

Some inconvenient truths

Not your father's recession, but maybe your grandfather's

In our marketing tour through Europe last week, we brought along our new chart package entitled "Not your father's recession, but maybe your grandfather's". Looking at the youthful demographics that characterize today's money management industry, we should have probably gone with "great-grandfather's" instead.

How is a depression defined?

It shouldn't come as any big surprise that with such a provocative title, we would be saddled with questions as to how an economic depression is even defined. Of course, most portfolio managers still don't know that a recession is *not* defined as back-to-back quarters of negative real GDP prints (which we had neither in 2002 nor 2008) but instead the timing of the peaks in real sales activity, employment, industrial production and organic personal income growth.

We are likely enduring a depression today

As for depressions, there is no official definition, except to say that they have existed in the past. There were no fewer than four in the nineteenth century, one in the twentieth century, and we are very likely enduring another one today. Though this current one is muted by the fact that most countries have an elaborate social safety net (deposit insurance, unemployment benefits, welfare, and socialized health care).

Depressions can last anywhere from three to seven years

Depressions are basically long recessions – they can last anywhere from three to seven years, while historically cyclical recessions last 18 months – and tend to follow years of leveraged prosperity of Gatsby-like proportions. Considering that in this most recent leveraged cycle from 2002-07, we reached a point where a record 40% of corporate profits were derived from financial activities, where household debt relative to income and assets surged to unprecedented levels and the personal savings rate briefly went negative at the height of the housing bubble, it is safe to say the down-cycle we are currently experiencing did indeed follow a classic elongated period of leveraged prosperity. It is now reverting to the mean.



David A. Rosenberg
North American Economist
MLPF&S
david_rosenberg@ml.com

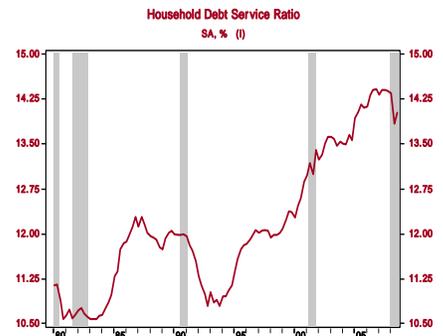
+1 212 449 4937

Chart 1: Ratio of household debt to assets



Source: Haver Analytics, Merrill Lynch

Chart 2: Consumer sector interest coverage ratio near all-time high



Source: Haver Analytics, Merrill Lynch

Merrill Lynch does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

Refer to important disclosures on page 11.

Depressions marked by balance sheet compression

Recessions are typically characterized by inventory cycles – 80% of the decline in GDP is typically due to the de-stocking in the manufacturing sector. Traditional policy stimulus almost always works to absorb the excess by stimulating domestic demand. Depressions often are marked by balance sheet compression and deleveraging: debt elimination, asset liquidation and rising savings rates. When the credit expansion reaches bubble proportions, the distance to the mean is longer and deeper. Unfortunately, as our former investment strategist Bob Farrell's Rule #3 points out, excesses in one direction lead to excesses in the opposite direction.

Beyond a class recession

Clearly, we have gone beyond a classic recession when the yield on the three-month Treasury bill falls to zero. This has happened only in the 1930s and in Japan in the 1990s, and is emblematic of an economy that has structural, not merely cyclical, imbalances to work through. It is clear that we are beyond a garden-variety recession. Even after nearly a year-and-a-half of unprecedented interest rate relief, multiple liquidity backstops, banking sector capital injections, loan modifications and record tax rebates, there is still no end in sight for the contraction in credit, bear market in financial stocks, decline in real economic activity, peaking unemployment, or any signs of normalcy returning to credit. This despite a moderate narrowing in spreads from Armageddon-type levels.

Policy will become more interventionist

The expansion in the government balance sheet is necessary to offset the contraction in private sector balance sheets (keeping in mind that expansions and contractions of balance sheets refer to taking or paying off debt). Accelerating growth in the money supply is also vital as an antidote to the decline in money velocity (the turnover rate of money in the real economy). Simply put, an economic depression occurs only once it becomes painfully obvious that the markets and the economy are failing to respond to repeated bouts of policy stimulus. That we have reached a point where de facto nationalization of some of the banks is even under discussion attests to the view that government policy is becoming that much more dramatic and interventionist.

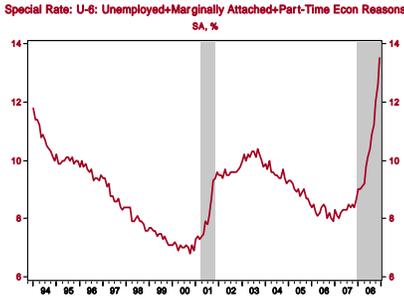
Fed's balance sheet expansion needed to prevent deflation

In our European marketing swing we were bombarded with questions about inflation, in view of the surge in the monetary aggregates and all the efforts to fiscally reflate the economy. From our lens, the Fed's continued move to sharply expand its balance sheet is necessary to prevent the deflation process from becoming even more destabilizing. Declining home prices remain the greatest threat to a recovery in household spending. Demand for cash from all sources is so substantial that if the Fed failed to respond to meet this demand with dramatic increases in the money supply, there would be an even more serious deflation undermining economic activity.

Monetary policy is not operating in a vacuum

While President Obama's proposed fiscal stimulus package is encouraging in its imaginativeness, not to mention its size, one-third of the \$825 billion plan is tax relief that is more temporary than permanent in nature, and so has little or no multiplier impact. And the infrastructure spending, while welcome, comes with a long gestation period and likely will not exert a major impact on the economy until we are well into 2010.

Chart 3: Inflation revival with the real unemployment rate at 13.5%



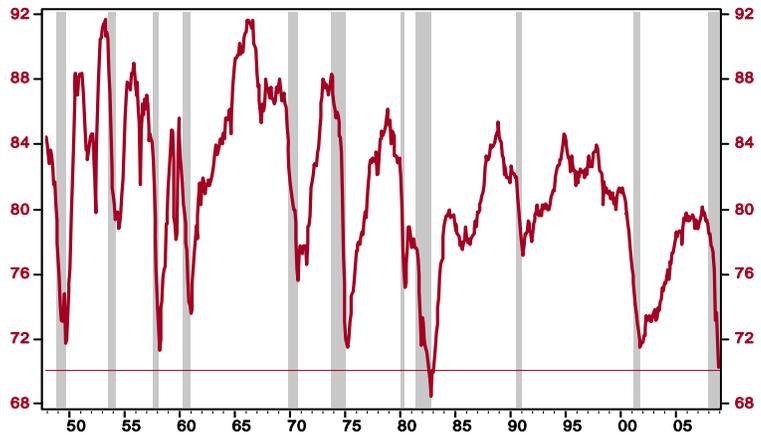
Source: Bureau of Labor Statistics, Merrill Lynch

Economy saddled with \$1 trillion of excess capacity

Based on our estimates, even with the entire fiscal and monetary stimulus, the economy is still going to be saddled with roughly \$1 trillion of excess capacity by the end of this year. And in such an environment, the prospect of seeing inflation turn around this year is highly unlikely, in our view. The most inclusive measure of joblessness suggests that the real unemployment rate has risen to 13.5%, a level unheard of in recent times, and such massive excess capacity in the labor market is in turn reflected in the record-low share of companies signaling their intent to raise wages over the near and intermediate term. Similarly, there is now 30% idle capacity in the manufacturing sector, a level only seen once before in the past five decades.

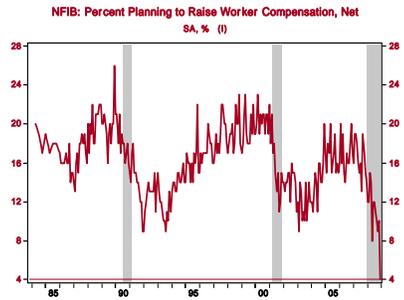
Chart 4: Inflation revival with 30% idle manufacturing capacity?

Capacity Utilization: Manufacturing [SIC]
SA, % of Capacity



Source: Federal Reserve Board, Merrill Lynch

Chart 5: Intentions to raise wages slides to record low

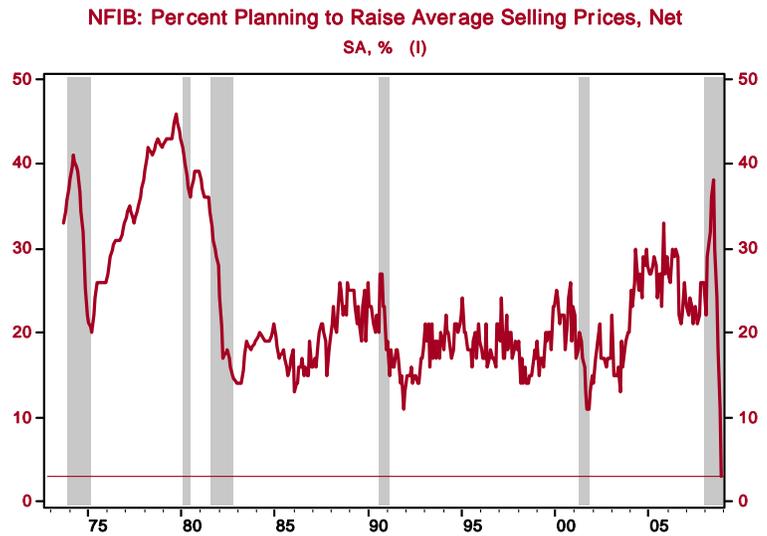


Source: National Federation of Independent Business, Merrill Lynch

Intentions to raise prices have plunged

It is against this massive level of unutilized resources in the industrial space that business intentions to raise prices have recently plunged to the lowest level on record. After four months in a row of negative CPI reports, the return of inflation remains a consensus forecast, but certainly not a realistic prospect for coming months, quarters, or perhaps even years, as long as aggregate demand is playing catch-up to aggregate supply. The math is daunting but uncomplicated. After all, to eliminate the output gap – the gap between where GDP actually is and where it would be if the economy was operating at full capacity – we would need to see real growth of 4% for each of the next six years or 5% over the next three years. We doubt even the most optimist forecaster believes that demand conditions will be that robust, even after we come out the other side of this credit collapse.

Chart 6: Pricing power at a record low

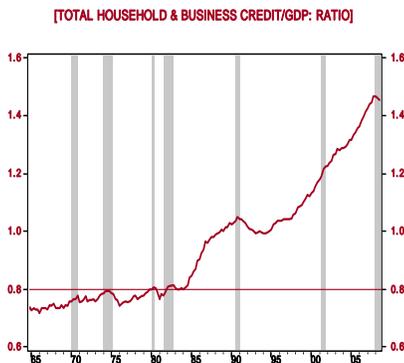


Source: Haver Analytics, Merrill Lynch

We have no idea when the credit cycle will hit bottom

This, after all, was a 20-year secular credit expansion, fuelled in the mid-1980s by the advent of the securitization and the shadow banking system of bundling loans and getting them off bank balance sheets. Then it was reinforced in the 1990s by the repeal of Glass-Steagall, the proliferation of subprime mortgages, cash-out refinancings and home equity lines of credit; 0% auto financing, which quickly morphed into buy now, pay later credit in the broad retail sector facilities; and then in the new millennium by the SEC decision to allow investment banks to measure capital using value-at-risk models. So, all of a sudden the new normal was not a 10-to-1 leverage ratio, but rather 30-to-1.

Chart 7: Shortage of credit?



Source: Federal Reserve Board, Merrill Lynch

\$6 trillion in private sector debt must be eliminated

This was a 20-year secular credit expansion that went parabolic starting in 2001-02 as the Fed and the federal government moved to offset the lingering deflation in the technology capital stock by invoking policies that touched off a massive reflation of the housing stock. Since the credit cycle ended in the fall of 2007, an estimated \$1 trillion of bad debt has either been written down or recognized. But considering that total private sector credit market debt relative to national income is still near a record-high of 140% versus a long-run norm of 80%, the mean-reversion process suggests that before we can even consider embarking on a fresh credit cycle, more than \$6 trillion of excess household and corporate debt has to be eliminated.

Still in the early stages of the credit contraction

In the household sector alone, mean reverting debt-to-asset or debt-to-income ratios would imply that anywhere from \$4 to \$6 trillion of leverage has to be extinguished before we can bring the outstanding level of liabilities to levels that would allow for a return to a sustainable pace of credit creation. So, barely more than a year into this credit contraction – on the heels of an unprecedented two-decade doubling in private sector debt ratios, mostly but not entirely in the household sector, and \$1 trillion of writeoffs in the context of as much as \$6 trillion excessive private sector debt that continues to overhang the economy – it is truly difficult to believe that we are anywhere but in the early stages of this credit contraction phase.

Time will be a big part of the solution

The new administration seems to have a firm grasp of the situation. The call for more dramatic action over and beyond merely recapitalizing insolvent banks and requiring the Federal Reserve to jeopardize the sanctity of its balance sheet, means we are about to enter a new phase in terms of policy response. But whether we end up following the dramatic interventionist Swedish response of the early 1990s (which we doubt), or whether we embark on an RTC-style approach where the government relieves the banks of their toxic assets (but at the price of quasi-government ownership, dividend elimination and share dilution), it is clear that whatever the solution, it will take time and a shared burden by lenders, households and future generations of taxpayers before we hit bottom in this credit contraction.

Indeed, Bob Farrell's Rule #1 stipulates that "markets tend to return to the mean over time." As Morgan Freeman (Red) put it so eloquently in *The Shawshank Redemption*, "that's all it takes, really, pressure, and time." Time is certainly going to be a big part of the solution, and history tells us that deleveraging cycles last years. While the pendulum is obviously on the downswing, the forecasting community is obsessed with locating the bottom. In our view the appropriate focus is to assess just how far the pendulum will swing in the opposite direction, because a mean-reversion process actually breaks through the mean.

Boomers focused on putting money in the coffee can

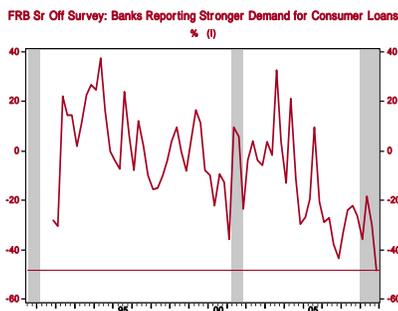
It is our contention that in this post-bubble, mean-reverting process, the ability for policymakers to re-create the credit cycle, reflate asset values and ignite a consumer-led recovery is going to be thwarted by secular changes in attitudes towards credit, savings, discretionary spending and homeownership. In other words, even after enough debt is paid off, the baby boomers' spending years will be focused on putting their money in the coffee can. The first of the boomers are now turning 63 and the median boomer is now 52. At the margin, they will now be forced to plan for retirement by setting aside an ever-greater part of their paycheck as opposed to relying on the perceived level of their future net worth, which had become the norm over the past two decades as inflated asset values, first in equities and then in residential real estate, triggered unrealistic expectations of the intrinsic value and capital gains potential of their asset base – an asset base concentrated in inherently unproductive items such as the house.

Shift from frivolity to frugality a secular theme

1) Household demand for credit has declined

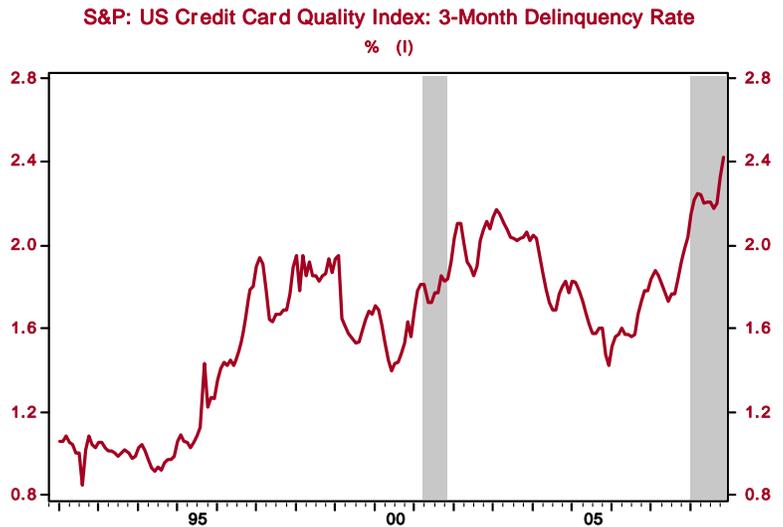
Despite the best efforts of government to encourage banks to ease record-tight lending standards, household demand for consumer credit has declined, according to the Fed's own surveys to the lowest level on record, and demand for mortgages is tied for the lowest levels posted in prior contractions. The data seem to suggest that the experiment with excess leverage over the last seven years has left misery in its wake for the marginal household. Debt is still flirting with near-record levels relative to after-tax incomes and so is the debt-servicing burden. One in every 10 American mortgage borrowers is currently either in arrears or in the foreclosure process. Bank-wide delinquency rates have risen to the highest levels in 15 years.

Chart 8: Household demand for credit now at record low



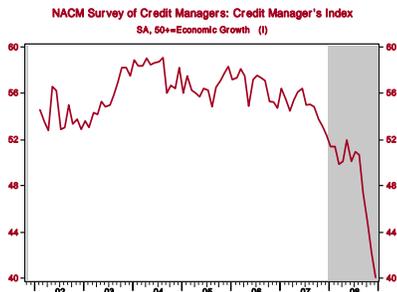
Source: Federal Reserve Board, Merrill Lynch

Chart 9: Credit card delinquency rates break to new high



Source: Haver Analytics, Merrill Lynch

Chart 10: Credit quality at record low



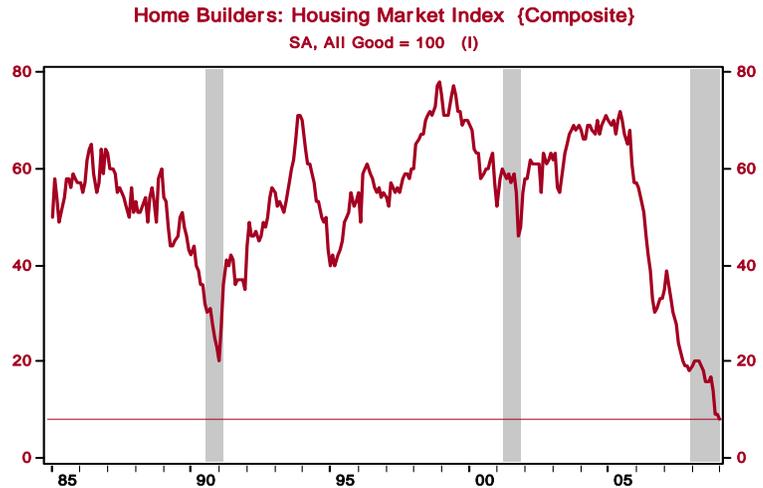
Source: National Association of Credit Managers, Merrill Lynch

The National Association of Credit Managers reported that as of December, credit applications had fallen 20% from year-earlier levels to the lowest in recorded history. The overall index of credit quality has collapsed to an all-time low as the median FICO score in the household sector has slipped to 690, well below the 760 level needed to secure the best possible mortgage rate on a plain-vanilla 30-year fixed rate loan. In other words, attitudes toward credit have changed, and this begs the question as to how banks are going to expand their balance sheets once the credit cycle turns around if households are focused on paying down debt. The government can try to induce lenders to lend, but bringing households, to the well doesn't mean they will drink.

2) Perceptions on residential real estate have changed

In November homeowner affordability ratios improved to their best levels in 35 years. How did we celebrate that? With new home sales sliding to 17-year lows and existing home sales dropping to their lowest level in 11 years. Since that time, mortgage rates have been pushed down to fresh lows. Yet there has been no traction in mortgage applications for new home purchases and the NAHB homebuilding index this month; both the headline and the current sales sub-index hit new record lows. It may be the case that 20-30% downpayment requirements are too onerous. And, it may be the case that the monthly rent-mortgage payment tradeoff is now less of an incentive to buy with apartment markets softening in over 80% of the country and rents beginning to decline.

Chart 11: Despite record low interest rates, NAHB slides to record low



Source: National Association of Home Builders, Merrill Lynch

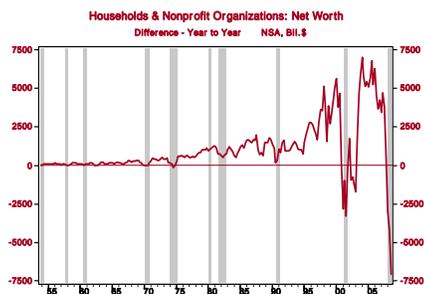
Even if mortgage rates were to go to 0%, the real interest rate is far higher. Considering that home prices have deflated 23% from the mid-2006 peak, and with a near-record 11.5 months' supply of new housing inventory overhanging the market, there is still another 15% of downside potential until equilibrium is finally restored. In our view, this is unlikely to occur until excess supply is wound down to less than eight months' supply.

There is no better sign of how perceptions towards residential real estate have changed than in the University of Michigan consumer sentiment index which showed that as 2008 drew to a close, a record-low 3% of respondents who were in the market for a home listed future price-appreciation and investment attributes as their primary reason for looking around. At the bubble peak in 2005-06, the share of households in the market to buy a home strictly for future capital gains had surged to an all-time high of nearly 25%. Now, that is what we call a seminal change in consumer behavior.

3) A secular change in attitudes toward consumption

Since consumer spending peaked last summer, outlays on discretionary goods and services have contracted at a 15% annual rate. Even food consumption has declined as households shift from veal to chicken and from albacore tuna to Spam. A secular change toward consumption is evident when, in the face of a 60% plunge in gasoline prices, auto sales continue to decline to fresh 15-year lows. What can possibly be more simulative for auto sales than a slump in gas prices from over \$4 a gallon to \$1.60? And yet, it looks as though in January, auto sales barely came in at a 10 million unit annual rate, which would make it four months in a row in which they came in short of the 12 million level of replacement demand. In other words, for the first time ever, the number of autos and light trucks on highways and driveways is being reduced. Again, this is a seminal event, and reflects the fact that at a time when there are still 20% more vehicles on the road than there are licensed drivers, there is simply no pent-up demand for automobiles.

Chart 12: Record wealth implosion



Source: Federal Reserve Board, Merrill Lynch

A 20% hole driven into the household balance sheet

The missing piece in most analysis regarding the efficacy of government policy in terms of rejuvenating a new cycle of borrowing and spending is the extent of trauma that has taken place on the household balance sheet since the housing bubble popped in 2006 and the equity bull market reversed course in 2007. We estimate that the cumulative loss of household net worth as of the end of 2008 was \$13 trillion. In other words, a 20% hole has been driven into the household balance sheet, which has not happened since the 1930s. So far, the loss of wealth in the household sector has been half as much in the Great Depression, but if we are anywhere near the ballpark on our 660 call on the S&P 500 and a further 15% downside to home prices, then by the end of 2009 the total hit to net worth will approximate \$20 trillion, or 40% from the 2007 peak, which indeed would rival the severe hit to household balance sheet incurred in the 1930s.

Households change behavior to permanent shocks

Even if our forecast proves to be too aggressive, there are lags between changes in household net worth and changes in consumer spending patterns, and the \$13 trillion loss to-date is a harbinger for sustained consumer spending contraction in coming years. The reason for the lags is because households only change their behavior after a shock, negative or positive, if it is considered to be permanent or at least semi-permanent. For example, the institutional changes over the decades in 401k plans and matched employer pension contributions helped reduce the steady 10-12% savings rate of the 1950, 60s and 70s down to 8% by the late 1980s. But it was the increased boomer reliance on asset inflation for savings rather than organic income that drove the savings rate down to 2% by the time the dot.com boom was in full swing in the late 1990s.

The savings rate declined as households continued to spend an ever-greater share of their paycheck because the surge in tech stocks was considered to be a new paradigm and a permanent positive shock to net worth. As the tech bubble burst, there was a modest rise in the savings rate to just over 3% as households re-evaluated the extent to which the 'Nasdaq Nestegg' would now look after them in their retirement years. But the rebound in the savings rate was modest and short-lived because Messrs. Greenspan and Bernanke successfully reflated the housing market, so the Nasdaq nest-egg was replaced by the for sale sign on the 5,000 square foot McMansion.

The notion that 20% annual home price appreciation was sustainable and a perceived permanent positive shock to net worth caused the personal savings rate to briefly go negative during the housing bubble, which had not happened since the late 1920s. The savings rate is now no longer negative, but at barely more than 2% it remains unsustainably low absent another asset bubble. But there are no more rabbits to be pulled out of the hat, and while the government will ultimately be successful in stabilizing the credit market, we doubt that it will be able to bring the S&P 500 back to the 1,565 peak or home prices back to their mid-2006 highs any time soon.

A secular rise in the savings rate

As it becomes increasingly apparent that the \$13 trillion (and counting) loss of household net worth this cycle is not going to come back, look for the savings rate to head back to the Ozzie & Harriet levels of 10% to 12%. And bear in mind that every percentage point rise in the savings rate, with all the multiplier impacts, drains 1.3 percentage points out of consumer spending. Assuming this adjustment takes place over the next three years, it would represent a loss of over \$300 billion annually in consumer spending or over a 3% decline at an annual rate.

Chart 13: Savings rate must rise, and it will



Source: Bureau of Economic Analysis, Merrill Lynch

No doubt there will be offsets along the way in terms of the cash flow boost from periodic waves of mortgage refinancings and recurring rounds of fiscal stimulus, but these positives, in turn, will be muted by ongoing income losses as another 2-3 million jobs are lost during this down-cycle in addition to the 2.6 million employment contraction that has already taken place. The major issue – central to our deflation thesis – is that the lingering impact of the trauma to the household balance sheet will result in a secular rise in the personal savings rate and a commensurate shift in household budget priorities toward necessities and away from the most discretionary goods and services.

The well for the US consumer has run dry for good

With the consumption-to-GDP ratio at a record 70%, the personal savings rate barely above 2%, and the homeownership rate still near an all-time high of 68%, it goes without saying that investors looking for growth should look beyond the American consumer and housing market. These areas of the economy, even after they stabilize, are unlikely to be the leaders in the next economic expansion or bull market. Investors are advised to seek out the countries, most of them in the emerging market world, who have the cash, the surpluses and the savings rates that can liberate consumers on the other side of the ocean. The global economy has relied for far too long on the American consumer for growth, but that well has run dry – and this time, for good in our view.

Global rebalancing to occur during a deep global recession

Global rebalancing was supposed to have occurred during that 2002-2007 expansion, but it didn't, and will now have to be accomplished in the context of a deep worldwide recession. It won't be easy, but at least there are encouraging signs that countries like China have moved quickly to stimulate spending and credit. But the real question is what institutional changes – pension and health care reforms, as examples – will be implemented abroad to unlock those 30% savings rates and bring them down to 10%, just as the US savings rate reverts to 10%. So as we gaze into the future, we see the US consumer spending/GDP share going from 70% back down to its long-run norm of 64%; and we look for the 13% share of GDP that is made up of exports, to move in the opposite direction and pick up the slack (unfortunately, so will government spending).

Risings savings rate will be incredibly deflationary

The process of a secular rise in the US personal savings rate and the dampening effect this will have on aggregate demand will be incredibly deflationary for some time. While fiscal stimulus will indeed cushion the blow, the mathematical reality is that the federal government must lift its share of the economy by 10 percentage points of GDP just to fully offset a 1 percentage point contraction in consumer spending. While there is growing concern over government bond supply to fund the record fiscal deficit, there is ample room on bank balance sheets for the new issuance, and the Fed has already hinted that it too will emerge as a buyer of Treasuries if market rates were to back up, as they have been for the past few weeks. Moreover, the expansion of the government debt must be viewed in the context of the contraction of private sector debt, and so on balance, the growth in total economy-wide credit has actually slowed to 6% (year-over-year) from nearly 9% a year ago.

We advocate a high fixed-income orientation

Against this background, we continue to advocate a relatively high fixed-income orientation in the portfolio – a focus on safety and income at a reasonable price. That means long-term noncallable government bonds, state and local government bonds, high-quality corporates (and choose those with strong balance sheets, high cash reserves and minimal refinancing needs). And in the equity market, continue to screen for dividend yield and consistent organic dividend growth in non-cyclical industries.

Important Disclosures

Other Important Disclosures

Information relating to Non-U.S. affiliates of Merrill Lynch, Pierce, Fenner & Smith Incorporated (MLPF&S):

MLPF&S distributes research reports of the following non-US affiliates in the US (short name: legal name): Merrill Lynch (France): Merrill Lynch Capital Markets (France) SAS; Merrill Lynch (Frankfurt): Merrill Lynch International Bank Ltd, Frankfurt Branch; Merrill Lynch (South Africa): Merrill Lynch South Africa (Pty) Ltd; Merrill Lynch (Milan): Merrill Lynch International Bank Limited; MLPF&S (UK): Merrill Lynch, Pierce, Fenner & Smith Limited; Merrill Lynch (Australia): Merrill Lynch Equities (Australia) Limited; Merrill Lynch (Hong Kong): Merrill Lynch (Asia Pacific) Limited; Merrill Lynch (Singapore): Merrill Lynch (Singapore) Pte Ltd; Merrill Lynch (Canada): Merrill Lynch Canada Inc; Merrill Lynch (Mexico): Merrill Lynch Mexico, SA de CV, Casa de Bolsa; Merrill Lynch (Argentina): Merrill Lynch Argentina SA; Merrill Lynch (Japan): Merrill Lynch Japan Securities Co, Ltd; Merrill Lynch (Seoul): Merrill Lynch International Incorporated (Seoul Branch); Merrill Lynch (Taiwan): Merrill Lynch Securities (Taiwan) Ltd.; DSP Merrill Lynch (India): DSP Merrill Lynch Limited; PT Merrill Lynch (Indonesia): PT Merrill Lynch Indonesia; Merrill Lynch (KL) Sdn. Bhd.: Merrill Lynch (Malaysia); Merrill Lynch (Israel): Merrill Lynch Israel Limited; Merrill Lynch (Russia): Merrill Lynch CIS Limited, Moscow; Merrill Lynch (Turkey): Merrill Lynch Yatirim Bankasi A.S.; Merrill Lynch (Dubai): Merrill Lynch International Bank Ltd, Dubai Branch; MLPF&S (Zürich rep. office): MLPF&S Incorporated Zürich representative office.

This research report has been prepared and issued by MLPF&S and/or one or more of its non-U.S. affiliates. MLPF&S is the distributor of this research report in the U.S. and accepts full responsibility for research reports of its non-U.S. affiliates distributed in the U.S. Any U.S. person receiving this research report and wishing to effect any transaction in any security discussed in the report should do so through MLPF&S and not such foreign affiliates.

This research report has been approved for publication in the United Kingdom by Merrill Lynch, Pierce, Fenner & Smith Limited, which is authorized and regulated by the Financial Services Authority; has been considered and distributed in Japan by Merrill Lynch Japan Securities Co, Ltd, a registered securities dealer under the Financial Instruments and Exchange Law in Japan; is distributed in Hong Kong by Merrill Lynch (Asia Pacific) Limited, which is regulated by the Hong Kong SFC; is issued and distributed in Taiwan by Merrill Lynch Securities (Taiwan) Ltd.; is issued and distributed in Malaysia by Merrill Lynch (KL) Sdn. Bhd., a licensed investment adviser regulated by the Malaysian Securities Commission; is issued and distributed in India by DSP Merrill Lynch Limited; and is issued and distributed in Singapore by Merrill Lynch International Bank Limited (Merchant Bank) and Merrill Lynch (Singapore) Pte Ltd (Company Registration No.'s F 06872E and 198602883D respectively). Merrill Lynch International Bank Limited (Merchant Bank) and Merrill Lynch (Singapore) Pte Ltd. are regulated by the Monetary Authority of Singapore. Merrill Lynch Equities (Australia) Limited, (ABN 65 006 276 795), AFS License 235132, provides this report in Australia. No approval is required for publication or distribution of this report in Brazil.

Merrill Lynch (Frankfurt) distributes this report in Germany. Merrill Lynch (Frankfurt) is regulated by BaFin.

Copyright, User Agreement and other general information related to this report:

Copyright 2009 Merrill Lynch, Pierce, Fenner & Smith Incorporated. All rights reserved. This research report is prepared for the use of Merrill Lynch clients and may not be redistributed, retransmitted or disclosed, in whole or in part, or in any form or manner, without the express written consent of Merrill Lynch. Merrill Lynch research reports are distributed simultaneously to internal and client websites eligible to receive such research prior to any public dissemination by Merrill Lynch of the research report or information or opinion contained therein. Any unauthorized use or disclosure is prohibited. Receipt and review of this research report constitutes your agreement not to redistribute, retransmit, or disclose to others the contents, opinions, conclusion, or information contained in this report (including any investment recommendations, estimates or price targets) prior to Merrill Lynch's public disclosure of such information. The information herein (other than disclosure information relating to Merrill Lynch and its affiliates) was obtained from various sources and we do not guarantee its accuracy. Merrill Lynch makes no representations or warranties whatsoever as to the data and information provided in any third party referenced website and shall have no liability or responsibility arising out of or in connection with any such referenced website.

This research report provides general information only. Neither the information nor any opinion expressed constitutes an offer or an invitation to make an offer, to buy or sell any securities or other investment or any options, futures or derivatives related to such securities or investments. It is not intended to provide personal investment advice and it does not take into account the specific investment objectives, financial situation and the particular needs of any specific person who may receive this report. Investors should seek financial advice regarding the appropriateness of investing in any securities, other investment or investment strategies discussed or recommended in this report and should understand that statements regarding future prospects may not be realized. Investors should note that income from such securities or other investments, if any, may fluctuate and that price or value of such securities and investments may rise or fall. Accordingly, investors may receive back less than originally invested. Past performance is not necessarily a guide to future performance. Any information relating to the tax status of financial instruments discussed herein is not intended to provide tax advice or to be used by anyone to provide tax advice. Investors are urged to seek tax advice based on their particular circumstances from an independent tax professional.

Foreign currency rates of exchange may adversely affect the value, price or income of any security or related investment mentioned in this report. In addition, investors in securities such as ADRs, whose values are influenced by the currency of the underlying security, effectively assume currency risk.

Merrill Lynch Research policies relating to conflicts of interest are described at <http://www.ml.com/media/43347.pdf>.

iQmethod, iQmethod 2.0, iQprofile, iQtoolkit, iQworks are service marks of Merrill Lynch & Co., Inc. iQanalytics®, iQcustom®, iQdatabase® are registered service marks of Merrill Lynch & Co., Inc.