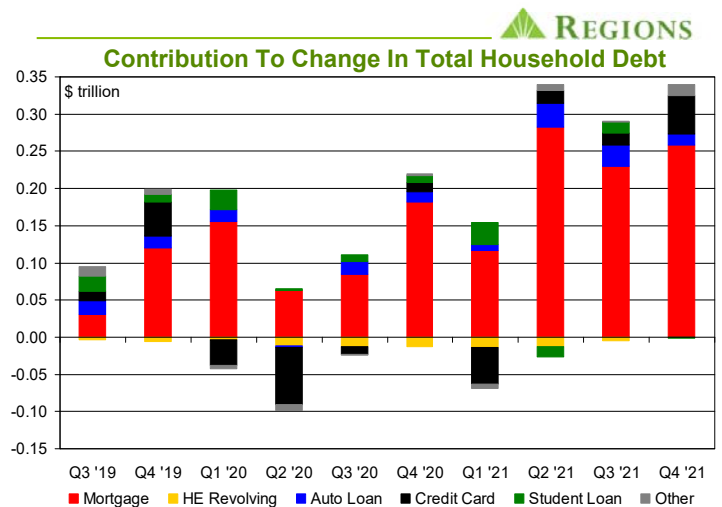
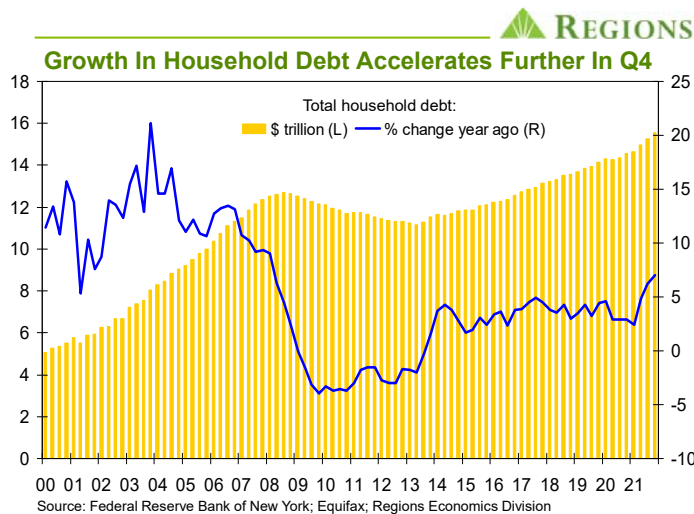


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Q4 2021 Household Debt and Credit: Debt Growth Accelerates, Higher Prices Playing A Role

- Total household debt rose to \$15.576 trillion in Q4 2021, an increase of \$333 billion from Q3 2021
- Mortgage balances rose by \$258 billion in Q4, non-mortgage debt increased by \$75 billion
- As of Q4, 2.72 percent of outstanding household debt was in some stage of delinquency, compared to 2.70 percent in Q3

There they go again. No, not U.S. households, who took on more debt in Q4 2021 than in any quarter since Q2 2007. Instead, we're referring to those who feel, as if simply out of reflex, compelled to chide U.S. households anew with each and every quarterly increase in household debt rather than trying to put that increase in any sort of context. The Federal Reserve Bank of New York (New York Fed), in conjunction with Equifax, has released their latest quarterly report on trends in household debt, which shows total household debt rose to \$15.576 trillion in Q4 2021, an increase of \$333 billion from Q3 2021. While mortgage debt again accounted for the bulk of growth in total household debt, Q4 also saw the largest quarterly increase in credit card debt in the life of this data series, which dates only back to Q1 1999. With the increase in credit card debt in Q4, total non-mortgage debt is now back above its pre-pandemic peak. For all of 2021, total household debt increased by \$1.02 trillion, the largest annual increase since 2007, at least in nominal terms. The overall delinquency rate on household debt rose trivially in Q4, to 2.72 percent from the 2.70 percent rate seen in Q2 and Q3 2021.

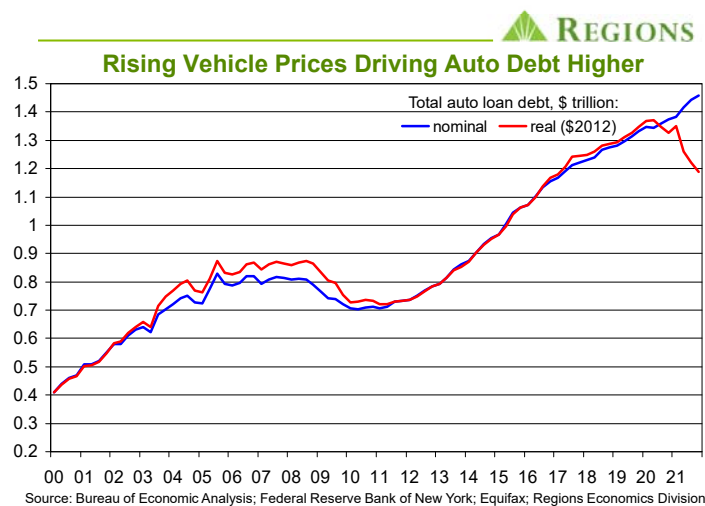
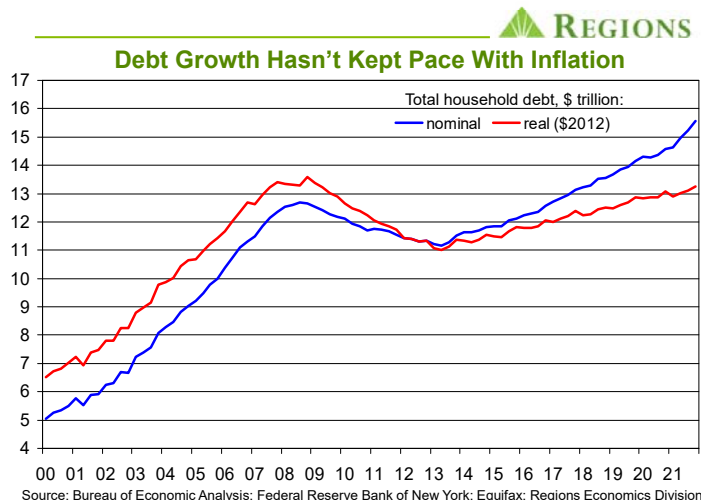


On an over-the-year basis, total household debt increased by 6.99 percent in Q4 2021, the largest such increase since Q1 2008. Note from the first chart above that prior to breaking out in Q3 2021, growth in total household debt had held within a fairly narrow range since mid-2014, when the prolonged period of deleveraging after the 2007-09 recession came to a close. While perhaps not at the pace seen over 2H 2021, it is reasonable to expect growth in household debt to settle into a pace faster than that seen from mid-2014 through mid-2021, particularly to the extent the recent acceleration in growth in auto loans and credit card debt is sustained. That said, a return of the days of double-digit growth, as in the early 2000s, seems harder to envision. Total mortgage debt was up 8.83 percent year-on-year in Q4, the largest such increase since Q1 2008, with auto loan debt up 6.11 percent, student loan debt up 1.35 percent, and other forms of household debt up 4.53 percent. At the same time, credit card debt outstanding was up 4.52 percent year-on-year, the first such increase since Q1 2020. While outstanding home equity line balances were down 8.88 percent year-on-year, balances actually rose sequentially, having risen by \$1 billion. This is the first quarterly increase in home equity line balances since Q4 2016, which could be nothing more than a statistical fluke or could reflect homeowners being more willing to tap into rapidly rising equity. With such sizable increases in owners' equity and rising interest rates, we suspect coming quarters may bring further increases in home equity line balances, even if we're not bold enough to make that a formal forecast.

That the Q4 data show the largest quarterly increase in household debt since Q2 2007 of course triggered the usual reaction from the usual crowd, with one headline proclaiming U.S. consumers had "returned to their spendthrift ways." Truth be told, knowing that, despite advanced degrees in economics and years of working in the profession, we simply can't come up with analysis as hard-hitting and insightful as this triggers a certain sense of shame. Then again, one can only do what one can do. In any event, it is worth noting

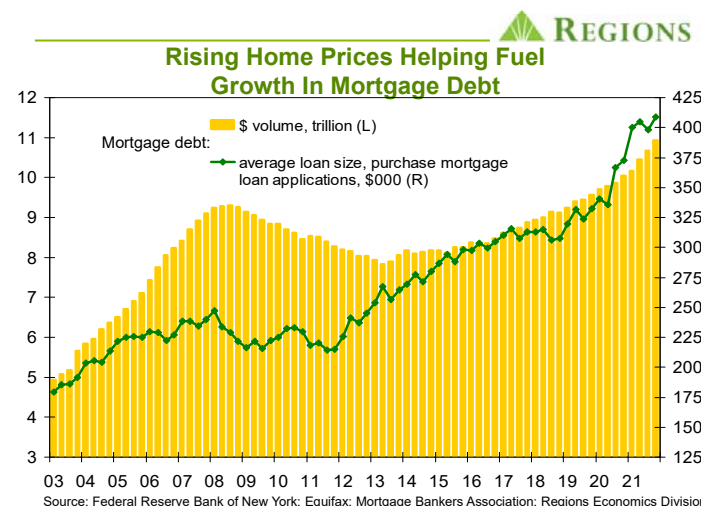
that rapidly rising prices, in the form of the inflation that proved to be not so transitory, contributed to accelerating growth in household debt over the back half of 2021. That growth in household debt has not kept pace with inflation is a point we've made in prior editions of these write-ups, but that disparity has been particularly striking over the past two quarters; despite growing at a meaningfully faster rate, household debt nonetheless continues to grow at a rate slower than the rate of inflation. This is illustrated in the chart to the side, which shows the level of total household debt on both a nominal (i.e., not adjusted for price changes) and real (i.e., adjusted for price changes) basis. Note that in real terms, the level of household debt has grown at a fairly steady, and modest, pace over the past several years, in stark contrast to the accelerating rate at which debt has increased on a nominal basis.

In a sense, it may seem pointless to consider debt in real, or, inflation adjusted, terms. Debt is, after all, issued and repaid in nominal dollars. That said, rising prices, whether for autos, homes, or whatever items one finances via credit card debt, effectively mean that consumers have to borrow more to finance the same level of consumption. Additionally, if interest rates are rising along with prices, servicing the debt takes a greater toll on disposable income. Rising prices are also not inconsequential for lenders, in that they are effectively being repaid in dollars that are worth less than when they were loaned out, even if charging higher interest rates helps offset some of the depreciation in real dollar terms. Note from the above chart that the disparity between growth in nominal and real levels of debt widened sharply over the past few quarters, coinciding with the acceleration in inflation, particularly in the rate at which prices for consumer durable goods, including motor vehicles, have risen and a significantly faster rate of house price appreciation.



The two charts above illustrate this point. The first chart shows the level of outstanding auto loan debt in both nominal and real terms. Rather than using a broad price index, such as the PCE Deflator or the Consumer Price Index (CPI), to deflate the series on nominal auto loan debt, we use the CPI sub-index of new and used motor vehicle prices, which have been rising at a considerably faster rate than the broader CPI. It is striking that for the two decades prior to the pandemic, the rate at which vehicle prices were rising and the rate at which outstanding auto loan debt was rising were closely aligned, hence the two lines being virtually on top of each other for most of this period. Since mid-2020, however, motor vehicle prices have risen at a significantly faster pace, particularly prices for used vehicles, easily outpacing the rate at which nominal auto loan debt has risen, to the point that real auto loan debt outstanding has declined in each of the past three quarters and in five of that past six quarters. Also, keep in mind that unit sales fell significantly after the onset of the pandemic and remain far below pre-pandemic norms, which reinforces the point that rapidly rising vehicle prices are the primary fuel for the growth in nominal auto loan balances. Though this may be the most extreme example we can point to, prices for other consumer durable goods such as appliances and furniture have also risen at a significantly faster pace over the past several quarters, and to the extent that those purchases are being financed, consumers have been taking on more debt to finance the same quantities of goods being purchased.

Rapidly rising house prices are having the same effect on growth in mortgage debt, i.e., higher house prices mean that larger loan sizes are more of a driver of growth in mortgage debt than are rising numbers of loans. For instance, the number of total home sales, new

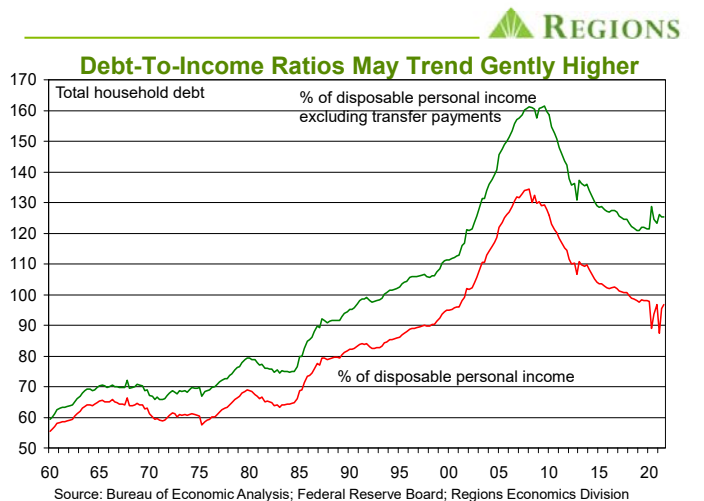
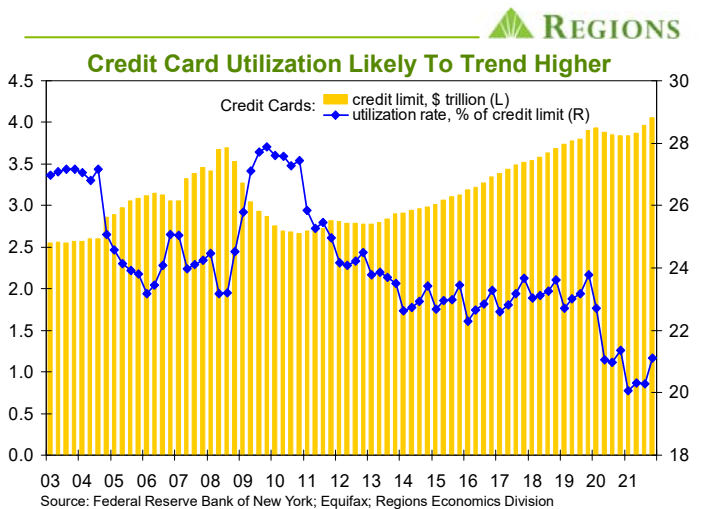


and existing, fell sharply in Q4 2021, but rapid growth in house prices was an offset in terms of mortgage originations and the level of outstanding mortgage debt. Data from the Mortgage Bankers Association (MBA) show the average loan size on applications for purchase mortgage loans has topped \$400,000 in three of the past four quarters, hitting a record high in Q4 2021, thus offsetting some of the impact of falling transactions volumes. It is worth noting that in the week ending February 4, the average loan size on applications for purchase mortgage loans rose to \$446,900, easily the highest on record. While rising mortgage interest rates will further dampen refinancing activity and likely curb demand for new home purchases, rising loan sizes will cushion the impact on the total dollar volume of mortgage originations.

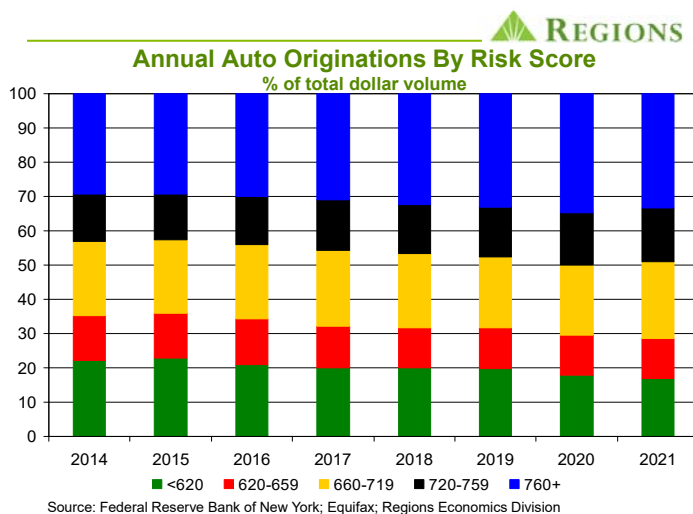
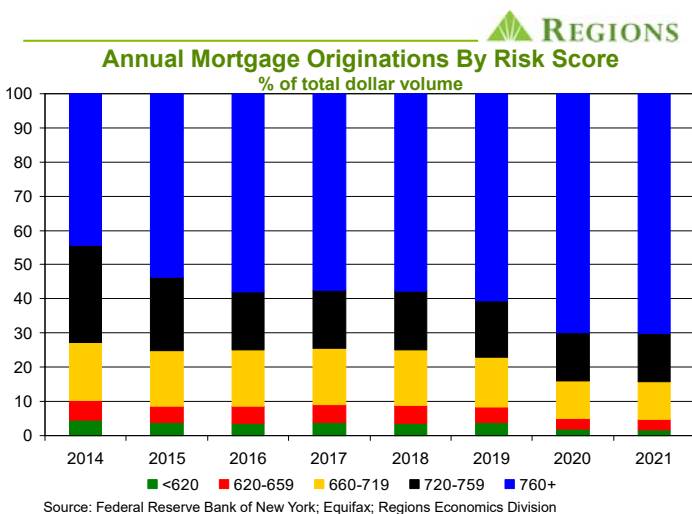
In addition to higher prices fueling growth in the nominal dollar value of household debt, another relevant point missed by those intent on scolding “spendthrift” consumers is the relationship between debt growth and income growth, which was materially altered by the pandemic and the policy response to it. Our take is that some early signs of this relationship normalizing were apparent in Q4 2021 and will become increasingly apparent over the first half of 2022. Generous financial transfers to the household sector significantly limited the financial effects of the pandemic, and indeed allowed many households to build up financial buffers that were larger than would have been seen in the absence of the pandemic. Survey data, such as the Census Bureau’s *Household Pulse Survey*, showed sizable shares of these transfer payments were used to pay down debt and build up savings, and our argument was that this was a key factor in the declines in non-mortgage debt, particularly credit card debt, seen in the quarters after the onset of the pandemic. As those financial buffers began to thin out, it was reasonable to expect debt levels, particularly credit card debt, to begin turning higher, and we think this will be the case to an increasing degree over the next few quarters. In other words, patterns in household debt will likely return to more normalized patterns than those seen over the past several quarters, which is not, nor should it be taken as, an indictment of consumers.

We can’t think of a better illustration of this point than patterns in credit card utilization, which we show in the chart to the side. Note the sharp decline in utilization rates, or, outstanding balances as a share of available limits, in 2020. Note that utilization rates were falling despite credit card lenders pulling back on credit limits on many accounts and even closing some accounts due to fears that they would not perform. To be sure, repressed spending on services played a role in declining credit card utilization, but so too did higher consumer cash balances, via transfer payments. Either way, consumers became much less reliant on credit cards to facilitate purchases of goods. Our view is that credit card utilization rates will rise further in the quarters ahead. It is important to note that there are clear seasonal patterns in credit card utilization and the data shown here are not seasonally adjusted. For instance, credit card utilization tends to rise sharply in the fourth quarter of any given year, reflecting holiday season spending, before falling sharply in the first quarter of the subsequent year, perhaps as the reality of holiday season spending begins to set in, with generally modest increases in utilization in the middle two quarters of any given year. In that sense, it is hard to determine how much of the jump in credit card utilization rate in Q4 2021 (even with an increase in limits) reflected holiday season spending and how much reflected thinning financial buffers and rapidly rising prices for food and consumer goods. In bold and decisive fashion, we’ll say it was some of both but, more importantly, we do expect utilization to trend higher over subsequent quarters.

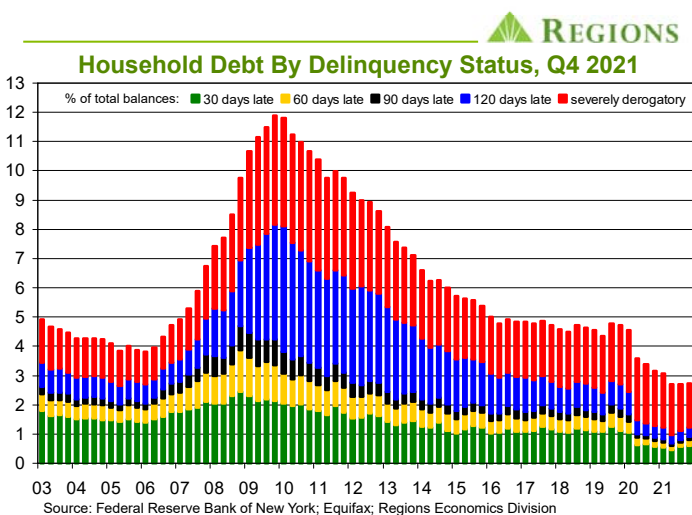
More broadly, patterns in income growth will continue to normalize over coming quarters, but if we are correct in thinking that the trend rate of growth in household debt will be faster than was the case in the years leading up to the pandemic, household debt-to-income ratios will likely trend higher, even if only gently so. It is worth noting that, after several quarters of gyrations in total personal income thanks to various rounds of transfer payments, the debt-to-income ratio (shown by the red line in the chart to the side) is basically back in line with its pre-pandemic trend. That this trend was downward reflects income growth having outpaced growth in debt in the years following the 2007-09 recession, a point consistently missed, or simply ignored, by those fixated only on the level of debt. What we think is a more relevant measure is the ratio of household debt to disposable income excluding transfer payments, shown in the green line in the chart to the side.



Disposable income measures after-tax income, and in our analysis of household debt we exclude transfer payments, in part because some of what are booked as transfer payments, such as Medicare and Medicaid payments, do not represent cash in consumers' hands but instead are payments to service providers. Moreover, other forms of transfer payments such as Social Security and unemployment insurance benefits are paid directly to consumers but are generally spent on necessities. As such, we see disposable personal income excluding transfer payments as the relevant pool out of which household debt obligations are serviced. Note that when measured on this basis the debt-to-income ratio is above pre-pandemic norms, in part reflecting the extent to which transfers have bolstered measured personal income over the past several quarters. The broader point, however, is that even if we are correct in expecting debt-to-income ratios to trend slightly higher over coming quarters, they will still be far, far below where they were prior to the 2007-09 recession. In that sense, "record" levels of household debt have little, if any, relevance particularly when there's, you know, a new one every quarter.



While mortgage originations remained highly concentrated amongst borrowers with credit scores of 760 or higher in 2021, they became a bit less concentrated as the year wore on. For full-year 2021, 70.18 percent of the dollar volume of mortgage originations went to borrowers with credit scores of 760 or higher, though by the fourth quarter of 2021 this share had fallen to 67.05 percent. In addition to what have been more stringent underwriting standards in the years following the 2007-09 recession, the heavy concentration of originations amongst borrowers with the highest credit scores reflects housing market conditions. Higher house prices and substantially limited inventories at lower price points have shut more and more prospective first-time buyers out of the market, particularly to the extent higher prices require larger down payments, and these borrowers would be more likely to have lower credit scores, whereas more financially established buyers with higher credit scores are better able to navigate through limited inventories and higher down payments. Auto loan originations remain more widely spread across credit score buckets, with borrowers with credit scores of 760 or higher accounting for 33.39 percent of all 2021 originations, down from 34.73 percent in 2020. The share of originations accounted for by those with credit scores below 620 also fell in 2021, to 16.80 percent, and the declining shares in the two tails were offset by a higher share of originations to borrowers with scores between 660 and 719, who accounted for 22.36 percent of 2021 originations.



As noted earlier, the overall delinquency rate on household debt rose marginally in Q4 2021, to 2.72 percent from 2.70 percent. While 30-day delinquency rates ticked higher by five basis points, to 0.61 percent, they nonetheless remain well below the rates that prevailed prior to the pandemic, which is also the case with 60-day delinquency rates, i.e., slightly higher in Q4 2021 but still far below pre-pandemic norms. To some extent, sizable transfer payments in response to the pandemic have weighed on early-stage delinquency rates (30-day and 60-day rates), but with these transfer payments largely having run their course and financial buffers thinning out, it is reasonable to expect some normalization in early-stage delinquency rates in the quarters ahead, though markedly improved labor market conditions, including robust wage growth, will act as a check on any such increase. Around 8,900 individuals had a new foreclosure notation added to their credit file in Q4 2021, with borrowers still afforded some degree of protection by federal/state government policies. This will be a metric worth watching as these protections expire in the quarters ahead.