U.S.

Economic Watch

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Economic Analysis

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How much deleveraging?

The household debt-to-income ratio is in for a prolonged decline

- **We expect the debt-to-income ratio to reach close to 1.0 in 2015**
- **With a slow return to above 5% nominal mortgage growth, deleveraging will advance**
- **Deleveraging enabled banks to gain ground on private securitzers, but not public securitizers**

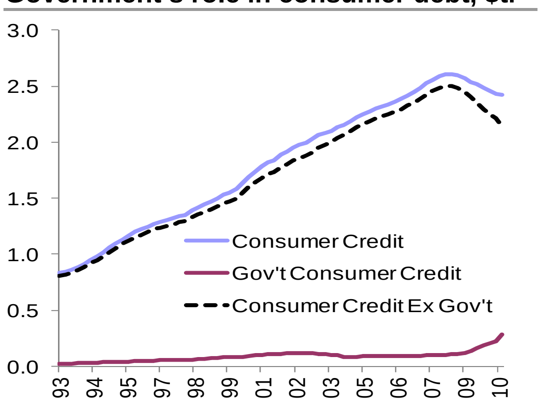
Top-line household deleveraging is typically – but not exclusively – measured through the household debt-to-income ratio. Other possible measures of deleveraging can delve into the household balance sheet's composition of savings and liquid assets, financial obligations ratios or debt-service ratios. This brief will focus on the debt-to-income ratio, which comprises mortgage debt, consumer debt and "other" debt (all data from the Federal Reserve's Flow of Funds). Personal income is from the Bureau of Economic Analysis and represents the denominator. Mortgage debt, naturally, consists of residential housing loans to households and grew immensely during the most recent home price bubble. This category includes secondary loans and home equity loans. Consumer debt consists of personal loans, auto loans and credit card debt. Other loans consist of various government programs like loans on federal life insurance, receivables due for Veterans benefits, FEMA, community development loans, HMO loan financing, and many more.

Besides the usual observation that households bulked up on residential loans prior to the crisis, this decomposition of consumer credit offers two novel insights. First, other loans grew dramatically during the crisis as a result of the government becoming more lenient with households missing payments on government programs. High unemployment also caused these receivables to climb. In total, other loans are a small part of the debt-to-income ratio, but we need to capture its dynamics nonetheless. Second, within consumer debt another role is played by government as the sole provider of student loans. This is more easily-viewed on the Federal Reserve's G19 Release, but the same data is utilized in the Flow of Funds. Due to both the crisis and new legislation, the government is the only provider of student loans, and growth of this form of government consumer debt is high. Deleveraging would be much sharper extrapolating from government consumer debt, as Chart 1 suggests.

Given the above discussion, the mortgage debt of households is truly driving the debt-to-income ratio, as other and consumer debt's combined $2.82tr does not match the heft of $10.1tr in household mortgage debt. The dynamics of the outstanding stock of household mortgages is reflective of refinancing, default, prepayment, new originations and home price fluctuations. Moreover, we now know much more about the

Chart 1

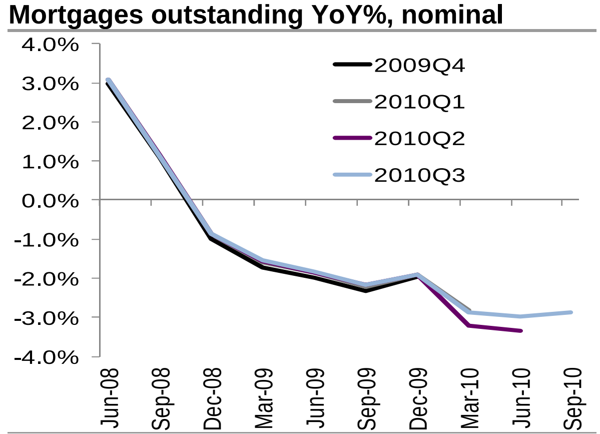
Government's role in consumer debt, $tr



Source: Federal Reserve and BBVA Research

Chart 2

Mortgages outstanding YoY%, nominal



Source: Federal Reserve and BBVA Research deleveraging dynamics of this series than we did at the beginning of the crisis. Two of the driving issues in scrutinizing this series have been the stimulus program and data revisions. As Chart 2 reveals, at each quarter in history, our view of the effect of the stimulus and also the unraveling of mortgage debt subtly changed. A clear indication now is that the pattern of decline in total outstanding mortgage credit resembles a gradual reduction over time, rather than sharp swings one way or the other. What the data tell us so far is that the deleveraging process is continuing in an orderly, but lengthy fashion. Using the historical data, we relate the outstanding mortgage credit to the CoreLogic Home Price Index, the 30-year mortgage rate, GDP growth, inflation and existing home sales to generate a forecast (Chart 3). This model suggests that we will see around 20 quarters of peak-to-trough decline when applied to the household mortgage credit series used in the Flow of Funds data.

We conservatively model other debt and expect that it continues its robust growth over the next few years while unemployment remains elevated. We estimate that consumer credit follows on its expected -3.75% average nominal YoY growth in 2010 with growth rates of -0.9 in 2011, 2.1% in 2012 and 4.1% in 2013. These are low rates compared to a historical average of 8.2% YoY 1950-2010, but strong compared to the extent of employment reduction during the crisis. Personal income growth is conditioned on the current BBVA baseline forecast for GDP and employment growth.

When we put all these forecasts together and calculate our estimate for the debt-to-income ratio, the intuition is that the United States is headed for a roughly 1.0 debt-to-income ratio (Chart 4). This is a considerable amount of deleveraging lasting several years, so how sensitive is it to the household mortgages forecast? As it turns out, even with an extremely optimistic scenario for household mortgages forecast, the debt-to-income ratio will still reach a near 1.03 value (Chart 5). This illustrates the pinnacle of the problem: as long as household mortgage growth remains below 5%, we will continue to see deleveraging since mortgage growth will not be able to outrun income growth (Chart 6).

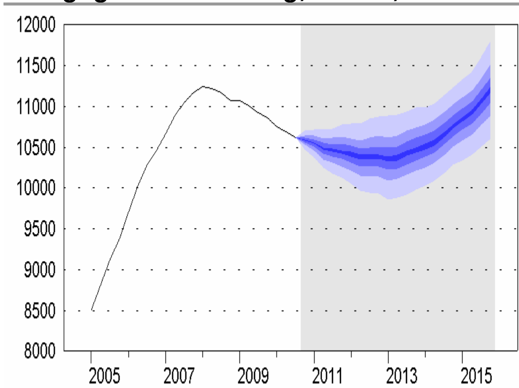
It is possible that the mortgage market could turn-around more quickly than we expect, but even with an optimistic scenario the deleveraging continues. January 2010 forecasts by government-sponsored entities (GSEs) such as Fannie Mae envisage more deleveraging in the total outstanding mortgages than our forecasts. Another alternative exercise is to take the expected home sales for the year and multiply it times the average home price. In an environment of constant prices, 500k new home sales over the year at $200k per home increase the outstanding level of mortgages by only $100bn. This amount has to contend with continuing foreclosures, default, and prepayment of loans and securities. In general, it will take a lot of new home sales and price increases to counteract the trends we outlined above. Since this is not expected, it implies a considerable amount of deleveraging moving forward. Government's role is on both sides of the ratio. Government transfers have improved the income denominator and at the same time government lending and mortgage modification programs partially stemmed sharper decreases in the debt numerator. The next state, naturally, is for the government to deleverage itself after having taken measures to allow household balance sheet repair in an orderly manner.

Strategic Implications of Deleveraging: Which Firms Benefit?

Commercial banks are slowly preparing for the future. The loan-to-deposit ratio for commercial banks is at its best level in some 15 years, but the ratio will continue declining for several months as loans decline YoY and deposits increase YoY (Chart 8). The loan-to-deposit ratio is mainly a liquidity measure. Combined with the observation that banks have greatly reduced their reliance on noncore and wholesale funding sources, these measures suggest banks are flush with liquidity. It also details that ample room for expansion of loans exists when the time arrives. Adjusting for FASB accounting changes would reduce this ratio further.

Chart 3

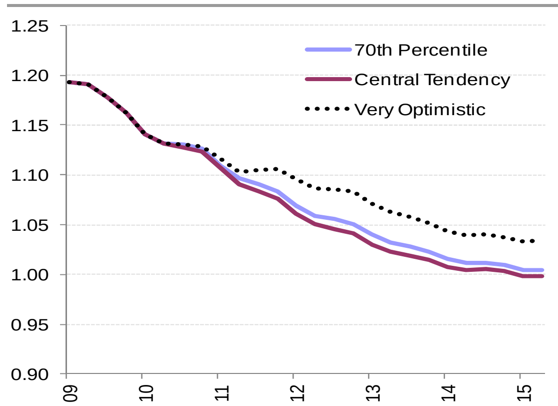
Mortgages outstanding, in $bn, nominal



Source: BBVA Research

Chart 4

US debt-to-income ratio scenarios

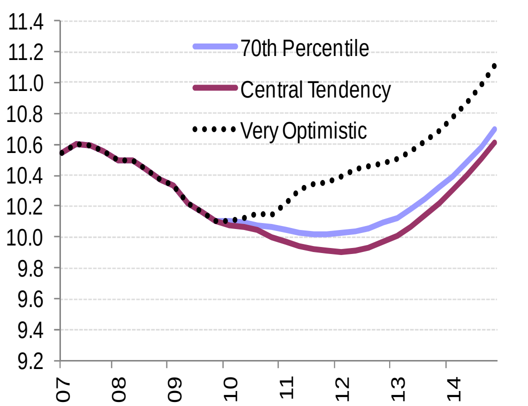


Source: BBVA Research

The total outstanding mortgages series tells us that finance companies, real-estate investment trusts (REITs), asset-backed securities (ABS) issuers, and savings institutions lost considerable share of the total since the crisis. Collectively, finance companies, ABS issuers and REITs are private securitizers. Since the crisis, commercial banks gained ground against these private securitizers, but lost ground against the public securitizers (the GSEs and the mortgage pools) as Chart 7 suggests.

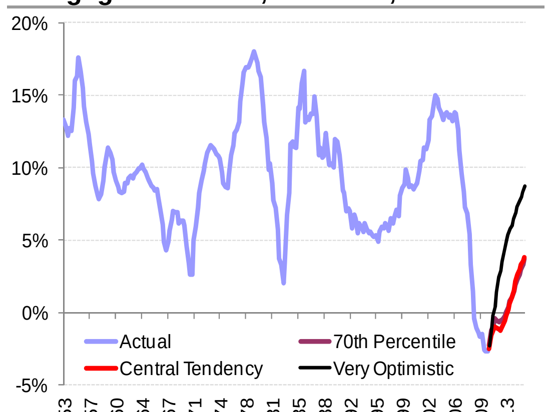
It is likely that lasting damage has been done to lightly-regulated securitizers of home mortgages. This will limit price-based competitive pressures in some areas of mortgage lending. Economies of scope in mortgage lending also benefit commercial banks more than other organizations. The availability of these scope economies allow commercial banks to survive in regulatory conditions that will sink firms that relied on regulatory arbitrage as a business model. However, the public-backed securitization of mortgage credit remains in place. Today investors are reluctant to buy mortgage-backed securities (MBS), but with time this will reverse course. It remains unclear if the GSEs will be fully or partially-privatized by the government in future reforms. However, what is impossible to remove is the dominance of securitized mortgage credit, which still consists of 70% of total outstanding mortgages, representing the sum of the private and public securitizers. Outside of this purview, commercial banks can expect a great opportunity.

Chart 5
Mortgage scenarios, in $tr, nominal



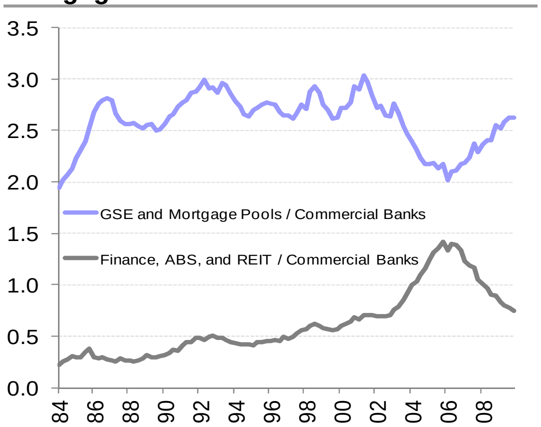
Source: BBVA Research

Chart 6
Mortgage scenarios, in YoY %, nominal



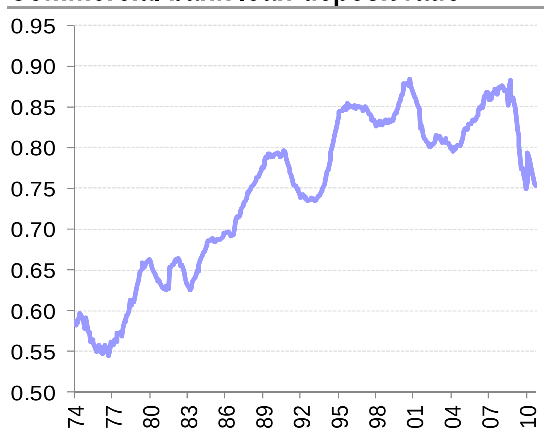
Source: BBVA Research

Chart 7
Mortgage loan ratios



Source: Federal Reserve and BBVA Research

Chart 8
Commercial bank loan-deposit ratio



Source: Federal Reserve and BBVA Research

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