of the line is the entire range over the same period. The red or blue bar represents the change in the ownership rate over the past year.

Figure 11: Change in Occupied Apartment Units



Source: CoStar

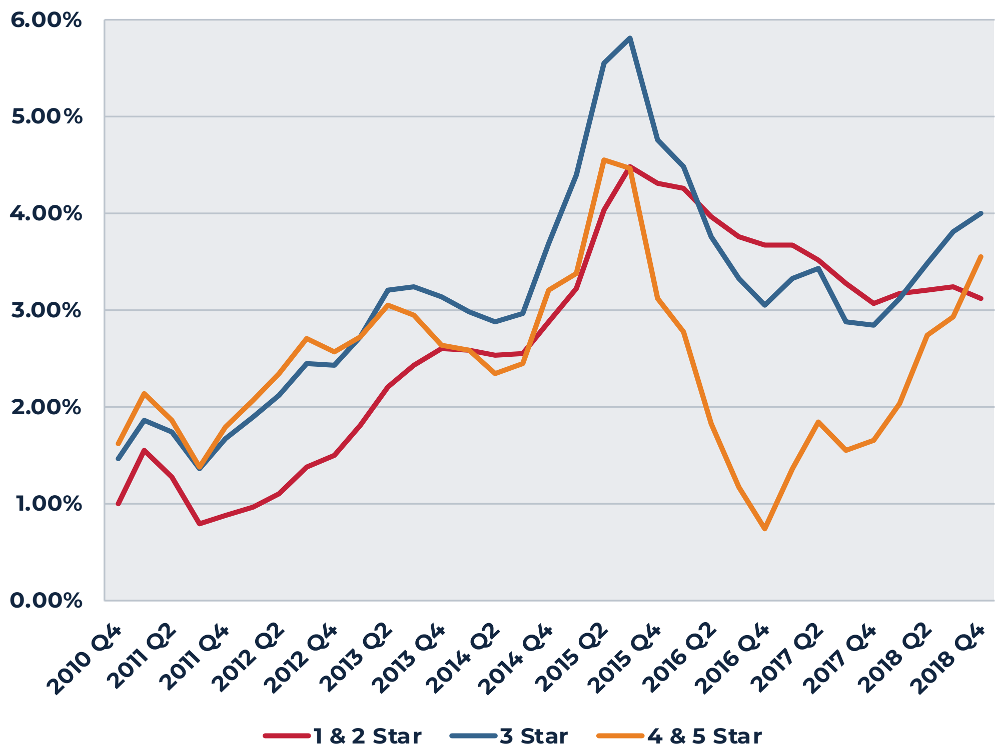
Figure 12: Growth in Apartment Stock and High-Quality Units Share of Total Stock



Source: CoStar

Reflecting the sharp increase in higher quality unit inventory, growth in effective rents has favored the lower tiers of the apartment market in recent years. The slowdown in the growth rate for the higher tier properties corresponds directly with the strongest period of delivery of new units and reflects both slower growth in face rents, but also increased concessions for lease-up periods. With supply growth slowing in this sector, effective rent growth has recovered to be more in-line with the other quality segments.

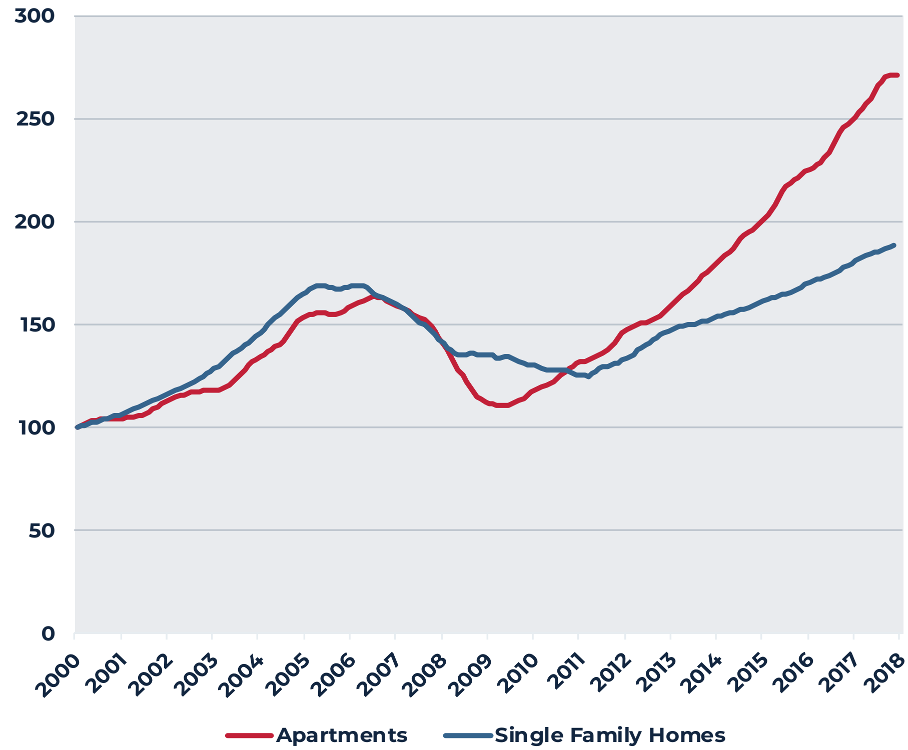
Figure 13: Year-Over-Year Apartment Effective Rent Growth by Property Quality



Source: CoStar

Finally, both single-family and multifamily housing properties suffered significant price declines during the financial crisis period, with the average apartment value dropping 33% and the average single-family home price declining 26% from pre-crisis peak levels. The recovery in value has, however, diverged widely with apartment property values increasing approximately 145% from the trough while single-family values risen only 51%. Today, the average apartment value stands nearly 70% above the prior peak while the average single-family home is only 11% above its prior peak.

Figure 14: Price Appreciation, 2000 = 100



Source: Case-Shiller, Real Capital Analytics (RCA)

Baby-boom cohort is steadily aging into a period where many of its members will be seeking a way to monetize some or all of the equity in their homes

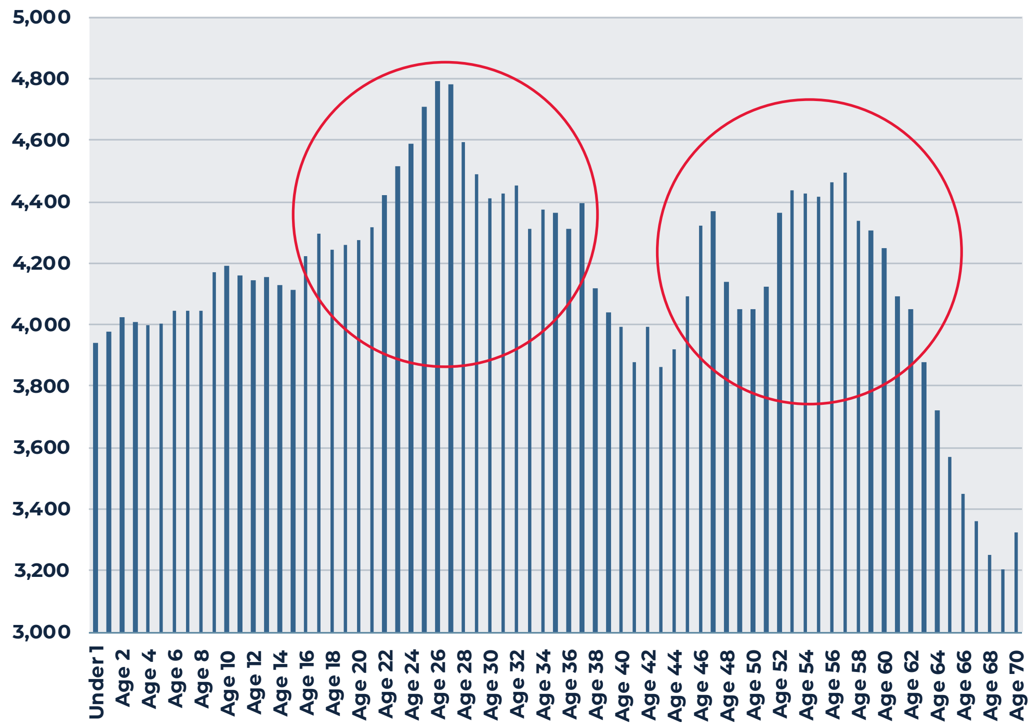
Looking Forward

In many ways, the United States housing sector is still recovering from the tumultuous financial crisis of 2008 and 2009. While construction of new multifamily units has returned to pre-crisis levels, the supply of new single-family units remains well below prior expansion periods. Across the country, housing affordability, both owned and rental, is a significant economic and social problem. In its latest assessment of the state of the nation's housing, the Joint Center for Housing Studies at Harvard estimates that more than 38 million American households spend more than 30% of their income on housing, a level at which they categorize a household as "cost burdened."

At the same time, the baby-boom cohort is steadily aging into a period where many of its members will be seeking a way to monetize some or all of the equity in their homes, typically by downsizing to a smaller owned home or by selling and becoming a renter. For its part, the even larger millennial cohort is just now entering the ages historically associated with higher home ownership rates but are still grappling with the economic legacy of entering the labor force or being early in their career during the period of extreme dislocation ten years ago. More significantly, the millennial group, while larger than the retiring baby boomers, will not be in a position to purchase the boomers' homes for quite some time and the cohort in between is simply too small to do the job (see Figure 15).

The nation's least affordable housing markets are also among the most dynamic economies in the country

Figure 15: 2017 U.S. Population by One-Year Age Cohorts



Source: Census Bureau

The combined effect of all of this suggests a prolonged period of elevated housing sector stress but perhaps also a prolonged period of adaptation and innovation in housing. Certainly, there has been strong growth in recent years in housing approaches such as lower price point manufactured homes and various single-family rental schemes. Although still quite a small portion of the housing stock, both of these will likely play a bigger role in the nation's evolving housing market.

While affordability is a problem nearly everywhere, the nation's coastal gateway markets are particularly burdened by affordability problems with the typical single-family home priced somewhere between five to ten times median household income. The situation is no better for renters. A recent study by Zillow shows the typical renter in an urban core should expect to pay 36.8% of their income in rent and in markets such as Los Angeles, Miami, San Diego and New York, this number might be as high as 50%[8]. Not surprisingly, the nation's least affordable housing markets are also among the most dynamic economies in the country. We have long believed that long horizon property investors should be attracted to places that are dense, vertical and expensive. These places drive out low value-added economic activity and only high value-added activities can survive. Property, as a simple factor of production in a local economy, will garner some of the outsized economic gain from these activities, first in the form of higher rents and, ultimately, in the form of higher values.

[8] Sarah Mikhitarian. U.S. Housing Affordability Crisis Rooted in Urban Cores. Zillow Research. October 9, 2018. https://www.zillow.com/research/urban-suburb-rural-affordability-21565/

The long-term solutions to the nation's housing problems remain elusive, as the roots of the problems lie in areas as diverse and complex as growing income inequality, land use restrictions, labor shortages in the building trades, rising construction costs and so on. In the near term, there will clearly continue to be opportunities to deliver new product, both multifamily and, increasingly, variations of single-family to the nation's housing markets, particularly the severely cost burdened coastal markets. Realistically, most new product will likely continue to be at the higher quality and higher cost end of the market and, even in that market segment, return on cost and development profit will continue to be under pressure as more renters and buyers reach natural constraints on the portion their income that can go to housing.

Twin demographic bulges suggest a coming period of a suburban residential renaissance

Additionally, the nation's twin demographic bulges, the baby boom and their millennial children, continue their inevitable aging. Boomers are healthier, more active and living longer than any prior older generation, but they will need multifaceted housing solutions that facilitate equity withdrawal while also providing the appropriate mix of housing services. Millennials too will be moving into the next phase of their lives, a stage increasingly driven by family needs, such as the education of their children. Taken together, much of this suggests a coming period of a suburban residential renaissance, matching or perhaps surpassing the urban renaissance that has dominated much of the young century thus far.

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