



HIGHLIGHTS

- Consumer credit is an important indicator of the level of household borrowing.
- Since peaking in 2008, U.S. consumer credit has fallen by 3.8%, its largest decline since World War Two.
- Unlike past recessions, where declining durable goods spending hastened a decline in consumer credit, the current decline has been concentrated in a reduction in credit card debt.
- Tightened credit standards and risk aversion in lending markets have led to less availability of credit, even to credit-worthy borrowers.
- Lost household wealth, as a result of the housing bust and consequent financial crisis, has also hastened a period of household deleveraging. Households are now paying down (or lenders writing down) debt faster than they are adding to it.
- A heightened unemployment rate and slower income growth, will also pose a risk to the pace of consumer spending growth over the next year.
- A relatively constrained pace of consumer credit and therefore spending growth will limit the pace of economic recovery in 2010.

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**U.S. CONSUMER CREDIT
& HOUSEHOLD DELEVERAGING**

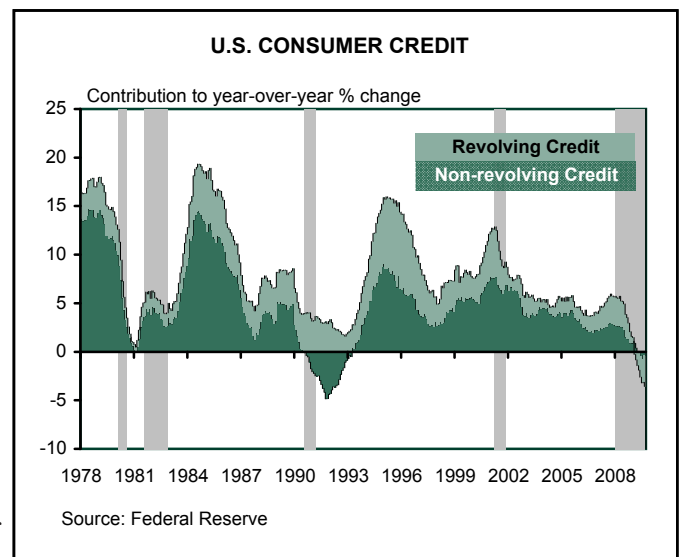
With the return to positive U.S. economic growth in the third quarter of this year, forecasting efforts now turn to the shape of the U.S. recovery. Central to the prospects for economic growth and inflation is the outlook for U.S. household borrowing. The severity of the U.S. credit crunch and its implications on household borrowing has been on full display during the economic recession. Much of the focus has been on conditions in the U.S. housing market, but unsecured credit extended to households has also been in free-fall, and is well worth paying attention to.

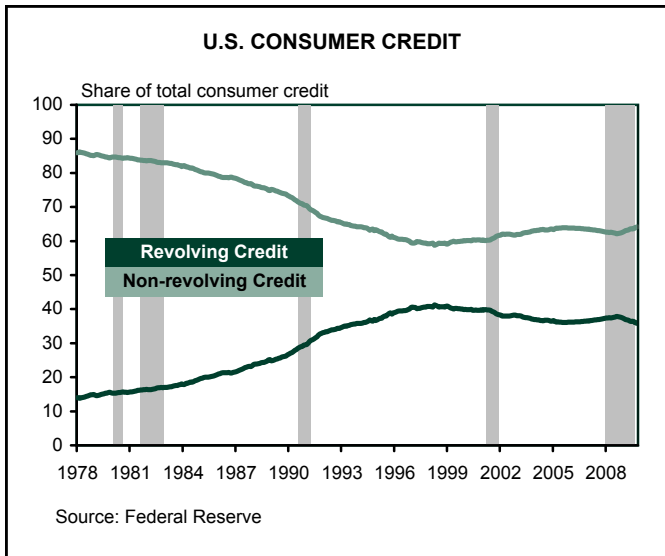
U.S. consumer credit, in the form of revolving loans (mainly credit cards) and non-revolving loans (such as car loans and student loans), represents 18% of total household liabilities and is the second largest source of household borrowing after residential mortgages. Since reaching a peak in July of 2008, consumer credit outstanding has fallen by 3.8%, its largest decline since the Second World War. Moreover, while the 2.8% (annualized) growth of real GDP in the third quarter signaled the end of the recession, the decline in consumer credit has shown little sign of letting up. Led by a 7.1% (annualized) decline in revolving credit, total consumer credit fell by 3.2% (annualized) in the third quarter.

Consumer credit is closely tied to consumer spending and is an important indicator of the pace of household borrowing. As fiscal stimulus to households begins to unwind, consumer spending prospects will once again depend on the outlook for private job creation, income growth and the pace of household borrowing. While all signs are pointing to strong real GDP growth in the fourth quarter of this year, constraints on household borrowing in combination with a slow movement downward in the unemployment rate and moderate income growth, are expected to limit the speed of economic recovery in 2010.

Why care about consumer credit?

Data on outstanding consumer credit is available from the Federal Reserve and is a long running series, dating back to 1943. Data is published with a two month lag in roughly the first week of every month. Prior to 1968, consumer credit data





is available only in aggregate, but since then data has been split between revolving and non-revolving credit. While revolving consumer credit consists mainly of credit card debt, about 10% is in the form of unsecured lines of credit. Non-revolving credit includes all types of consumer installment loans from car loans to student loans.

Consumer credit represents the total stock of unsecured consumer debt. Growth in consumer credit means households are adding to their stock of debt, while reductions imply households are paying down debt (or lenders are writing

down the debt of delinquent borrowers). While consumer credit is often considered a secondary economic indicator (due mainly to its lagged release and propensity for fairly significant revisions), in a recession characterized by major dislocations in credit markets and rising risk aversion of lenders, it is an increasingly important indicator to watch.

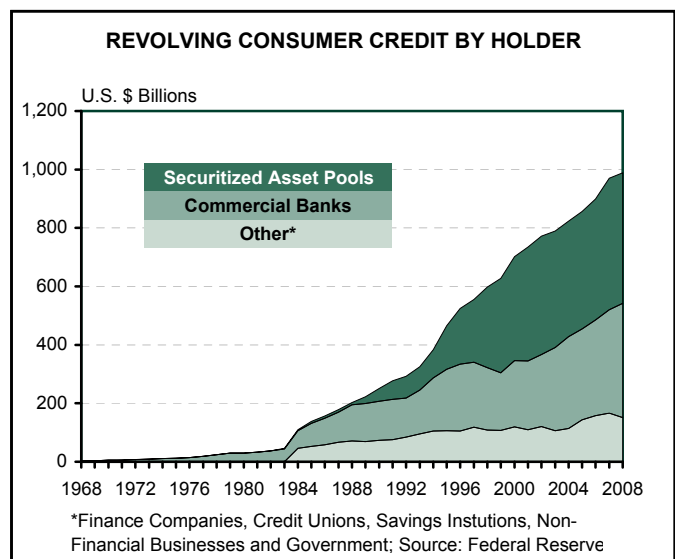
Furthermore, knowledge of the source of the reduction in consumer credit can give further insight onto the borrowing pressures faced by households. As seen in the chart on the first page, declines in consumer credit have in the past been due mainly to declines in non-revolving credit, which is correlated strongly with durable goods spending. In contrast, the major source of the decline in consumer credit in this recession is revolving credit (credit cards) and may be indicative not only of supply constraints but also of a change in household spending behavior towards paying down debt. While this outcome is not entirely surprising given the shock to household wealth, it has important ramifications for the kind of U.S. economy that will emerge in the wake of the Great Recession.

Consumer credit and the business cycle

Consumer credit usually follows economic cycles fairly closely – peaking in the lead up to the recession and troughing shortly after recovery begins. Nonetheless, the performance of consumer credit around recessions also depends

Credit Cards: A Short History

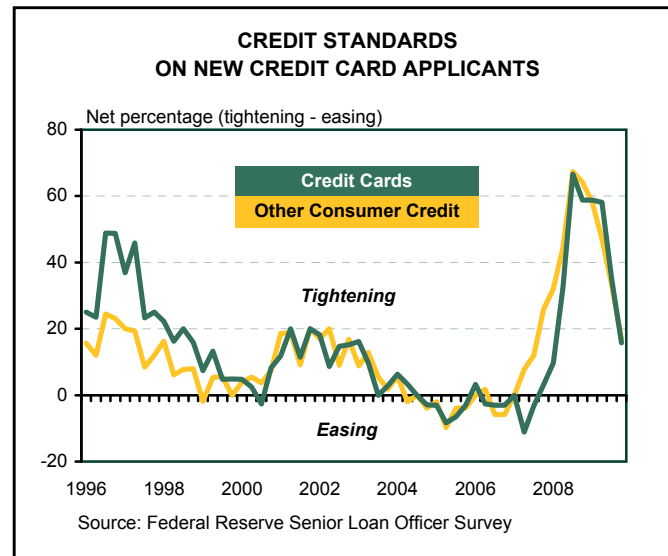
While credit card debt is now as American as apple pie, it wasn't always that way. When credit cards were first introduced in the 1960s they were mainly a luxury item available to the well-to-do as a convenient form of payment at restaurants. Since then total revolving credit has risen to just under \$1 trillion dollars and is widely held by Americans across the income and wealth spectrum. According to the Federal Reserve's Survey of Consumer Finances (last done in 2007), 73% of U.S. families have at least one credit card and over 60% of these maintained a positive balance at the time of interview. In terms of total consumer credit, revolving credit has risen from 0% in the late 1960s to a high of over 40% in the late 1990s (since then it has fallen slightly in share and currently sits at just under 36%). Not unlike the growth in mortgage debt over the last several decades, growth in credit card debt is explained in no small part by the rise in asset-backed securitization. As of the third quarter of 2009, 48.5% of total revolving consumer debt was held in pools of securitized assets.



importantly on the source of economic fluctuations. Consumer credit continued to grow through and following the tech-bust driven 2001 recession, but fell for a considerable period following the consumer led 1990s recession. Changes to the structure of household credit over time have also influenced the pace of consumer credit growth. Tax deductibility of consumer interest costs was phased out gradually through the late 1980s and withdrawn completely by 1990, explaining much of the decline in the growth of consumer credit in that period. Moreover, the ability of households to borrow against their house in the form of home-equity lines of credit (which in addition to the lower interest charge as a result of the collateral backing the loan has the tax benefits of mortgage interest deductibility), reduced the demand for unsecured household credit. At the same time, the growing popularity of credit cards as a form of payment for consumer goods has moved the source of consumer credit growth increasingly in that direction.

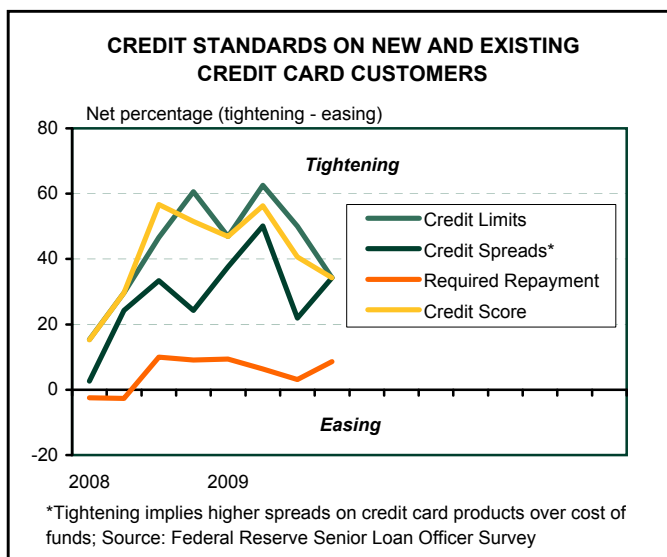
Credit conditions starting to thaw but still sub-zero

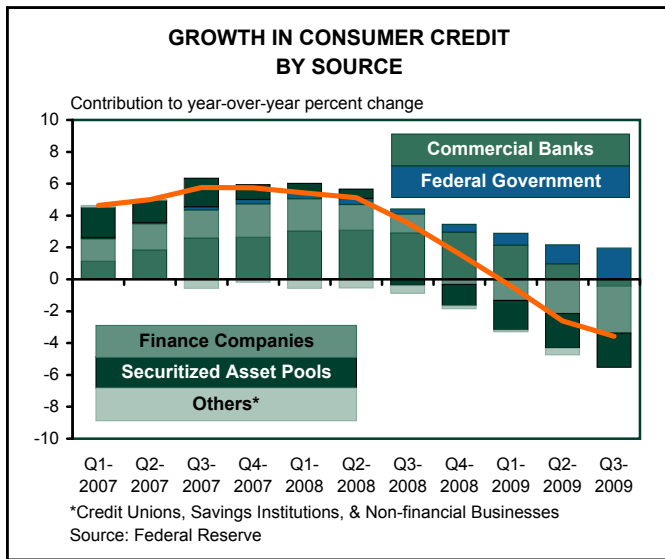
The recent fall in consumer credit is related to both supply and demand factors. In terms of restrictions in supply, both higher interest rates (even as government short-term interest rates and government bond yields remain low) and tightened credit standards have served to limit consumer credit growth. According to the Federal Reserve’s Senior Loan Officer Survey, on net, 15.8% of domestic respondents reported tighter conditions for credit cards and 17% reported tighter conditions on other forms of consumer credit in the fourth quarter of 2009. Nonetheless, this is a dramatic improvement from earlier in the year when over 65% were reporting tightening conditions.



Unfortunately, the Senior Loan Officer Survey is an imperfect gauge of credit standard tightening. The question asks, “over the past three months, how have your bank’s credit standards for approving applications for credit cards from individuals or households changed?” Respondents have five options - tightened considerably, tightened somewhat, remained basically unchanged, eased somewhat, or eased considerably. While the movement to 15.8% reflects fewer banks tightening standards (relative to the past three months), no officers reported easing standards. Moreover, as the question refers only to applications, it leaves out how standards are being tightened for existing holders of credit cards. Finally, the binary choice of “tightened considerably” or “tightened somewhat” leaves out a lot of detail about the actual amount of credit tightening occurring.

Since the beginning of 2008, the Senior Loan Officer Survey has been asking more specific questions about changes to lending standards to new and existing credit holders. While the data lacks much history (and begins during the recession), it is useful as a further gauge to the direction of credit standard tightening/easing. This data is less positive in terms of the overall tightness of credit standards. While relatively fewer banks (on net) reported tightening standards on credit limits or credit scores the net-percentage tightening remained quite high at 34.3. Moreover, a higher percentage of banks reported tightening standards on minimum down payment requirements and on the spread of interest rates charged over the bank’s cost of funds. All told, even while improving over the last several months, risk aversion among lenders remains heightened and is likely to continue to inhibit the pace of consumer credit expansion over the next several quarters.





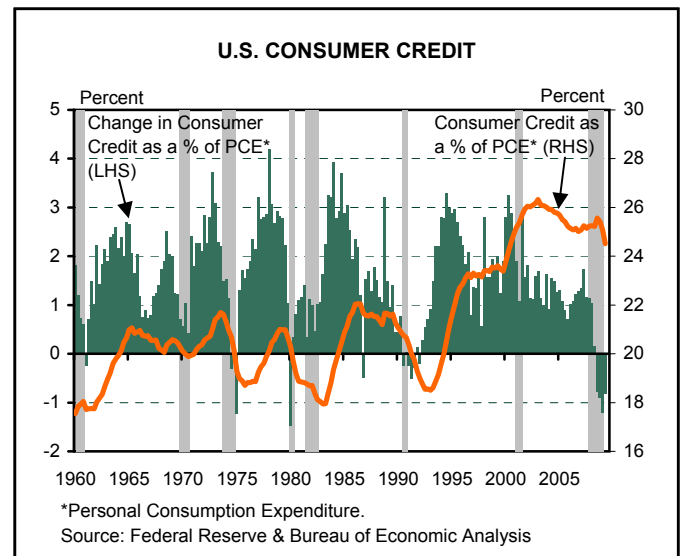
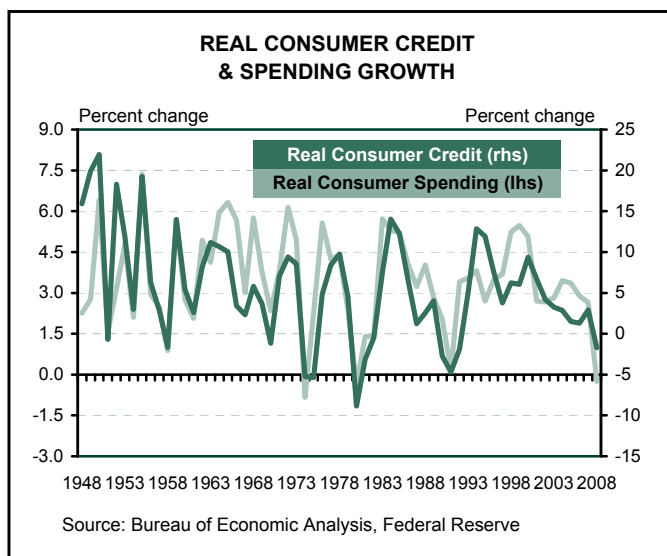
In so much as the decline in consumer credit outstanding represents restrictions of supply, it also represents downward pressure on the growth of consumer spending. As direct stimulus to households is pulled back, tightness in credit conditions is likely to exert downward pressure on household spending growth in 2010.

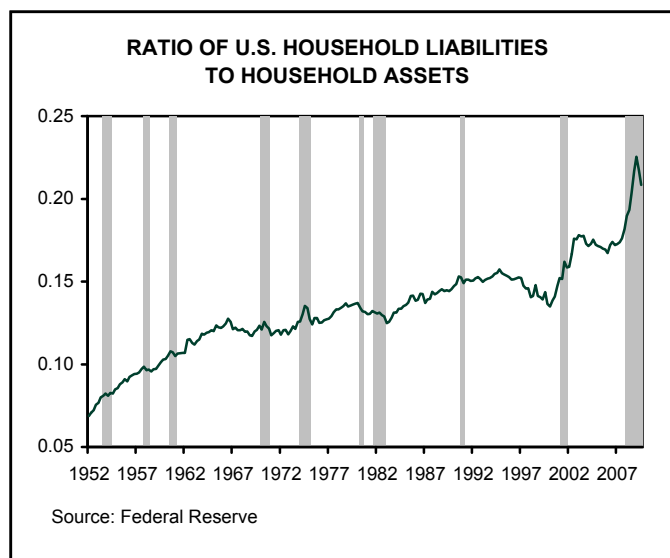
Demand for credit has fallen but has it changed?

The workhorse economic model of household decision making is based on the notion that households borrow and save in order to smooth consumption over their lifetimes. Households also borrow in order to invest – either in themselves (through education) or in financial or physical assets that earn them a rate of return above the cost of borrowing. Similarly, households borrow to finance the purchase of durable goods, whose large upfront cost would otherwise imply a much larger sacrifice of current consumption than they would otherwise like to make. Nonetheless, whether it is to purchase a car or paying for a restaurant meal with a credit card, credit represents the trade-off of future consumption for current consumption.

In order to fund current consumption, households have at their disposal their existing stock of wealth, their current income, and if credit markets are available to them, their future income. As consumer credit is used to fund current consumption, the most obvious factor behind credit growth is growth in consumption. Looking at the historical data this is exactly what we see: overall consumer credit generally moves along with consumer spending and non-revolving consumer credit growth is particularly correlated with durable goods consumption. Nonetheless, while consumption is the main contributory factor to credit demand, credit

A look at consumer credit by major holder also shows that the credit crunch has had a profound effect on a number of consumer credit issuers. In particular, consumer credit held by finance companies, which still represents close to one-fifth of the total, has been in free-fall and is down over 16% from its peak. Credit held by savings institutions, has fallen even further and is down by a full 18.1% from its peak. Finally, problems in securitization markets have led to a sharp pullback in issuance of securities backed by consumer credit products. As of the end of October, consumer credit held by pools of securitized assets was down 11.6% from peak. On the other hand, consumer credit held by the federal government has risen considerably over the course of the recession, and is up 78% since the beginning of the recession, reflecting changes to acceptable collateral in government financing programs.





growth has outpaced consumption growth fairly dramatically, especially since the 1990s. As a result, the ratio of consumer credit to personal consumption has risen from under 0.20 to a peak of 0.26 after the 2001 recession, to its current level of around 0.24.

So why might households take out more credit relative to consumption and income? One reason is rising wealth. Between 1952 and 2008, U.S. households saw their net worth increase by 7.2% annually. In inflation-adjusted terms, real household net worth grew at an annual average real rate of 3.6%. This long-period of wealth accumulation was consistently accompanied by an increasing reliance on debt. Over this same period, household liability growth outpaced asset growth by an average of 3.6 percentage points annually. Net worth continued to grow over this period because the stock of household assets dramatically outweighed the stock of debt.

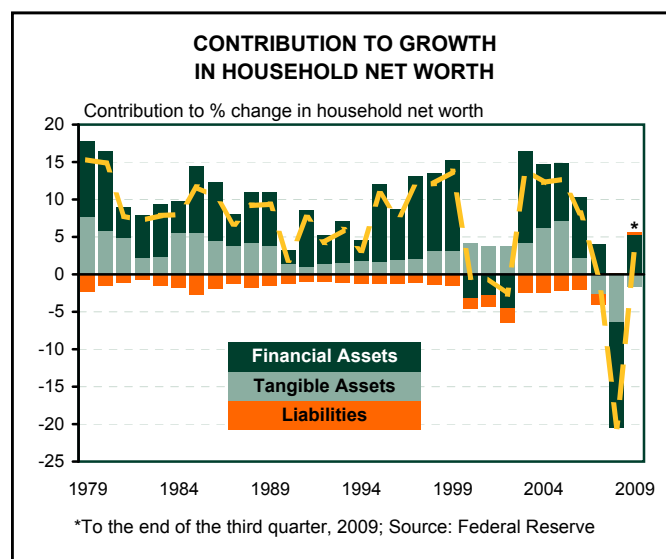
The increasing use of debt in relation to growth in assets or household income is often referred to as leverage. In 1952, every dollar of aggregate household liabilities was backed by over 14 dollars of assets. At the first quarter of 2009, this ratio had fallen to 4.6 dollars in assets for every one dollar of debt (or alternatively as shown in the chart above, the inverse ratio of liabilities to assets has risen from 0.07 to above 0.20). While much of the growth in household leverage is explained by improvements in financial markets - better risk management (current crisis notwithstanding) and anchored inflation expectations (that also served to moderate interest rate volatility) - liability growth cannot outpace asset growth indefinitely. In hindsight it is fairly obvious that as home prices rose, many households became dangerously overleveraged – borrowing against their assets

at a pace that could only be sustained by continued asset price appreciation.

We are now witnessing the aftermath of past credit excess. Since reaching a peak in the third quarter of 2007, household net worth had fallen by \$17.5 trillion by the end of the first quarter of 2009. Net worth has rebounded in the second and third quarters of the year, but is still some \$12 trillion below its peak level. The startling reversal in U.S. net worth has left many exposed to a mis-match between their level of assets and their level of debt. While debt write-downs began in the mortgage sector, there is strong evidence that households are also reducing their levels of consumer credit debt. This can be seen not only in the credit data but also in the saving rate, which has risen to an average of 4.5% of disposable personal income in 2009 from 2.6% in 2008 and a low of 1.7% in 2005.

Net worth is expected to continue to improve over the next several quarters, as financial markets rebound and home prices bottom, but the shock to credit growth will likely remain for some time. It is widely estimated that for every dollar increase in wealth, household spending rises by five cents over the course of the next several quarters. Given the more equal distribution of housing wealth across the income spectrum, the wealth effect from home prices is likely larger than for financial assets, and presents even greater downside risk to credit and consumer spending growth. Slower consumer spending growth relative to income growth implies upward pressure on the saving rate and less demand for consumer credit.

In the current environment, where the saving rate has jumped to 4.5%, the heightened unemployment rate is likely to limit wage gains over the near term, and therefore limit





the saving rate from rising further. Nonetheless, even with a constant saving rate, consumer spending growth that is in-line with income growth represents a break from the pre-recession past. Given the destruction of household wealth and the fact that past gains in home prices are unlikely to be repeated, the trend towards deleveraging and debt repayment seen in the recent data is likely to continue through the forecast, leading to a slower growth of credit demand over the next several years.

Bottom Line

Developments that have occurred in this recession make it unlikely that household credit growth will bounce back quickly. Credit standards remain tighter than in the pre-recession past and the deep shock to household net worth

will require households to raise their level of saving. Lower asset values also imply less collateral to borrow against and put a further limit on liability growth. Finally, the unprecedented rise in mortgage and credit defaults means that a number of people will be less able to access credit markets, forestalling a rebound in credit growth in the near term. As a result, though we are confident that the economic recovery is at hand, we remain cautious about the underlying pace of economic growth. As an economic recovery takes shape and wealth rebounds, credit growth will slowly improve, but deleveraging could very well be a trend that lasts for a long time. As a result, we expect consumer spending to grow by an average pace of just above 2.0% in 2010, a far cry from the greater than 5.0% growth seen in the aftermath of past deep recessions.

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