US Consumer Deleveraging
Still A Long Road Ahead

It is three years since the nadir of the financial crisis that brought the US household credit boom to an abrupt stop. After the collapse in asset prices sent leverage ratios into the stratosphere in 2009, US consumers have been gradually reducing their debt; meanwhile the recovery in equity markets has done even more to bring leverage ratios back down. But US consumers have a lot more deleveraging to do. At best, household leverage is only about half way back to trend. At worst, structural changes in the US demographic picture mean prior upward trends in leverage need to be thrown out, into that same garbage bin that now contains prior assumptions of a persistent uptrend in US house prices.

In a nutshell, we may not even be halfway through the necessary deleveraging process in the US. That is the structural story. However we will also look at the cyclical issue of servicing current debt costs—here the story is a little brighter, at least for now.

How far does household leverage need to fall?

While it is popular to look at debt relative to income, we try to avoid comparing a stock (debt) to a flow (income). Our preferred measure of US household leverage is a debt/asset ratio (a stock/stock). As the chart below shows, this ratio has improved markedly since 2009. And after a hiccup due to the dip in asset prices during the soft patch of 3Q11, we estimate that deleveraging got back on track in 4Q. But this process has much further to go—and the question is, how much further?

![Debt / asset ratio shows US households still over-leveraged](chart)

If household leverage merely needs to return to the upward trend witnessed from 1960-2000, before the US household credit boom, then the correction from the peak leverage of 2009 is about half-way complete. But
returning to that long-term trend would bring us back to leverage levels witnessed in 2005-07 just before the bubble burst—hardly a comforting position to strive for! Moreover, since leverage ratios cannot rise forever, we have to ask ourselves if we have reached the end of this uptrend.

There are several reasons to conclude that we actually should have reached the end of this uptrend around the start of the 2000s, and that Americans only continued to leverag up because monetary and fiscal policy encouraged such exuberance (with the result being all too clear now). **There are rational explanations for the uptrend in household leverage from 1960 to 2000—but these factors have abated since then:**

1. **Demographics were supportive up to 2000; and then the US started to age.** While there are many differences between the US of recent and Japan in the 90s, the prime worker ratio is not one of them. The US started this century at roughly the levels that Japan was at by 1990, and then began to slope down at a similar rate. Of course, the US is not alone in having an aging population, but that does not change the fact that with fewer workers and more retirees, it is hard to argue for greater household leverage (leveraging up is usually for people with rising incomes ahead, not for retirees).

2. **Growing female participation in the labor force made household income more secure; but that was last century’s big development.** From 1960-2000, female participation in the workforce rose aggressively, from about 40% to 60%, driving overall participation up from less than 70% to almost 85% (looking only at those aged 25-54, to take out the impact of an age demographics from the headline 16 & over participation rates—see overleaf). This not only increased the number of workers in the economy, but as more families had two breadwinners this also enhanced income security. However, this bullish trend seems to have run its course by the end of the century. Since 2000, female participation has been flat to negative. Unlike the prime working age ratio, we do not expect
female participation to now collapse (in fact it could recover from the moderate drop of the last couple years). But female participation is already relatively close to male participation, and given the spread has quit narrowing since 2000, it may be that this spread will never narrow much more. As such, this driver for increasing leverage ratios has turned from positive to neutral.

3. The post-World War period was largely one of peace, prosperity, and increasing security. While the US was involved in conflicts, most notably the Vietnam War, there was no major world wars to distract from economic progress or wipe out human and financial capital. This allowed young workers to focus on technological advances and economic growth, while accumulated savings provided capital for investment as well as security against the loss of a job. In turn, households saw increased confidence in their ability to take on more leverage. All in all, we find this factor to be helpful in explaining the increased leverage near the end of the last century, but today we are relatively neutral/uncertain on this front. While we have not seen WWIII, the century thus far has hardly been the hallmark of peace and economic stability.

All in all, given these observations, it seems that it would not be sensible to expect US household leverage to continue to exhibit the upward sloping trend seen from 1960-2000. It would be more rational for US households to return to leverage ratios witnessed before 2000—perhaps to the levels of the 90s (which is certainly a much better period to aspire to than say 2005!). With that in mind, and now looking at the trend line in our debt/asset ratio chart on the first page, we see that the US households may have a lot of deleveraging ahead of them.

**Deleveraging is all about asset values & mortgages**

Most of the improvement from the peak in leverage has come from asset values, which have rebounded by almost 15% from their trough in 1Q09. But that 15% rebound merely corrects a similar fall in the few months...
US Consumer Deleveraging
Still A Long Road Ahead

While most of the volatility in leverage recently can be explained by asset price swings, liabilities have exhibited an unprecedented decline.

Going forward, if liabilities were to flatline, a return to the leverage levels witnessed during the roaring 90s, would require a 25% increase in asset values.

One way for the US to delever would be for debt to remain relatively constant and for the entire adjustment to occur through a change in asset prices. But to bring the debt/asset ratio back to 15%, as seen in the mid-90s, would require an epic increase in asset prices—rising roughly 25%, or up $19 trillion to about $92 trillion.

The other option is for debt to continue making a gradual decline—and more specifically, the reductions would need to come primarily in mortgage debt. At almost $10 trillion, mortgage debt represents about 70% of the $13.8 trillion in total household liabilities. A look at the...
mortgage books of US commercial banks, Fannie Mae and Freddie Mac, reveals a consistent message: mortgage debt outstanding was either flat in 4Q or declined only very modestly. Mortgage debt had been declining by about -0.5% per quarter since late 2008, but this decline appears to have taken a pause in 4Q.

Most other household liabilities are categorized as consumer credit, but it is a distant second-place category (at only about $2.5 trillion, representing just under 20% of liabilities). If we look at mortgage and consumer credit as a percentage of total assets, we see that the leverage issue is almost entirely one of mortgage debt relative to assets. From a broad deleveraging perspective, consumer credit is a side issue.

**Consumer credit is small, but contains an interesting story**

While much smaller than mortgage debt, and not high relative to total assets, the story in US household consumer credit is interesting. First of all, it has been growing in recent quarters (and according to the Fed’s G.19 report, growth picked up in 4Q, rising by about +1% or +$29bn QoQ).

And at first glance this may seem crazy. After all, many observers point out that consumer credit as a percentage of disposable personal income is still very high. But there are two issues with this assessment. First, much of this consumer credit growth has been in the form of federal government student loans. If we take government student loans out, the (non-student) consumer credit looks much less concerning relative to incomes (see first chart overleaf). Second, as we said before, looking at debt relative to income (stock/flow) is not necessarily the best approach. If we look at consumer credit as a % of assets (stock/stock), total consumer credit is actually already back in line with its long term mean. And excluding government student loans, non-student consumer credit as a % of assets is more than 1 standard deviation below the mean (2nd overleaf).

The only persons with potential consumer credit issues are the students and the government that sponsored those student loans. The lack of a broad leverage problem in consumer credit helps explain why consumer
credit growth has started to show some life in recent months—even outside government student loans.

**US consumer credit as % of disposable income looks scary**

But one should recognize that this is mostly due to government student loan growth.

We do not like to compare a stock to a flow, but in case you are shown this analysis, you should know much of the debt is government student loans.

Meanwhile, the structural leverage issue is primarily one of mortgage debt relative to assets.

**The more cyclical question: can they service the debt?**

We looked at the “stock” of debt above to analyze leverage levels from a structural point of view. For the more short term question of the current debt-servicing burden, we will now compare flows—namely, the cost of servicing the debt (along with some other non-interest financial obligations) vis-a-vis disposable income. The Fed’s household debt report provides such financial obligation ratios (or FORs). As one might guess, extremely low interest rates have driven interest payments down, and with
US Consumer Deleveraging
Still A Long Road Ahead

While overall leverage remains high, cheap money is taking stress off indebted US households.

Even including energy expenditures, US financial obligation ratios remain quite low—at least for now.

That being said, the continued rise of oil also increases expenditures on gas, which are in the near term nearly obligatory (oil consumption is elastic over the mid- to long-term, but it is tough to curtail consumption habits very quickly). But even if we also add in energy outlays, total US household financial obligations were at about 22% of disposable income at the end of 3Q, almost 1 std deviation below the mean since 1980 (and we suspect 4Q data will show this ratio also fell below 1 std deviation). See blue line below. (Please note the FORs above and below are different because the above is for homeowners only, while the below includes renters.)
Conclusions

US households have more deleveraging ahead of them—at the very best, we are only half-way there. From the peak of leverage in 2009 (the inverse of a trough in asset values), the most optimistic assessment might be that the US household is about half-way back to “normal levels”—but we do not subscribe to this most optimistic view, as this is only the case if we define “normal leverage” as either the levels witnessed in 2005-2007 (the years before the bursting of a bubble are hardly deserving of imitation) or a return to the upward trend from 1960-2000 (but due to major demographic changes around the turn of the century, we are not sure this uptrend is sustainable). More realistically, the US consumer needs to eventually deleverage back to levels seen prior to 2000—which means we are less than half-way there, and the deleveraging process could take years still.

Low interest rates are allowing US households to take their time, for better or worse. Even when including energy outlays, US household financial obligation ratios have collapsed from the extremely high levels before the crises of late 2008 to the extreme lows of today, despite leverage still being quite high. This has of course been one of the aims of policymakers, and thus far they have had some clear success. This, along with rebounding growth outlooks from the lows of the 2011 soft patch, helps explain why US consumers have shown some more confidence recently. Indeed, the positive way of looking at it is that low interest rates allow the deleveraging process to occur with much less acute pain (consumers can buy some new cars and maybe even buy up some houses on the cheap soon). Thus, for now, we remain cyclically bullish on the US in general (especially relative to the rest of the world), and the rally in consumer discretionary stocks could continue to find support.

In both the short and long run, however, the risks remain plentiful. With the Fed trying to “give it everything it’s got” (and thus not repeat Japan’s experience), inflation expectations could come unanchored, thereby driving up interest rates. Given how low financial obligation ratios are, there is wiggle room for some moderate normalization of interest rates (say a 100-150bp rise) or a moderate rise in oil, especially if personal income growth keeps rebounding—but if oil prices and/or inflation expectations shoot up and we get a much larger rise in interest rates, this could spell trouble in the near term. In the long term, the large amount of deleveraging still necessary likely means US consumer plays will structurally underperform. Alternatively, if US policymakers successfully reignite another household credit boom before the necessary correction has completed, we could soon find ourselves in another crisis before long.

It would be unfortunate if easy money conditions allowed Americans to quickly forget the lessons learnt during the financial crisis. Long term, US consumers need to live within their means. This is why structurally, we remain overweight the non-consumer business sector in the US; the average US business’s balance sheet is much healthier than the average US household and US companies are in a competitive position. This in turn should help drive US asset prices higher and keep the deleveraging process on track—but there is no quick fix.