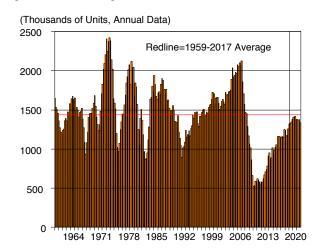
The Best of Times and the Worst of Times for Housing¹

David Shulman Senior Economist, UCLA Anderson Forecast June 2018

The outlook for housing over the next few years depends upon where you live and how you live. If you are a homeowner in coastal California, the Pacific Northwest, parts of the coastal northeast and such fast growing cities of Denver, Nashville and Austin you are sitting pretty enjoying rapidly increasing house prices. On the other hand, if you are a potential middle-class home buyer or a struggling renter in those areas you are facing a very personal affordability crisis. From the supply side, although housing starts remain significantly below the boom years of 2004-2006, well-capitalized homebuilders, apartment owners and construction workers find their products in great demand.

At its very essence, in contrast to historical experience, the core issue is that housing starts haven't fully recovered from their nadir of just under 600,000 units a year during 2009-2010. In 2017 housing starts amounted to 1.21 million units and we are forecasting moderate increases to 1.34 million and 1.40 in 2018 and 2019, respectively and a modest decline to 1.36 million units in 2020. (See Figure 1) Although starts more than doubled off their recession lows, the current and forecast levels remain below the 59 year average from 1959-2017 of 1.435 million units a year. Forget about the two million starts a year we experienced several times during the housing booms of the past. Simply put, the housing shortage is for real.

Figure 1 Housing Starts, 1959 - 2020F



Sources: U.S. Department of Commerce and UCLA Anderson Forecast

Prices Rising

In response to the shortage housing prices are rising rapidly and have more than recovered from the housing crash of 10 years ago. The national Case-Shiller Home Price Index is up 47% from the low in February 2012, is now 7% above the previous peak in 2006 and is now up 97% since

^{1.} With apologies to Charles Dickens

Figure 2 Case-Shiller National Home Price Index 2000 - February 2018, Monthly

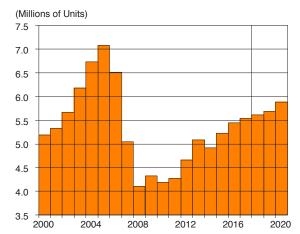


Sources: Standard and Poor's via FRED

2000. (See Figure 2) However, by way of comparison, the gains since 2000 for such hot cities as Los Angeles, Seattle, and Denver amount to 178%, 138% and 111%, respectively. Contrast that with the meager gain of 42% reported for Chicago and Atlanta. As we said at the outset, it depends where you live.

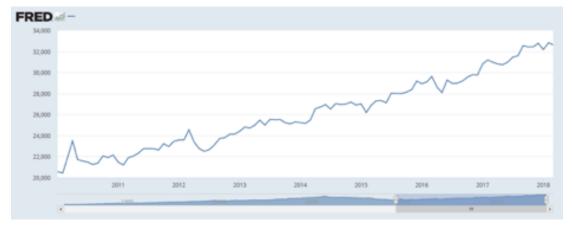
Consistent with the sluggishness in housing starts, the growth in existing homes sales remains tepid. Existing home sales in 2018 are estimated to be 5.6 million units, well below the 7.0 million peak recorded in 2005. (See Figure 3) In part, the slowdown is due to an older society aging in place and a change in retirement patterns where grandparents have been reluctant to move away from grandchildren. However, with less moving around, homeowners have chosen to invest in remodeling engendering a boom in that sector. (See Figure 4)

Figure 3 Existing Home Sales, 2000 - 2020F, Annual Data



Sources: National Association of Realtors and UCLA Anderson Forecast

Figure 4 Building Material and Garden Supply Retail Sales, 2010 - April 2018, In \$ millions, Monthly Data

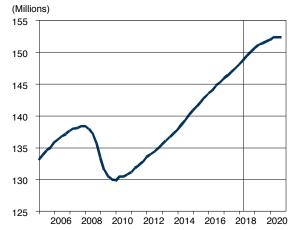


Sources: U.S. Department of Commerce via FRED

Positive Demand Fundamentals

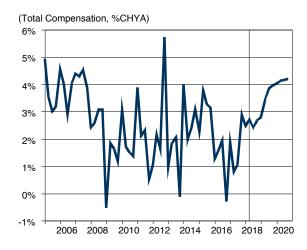
By most conventional measures housing activity should be soaring. As noted above we have witnessed a decade of under-building which has given rise to a huge pent up demand. Employment growth has been strong and employee compensation is on the rise and until very recently mortgage rates have been extraordinarily low. (See Figures 5 and 6) With delays in major lifestyle events (marriage

Figure 5 Payroll Employment, 2005Q1 - 2020Q4F



Sources: Bureau of Labor Statistics and UCLA Anderson Forecast

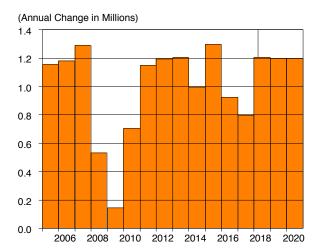
Figure 6 Employee Compensation, 2005Q1 - 2020Q4



Sources: Bureau of Labor Statistics and UCLA Anderson Forecast

and childbirth) net new household formations declined to 800,000 in 2017. Nevertheless with the economy strengthening we forecast the pace to return to a more normal 1.2 million over the 2018-2020 time frame. (See Figure 7)

Figure 7 Net Household Formations, 2005 - 2020



Sources: Bureau of the Census and UCLA Anderson Forecast

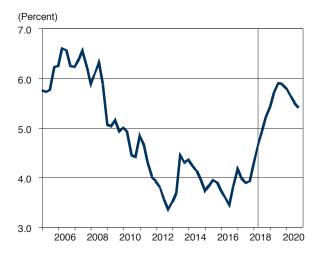
Negative Demand Fundamentals

As strong as the demand fundamentals mentioned above are, there remains strong headwinds that are working to limit the demand for housing. As mentioned at the outset, housing affordability is a major issue in the metropolitan areas where job growth is booming. For example the median home price in Los Angeles as of March 2018 was \$585,000, while median household income in 2016 was only \$58,000. Simply put, the numbers don't work. Similarly rents remain high relative to income with approximately 50% of the nation's renters paying more than 30% of their income to keep a roof over their heads.

Further, the interest rate environment which has been extraordinarily friendly is turning more hostile. The rate on the 30-year fixed rate mortgage has risen approximately 100 basis points since mid-2016 to 4.5% and is likely to approach 6% by 2020. (See Figure 8) That will be quite the headwind especially when we recognize that Fannie and Freddie are guaranteeing loans with down payments as low as 3% and allowing home buyer (total debt payment)/income ratios of up to 50%. Indeed in the second half of 2017 about 20%

of Freddie and Fannie loans were to borrowers whose debt payment/income ratio exceeded 45%.² Reminiscent of the prior boom, non-prime loans have emerged to finance consumers with low credit scores.

Figure 8 30-Year Conventional Mortgage Rate, 2005Q1 - 2020Q4



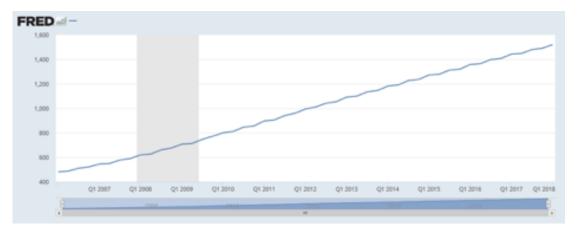
Sources: Fannie Mae and UCLA Anderson Forecast

One of the reasons for lenders raising the debt/income ratio has been the explosive growth of student debt. Student loan debt has tripled from just under \$500 billion in 2006 to \$1.5 trillion early 2018. (See Figure 9) Although this debt is not solely due to young people borrowing money for their educations, it will remain a ball and chain holding back the millennial generation from buying homes.

Although household formation remains strong, a major impetus for home purchase, especially single-family homes, is the birth of children. On that score, the birthrate remains at multi-decade lows and is roughly half of what it was in 1960. (See figure 10)

One last negative demand factor will be the influence of the recently passed tax reform which limits the deductibility of state and local taxes to \$10,000. In high tax states it is not unusual for upper-middle class tax payers to pay \$20,000 -\$30,000 a year in such taxes. As a result, one of the critical tax advantages, that being the ability to fully deduct property taxes, will be reduced. How this tax change will affect future demand remains to be seen, but it is certainly not a positive.

Figure 9 Student Loans Outstanding, 2006Q1 - 2018Q1, in \$ Millions

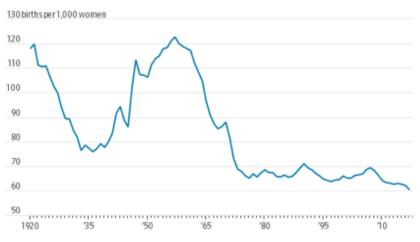


Sources: Federal Reserve via FRED

^{2.} Kusisto, Laura and Christina Rexroad, "As House Prices Rise, Strains Emerge," The Wall Street Journal, April 11, 2018, p. B6

Figure 10 Births per 100 Women 15-44, 1920 - 2017





Source: CDC's National Center for Health Statistics

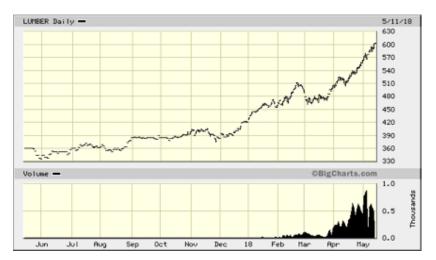
Sources: Via The Wall Street Journal

Negative Supply Fundamentals

On the supply side, housing activity is plagued by excessive zoning constraints in the hot employment markets of the Pacific Coast and the Northeast. Although there have been attempts to relax those constraints in California and Massachusetts, local opposition to new developments especially those of a higher density remains fierce. Zoning constraints along with high impact fees severely burden the ability of builders to deliver housing anywhere near an affordable price range.

Further exacerbating the land situation the market remains tight for construction labor and lumber prices have surged 50% partially in response to the Trump Administration's imposition of a 20% tariff on Canadian lumber in January 2018. (See Figure 11) That said, because housing remains in short supply, builders have been able to pass along cost increases to consumers evidenced by the strong gross margins reported by the publicly traded homebuilders. Simply put, the larger homebuilders have learned to profit from the tight zoning controls as regulation works to reduce competition.

Figure 11 Lumber Prices, \$/1000 Board Feet, May 2017 - May 2018



Sources: BigCharts.com

Figure 12 Homeownership Rate, 1965Q1 - 2018Q1, Percent

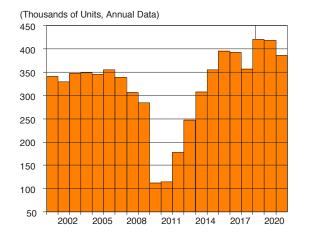
Sources: U.S. Bureau of Census via FRED

Nevertheless, despite all of the negatives the homeownership rate has begun to rise after a long six percentage point decline that began in 2004. We anticipate that the homeownership rate will level off somewhat above its current level of 64.2%. (See Figure 12) The demand fundamentals have, at least recently, overcome the supply impediments for ownership housing.

The Boom Continues in Multi-Family Housing

The demand for multi-family housing continues to be strong as millennials (less so recently) and empty nesters seek a more urban lifestyle. In response, multi-family housing starts have approximated 350,000 - 400,000 units

Figure 13 Multi-Family Housing Starts, 2000-2020F



Sources: U.S. Department of Commerce and UCLA Anderson Forecast

a year for the past several years. Indeed, we forecast that starts, which amounted to 357,000 units in 2017, will average 407,000 units/year over the 2018-2020 time period. (See Figure 13) However, because much of the construction has been at the high-end of the market, the vacancy rate has recently increased from 4.5% to 4.8% in the first quarter. (See Figure 14)

The decline in vacancy rates has brought higher rents with rent growth approximating 3.5% -4.0% a year since 2015. (See Figure 15) In fact, from 2010 to 2018Q1, the cumulative increase in rents has amounted to 27%, well above the increase in the overall consumer price index of 15% and the 19% in employee compensation. It is no wonder that renters feel stressed. Indeed, as of 2016 roughly half of all renters were paying in excess of 30% of their incomes on rent and that in turn has engendered new calls for such self-defeating policies as rent control.

Nevertheless, despite rising interest rates, real estate investors remain enamored with investing in rental apartments. It appears that these investors are willing to look through what they perceive to be temporary softness in the high-end apartment market. We would note that the publicly traded apartment REITs are reporting rent increases well below that reported by the consumer price index. Why? The REITs apartment assets are concentrated at the high end of the market. Despite this, investor demand is being sustained by default because retail real estate looks challenged and the industrial property market remains way too hot. Simply put, apartment investing remains one of the few games in town for real estate investors. Thus, the supply of rental apartments will keep coming.

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Figure 14 Apartment Vacancy Rate, 1980 - 2018Q1, Percent

 $Sources: REIS\ via\ Calculated Risk.comt$

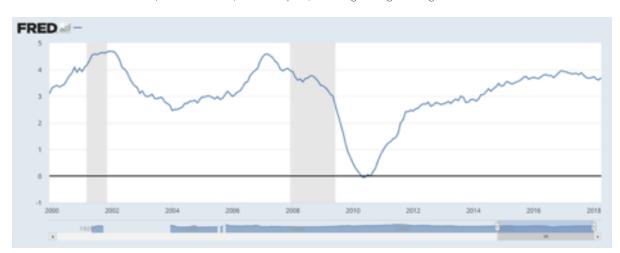


Figure 15 Consumer Price Index, Tenant Paid Rent, Dec 99 - Apr 18, Percentage Change Year Ago

Sources: U.S. Bureau of Labor Statistics via FRED

Conclusion

In terms of prices, the housing market is booming, especially on both coasts and selected booming cities in the interior. However, in terms of housing activity the market is muddling through with very mediocre levels of housing starts and home sales. Despite easier mortgage terms, consumers are being held back by high prices in areas where job growth has been strong. Meantime, lower income

renters are struggling with high rent burdens where rents have risen well above the overall price index and income growth. The pricing problem is being aggravated by strict zoning controls that limit increases in supply. In contrast, the multi-family housing sector is benefitting from higher rents and despite growing vacancy rates at the high-end of the market, investor demand is keeping construction activity strong. As we said at the outset, your view on the housing market depends on where you live and whether you are an owner or a renter.