



# INSIGHT



**Ruben Hovhannisyanyan, CFA**  
Senior Vice President  
Fixed Income

Mr. Hovhannisyanyan is a Generalist Analyst in the Fixed Income group. Mr. Hovhannisyanyan joined TCW in 2009 during the acquisition of Metropolitan West Asset Management LLC (MetWest). He joined MetWest in 2007 as a collateralized debt obligations specialist and in 2008 joined the portfolio risk management group. Prior to joining MetWest, he was an associate at KPMG Structured Finance Group where he was engaged in various projects analyzing structured products. Mr. Hovhannisyanyan holds a BA in Business/Economics from the University of California, Los Angeles (UCLA) and an MBA from the UCLA Anderson School of Management. He is a CFA charterholder and a Certified Public Accountant.



**Daniel S. Pace, CFA**  
Assistant Vice President  
Fixed Income

Mr. Pace works on the corporate credit trading desk focusing on investment grade securities. Before this role, he was a Generalist Analyst in the Fixed Income group. Prior to joining TCW in 2017, he was an Investment Associate with RBC Wealth Management where he was responsible for portfolio construction and manager due diligence. Mr. Pace received his BA in Economics from University of California, Berkeley. Additionally, he holds FINRA Series 7 and 66 licenses. He is a CFA charterholder.

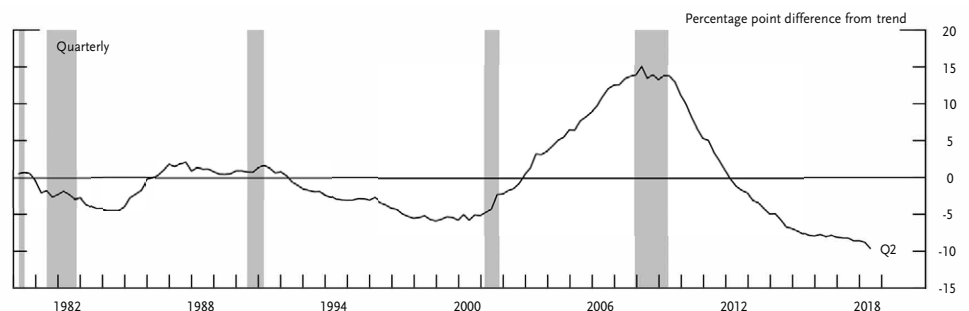
## VIEWPOINT

# Not All Deleveragings Are Created Equal

RUBEN HOVHANNISYAN, CFA & DANIEL S. PACE, CFA | 8 FEBRUARY 2019

The debt held by U.S. households currently stands at approximately \$16 trillion or roughly 77% of U.S. GDP. While the number is strikingly large, a number of market commentators and economists have recently noted the decline of this ratio since 2008 to suggest that consumer balance sheets are robust and consumers are in good financial health, despite the economy being late in the cycle. In his remarks to the Economic Club of New York on November 28, 2018, Federal Reserve Chairman Jerome Powell presented the chart below which shows that household debt is currently well below the long-term trend and actually, the lowest it has been relative to that trend since at least the early 1980s. The chairman also mentioned that “household debt has grown only moderately” since 2008 and that it “would not present a systemic stability threat if the economy sours.”

Figure 1: Household Sector Credit-to-GDP Gap



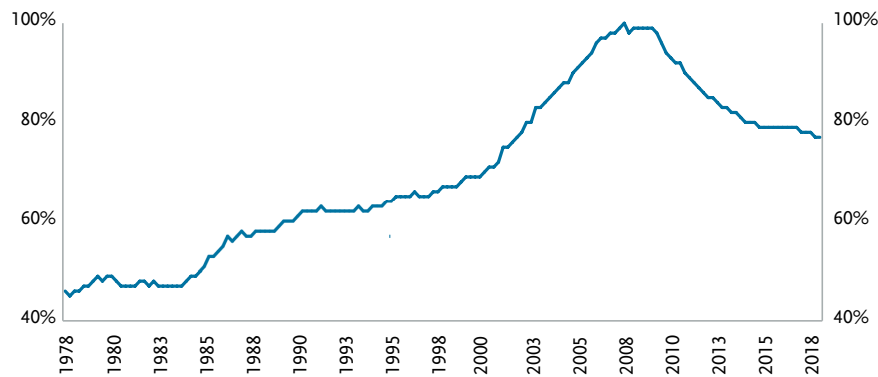
Note: Calculated using a Hodrick-Prescott filter with  $\lambda = 400,000$ . Shaded bars represent periods of recession as defined by the National Bureau of Economic Research  
Source: Federal Reserve Board staff calculations based on Bureau of Economic Analysis, national income and product accounts, and Federal Reserve Board, Statistical Release Z.1, “Financial Accounts of the United States.”

While we agree that U.S. households have collectively delevered since 2008 and are not as “stretched” as they were at the peak of last cycle, we think the chart above paints too rosy a picture. We think that taking a closer look at all available data reveals that the financial condition of the median U.S. household or average consumer, for that matter, is not as “healthy” as may be inferred from the chart above at first blush. Moreover, we think that although the average consumer probably has much lower *financial leverage* currently compared to pre-crisis levels, the *operating leverage* of the average consumer is much higher currently and the elevated operating leverage ought to be limiting the ability to assume incremental debt, all else being equal.

## Not All Deleveragings Are Created Equal

As shown in Figure 2 below, from the 1950s through the middle of the 2000s we witnessed several massive consumer leveraging waves that took the Household Debt to GDP ratio from sub-30% in the early 1950s to 100% at the end of 2008. The last leveraging wave started in the early 1980s and turned exponential in the early 2000s. In just eight years, from 2001 through 2008, the Household Debt to GDP ratio increased by a whopping 30%. To put this in context, the previous 30% increase in this ratio was accomplished over more than 40 years! Needless to say, this fast and furious household leverage growth was not sustainable and neither was the 100% Household Debt to GDP level reached at the peak of the last cycle. We do believe that there should be an equilibrium Household Debt to GDP ratio that may vary over time depending on income distribution, interest rates and other factors, but we do not think the Household Debt to GDP ratio should have a constant natural growth rate, let alone that such a growth rate can be extrapolated from the last 40 years of history as the chart in Figure 1 attempts to do. We believe that a trendline extrapolated from the growth rates experienced during the massive consumer leveraging cycle will inevitably overstate the sustainable leverage levels and misleadingly suggest that the current leverage level (and leverage growth rate) are well below the long-term sustainable level.

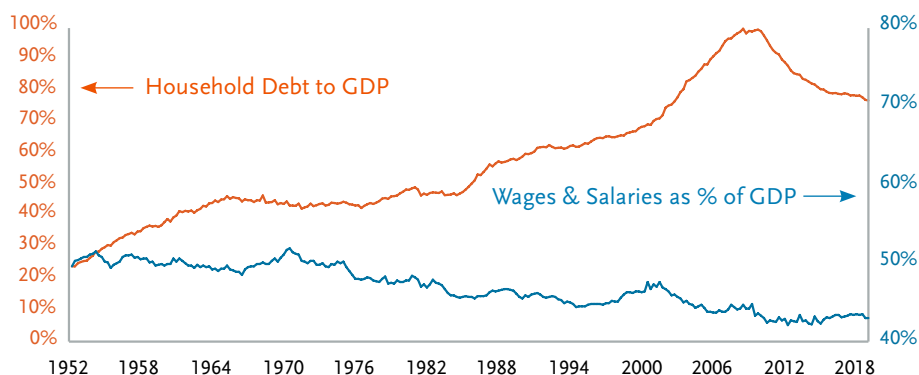
Figure 2: Total Household Debt to GDP



Source: Federal Reserve, Bloomberg, TCW

In examining the historical growth of household leverage, it should not escape one's attention that at the very time household debt exhibited explosive growth, the income used to service that debt, i.e. wages and salaries received by U.S. employees, has been trending down as a percentage of national output. As shown in Figure 3 below, wages and salaries paid to employees currently account for approximately 43% of U.S. GDP, down from 51% in the early 1950s and from 47% as of 2001. While the decline in wages and salaries as a percentage of GDP is beyond the scope of this paper and was likely catalyzed by a number of secular socio-economic dynamics, including automation, globalization and shifting of labor resources to lower income countries, a declining labor force participation rate, etc., we believe the trend is important in the context of household debt as it implies a diminished capacity to service household debt, all else being equal.

Figure 3: Household Debt versus Employment Income



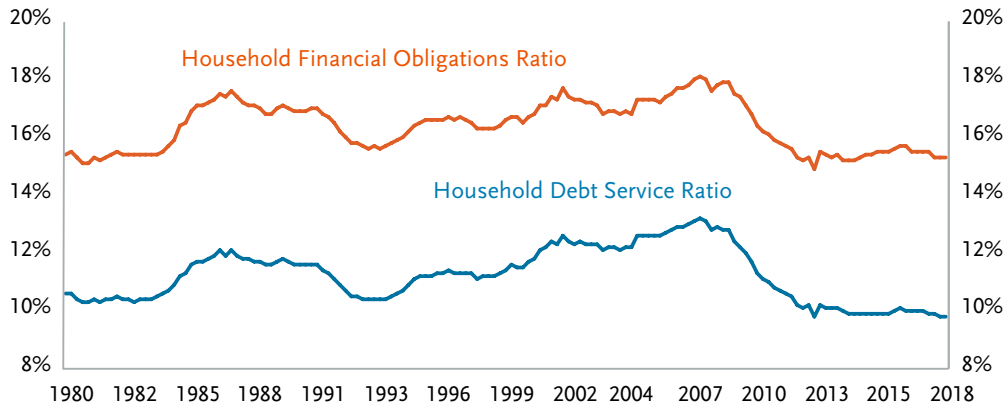
Source: Federal Reserve, BEA, Bloomberg, TCW

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One would fairly argue that low interest rates enjoyed by households today mitigate some of the impacts of a higher leverage ratio and declining employment income as a percentage of GDP. Indeed, measures of household debt service burden such as the Federal Reserve’s Debt Service Ratio and Financial Obligation Ratio are at or near historical low levels. These ratios reached all-time highs in 2007 and declined significantly after the Great Financial Crisis, as shown in Figure 4 below.

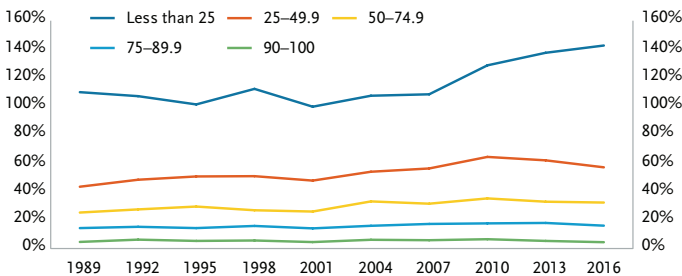
**Figure 4: Household Debt Service Ratio & Financial Obligations Ratio**



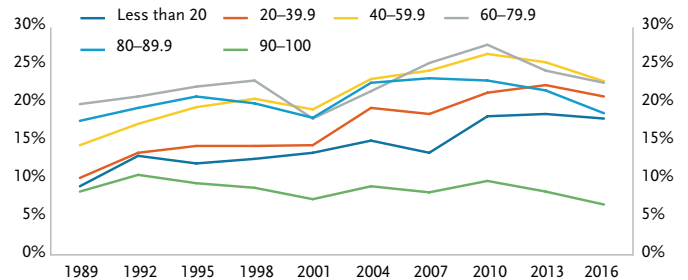
Source: Federal Reserve

There is no doubt that lower interest rates and consumer deleveraging have reduced the debt servicing burden from 2007 peak levels. However, one should be cautious when interpreting these aggregate ratios because they may be masking a much less healthy state of the average U.S. consumer. First, we would point out that the distribution of debt has become more uneven – both since 2007 and over a longer 30-year period. The charts below (Figures 5 and 6), obtained from the Federal Reserve’s triennial Survey of Consumer Finances, show that households in lower net worth and income cohorts tend to have higher leverage and importantly, have seen larger increases in leverage than wealthier households.

**Figure 5: Leverage Ratio\* by Net Worth Percentile**



**Figure 6: Leverage Ratio\* by Income Percentile**



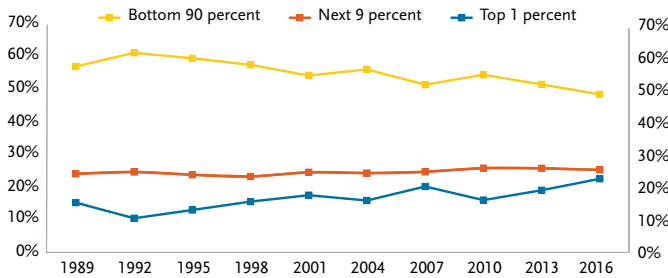
\*Leverage ratio is the ratio of total debt to total assets  
 Source: Federal Reserve Report on the Economic Well-Being of U.S. Households (SHED)

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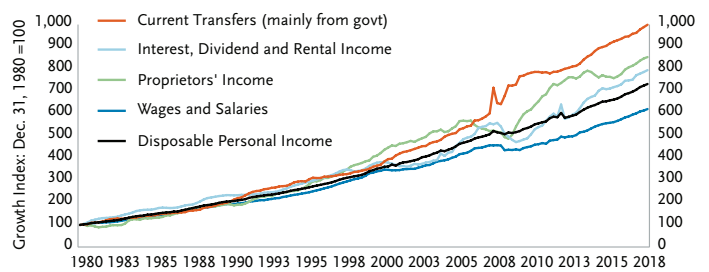
Secondly, examining Disposable Personal Income (the denominator of Federal Reserve’s Debt Service Ratio and Financial Obligation Ratio), we would argue that growing income inequality makes this aggregate number less useful for long-term studies (Figure 7). Taking a closer look at Disposable Personal Income (DPI) and its components over time, we note that the growth of DPI in the last several decades has far exceeded the growth in wages and salaries received by employees (Figure 8). The two series started to diverge in the early 2000s with the gap widening significantly in 2008. At the time, wage income took a large hit as unemployment reached 10% and the government stepped in to restore some of the lost income by increasing the amount of subsidies (unemployment benefits, food stamps, disability benefits, etc.). Interestingly, 10 years after this extraordinary (and at the time presumably temporary) shift we still do not see the gap closing, i.e. we do not see growth of wages and salaries accelerating and growth of government transfers decelerating. We would argue that employment income is virtually the only type of income available to the median household. Therefore, given the decoupling of employment income growth from DPI growth (Figure 8), the capacity of the median household to service debt is lower than might be implied from aggregate ratios which use DPI as the denominator (such as Federal Reserve’s Debt Service Ratio and Financial Obligation Ratio).

**Figure 7: Income Share by Income Percentile**



Source: Federal Reserve

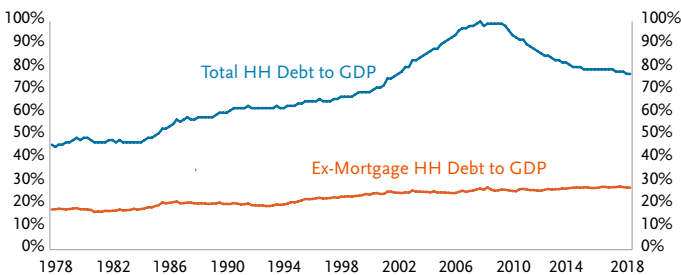
**Figure 8: DPI Growth Has Outpaced Employment Income Growth**



Source: BEA, TCW

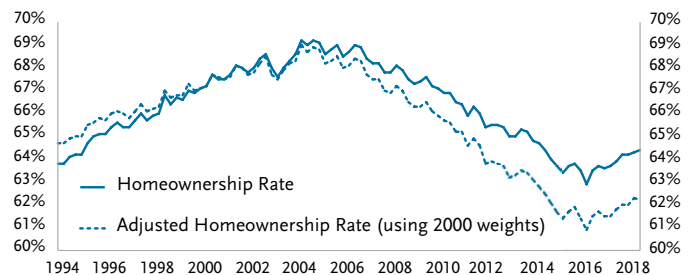
Lastly and importantly, not all deleveragings are created equal. The reduction of household debt since 2008 has been achieved solely through mortgage deleveraging, while household debt excluding mortgages has actually been climbing steadily since the recession and as of September 30, 2018 stood at ~27%, the same level as the previous peak in 2008 (Figure 9). This is an important observation because unlike most other types of debt, elimination of mortgage debt does not necessarily increase the debt servicing capacity of the borrower. As we know, homeownership rates are at multi-decade lows currently as a significant number of households have switched from owning to renting (Figure 10). In fact, the decline in the homeownership rate is even more pronounced if we keep the age group composition fixed at 2000 weights (dotted blue line in Figure 10) because older households tend to have higher homeownership rates and the percentage of older households has increased since 2000.

**Figure 9: Total HH Debt and Ex-Mortgage Debt**



Source: Federal Reserve, Bloomberg, TCW

**Figure 10: Homeownership Rate**

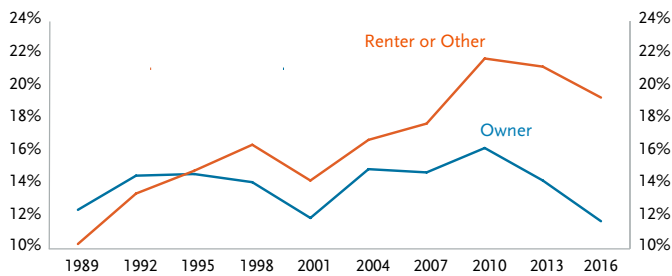


Source: U.S. Census Bureau, TCW

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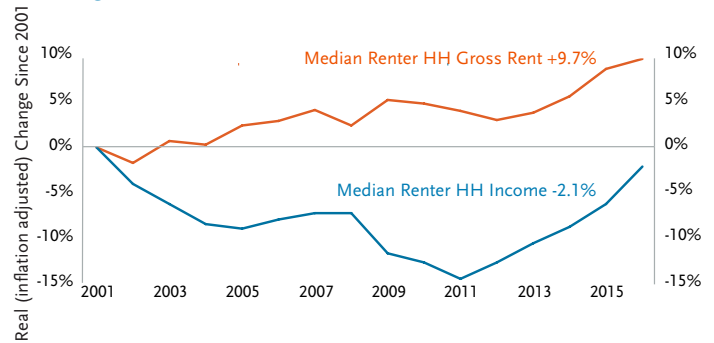
Owning a house has a consumption component as well as an investment component. From the perspective of monthly cash outlays, however, both mortgage payments and rent payments are significant portions of after-tax income. So, declining aggregate mortgage debt outstanding due to millions of households switching from owning to renting does not necessarily mean that households can assume and service more debt. It is similar to a large “operating lease” which does not show up on the balance sheet and hence, does not increase the leverage ratio, but significantly reduces ability to service additional debt. Moreover, one could argue that the median renter household is already “stretched.” The charts below demonstrate that the leverage ratio of the median renting household has nearly doubled in the last 25 years (Figure 11) and median household income growth has failed to keep pace with rent increases (Figure 12).

**Figure 11: Leverage Ratio\* by Owner or Renter**



\*Leverage ratio is the ratio of total debt to total assets  
 Source: Federal Reserve Report on the Economic Well-Being of U.S. Households (SHED)

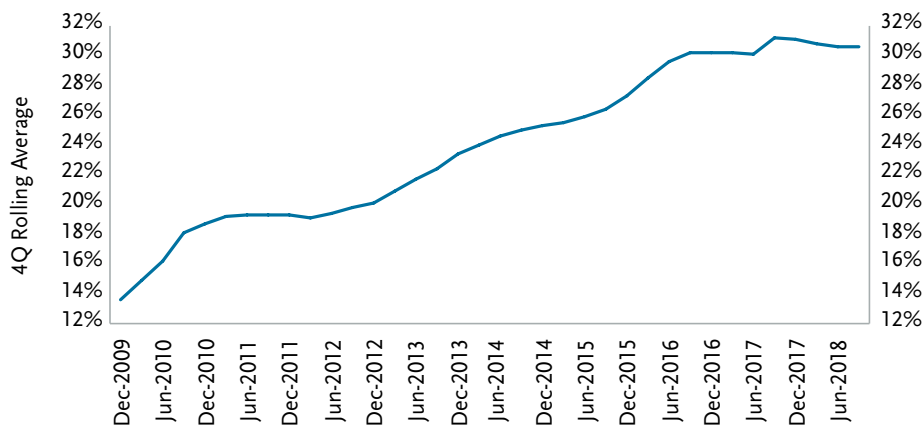
**Figure 12: Renter Households' Income versus Rents**



Source: American Community Survey 1 year estimates  
 Adjusted using CPI-U  
 Includes renters with no cash rent but positive utility costs/excludes renters with no cash rent or utilities

While less impactful than mortgages, we see similar “renting-for-owning substitution” dynamics in automobile consumption whereby the lease penetration rates have more than doubled since 2009 to reach 30% of all car sales (Figure 13). Similar to renting a house, leasing a vehicle versus purchasing will result in a lower leverage ratio, all else equal, but will not necessarily free up cash flows to service additional debt.

**Figure 13: Lease Penetration Rate**



\*Leased cars as a percentage of all new financed cars  
 Source: Experian, TCW

Putting all of the above together, we believe that despite the notable reported deleveraging for consumers since the peak of 2008, there are a number of factors – including subdued wage growth relative to GDP, shifting shelter costs from mortgage debt to rent, increasing use of auto leases, and rising leverage ratios for the lower income cohorts – that suggest that the additional borrowing capacity of the consumers most apt to borrow is less than robust and, perhaps, might be quite limited. ■

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