

August 20, 2010

## US Economics

### Deleveraging the American Consumer: Faster than Expected

#### **Consumer debt closer to sustainable level:**

American consumers are deleveraging their balance sheets and rebuilding saving faster than expected. While debt/income is still elevated, two key metrics indicate that the deleveraging timetable is nearly a year ahead of schedule. Looking forward, the plunge in mortgage rates likely will push debt service still lower. And the headwind to consumer spending from deleveraging will be a smaller risk to the outlook, as consumers now can spend more of their income.

**Calibrating consumer deleveraging:** We believe that 11-12% is a sustainable debt-service ratio, consistent with debt/income of 80-100%. The first of those goals likely is attainable by late this year, accompanied by real annualized spending growth of 2-2.5%, a personal saving rate remaining in a 5-6.5% range through 2011, and a 2009-11 contraction in consumer debt of about 8%.

**Implications of deleveraging:** Lower debt service frees up discretionary spending power and makes consumers more creditworthy. Once achieved, a higher saving rate enables consumers to maintain spending, continue to pay down debt and accumulate wealth the old-fashioned way.

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## Deleveraging the American Consumer: Faster than Expected

Richard Berner (New York)

**Grim legacy.** The bursting of the credit and housing bubbles triggered unprecedented retrenchment among American consumers. Record debt, plunging housing and financial wealth, and significant income losses undermined wealth, wherewithal and confidence. History suggests that recovery following financial crises is tepid at best, because it involves a long process of deleveraging balance sheets and rebuilding saving. Efforts aimed at restoring a more sustainable relationship between household debt and consumers' ability to carry it mean that even growing income may not produce much spending bang for the buck. The latest retailing data seem to confirm that these powerful headwinds to recovery are at work today.

**Closer to sustainable, but still a sea change.** We have long agreed with the basic deleveraging story.<sup>1</sup> But there is surprisingly good news: American consumers have deleveraged their balance sheets and rebuilt saving faster than expected. While debt-to-income ratios and other measures of leverage are still elevated, household debt service is lower and saving higher than expected in relation to income. We estimate that the deleveraging timetable is nearly a year ahead of schedule. Looking ahead, the recent plunge in mortgage rates likely will push debt service still lower.<sup>2</sup> Consequently, in our view, the headwind to consumer spending from deleveraging is now a smaller risk to the outlook, as consumers can spend more of their income.

Importantly, our story is optimistic only by comparison with the now-gloomy standard forecast. In our view, the key tail risk is still lodged in housing and home prices, as about one in four homeowners with a mortgage owes more than the house is worth. That is leading to a wave of "strategic defaults," in which borrowers who can otherwise afford to pay decide to walk away. Whether through foreclosure or strategic default, more

<sup>1</sup> See "Deleveraging the American Consumer," May 27, 2009.

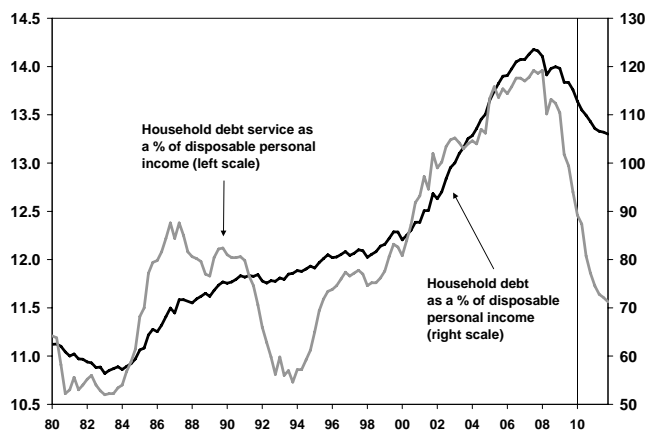
<sup>2</sup> Refinancing opportunities for government guaranteed mortgages could be expanded significantly if the government guarantee was extended to the refinanced loans. That could lower rates for borrowers and streamline the refinance process. We estimate that households would save \$46 billion annually if the mortgage rate could be reduced by 125 basis points on 50% of the outstanding volume of such mortgages. At the very least, regulators could waive the so-called "put back" authority for refinancing of agency-backed mortgages. This would help to unclog the refi pipeline at zero cost to the government. See "Slam Dunk Stimulus," July 27, 2010.

mortgage chargeoffs are coming. We think that the sea change in consumer behavior wrought by recession will persist over the next several years, as dim prospects for gains in household wealth will maintain an elevated saving rate, limit the eventual recovery in household debt to below the pace of income, and cap real spending growth in a 2-2½% range.

**Grim standard metrics.** Even our subdued optimism may seem surprising, because the standard gauges of household leverage — ratios of debt to income, debt to assets, or mortgage debt to owners' equity in real estate — paint a bleak picture of the average household balance sheet. While household debt in relation to disposable income has declined significantly from its peak of 123.6% in Q3 2007, we estimate that it stood at 110.7% at the end of Q2, or only back to 2004 levels.<sup>3</sup> Moreover, mortgage debt in relation to tangible assets remained at 44% by Q1 2010, while such debt in relation to owners' equity stood at 163%, both more than double historical norms. Those measures seem to imply that the deleveraging process — and episodic flirtation with retrenchment — could stretch out over several years.

Exhibit 1

### Debt Service Close to the Sustainable Range



Note: 2Q10-4Q11 values represent Morgan Stanley Research estimates.  
Source: Federal Reserve Board, Bureau of Economic Analysis, Morgan Stanley Research

**But other measures depict a much more sustainable picture.** The balance sheet snapshots just discussed are

<sup>3</sup> We define household debt as the sum of mortgage and consumer credit; we exclude municipal debt, commercial mortgages and other bank loans that are part of total credit-market liabilities of households and nonprofit organizations in the Fed's flow of funds accounts. These are not household liabilities. This exclusion reduced the debt-income ratio by 7.3% at the end of 2009.

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important, but in our view, they don't tell the whole story. Other, flow-driven measures capture some of the dynamics of balance sheet adjustment. One such measure of sustainability is the debt service ratio — household payments of interest and principal on debt in relation to disposable income. By that metric, consumers are already at the threshold of sustainability — thanks in part to lower interest rates and a recovery in income. Debt service has declined from nearly 14% of disposable income in Q3 2007 to an estimated 12.4% in Q2 2010 — the lowest level in a decade. Indeed, with mortgage rates tumbling to all-time historical lows, the prospect of further declines in debt service from additional refinancing of mortgage debt imparts downside risks to our estimates of the debt service burden.

The other encouraging metric is the personal saving rate. A year ago we thought saving might reach 6% of disposable income in 2011 from 2% in 2007. Revised national income accounts show a saving rate fully two percentage points higher than previously thought, one that had already moved up to 6.2% — a 17-year high — in the second quarter of 2010.

We'd be the first to acknowledge that a higher saving rate could manifest consumer hesitation — evincing the “paradox of thrift,” in which too much saving weakens growth. However, careful modeling of consumer spending (although it does not explicitly account for declining debt service) confirms our intuition that consumers have adjusted to the loss of wealth more rapidly than we expected. Such analysis suggests that consumers adjust their outlays to a “target” level determined by wealth and after-tax income. When spending is below that target, outlays will adjust higher and vice versa. According to Macroeconomic Advisers, the deeper retrenchment that has already occurred and the higher income in these data suggest that the path of spending from here could be 25 bp higher than previous estimates implied.<sup>4</sup>

Courtesy of rapid reductions in debt service, upward revisions to dividend income (which tends to be saved), and deeper spending retrenchment in the past, these data now depict a consumer who has adjusted to the shock in wealth faster than previously thought. The combination of lower debt service, and thus more discretionary income, and a higher saving rate should limit downside risks to consumer spending.

**Calibrating consumer deleveraging.** How do we know whether consumers have delevered enough? Our research strategy a year ago consisted of two steps. First, we

<sup>4</sup> See Macroeconomic Advisers, “Saving and Consumption in the NIPA Revisions: Implications for the Forecast,” August 5, 2010.

established what might be a sustainable level of consumer debt service in relation to income; our rough estimate is 11-12%, which might be associated with debt in relation to income of 80-100%.<sup>5</sup> Then we used base, bull and bear scenarios to estimate how long it might take to approach those ratios under different circumstances. To link household debt and debt service to our economic scenarios, we estimated equations to describe the growth in mortgage and non-mortgage consumer debt, taking account of the factors that drive originations, repayments, refinancing and defaults. We built on our earlier work on credit losses and deleveraging at lenders to try to achieve internal consistency between the economic scenarios and losses and to incorporate the feedback from the economy to growth in debt.<sup>6</sup>

Under any of the three scenarios, we thought that the 11-12% debt-service and 80-100% debt-to-income ratios might be attainable by 2011. At the time, that sounded extraordinarily rapid. But we pointed out that it would be anything but painless, as evidenced by key metrics in the deleveraging process, such as growth in debt, sustainable spending growth, and the personal saving rate.

The forecasts have held up well: Our baseline scenario was — and still is — consistent with an 8% *contraction* in mortgage and consumer credit between 2009 and 2011, and real annualized personal spending growth of 2-2½%. Based on current data, it is also consistent with a personal saving rate of

<sup>5</sup> Metrics for judging what are sustainable levels of debt and debt service at the macro level are subjective or arbitrary. In our May 2009 note, we tried to use a counterfactual scenario as a rough guide: What would spending and credit growth have been in the absence of the lending exuberance during the period from 2001-2007? To quantify that scenario, we used a four-step process. 1) We looked to equations describing consumer spending and housing demand that include credit supply factors taken from the Fed's Senior Loan Officer Survey as explanatory variables. 2) We then calculated a counterfactual path for spending that would have occurred in the absence of exuberant credit extensions by setting those variables to zero or a neutral setting during the credit boom period. 3) Next we translated the differences between history and the counterfactual path into credit outstandings either by cumulating the differences and assuming they were all debt-financed or by running them through our equations for mortgage and consumer credit. 4) Finally, we substituted the counterfactual path for credit into our debt-service calculations. The equation linking housing demand and the proportion of banks loosening lending standards earlier this decade is crude, but it probably roughly quantified the influence of easy credit. The equation for consumer spending came from a study by Macroeconomic Advisers (see their “Banks' Willingness to Lend and PCE Growth,” October 8, 2008). The Fed survey variable used in that case is the proportion of loan officers reporting increased willingness to make consumer installment loans. The difference between the historical and counterfactual paths for debt service ratios (DSR) using the process described above indicated a counterfactual DSR of 12.4%. We judged that level too high for sustainability; consumer leverage ratios at the end of 2008 were very high, and chargeoffs were still far from their peaks. Consequently, we judgmentally adjusted that level down to 11-12%.

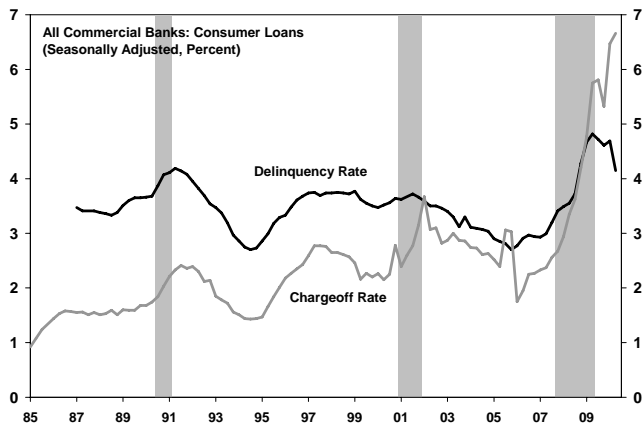
<sup>6</sup> See “Credit Losses, Deleveraging and Risks to the Outlook,” May 4, 2009.

6-6½% in H2 2010 and 5.3% by the end of 2011, reflecting our baseline assumption that taxes will go up for upper-income consumers. But we still believe that over a longer time period, consumers will boost their saving rate to 7-10%, reflecting limited growth in household assets and correspondingly still-high leverage ratios.<sup>7</sup>

**Additional implications of deleveraging.** It's worth reemphasizing that lower debt service confers additional benefits on consumers not captured by traditional analysis:

- Lower debt service frees up discretionary spending power that does not show up in the personal saving rate, because that rate excludes the cash flow benefits of lower principal repayment.

Exhibit 2  
**Falling Delinquencies Signal Improved Consumer Creditworthiness and Augur a Peak in Chargeoffs**

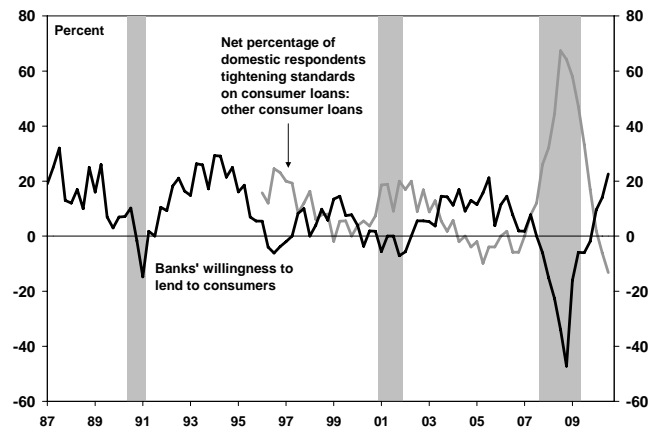


Source: Federal Reserve Board

<sup>7</sup> Estimates from a "simple model of household debt dynamics" produce a slower decline in the household debt to income ratio. Reuven Glick and Kevin Lansing at the San Francisco Fed estimate that allocating 80% of saving increases to debt repayment over ten years would reduce debt/income to 100% and require a rise in the personal saving rate to 10% by 2018 (see "U.S. Household Deleveraging and Future Consumption Growth," FRBSF Economic Letter, Number 2009-16). However, Glick and Lansing do not account for defaults and writedowns in their estimates. Either way, the process will be painful for lenders and borrowers.

- Lower debt service also makes consumers better able to service debt and more creditworthy. It's no coincidence that delinquencies on consumer loans peaked a year ago. That augurs a coming peak in loan chargeoffs; meanwhile, the record pace of such writedowns is accelerating the cleanup of both lender and consumer balance sheets. Perhaps that's why the Fed's July Senior Loan Officer Survey revealed that the highest proportion of banks in 16 years reported increased willingness to make consumer installment loans.

Exhibit 3  
**Banks' Willingness to Lend to Consumers at 16-Year High**



Source: Federal Reserve Senior Loan Officer Survey

- Finally, once achieved, a higher saving rate enables consumers to maintain spending, continue to pay down debt, and accumulate wealth the old-fashioned way.

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