



# Rebuilding Household Wealth: Implications for Economic Recovery

Craig K. Elwell  
Specialist in Macroeconomic Policy

September 13, 2013

Congressional Research Service

7-5700

[www.crs.gov](http://www.crs.gov)

R43228

## Summary

The pace of economic recovery from the 2007-2009 recession has been historically slow. Over four years of recovery, the annual rate of growth of real gross domestic product (GDP) has averaged 2%, well below the 3% to 5% typical of other post-WWII recoveries. As a result, the output gap—the difference between what the economy could produce and what it actually produced—has only declined from a high of 8.1% in mid-2009 to a still large 5.8% in mid-2013. Slow growth of output has translated into a slow reduction of unemployment.

The recovery has persisted, in part, due to support to aggregate spending by policies of fiscal and monetary stimulus. However, fiscal stimulus has steadily dissipated since 2010 and in 2013 the federal budget has turned contractionary. While monetary policy is expected to remain stimulative through 2013, it is unlikely to add to that stimulus to counteract the increasing drag of falling federal budget deficits on economic activity. Therefore, sustaining the recovery's momentum in the remainder of 2013 and into 2014 may require a greater push from private spending, particularly household consumption spending.

In the aftermath of the 2007-2009 recession, which involved a substantial loss of net worth and increase in the burden of debt, households' actions to repair their severely damaged balance sheets by reducing debt and building wealth is thought by many economists to be a key factor dissipating the strength of consumer spending. Although this repair is necessary for building a stronger economy in the long run, it has slowed the economy-wide recovery and job creation in the short run.

Where households currently stand in repairing their balance sheets is likely to influence the strength of consumer spending going forward. If substantially complete, it would point to the prospect of stronger consumer spending and increased momentum of the economic recovery; but if substantial wealth building is still needed, it would diminish that prospect.

A number of indicators paint a mixed picture of the prospect for stronger consumer spending. Despite clear progress, more repair of the severely damaged household balance sheet may be needed before households begin to spend at a faster pace. The typical household has likely only seen modest improvement in its net worth in large measure because the value of real estate, most often the largest asset it holds, has only recently been increasing. The rebound of the housing market portends progress for the typical household rebuilding its wealth, but it is unlikely that this process will be completed in 2013, making it also likely that tepid spending by consumers will continue.

Determining the state of household net worth has implications for the optimal policy response going forward. If household net worth is judged to have not fully recovered from the damage incurred in 2007-2009, particularly for the typical household, some may regard this as an indicator of a continuing need for macroeconomic policy to provide stimulus to maintain the recovery's upward momentum. It could also have implications for federal policy measures that are aimed at providing direct help in removing the burden of household debt through programs that restructure mortgage debt.

## Contents

Introduction.....	1
Background: Household Wealth and Economic Activity.....	1
A Deep Recession and a Slower Than Normal Recovery .....	1
Unusually Weak Consumption Spending .....	3
The Impact of a Large Decrease in Household Wealth .....	3
The Added Burden on Households of Increased Financial Leverage.....	6
The Current State of Household Net Worth.....	8
Aggregate Nominal Household Net Worth is Now Above the Pre-Crisis Level.....	8
The Recovery in <i>Real</i> Household Net Worth is Incomplete.....	9
Assets With Greatest Increase in Value Since 2009 Are Not Widely Held .....	9
Recent Upturn in House Prices Could Boost Typical Household Net Worth.....	11
A Modest Reduction in Debt .....	12
Leverage in the Household Balance Sheet Has Been Reduced.....	12
How Much Balance Sheet Repair Has Occurred?.....	14
Any Signs Consumers Are Spending More Freely? .....	14
Policy Implications .....	15

## Figures

Figure 1. Potential GDP (GDPPOT), Actual GDP, and the Output Gap.....	2
Figure 2. Aggregate Household Net Worth.....	4
Figure 3. Value of Household Real Estate Assets .....	5
Figure 4. Case-Shiller Home Price Index .....	5
Figure 5. Leverage in the Household Balance Sheet: Ratio of Debt to Assets .....	6
Figure 6. Ratio of Household Net Worth to Disposable Income .....	7
Figure 7. Personal Saving Rate.....	8
Figure 8. Household’s Total Assets (TA) and Liabilities (TL).....	9
Figure 9. Household’s Total Assets (TA) and Financial Assets (TFA) .....	10
Figure 10. Household’s Owner Equity in Real Estate .....	11
Figure 11. Household’s Total Liabilities (TL) and Mortgage Liabilities (ML) .....	12
Figure 12. Ratio of Mortgage Debt to Real Estate Assets .....	14

## Contacts

Author Contact Information.....	16
---------------------------------	----

## **Introduction**

Congress was an active participant in the policy responses to the 2007-2009 recession and its aftermath and has an ongoing interest in macroeconomic conditions. Current macroeconomic concerns include whether the economy is in a sustained recovery, rapidly reducing unemployment, and speeding a return to normal output and employment growth.

Faced with fiscal consolidation and limited further impetus from monetary policy, the momentum of the current economic recovery will likely be determined by the strength of spending by the private economy, particularly the strength of consumer spending. In the aftermath of the deep 2007-2009 recession, involving a huge loss of net worth and a large increase in the burden of debt, households' actions to repair their balance sheets is thought by many economists to be a key factor dissipating the strength of consumer spending and, in turn, slowing economy-wide recovery and job creation. Where households currently stand in repairing their balance sheets is likely to have a strong effect on the strength of consumer spending. If substantially complete, it would point to the prospect of stronger consumer spending and increased momentum of the economic recovery; but if substantial wealth building is still needed, it would diminish that prospect.

This report begins with a discussion (accompanied by graphics) of the slower than normal pace of the ongoing economic recovery and the likely role in that of weak consumer spending forced by a sharp loss of household net worth during the recession and the subsequent need to rebuild that lost wealth. Next, the report examines (also accompanied by graphics) where balance sheet repair currently stands, paying particular attention to the composition of assets that have been accumulated and the degree of debt reduction achieved. The report then considers the near-term prospect for stronger consumer spending and more rapid economic recovery. The report concludes with a discussion of the possible implications of household balance sheet repair for economic policy.

## **Background: Household Wealth and Economic Activity**

### **A Deep Recession and a Slower Than Normal Recovery**

The 2007-2009 recession was long and deep, and according to several indicators was the most severe economic contraction since the 1930s (but nevertheless much less severe than the Great Depression). When the fall of economic activity finally bottomed out in the second half of 2009, real gross domestic product (GDP) had contracted by approximately 5.1%, or by about \$680 billion.

The pace of economic recovery from the recession has been lackluster.<sup>1</sup> Over four years of recovery, the annual rate of growth of real GDP has averaged 2%, well below the 3% to 5%

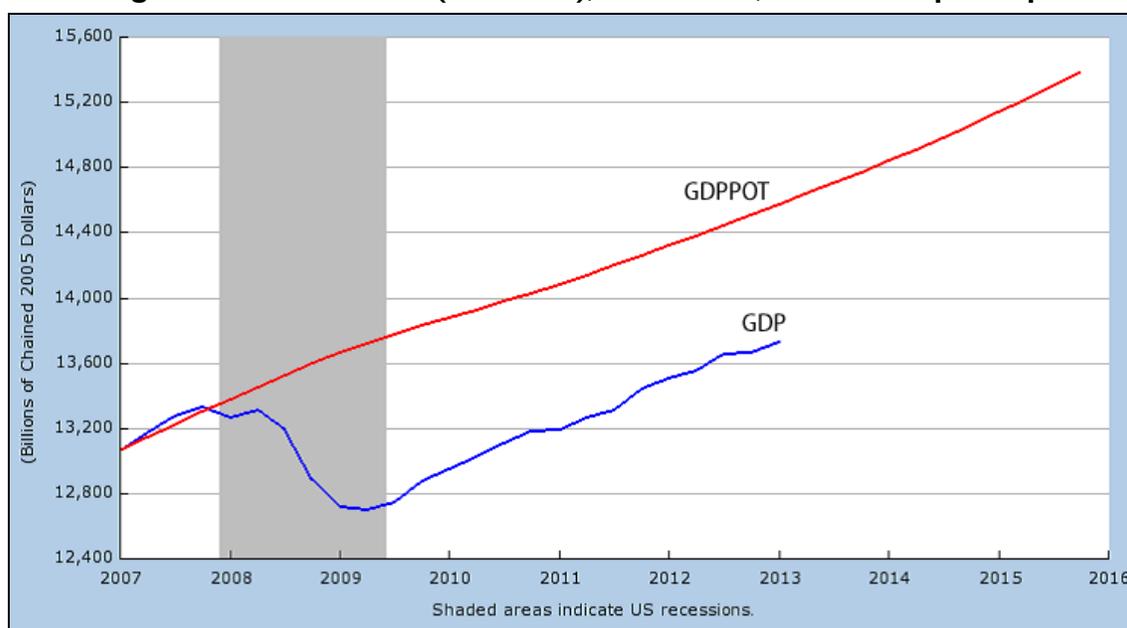
---

<sup>1</sup> See CRS Report, *Economic Recovery: Sustaining U.S. Economic Growth in a Post-Crisis Economy*, by Craig K. Elwell.

typical of other post-WWII recoveries. As a result, the output gap—the difference between what the economy could produce and what it actually produced—has only declined from a high of 8.1% in mid-2009 to a still large 5.8% in mid-2013 (see **Figure 1**). Slow growth of output has also meant a slow reduction of unemployment; down from a peak of 10.1% reached in October 2009, the unemployment rate remains near 7.5%, leaving 12 million persons still without a job.<sup>2</sup>

Albeit slower than hoped, the recovery has persisted. In part, steady growth was the result of support given to aggregate spending by policies of fiscal and monetary stimulus. However, fiscal stimulus has steadily dissipated since 2010 and in 2013 it has turned contractionary.<sup>3</sup> And while monetary policy is expected to remain stimulative through 2013, it is unlikely to add to that stimulus to counteract increasing fiscal drag. Therefore, sustaining the recovery's momentum in the remainder of 2013 and into 2014 may require a greater push from private spending, particularly household consumption spending.

**Figure 1. Potential GDP (GDPPOT), Actual GDP, and the Output Gap**



**Sources:** Congressional Budget Office and Bureau of Economic Analysis.

<sup>2</sup> Data on real GDP are available from the Department of Commerce, Bureau of Economic Analysis, at <http://www.bea.gov/national/index.htm#gdp>. Size of output gap is based on the Congressional Research Service (CRS) calculations using Congressional Budget Office (CBO) estimate of potential GDP, data for which is available at FRED Economic Data, St. Louis Fed, at <http://research.stlouisfed.org/fred2/series/GDPPOT>. Data on unemployment and employment are available from the Department of Labor, Bureau of Labor Statistics, at <http://www.bls.gov/>.

<sup>3</sup> U.S. Congressional Budget Office, *The Effect of Automatic Stabilizers on the Federal Budget as of 2013*, March 13, 2013, available at <http://www.cbo.gov/publication/43977>. In 2011, 2012, and the first half of 2013, the contribution to real GDP growth from spending by the federal government has been negative. See the Department of Commerce, Bureau of Economic Analysis, *National Income and Product Accounts*, Table 1.1.2, available at <http://www.bea.gov/national/index.htm#gdp>.

## Unusually Weak Consumption Spending

Personal consumption expenditures historically constitute the largest and most stable component of aggregate spending in the U.S. economy. Since the 1980s, consumption spending's share of GDP has averaged between 65% and 70% and during previous post-war recoveries consumption spending has typically increased at a 4%-5% annual pace. Typically, a strong rebound by the largest component of final demand was a central driver sustaining the momentum of economic recovery, causing a quick closing of the output gap opened up by the preceding recession, and a quick return to full employment. This recovery, however, has been characterized by relatively weak consumption spending by households, averaging a sluggish 2% annual pace for the four-year period. Several factors have likely contributed to households spending less vigorously in this recovery than in previous economic recoveries. Persistent high rates of unemployment have directly dampened spending by decreasing income for millions of households and more broadly dampened spending by eroding consumers' confidence in their immediate economic prospects. In addition, sharp spikes in energy prices in 2010 and 2012 had significant negative effects on household budgets.<sup>4</sup>

## The Impact of a Large Decrease in Household Wealth

Many economists have argued that the most important factor making consumer spending in this recovery historically weak is that, unlike previous post-war recessions in which reduced household income impeded spending, the 2007-2009 recession carried with it an enormous decrease in household net worth (wealth) caused by the associated collapse of the housing and stock markets. The \$542 billion or 5.3% decrease in disposable income during the recession was large but substantially smaller than the decline in aggregate household wealth, which decreased by \$16.4 trillion or 26% (see **Figure 2**).<sup>5</sup>

---

<sup>4</sup> See CRS Report, *Economic Recovery: Sustaining U.S. Economic Growth in a Post-Crisis Economy*, by Craig K. Elwell.

<sup>5</sup> Data on wealth and financial flows available at the Board of Governors of the Federal Reserve System, available at <http://www.federalreserve.gov/releases/z1/Current/z1r-5.pdf>.

**Figure 2. Aggregate Household Net Worth**

**Source:** Board of Governors of the Federal Reserve System.

However, the loss of wealth for the typical household was proportionately greater than the fall of aggregate household wealth. A clearer view of the damage to the net worth of a typical household is provided by the change in *median* household net worth—the level of net worth at which half the households are richer and half poorer. The estimated decrease in median household real net worth was 39%. Overall, it is estimated that the bottom 80% of households lost two decades' worth of wealth.<sup>6</sup>

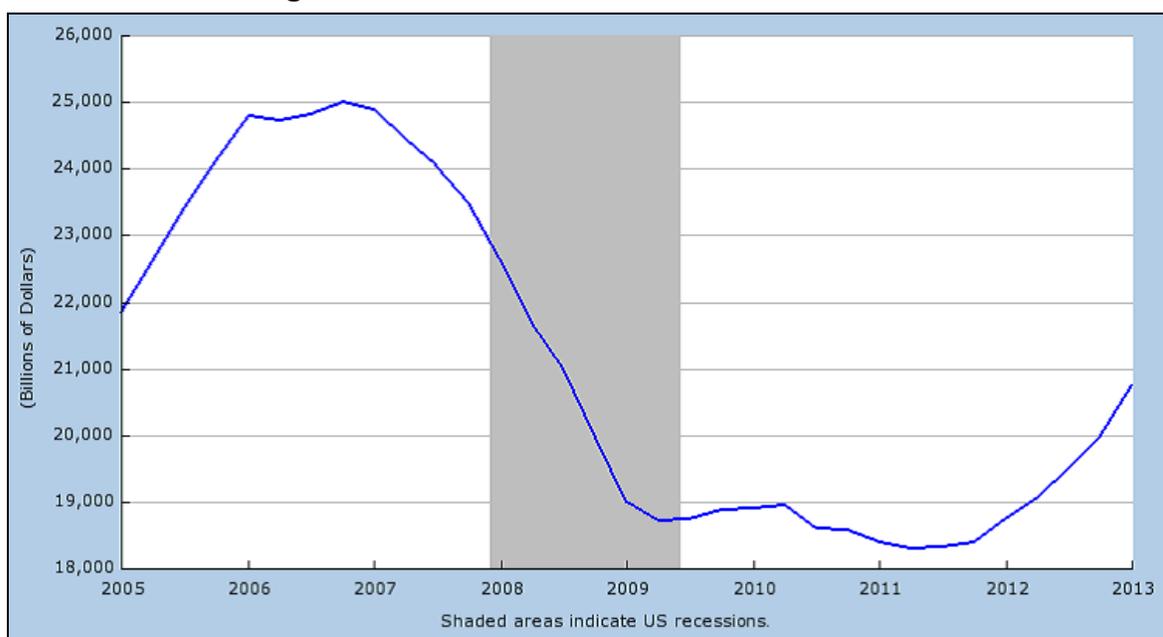
Although declines in the values of financial assets or businesses were important factors for some families, owner equity in the home has typically constituted 75%-80% of households' total assets. Therefore, the decrease in the median household's net worth appears to have been driven most strongly by an \$8.4 trillion or 35% decrease in the value of real estate assets that began in 2006 and continued through mid-2011 (see **Figure 3**).<sup>7</sup> The variation in housing wealth is largely explained by changes in home values, rather than changes in home ownership rates, which have remained largely unchanged. A commonly used measure of home prices is the Case-Shiller index, which tracks home prices in 20 metropolitan regions. Over the 2006-2011 period, the Case-Shiller index fell 33% and its path essentially mirrors the path of the value of household real estate assets (see **Figure 4**).<sup>8</sup>

<sup>6</sup> U.S. Census Bureau, *Household Wealth in the U.S. 2000-2011*, available at <http://www.census.gov/people/wealth/files/Wealth%20Highlights%202011.pdf>.

<sup>7</sup> Collapse of housing market began before the recession and was a major factor causing the economy-wide collapse.

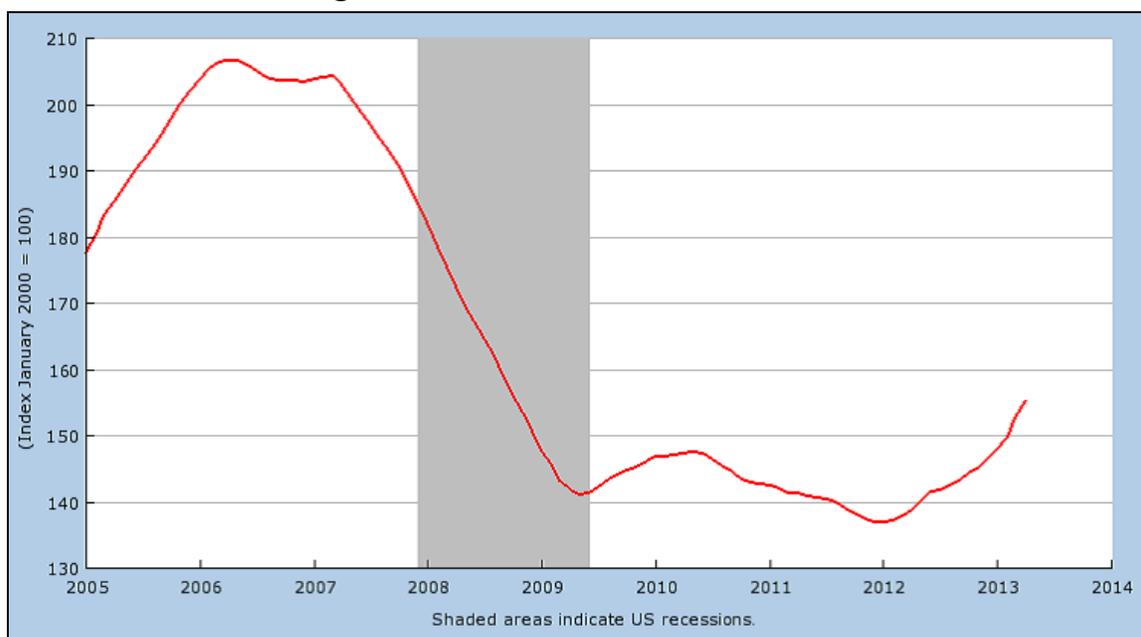
<sup>8</sup> Case-Shiller Home Price Index-20 City, S&P Dow Jones Indices, available at <http://us.spindices.com/index-family/real-estate/sp-case-shiller>.

**Figure 3. Value of Household Real Estate Assets**



Source: Board of Governors of the Federal Reserve System.

**Figure 4. Case-Shiller Home Price Index**



Source: Standard & Poors/Dow Jones.

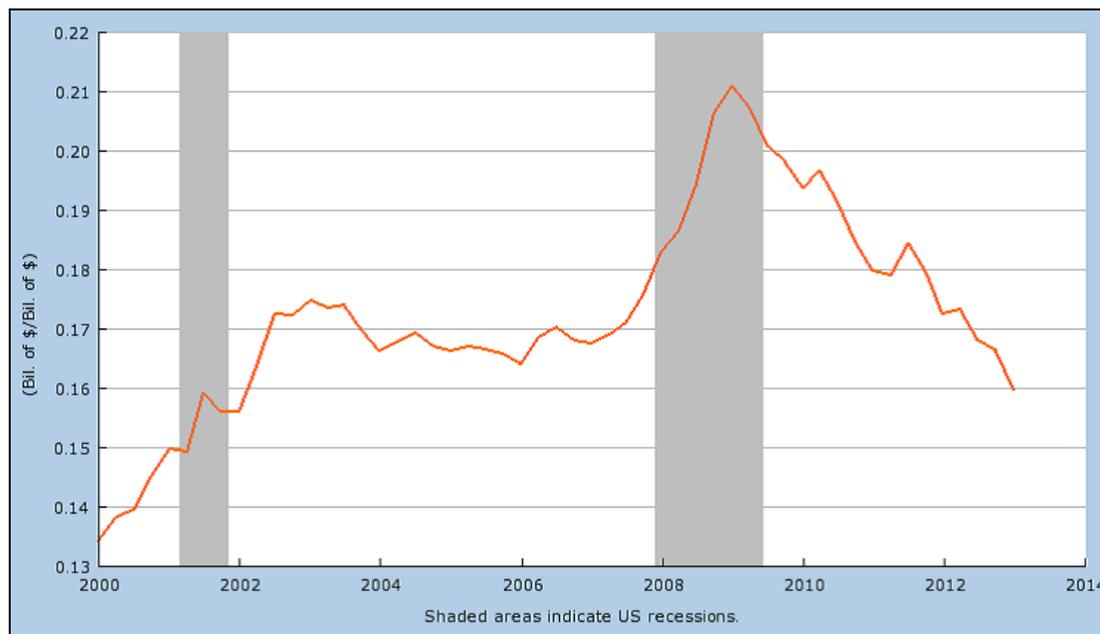
Research suggests that housing wealth has a much stronger impact on household spending than does financial wealth, making it a major factor governing consumption spending by most households. It is estimated that a one-time decrease in housing wealth of 1% leads to a 0.10% decrease in consumer spending each year afterward. On the other hand, the same change in financial wealth (i.e., stocks, bonds, pension funds) led to a smaller 0.03% permanent decrease in

consumer spending. That degree of consumption sensitivity to housing wealth implies that the 35% decrease in housing wealth experienced between 2006 and 2011 would reduce household consumption by 3.5% or by about \$350 billion, which is equivalent to more than half of the \$680 billion economy-wide contraction of real GDP during the 2007-2009 recession.<sup>9</sup>

## The Added Burden on Households of Increased Financial Leverage

The loss of wealth by itself would have likely caused households to divert more income from consumption to saving in an attempt to rebuild their net worth. However, there was another exacerbating factor—a sharp increase in financial leverage. Leverage is the degree to which household assets are financed with debt and is typically measured as the ratio of household debt to assets. In 2007 the leverage ratio of households balance sheet was at a historically high 18%, up from 14% in 2000. With the collapse of asset prices that began in 2006, the leverage ratio would rise, reaching over 21% at the end of the recession in mid-2009 (see **Figure 5**).

**Figure 5. Leverage in the Household Balance Sheet: Ratio of Debt to Assets**



**Source:** Board of Governors of the Federal Reserve System.

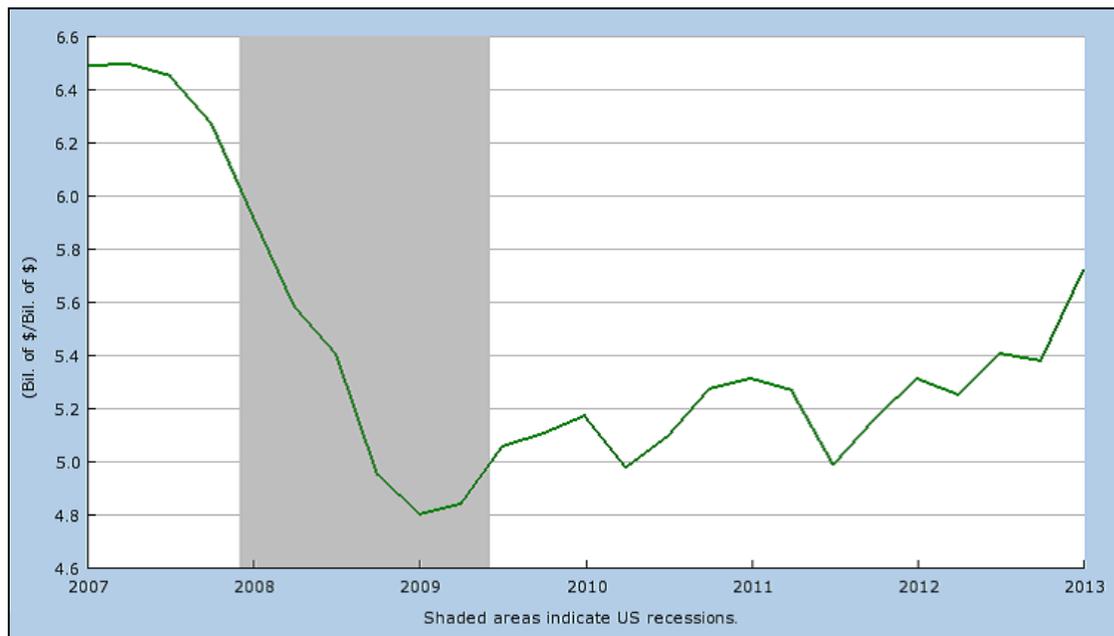
Many analysts argued that this “debt overhang” created an additional motive for household deleveraging, giving rise to a further diversion of current income to balance sheet repair and, in turn, causing slower aggregate spending. Sharply rising debt likely dampens household spending by raising financial discomfort, increasing debt service costs, and reducing access to credit markets. A recent study suggests that highly leveraged households had larger declines in spending than other households, despite having smaller changes in net worth.<sup>10</sup>

<sup>9</sup> Karl E. Case, John H. Quigley, and Robert J. Shiller, *Wealth Effects Revisited 1975-2012*, National Bureau of Economic Research, Working Paper 18667, January 2013, available at <http://www.nber.org/papers/w17830>.

<sup>10</sup> Karen Dyan, “Is U.S. Household Debt Overhang Holding Back Consumption?” *Brookings Papers on Economic Activity*, spring 2012, available at <http://www.brookings.edu/research/papers/2012/09/debt-overhang-dyan>.

Together, a substantial loss of net worth and historically high leverage created a particularly weak aggregate household balance sheet, increasing the severity of the 2007-2009 recession and slowing the pace of the subsequent recovery. Research suggests that roughly two out of every three jobs lost between 2007 and 2009 were attributable to household balance sheet weakness leading to weak consumption spending<sup>11</sup>. Similarly, unlike in earlier post-war recoveries, the need for households to rebuild a sizable amount of lost wealth and to reduce a large debt overhang would cause a substantial diversion of current income from consumption spending to saving. The process of repairing the household balance sheet has been, arguably, a major factor causing the below average pace of the economic recovery since 2009.<sup>12</sup> The ratio of net worth to disposable income is one indicator that households have been repairing their balance sheets; it has been increasing, moving from a recession low of 4.5 to 5.9 in the first quarter of 2013 (see **Figure 6**).<sup>13</sup> Since the start of the recession, the personal saving rate also shows that a larger share of income has been directed toward wealth building. Saving rose from about 2% of income prior to the recession to near 6% during the recession, and it has remained above 5% during the recovery (see **Figure 7**).

**Figure 6. Ratio of Household Net Worth to Disposable Income**



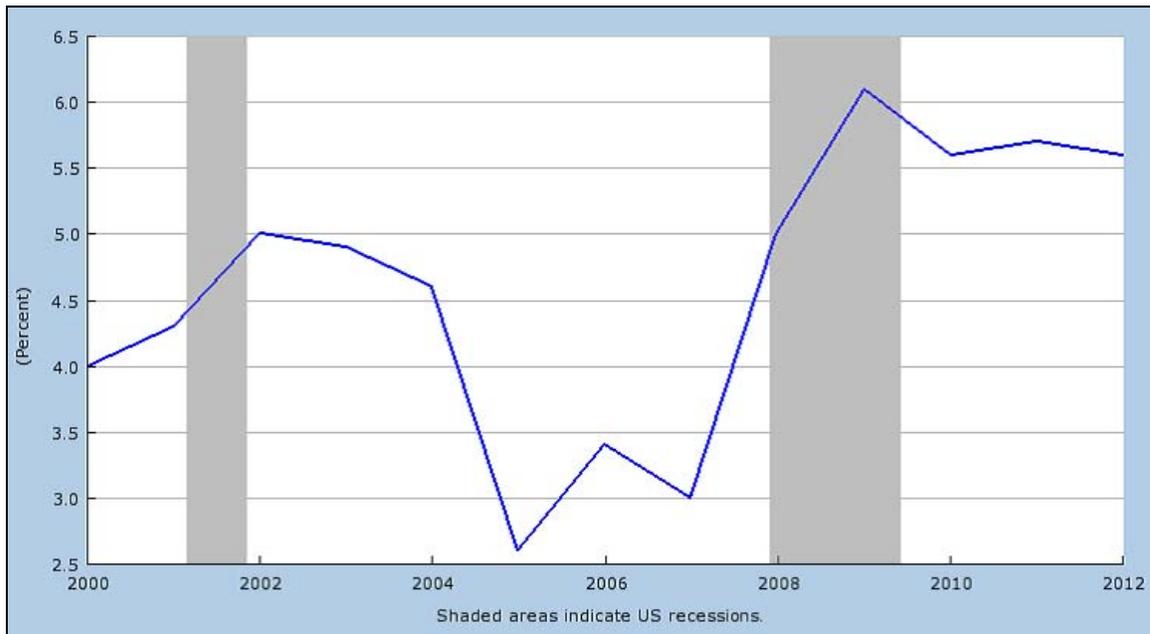
**Source :** Board of Governors of the Federal Reserve System.

<sup>11</sup> Atif Mian and Amir Sufi, *What Explains High Unemployment? The Aggregate Demand Channel*, National Bureau of Economic Research, Working Paper 17830, February 2012, at <http://www.nber.org/papers/w17830>.

<sup>12</sup> See Evan Tanner and Yassar Abdih, “Rebuilding U.S. Wealth,” *Finance & Development*, IMF, December 2009 at <http://www.imf.org/external/pubs/ft/fandd/2009/12/tanner.htm>; and Deniz Igan, Daniel Leigh, John Simon, and Petia Topalova, “Dealing with Household Debt,” IMF Global Financial Stability Report, available at <http://www.imf.org/external/np/seminars/eng/2012/fincrises/pdf/ch18.pdf>.

<sup>13</sup> Data from *Flow of Funds, Z.I. Release*, Board of Governors of the Federal Reserve System, available at <http://www.federalreserve.gov/releases/z1/Current/z1r-5.pdf>.

Figure 7. Personal Saving Rate

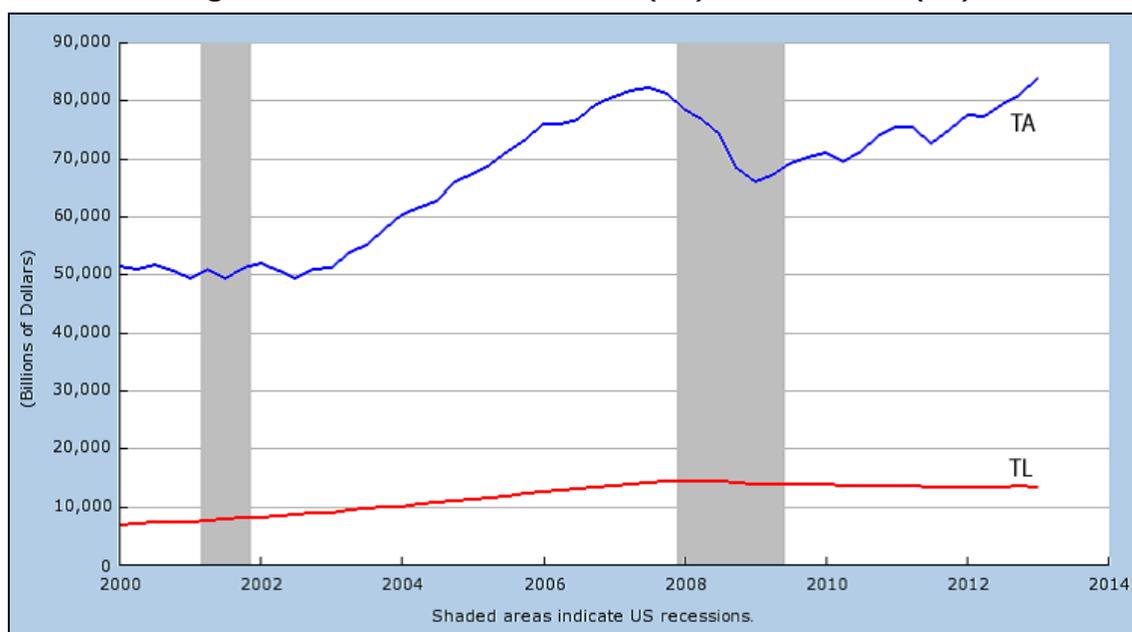


Source: Bureau of Economic Analysis.

## The Current State of Household Net Worth

### Aggregate Nominal Household Net Worth is Now Above the Pre-Crisis Level

Aggregate household net worth has more than fully recouped the wealth lost during the 2008-2009 recession. In the first quarter of 2013, aggregate household net worth reached \$70.3 trillion, an increase of \$18.3 trillion from the \$52.0 trillion low reached in the first quarter of 2009, and about \$2.0 trillion above the pre-recession peak of \$68.1 trillion reached in the second quarter of 2007 (see **Figure 2**). The increase in household wealth since 2009 was the net effect of a rising value of assets and falling value of liabilities (debt) although the former was by far the largest contributor to the improvement in net worth (see **Figure 8**). Since the first quarter of 2009, the value of total assets held by households increased by \$17.8 trillion, representing about 97% of the increase in net worth, whereas total liabilities fell by \$0.5 trillion, representing the remaining 3% of the increase in net worth. However, aggregate net worth does not tell the complete story about the health of the typical household's balance sheet and the likely inducement provided to consumer spending.

**Figure 8. Household's Total Assets (TA) and Liabilities (TL)**

Source: Board of Governors of the Federal Reserve System.

## The Recovery in *Real* Household Net Worth is Incomplete

Inflation affects the real purchasing power of wealth. Although inflation has been historically low since the beginning of the recession in late 2007, consumer prices, as measured by the Personal Consumption Expenditures (PCE) price index, have increased at an annual rate near 2%; the cumulative effect has resulted in a decrease in the purchasing power of a dollar of wealth over the 2007-2013 period by 9.6%.<sup>14</sup> Deflating the current value of household net worth by that factor reduces aggregate net worth in the first quarter of 2013 from \$70.3 trillion to \$64.3 trillion in 2007 dollars; placing real net worth about \$4.0 trillion or about 6% short of full recovery of the 2007 level of purchasing power.

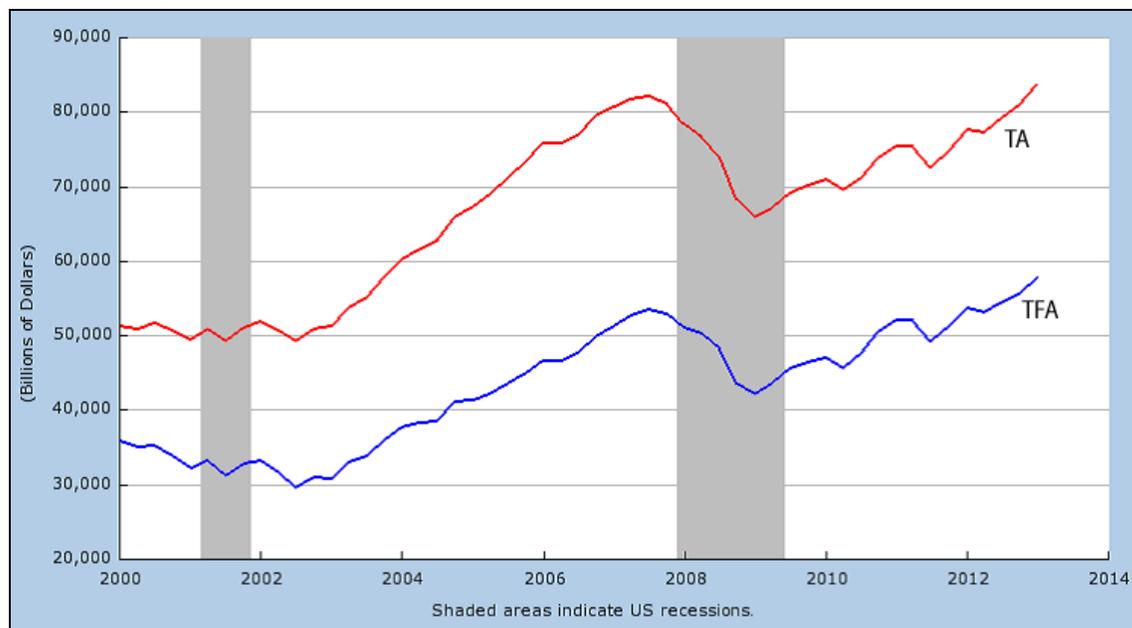
## Assets With Greatest Increase in Value Since 2009 Are Not Widely Held

The aggregate net worth numbers masks a significant change in the composition of the households underlying assets. On the asset side, the total gain of household net worth was \$10.8 trillion. Most (96%) of that gain was highly concentrated in financial assets (i.e., bank deposits, stocks, bonds, pension fund reserves), which increased by \$10.4 trillion, and the share of financial assets that comprise total household assets increased from 63% to 69% (see **Figure 9**). The value of households' nonfinancial assets increased a comparatively modest \$2.2 trillion, an increase that was largely the consequence of a like-sized increase in the value of household real estate holdings

<sup>14</sup> Date on PCE price index is available at Department of Commerce, Bureau of Economic Analysis, at <http://www.bea.gov/national/index.htm#gdp>.

and is relatively recent, beginning in mid-2011. In addition, non-financial assets share of total household assets has fallen from a pre-crisis share of 35 % to 31% currently.

**Figure 9. Household's Total Assets (TA) and Financial Assets (TFA)**



**Source:** Board of Governors of the Federal Reserve System.

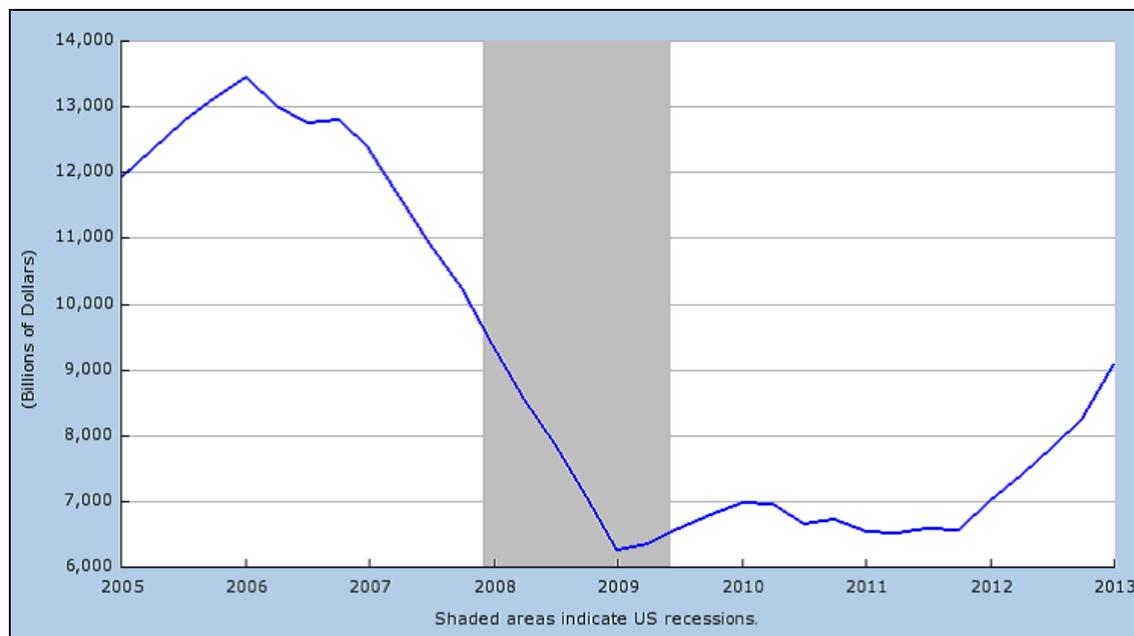
The possible significance of this shift toward holding more financial assets as a percentage of totals assets is that such assets are not held widely, tending to be concentrated among a relatively small number of wealthier households whose tendency to spend in response to a rise in wealth is likely relatively low. Census data indicates that the real net worth of the median household, at least through 2011, had not increased. Data on the wealth of the median household are only available for select years, the most recent being 2011. In 2005, median household net worth was estimated to be \$93,200; at the recessions trough in 2009, it had fallen to \$68,900; and remained essentially unchanged in 2011 at \$68,800.<sup>15</sup> The lack of improvement in the median household's net worth is largely a reflection of the decline in the value of household real estate holdings; historically a major component of the median household's wealth. Home equity fell by more than \$7 trillion from 2006 to 2009 and has only begun to recover since 2012 (see **Figure 10**), for which median wealth data are not yet available. Consequently, most households have not seen the degree of recovery in their net worth indicated by the aggregate numbers and have a commensurately smaller inducement to boost spending.

Looking at the aggregate home equity data, during much of this period, more than 30% of all mortgages were estimated to be "underwater," meaning that the remaining balance of the mortgage exceeded the value of the home. In the first quarter of 2013, the percentage of underwater mortgages decreased to about 27%, indicating that this important component of net

<sup>15</sup> See again U.S. Census Bureau, *Household Wealth in the U.S. 2000-2011*, available at <http://www.census.gov/people/wealth/files/Wealth%20Highlights%202011.pdf>.

worth has still not fully recovered for an estimated 13 million households, whose ability to spend is likely to be particularly liquidity constrained.<sup>16</sup>

**Figure 10. Household's Owner Equity in Real Estate**



Source: Board of Governors of the Federal Reserve System.

## Recent Upturn in House Prices Could Boost Typical Household Net Worth

In the second half of 2011, home prices did stabilize and begin to increase, up about 9% on average nationwide through the first quarter of 2013.<sup>17</sup> Rising home prices are likely to have a strong positive effect on the wealth of the median household, and such an improvement is evident in the aggregate net worth data. With house prices once again rising, owner equity in real estate, which had fallen \$7.5 trillion from 2006 to 2011, increased \$2.6 trillion through the first quarter of 2013 (see **Figure 10**).

The recent upturn in house prices is likely to have had a positive effect on the net worth of the typical household in 2012 and will continue to do so in 2013 if prices continue rising. Furthermore, dollar for dollar increased housing wealth is likely to have a larger positive effect on household spending relative to increased financial wealth. As also noted above, however, large numbers of mortgage holding households still remain “underwater.”

<sup>16</sup> Zillow Real Estate Research, <http://www.zillowblog.com/research/2013/05/22/millions-remain-trapped-by-effective-negative-equity-in-q1-even-if-theyre-not-underwater/>.

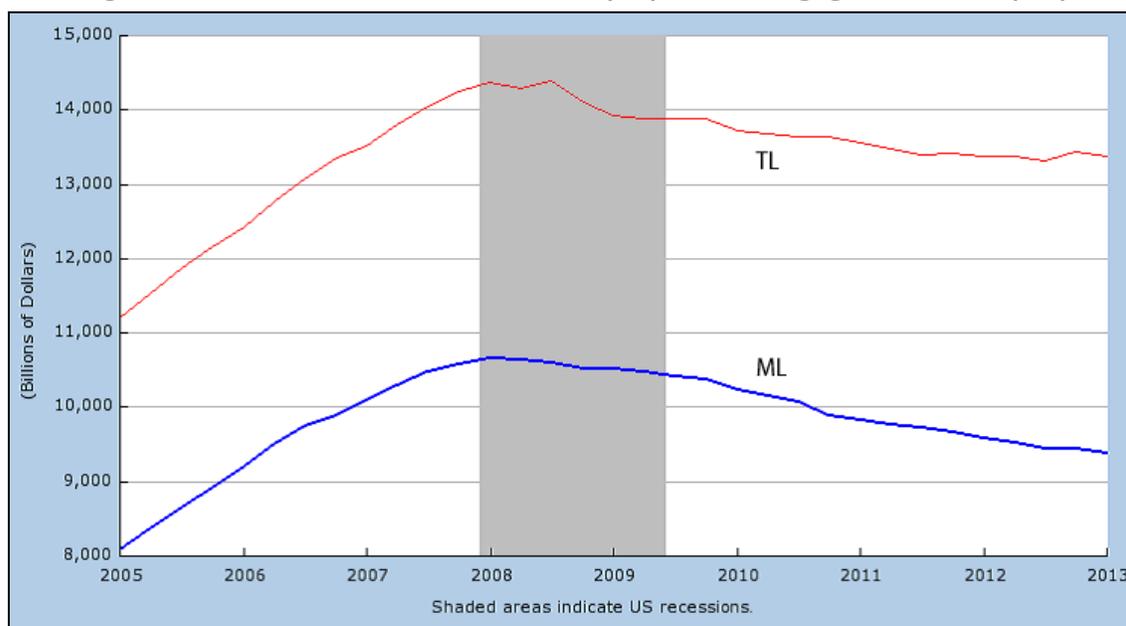
<sup>17</sup> See again Case-Shiller Home Price Index-20 City, S&P Dow Jones Indices, available at <http://us.spindices.com/index-family/real-estate/sp-case-shiller>.

## A Modest Reduction in Debt

On the liability side of household's balance sheet, debt obligations decreased from a pre-crisis high of about \$14.4 trillion to \$13.4 trillion through the first quarter of 2013, reflecting a net decrease of about \$1.0 trillion or 7% (see **Figure 11**). That decline was more than fully explained by a \$1.3 trillion decrease in mortgage debt. (Other components of total liabilities, such as consumer credit, increased.) However, these aggregate liability numbers likely overstate changes in active debt repayment behavior by households due to the effect of charge-offs resulting from mortgage defaults that increased greatly between 2007 and 2013. Data limitations prevent a precise allocation of percentages of mortgage debt decline to charge-offs; however, estimates are typically tallied to be several hundreds of billions of dollars.<sup>18</sup>

Households' debt service costs have decreased, down from a high of 14% of disposable income in 2007 to about 10.5% in the first quarter of 2013. However, in addition to a reduced level of debt, a sizable fall in interest rates since 2007 has also lowered debt service costs.<sup>19</sup>

**Figure 11. Household's Total Liabilities (TL) and Mortgage Liabilities (ML)**



Source: Board of Governors of the Federal Reserve System.

## Leverage in the Household Balance Sheet Has Been Reduced

The improvement in the aggregate household balance sheet has also reduced the degree of financial leverage, falling from the recession high of 21% to 16%, which is below the pre-

<sup>18</sup> Meta Brown, Andrew Haughwout, Dongloon Lee, and Wilbert van der Klaauw, "The Financial Crisis at the Kitchen Table: Trends in Household Debt and Credit," Federal Reserve Bank of New York, *Current Issues in Economics and Finance*, vol. 19, no. 2, 2013, at [http://www.newyorkfed.org/research/current\\_issues/ci19-2.html](http://www.newyorkfed.org/research/current_issues/ci19-2.html).

<sup>19</sup> Board of Governors of the Federal Reserve System, *Household Debt Service and Financial Obligations Ratios*, available at <http://www.federalreserve.gov/releases/housedebt/default.htm>.

recession leverage ratio value of 17% (See **Figure 5**). Nevertheless, whether there is still excess leverage or a debt overhang depends on where the current leverage ratio stands relative to where households would prefer to be, but this “desired” leverage is difficult to gauge. A 16% leverage ratio is still historically high. For comparison, from 1970 to 2000 that ratio was consistently below 16%, moving in a band from 12% to 15%.

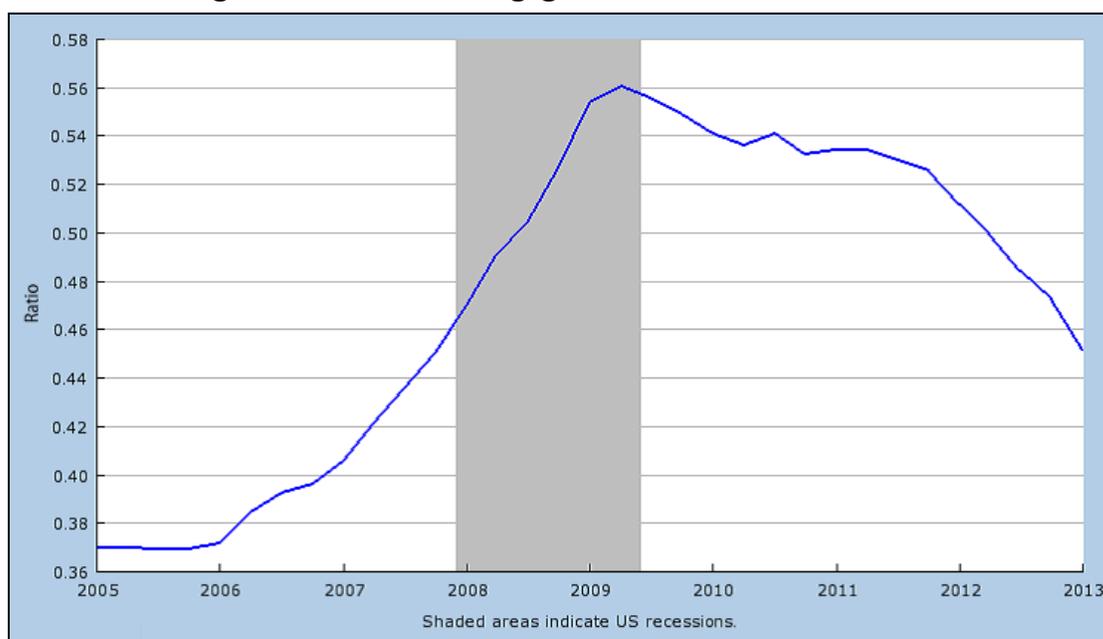
Perhaps, the typical household may not view a reduction of the aggregate leverage ratio, which largely resulted from the increased value of financial assets with only modest debt reduction, as favorably as the same reduction generated primarily by a sizable increase in housing wealth or a sizable reduction of mortgage debt. There is the possibility that the severity of the financial crisis and the recent precarious state of household finances may have forced a sharp decline in the desired leverage ratio for any given mix of assets on their balance sheet, possibly below the 2006 benchmark.

A leverage ratio that looks more narrowly at the major asset and liability held by the median household, that is, household mortgage debt relative to the market value of household real estate does not show the same degree of improvement as does the broader aggregate leverage ratio. The narrower measure rises from a pre-housing crisis low of 36% in 2006 to a high of 56% in mid-2009, but had fallen to only 45% through the first quarter of 2013 (see **Figure 12**). By this measure, more deleveraging would be needed to get the ratio back to its 2006 value.

Again, there is the possibility that the severity of the financial crisis and the recent precarious state of household finances may have forced a sharp lowering below the 2006 benchmark of the desired leverage ratio for real estate assets. Prior to the 1990s, this ratio was typically below 30%. One study judged that in 2011, between 20 percent and 25 percent of households were still above their target leverage ratio.<sup>20</sup>

---

<sup>20</sup> See Karen Dyan, “Is U.S. Household Debt Overhang Holding Back Consumption?” *Brookings Papers on Economic Activity*, spring 2012, available at <http://www.brookings.edu/research/papers/2012/09/debt-overhang-dyan>.

**Figure 12. Ratio of Mortgage Debt to Real Estate Assets**

Source: Board of Governors of the Federal Reserve System.

## How Much Balance Sheet Repair Has Occurred?

Despite clear progress, more repair of the severely damaged household balance sheet may be needed before households begin to spend at a faster pace. The typical household has likely only seen modest improvement in its net worth (in large measure) because the value of real estate assets has only recently been rising. The rebound of the housing market portends well for the typical household rebuilding its wealth, but it is unlikely that this process will be completed in 2013, making it also likely that tepid spending by consumers will continue.

## Any Signs Consumers Are Spending More Freely?

A number of indicators paint a mixed picture of the prospect for stronger consumer spending.

- Consumer confidence, as measured by households' attitudes and expectations about their finances, economic conditions and the buying climate has increased to the highest level in six years according to the Thomson Reuters/ University of Michigan Index.<sup>21</sup>
- The Federal Reserve's senior loan officer opinion survey on bank lending practices reported for the fifth consecutive month that the demand for prime residential mortgages had strengthened on net. In addition, the demand for automobile and credit card loans had strengthened on balance.<sup>22</sup>

<sup>21</sup> Surveys of Consumer Confidence, Thomson Reuters/University of Michigan, July 2013, available at <http://www.sca.isr.umich.edu/>.

<sup>22</sup> The Federal Reserve Board, *Senior Loan Officers Opinion Survey on Bank Lending*, April 2013, available at (continued...)

- The personal saving rate out of real disposable income in 2012 was 4.1%, down from 5.1% in 2011. In the first quarter of 2013, the personal saving rate decreased to 2.5%. A fall in the saving rate could be an indicator of households turning away from balance sheet repair and toward increased consumption spending. However, the first quarter result could also be a manifestation of lower disposable income caused by the increase in the payroll tax in January. With income down, households may have reached into saving to maintain their level of consumption spending, an action unlikely to be sustainable.<sup>23</sup>
- Real consumer spending in the first half of 2013 increased at an annual rate of 2.0%, slower than the 2.2% pace seen over the previous three years. This rate of spending falls short of what would be needed to accelerate the pace of the recovery (and as noted above may have received a temporary boost from reduced saving). Also, core retail sales for April through June 2013 have slowed relative to the first three months of the year.<sup>24</sup>

## Policy Implications

If household net worth is judged not to have fully recovered from the damage incurred in 2008-2009, particularly for the typical household, then this would suggest to some a continuing need for macroeconomic policy to provide stimulus to maintain the recovery's upward momentum.

At this point, stimulus from fiscal policy has ended and concerns about long term fiscal imbalance are a barrier to its being reapplied. So the question of continued need relates to monetary policy and when the Federal Reserve could begin to taper its asset purchases associated with its current policy of quantitative easing (commonly referred to as QE3). The Fed has said that a slowing of QE3 is contingent on clear signs of improving economic conditions, particularly labor market conditions. The incomplete repair of the household balance sheet would be one factor suggesting that those clear signs are not likely to appear in the immediate future.<sup>25</sup>

The current state of household net worth, particularly the still large number of households with negative equity in their homes, could also have implications for the continuing need for federal policies such as the Home Affordable Modification Program (HAMP) that are aimed at providing direct help in removing the burden of household debt through policies that restructure mortgage debt.<sup>26</sup>

---

(...continued)

<http://www.federalreserve.gov/boarddocs/SnLoanSurvey/>.

<sup>23</sup> Department of Commerce, Bureau of Economic Analysis, available at <http://www.bea.gov/national/index.htm#gdp>.

<sup>24</sup> Saving data from Department of Commerce, Bureau of Economic Analysis, available at <http://www.bea.gov/national/index.htm#gdp>. Retail sales data from the U.S. Census Bureau, available at <http://www.census.gov/retail/>.

<sup>25</sup> See CRS Report RL30354, *Monetary Policy and the Federal Reserve: Current Policy and Conditions*, by Marc Labonte.

<sup>26</sup> See CRS Report R42480, *Reduce, Refinance, and Rent? The Economic Incentives, Risks, and Ramifications of Housing Market Policy Options*, by Sean M. Hoskins.

## **Author Contact Information**

Craig K. Elwell  
Specialist in Macroeconomic Policy  
celwell@crs.loc.gov, 7-7757