



National Reverse Mortgage Lenders Association

Annual Meeting

October 28-30, 2018 San Diego, CA



Economic Update

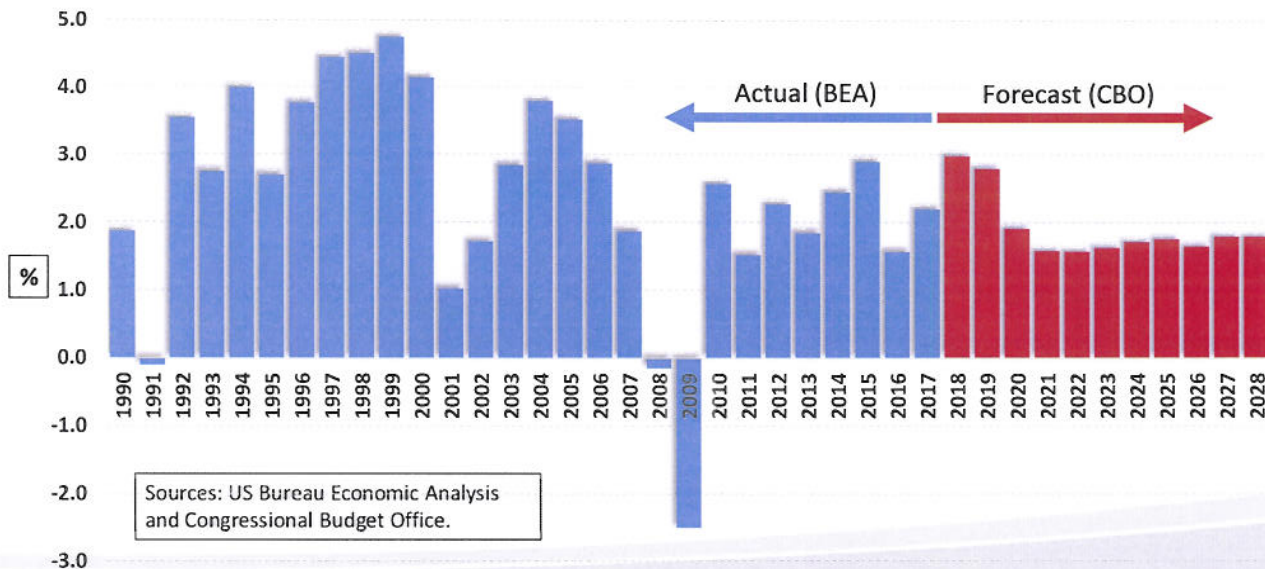
2018 Annual Meeting & Expo
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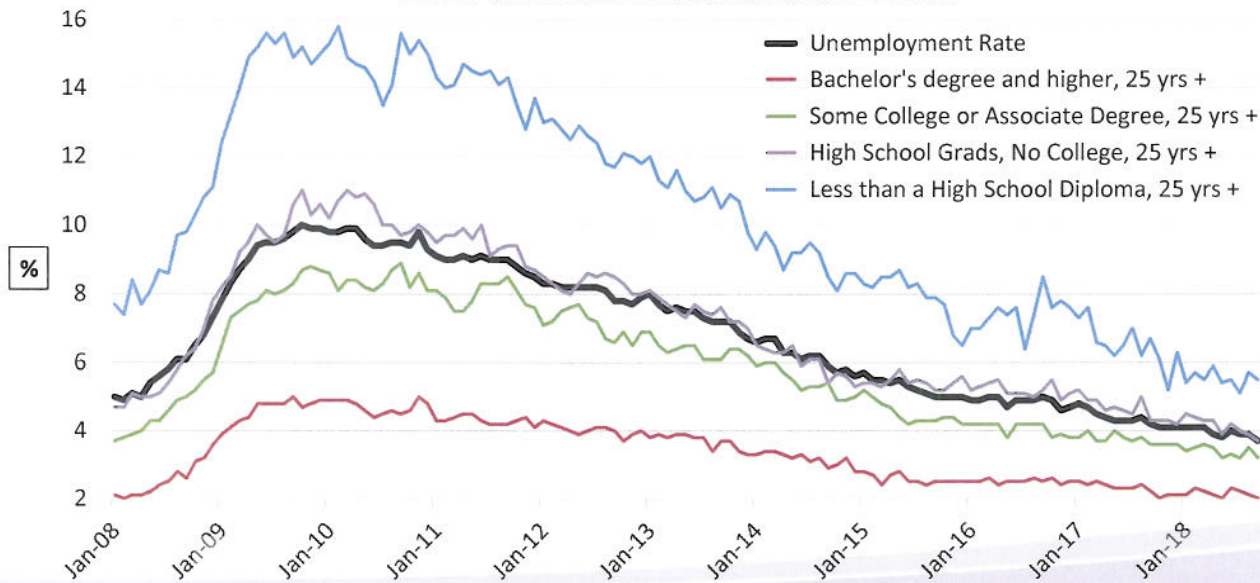
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Annual real GDP growth is forecast to be strong in 2018 and 2019, but subsequently falls



- CBO released its forecast for GDP in August. Reflects fiscal changes in TCJA.
- Earlier (short-run) forecasts from OMB were a lot more optimistic than CBO.
- However, CBO's predictions for 2018 and 2019 (at approx. 3%) are relatively optimistic – 2017 tax changes act on incentives to work, save and invest.
- In 2020 real growth starts to decrease. Why?
 - CBO predicts that large budget deficits reduce resources for private investment.
- In outer years (2023-2028), growth will be 1.7%. (OMB has it at 3.0%).
- **Deficits** from CBO: 2017 revenues were 17.3% of GDP, outlays 20.8%. Deficit of 3.5% ≈ \$665 billion. Deficits predicted to grow to 4.9% in 2019-28.
- **Debt** held by public goes from 76% GDP (= \$14.6 T) to 96% (= \$28.7 T) in 2028.
 - Shouldn't we be fixing the deficit when there is full employment?
 - CBO long-term outlook: Payments on debt will be 6.3% of GDP in 2048.
 - Fed interest payments = Social Security budget at that point.
 - Federal spending would be 29% of GDP (not seen since WWII).
- Tax Cut 2.0 passed the House in September. Could offer a small short-term boost to economic growth, but substantially increases the federal deficit.
- One more aspect—**looming trade war**. Affects consumer and business confidence. Could reverse impacts of fiscal stimulus. Could trigger recession.

The seasonally adjusted unemployment rate has steadily declined since 2010 to levels not seen since 2000

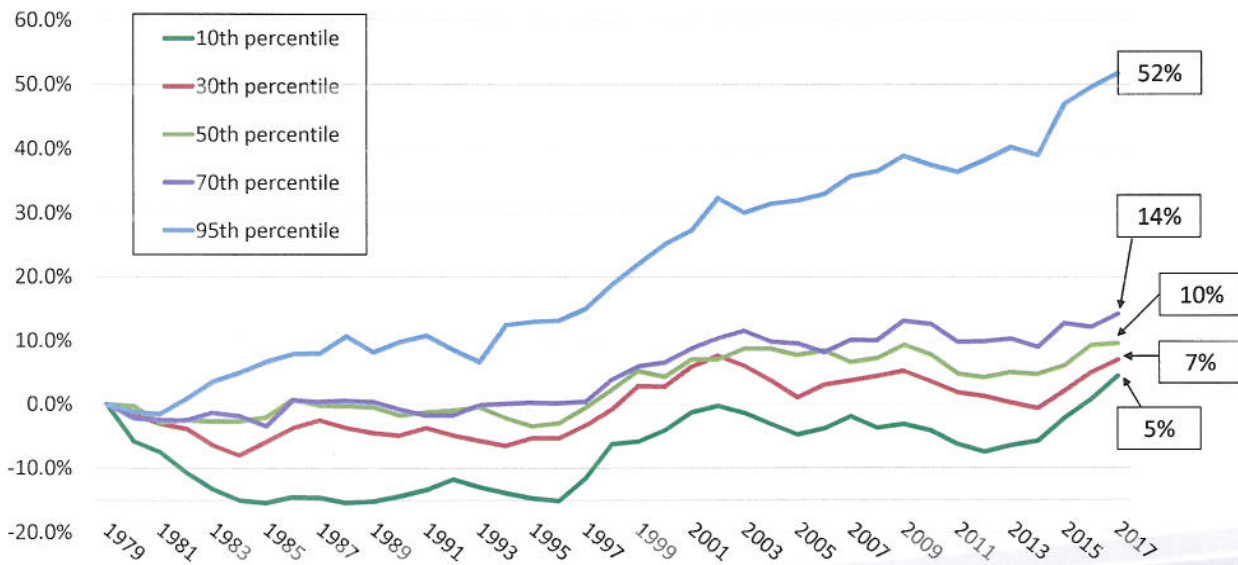


Source: Bureau Labor Statistics

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- The official unemployment rate, U-3, was 3.7% in Sep. Lowest since 1969.
- 134k were jobs added to non-farm payrolls in Sep.
 - Consensus was 180k. 203k avg over last 6 months.
 - Construction employment continued to trend up in Sep (+23k) and has increased by 315k over the year.
- Natural rate of UE is approx. 5%. CBO predicts U-3 will fall to 3.3% by the end of 2019. Tight market. Will then rise gradually to 4.6% in 2020-22.
- The broad measure, U-6, also low at 7.5%. U-6 includes marginally attached and part-time.
 - U-3 rate was 3.8-4.0% in 2000. At that time U-6 was 6.8-7.0%.
- **Issues:** Drill-down—2.0% in red. 5.5% in blue. Still room for improvement.
 - Improvement would give upward pressure on wages.
- **Underemployment**—Positions that do not utilize skills to their capacity.
 - Many explanations for these situations, but of interest in our context are geographical constraints.
 - For example, since it is often harder to move if one owns a home than if one rents, homeownership may contribute to underemployment.

Wages for low and middle-income earners have been stagnant since 1979, while higher-income earners have seen a 52% increase



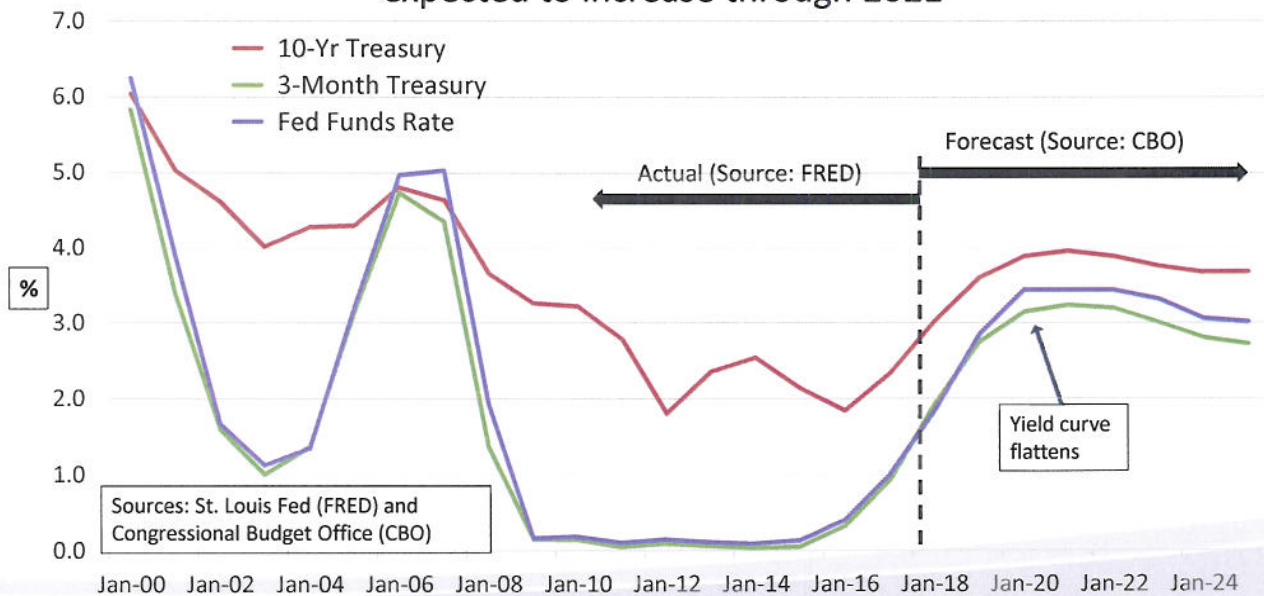
Note: The 50th percentile is the wage at which 50% of wage earners earn less. Source: Economic Policy Institute



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- As we reach full employment, we should see pressure for wages to increase.
 - Wages up 2.7% in last year. We have not hit 3% since recession.
 - However, there are frictions: Labor markets are local and many jobs in today's economy require very specific skills.
- United Way ALICE (Asset Limited, Income Constrained, Employed): While 16 million households live in poverty, more than twice that number earn "less than what it takes to survive in the modern economy."
- Many social scientists believe the increasing inequality is due to poverty traps:
 - The probability for children to attain higher incomes than their parents has dropped dramatically (Chetty et al. "Fading American Dream").
 - 90% of children born in 1940 would earn more than their parents but 50% of children born in the 1980s can expect to.
 - The likelihood of successive generations improving their lot in life has diminished
 - Consensus: the way to overcome this trap is through education.

Macroeconomic factor: Interest rates remain (historically) low, but are expected to increase through 2021

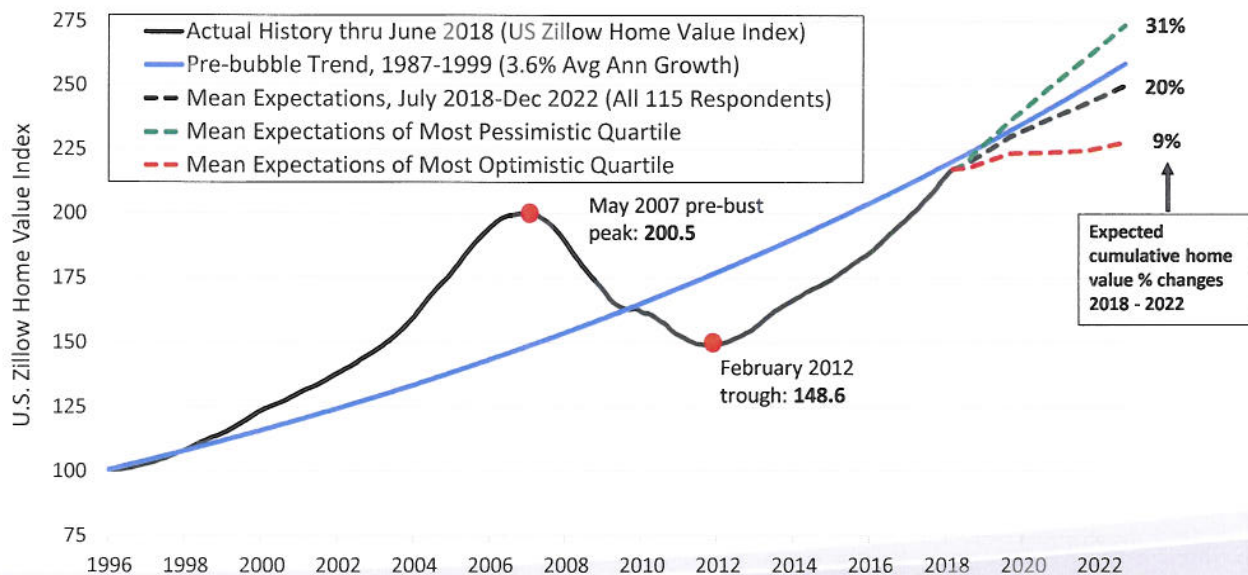


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- Fed Chairman Powell’s message: optimism spurred by improved data in recent months, continued data dependence with a close watch on inflation.
- One additional rate increase expected this year.
 - Increase at end of Sept was 6th since Trump entered office, and was the first since Trump criticized Powell re end of “easy money.”
- CBO forecasts have rates increasing quickly due to faster growth. This through 2021.
 - The yield curve is also expected to flatten (but not invert—that signals a recession)
- Previously, forecasts were flat after increase. Now, with increased deficits and slower economy, CBO forecasts that rates will decrease after initial increases.
- Things to remember:
 - Rates are still historically low
 - The Fed has ≈ \$4 trillion of securities on its balance sheet from QE. Starting to deleverage
 - Deficits will increase in the short run due to tax changes
 - As US debt increases, rates should increase.

Although house price appreciation has been faster in 2018 (as inventories continue to fall), data suggest the market *may* be starting to tilt back to buyers

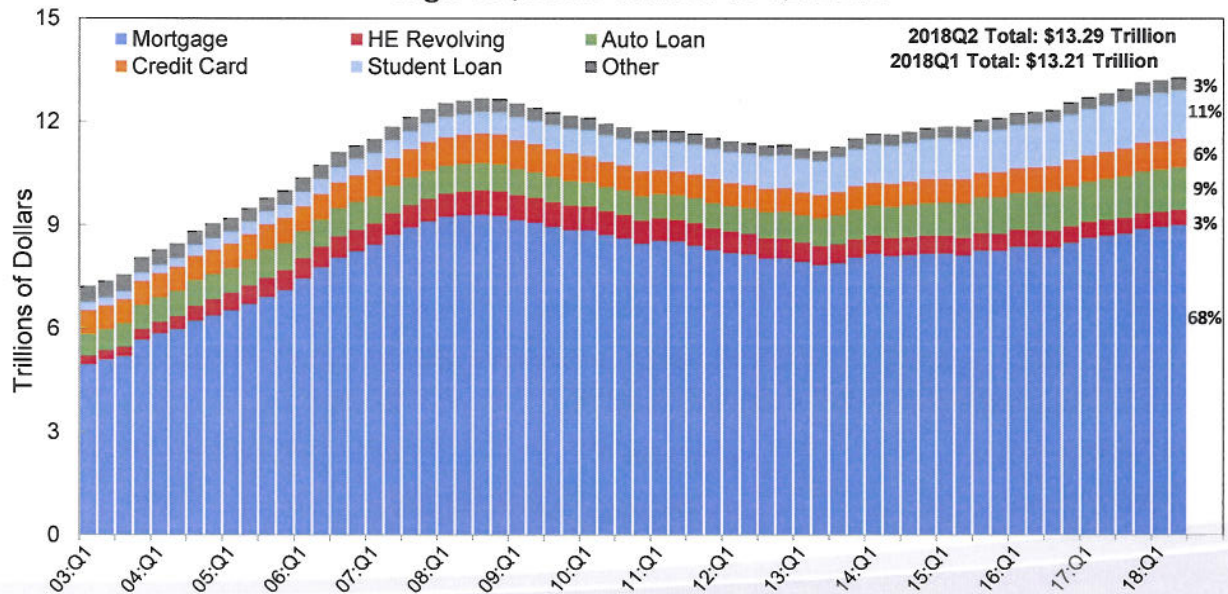


Source: Q3 2018 Zillow Home Price Expectations Survey
Powered by Pulsenomics

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- Interest rates affect affordability. As they go up, how do we expect them to affect house prices?
- Annual home-value appreciation has been faster in 2018 than it was in 2017, and inventory has fallen on a year-over-year basis for 42 consecutive months.
- These conditions have put sellers in the driver's seat for the past few years.
 - Inventories (months of supply) were 2.7 in Aug 2018 (Redfin). Six months is often considered a "balanced" market. This was last so at the start 2012.
 - New starts are 200-300k below 1.5 million needed to satisfy demand. Especially as millennials accelerate household formation.
 - As interest rates increase, will there be fewer incentives to move?
- Recently, data suggest the balance may be starting to tilt back toward buyers.
 - Home-value growth is slowing in more than half of the nation's 35 largest metros, and price cuts are becoming more common.
 - But even in those markets where appreciation has slowed, it remains above its historic average rate and sellers continue to have the upper hand, particularly at the most affordable price points.
 - Three out of four economists surveyed (by Pulsenomics) said the national housing market would not shift to a buyers market until 2020 or later.

Household debt increased in each of the last 16 quarters and reached a new high of \$13.29 trillion in Q2 2018

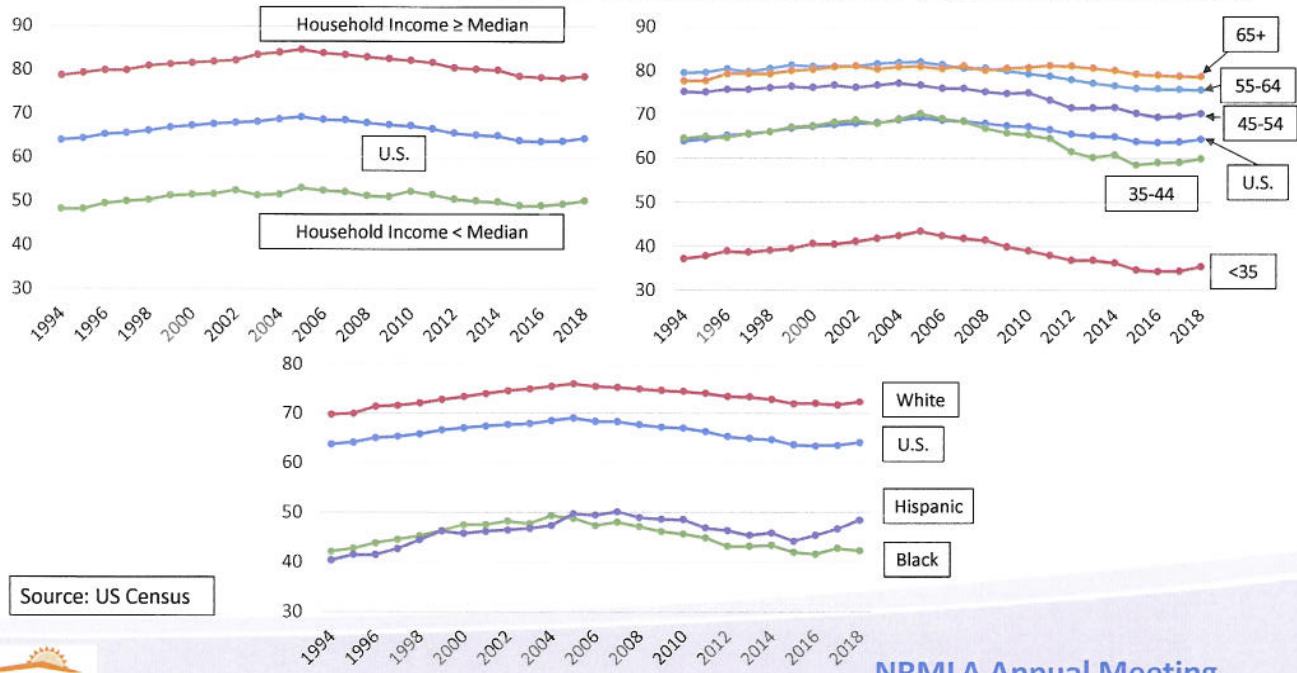


Source: New York Fed Consumer Credit Panel/Equifax

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- Household debt has increased by more than \$2.1 trillion in the last five years and reached a record \$13.29 trillion in the second quarter of 2018.
- Despite this growth, aggregate delinquency rates (driven by strong mortgage and home equity loan performance) continue to improve, and (only) 3 percent of loans were 90-days or more delinquent (“90+”) as of 2018 Q2.
- It would thus appear that current debt levels do not pose an excessive risk.
- While our focus is on home secured debt we cannot ignore disconcerting trends for other household debt components.
 - In the last 5-years student loan and auto loan debts grew by 40% (to \$1.4 T) and 50% (to \$1.2 T) respectively.
 - The decrease in credit card debt that followed the Great Recession is quickly being eroded and, approaching \$830 B, was up \$160 B from 2013.
 - The flow into 90+ delinquency for credit card balances has been rising and remains elevated.
 - The flow into 90+ for auto loan has been slowly trending upward since 2012, and the 90+ level for student loans remains high at 11%

As home secured debt has increased, have homeownership rates grown (by income, age and race)?

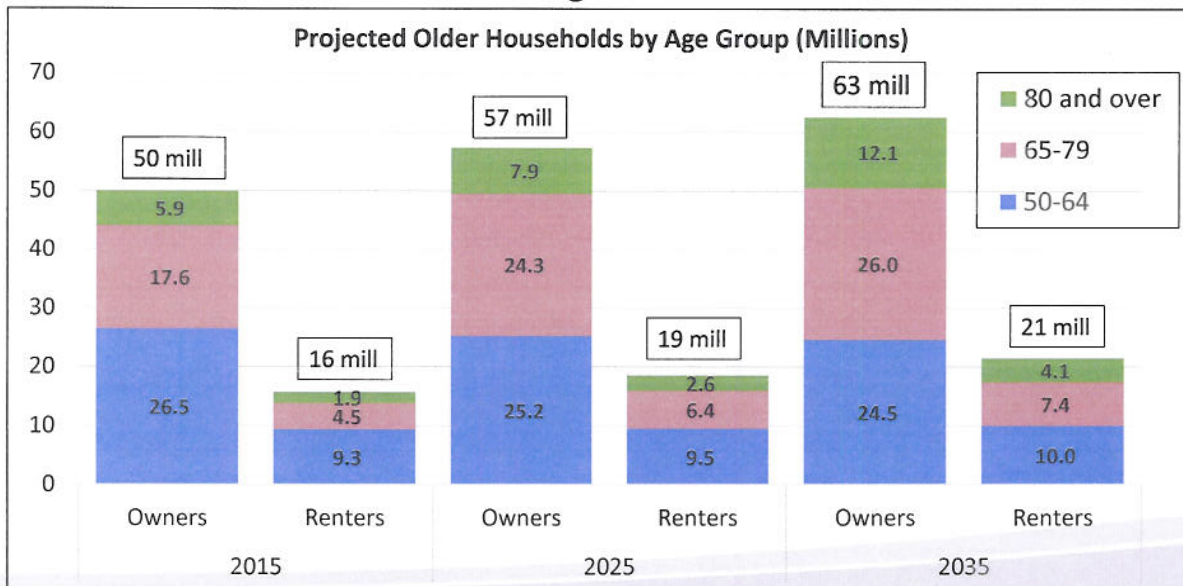


Source: US Census



- Homeownership (HO) rates for the US bottomed out at 63.5% in 2016.
 - This was the level in 1994.
 - Peaked in 2005 at 69%.
 - In Q1 2018 rates were up to 64.2%.
- HO rates increase with income. Bottom quintile at approximately 35%, top at 90%.
- Racial differences profound.
 - In the last year, rates for black homeowners dropped to 42%.
 - Rate was 7% higher in 2004. (White rate dropped by 3% over same period).
 - Interestingly, Hispanic rates have increased by over 4% in the last four years.
- HO rates by age (with a focus on older Americans).
 - Rates for HO aged 65+ holding steady at 78% (peaked in 2011 at 81%).
 - Rate even higher for households 75+ at approximately 83%.

America is aging—by 2035 one-third of households will be headed by someone aged 65 or older



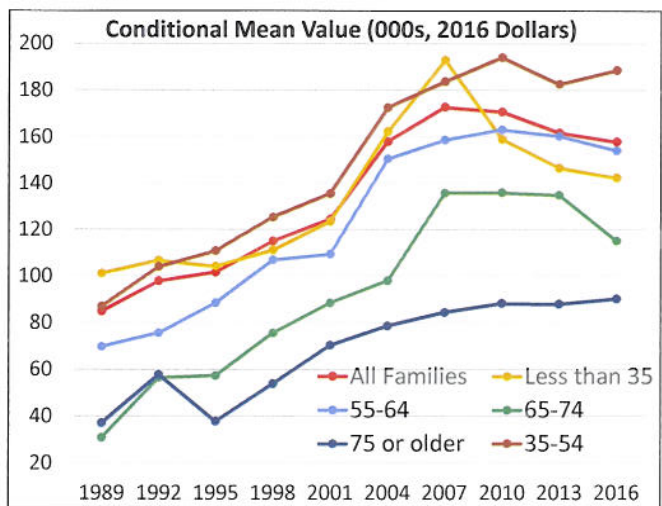
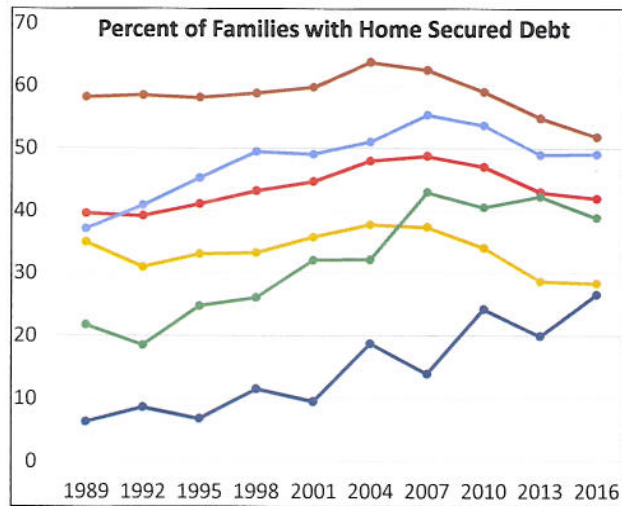
Source: Joint Center for Housing Studies of Harvard University

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- Over the next 20 years, the 65+ y.o. population will grow from 48 mill to 79 mill.
 - This is 30 mill → 50 mill households. One-third of households in US.
- In 2035, there will be 16 mill households that are 80+.
 - Of these 9 mill will be one-person households.
- HO rates among older Americans is high.
 - Expect over 12 mill homeowner households age 80+ in 2035.

Seniors are not averse to holding home secured debt



- Seniors aged 75+ were *four* times more likely to hold home secured debt in 2016 than in 1989.
- The value of debt held by seniors aged 65-74 grew by 270% (in real terms) and by 140% for those aged 75+ over this period.



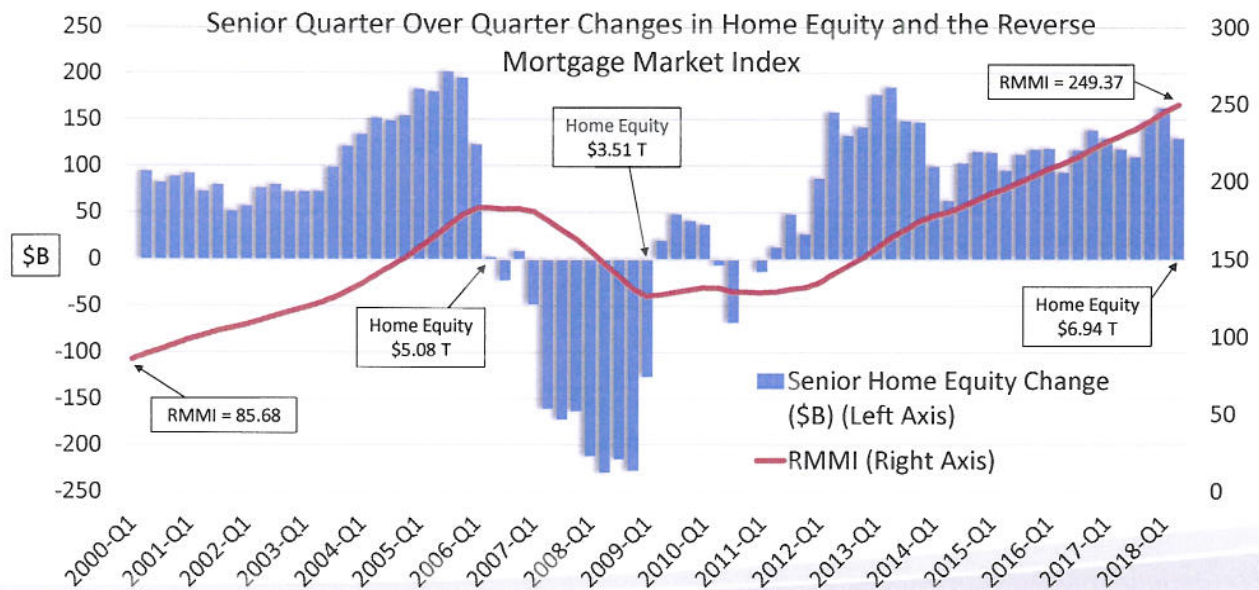
Source: Survey of Consumer Finances

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- Percentage of families with home secured debt has fallen since 2007. This is driven primarily by younger families.
 - After steep rise, households aged 65-74 have stayed at an elevated 40%.
 - Major increase for 75+ households. In 2016 survey more than 26% held home secured debt.
- Levels also up for those holding debt (see bullet on slide).

But do they have sufficient equity to cover the higher home secured debt?



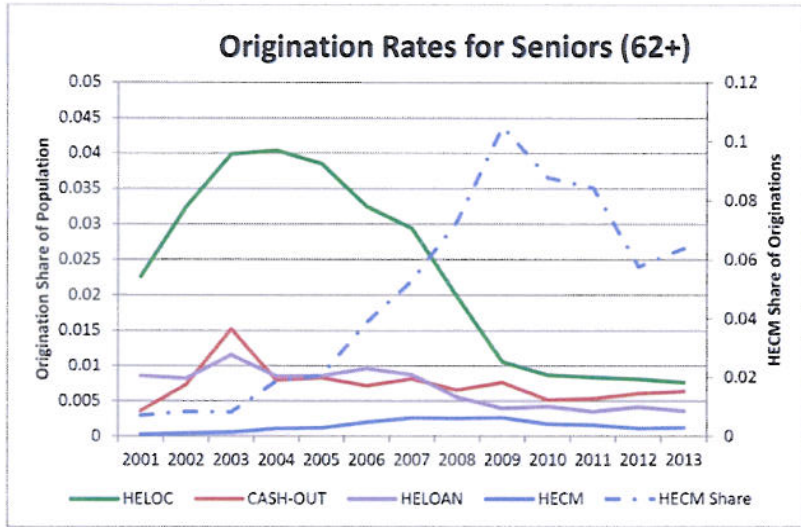
Source: NRMLA/RiskSpan Reverse Mortgage Market Index (RMMI).

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- Opportunities for seniors to take on additional debt is summarized by the quarterly RMMI.
- RMMI has tracked the reverse mortgage market since 2000.
 - Analyzes and reports on trends in senior home values and home equity levels.
 - Most recent RMMI, published in September 2018, hit an all-time high at 249.37. Reflects record senior home equity of \$6.94 trillion.
 - Note that total home equity is \$15.19 T
 - Pre-crisis it was \$13.42 T, bottomed out at \$6.04 T.
 - Note that senior home equity has been less volatile than total.
 - Fell by 30% versus 55% for total.
 - Is up almost 100% from 2009 Q1, total equity is up 150%.
 - Less leverage (i.e., lower LTVs) for seniors. Older, more established neighborhoods.

Seniors own homes in record numbers, home equity levels are at a record high and senior households are more disposed to hold debt...but extraction rates remain low



There is a lot of room for additional home equity extraction



Source: Stephanie Moulton et al., (2015), "How House Price Dynamics and Credit Constraints affect the Equity Extraction of Senior Homeowners." Federal Reserve.

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