THE COSTS OF THE FINANCIAL CRISIS
(As of May 30, 2012)

Introduction

It is impossible to quantify all of the consequences of the still-unfolding financial crisis for several reasons. First, of course, many costs of this crisis cannot be monetized, as they include the widespread human suffering that inevitably comes with financial hardship and in many cases, financial ruin. In addition, even the more purely economic effects are difficult to measure precisely, and many of those will play out over years in ways that are difficult to determine. For example, the massive and prolonged unemployment we are now witnessing not only directly lowers gross domestic product ("GDP"), it also destroys human capital on a long-term basis, further suppressing GDP over the long term.

Nevertheless, many of the costs of the crisis are clearly quantifiable. This appendix first provides an overview of five major indicators or measures of the costs of the crisis, and then offers a more detailed and documented analysis of those five factors.

Overview of the Major Cost Indicators

1. **GROSS DOMESTIC PRODUCT –** One important measure of the cost of the crisis is the difference between actual and potential GDP, currently estimated to be $2.6 trillion.[1] "[B]y the time the nation's output rises back to its potential level [in 2018], the cumulative shortfall is expected to equal $5.7 trillion."[2] Loss of economic productivity on this scale reflects genuine degradation in the quality of life for millions of Americans, especially those in the middle and lower economic strata. This measure of the crisis is actually incomplete, however, because the enormous loss of output reflected in the GDP figures does not include other economic costs, such as the destruction of human capital on a wide scale through prolonged unemployment; the elimination of future policy flexibility due to recession-created government deficits; dramatic losses in household wealth such as home values and assets held in retirement accounts; and widespread human suffering.

2. **UNEMPLOYMENT –** The unemployment rate peaked at 10.1 percent in October 2009 or 15.4 million Americans, which, "[a]fter adjusting for changes in the demographic composition of the labor force, . . . represents the highest unemployment rate reached since the Great Depression."[3] It has dropped, but still stands at 8.1 percent, representing

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[1] CONG. BUDGET OFFICE, THE BUDGET AND ECONOMIC OUTLOOK: FISCAL YEARS 2012 TO 2022 at 26, Jan. 2012.

[2] *Id.*

[3] MARY DALY ET AL., A RISING NATURAL RATE OF UNEMPLOYMENT: TRANSITORY OR PERMANENT?, FEDERAL RESERVE BANK OF SAN FRANCISCO, WORKING PAPER 2011-05, at 2 (Sept. 2011); *see also* BUREAU OF LABOR STATISTICS, U.S. DEPT. OF LABOR, SPOTLIGHT ON STATISTICS: THE RECESSION OF 2007-2009 (Feb. 12, 2012) (available at http://www.bls.gov/spotlight/2012/recession/) (October 2009 peaked at a level not witnessed since 1983).

12.5 million Americans without work, 41.3 percent of who have been jobless for 27 weeks or more.[4] Perhaps more telling is the broadest measure of unemployment, the U-6 rate, which counts unemployed, marginally attached workers, and those employed part time because they cannot find full time work.[5] As of April 2012, the U-6 rate was 14.5%, down from its October 2009 peak of 17.2 %.

Unemployment creates a myriad of hardships, and for many it means being deprived of necessities including food and medication, losing a home to foreclosure, or foregoing a college education or retirement. Unemployment on this scale and for such extended periods also impairs human capital with long term consequences. Many workers will never be able to return to work at all or in the same productive capacity they once occupied, because they have been out work so long. Moreover, studies have shown that the unemployed simply do not obtain jobs at their prior pay and that this shortfall is not made up over time. This in turn reduces future GDP and prolongs the recession.

3. **GOVERNMENT BAILOUTS –** In response to the crisis, the U.S. government has spent, lent, pledged, committed or used trillion dollars through new and preexisting regulatory authority designed to prevent financial collapse. An estimated $414.24 billion in Troubled Asset Relief Program ("TARP") funds had been disbursed as of February 2012, and total purchases under TARP are estimated to be approximately $475 billion.[6] The American Recovery and Reinvestment Act of 2009 ("ARRA") provided a stimulus package and tax relief in the amount of $787 billion.[7]

Additionally, the Federal Reserve Board played a key role in stemming the crisis, increasing its balance sheet from $869 billion on August 8, 2007, to well over $2 trillion.[8] Other significant responses include placing the Government Sponsored Entities ("GSEs"), the Federal National Mortgage Association ("Fannie Mae"), and the Federal Home Loan Mortgage Corporation ("Freddie Mac") into conservatorship;[9] providing small business assistance;[10] and extending unemployment insurance.[11]

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[4] BUREAU OF LABOR STATISTICS, U.S. DEPT. OF LABOR, NEWS RELEASE, THE EMPLOYMENT SITUATION – APRIL 2012 (May 14, 2012) (available at http://www.bls.gov/news.release/pdf/empsit .pdf).

[5] BUREAU OF LABOR STATISTICS, U.S. DEPT. OF LABOR, ECONOMIC NEWS RELEASE, TABLE A-15. ALTERNATIVE MEASURES OF LABOR UNDERUTILIZATION, last modified May 14, 2012, http://www.bls.gov/news.release/empsit.t15.htm

[6] U.S. DEPT. OF TREASURY, TARP MONTHLY 105(A) REP.- FEBRUARY 2012, 4 (Mar. 12, 2012); OFFICE OF MGMT. & BUDGET, EXEC. OFFICE OF THE PRESIDENT, ANALYTICAL PERSPECTIVES: BUDGET OF THE U.S. GOVERNMENT, FISCAL YEAR 2012, 33 (2011).

[7] American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115 (2009).

[8] BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, RECENT BALANCE SHEET TRENDS, http://www.federalreserve.gov/monetarypolicy/bst_recenttrends.htm.

[9] OFFICE OF MGMT. & BUDGET, EXEC. OFFICE OF THE PRESIDENT, ANALYTICAL PERSPECTIVES: BUDGET OF THE U.S. GOVERNMENT, FISCAL YEAR 2012, 31-32 (2011).

[10] *See, e.g.,* The Small Business Jobs Act of 2010, Pub. L. No. 111-240, 124 Stat. 2504 (2010)

[11] *See, e.g.,* Supplemental Appropriations Act of 2008**,** Pub. L. No. 110- 252, 122 Stat. 2323 (2008); Unemployment Compensation Extension Act of 2008, Pub. L. No. 110–449, 122 Stat. 5014 (2008);

In fact, fifty separate government programs have been initiated to address the crisis, representing a total commitment of more than $23 trillion.[12] Such massive government intervention has ballooned our budget deficit and severely depleted our ability to manage any future crises. Indeed, the deficit attributable to TARP, Fannie, and Freddie from 2009-2019 is $276 billion. Moreover, ARRA and a number of the other government measures to stimulate the economy, including unemployment benefits extensions and small business assistance, are estimated to "account for $1.4 trillion of the nearly $13 trillion in deficits over the 2009-2019 period."[13]

4. **LOST HOUSEHOLD WEALTH –** The crisis has caused a steep decline in household wealth. Home values, for example, have declined 33.7% since the crisis began, representing $7 trillion in household wealth lost.[14] The stock market fell by almost 50% in just 18 months, from October 2007 until March of 2009, representing $11 trillion dollars in evaporated wealth. As of March 2009, retirement accounts have lost $3.4 trillion in value.[15] For many of those who were at or near retirement during the worst stock market declines, the crisis forced them to suffer losses and make sacrifices that are irreversible.

5. **HUMAN SUFFERING –** Finally, there is the massive human suffering that comes with a crisis on the scale we have been experiencing. The human anguish caused by the crisis has been enormous and incalculable, encompassing all of the psychological and physical health effects that come with unemployment, poverty, homelessness, delayed retirements, abandoned college educations, increased crime rates, and lost healthcare.

   There is no way to monetize this component of the cost of the crisis, but there are some telling indicators. For example, the number of families falling below the poverty line has

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American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115 (2009); Worker, Homeownership, and Business Assistance Act of 2009, Pub. L. No. 111-92, 123 Stat. 2984 (2009); Department of Defense Appropriations Act of 2010, Pub. L. No. 111-118, 123 Stat. 3409 (2009); Temporary Extension Act of 2010, Pub. L. No. 111-144, 124 Stat. 42 (2010); Continuing Extension Act of 2010, Pub. L. No. 111-157, 124 Stat. 1116 (2010); Unemployment Compensation Extension Act of 2010, Pub. L. No. 111-205, 124 Stat. 2236 (2010); The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010, Pub. L. No. 111-312, 124 Stat. 3296 (2010).

12 OFFICE OF THE SPECIAL INSPECTOR GEN. FOR THE TROUBLED ASSET RELIEF PROGRAM, QUARTERLY REP. TO CONGRESS, 137 (July 21, 2009).

13 KATHY A. RUFFING & JAMES R. HORNEY, CENTER ON BUDGET AND POLICY PRIORITIES, ECONOMIC DOWNTURN AND BUSH POLICIES CONTINUE TO DRIVE LARGE PROJECTED DEFICITS: ECONOMIC RECOVERY MEASURES, FINANCIAL RESCUES HAVE ONLY TEMPORARY IMPACT, at 3 (May 10, 2011) (available at http://www.cbpp.org/cms/?fa=view&id=3490#_ftn14-).

14 BOARD OF GOVERNORS OF THE FED. RESERVE SYS., WHITE PAPER, THE U.S. HOUSING MARKET: CURRENT CONDITIONS AND POLICY CONSIDERATIONS, at 3 (Jan. 4, 2012) (available at http://www.federalreserve.gov/publications/other-reports/files/housing-white-paper-20120104.pdf).

15 MAURICIO SOTO, URBAN INSTITUTE, HOW IS THE FINANCIAL CRISIS AFFECTING RETIREMENT SAVINGS? (Mar. 10, 2009) (available at http://www.urban.org/publications/411847.html).

climbed steadily since 2007, rising from 12.5 to 15.1 percent in 2010.[16] "The number of people in poverty in 2010 (46.2 million) is the largest number in the 52 years for which poverty estimates have been published" by the U.S. Census Bureau.

Additionally, over 46 million, or about 15%, of Americans currently receive food stamps, about a 13 million increase from 2009, and up from 30.8 million in October 2008.[17] The number of children receiving free or low-cost school lunches through The National School Lunch Program has surged in recent years.[18] In 2010, over 31.7 million children received their lunches through the program, 20.6 million of which received free or reduced-price lunch. An estimated 21 million received free or reduced-price lunch in 2011, still a 17 percent increase from the 18 million children in 2006-2007.[19]

Detailed Analysis of the Costs of the Crisis

1. GDP: The current cost of the crisis as measured by the difference between actual and potential GDP is $2.6 trillion and is expected to reach $5.7 trillion.

The U.S. economy has been operating substantially below potential since the first quarter of 2008 (See Figure below). Real Gross Domestic Product ("GDP"),[20] which represents the output of goods and services produced by labor and property located in the United States, remains well short of potential GDP, even though it has been recovering since the third quarter of 2009.[21] A comparison between real GDP and real potential GDP, or the level of GDP that would be produced if all capital and labor in the economy were fully employed, accurately depicts the state of the economy.

The gap between real GDP and real potential GDP is both wide and persistent. "From the first quarter of the recession through the third quarter of 2011, the cumulative difference between GDP and estimated potential GDP amounted to $2.6 trillion; by the time the nation's output rises back to its potential level, the cumulative shortfall is expected to equal $5.7

[16] CARMEN DENAVAS-WALT ET AL., U.S. CENSUS BUREAU, INCOME, POVERTY, AND HEALTH INSURANCE COVERAGE IN THE UNITED STATES: 2010, at 14 (Sept. 2011) (available at http://www.census.gov/prod/2011pubs/p60-239.pdf).

[17] USDA, SUPPLEMENTAL NUTRITION ASSISTANCE PROGRAM, Apr. 30, 2012, http://www.fns.usda.gov/pd/34snapmonthly.htm

[18] USDA, NATIONAL SCHOOL LUNCH PROGRAM FACT SHEET, Oct. 2011, http://www.fns.usda.gov/cnd/lunch/AboutLunch/NSLPFactSheet.pdf.

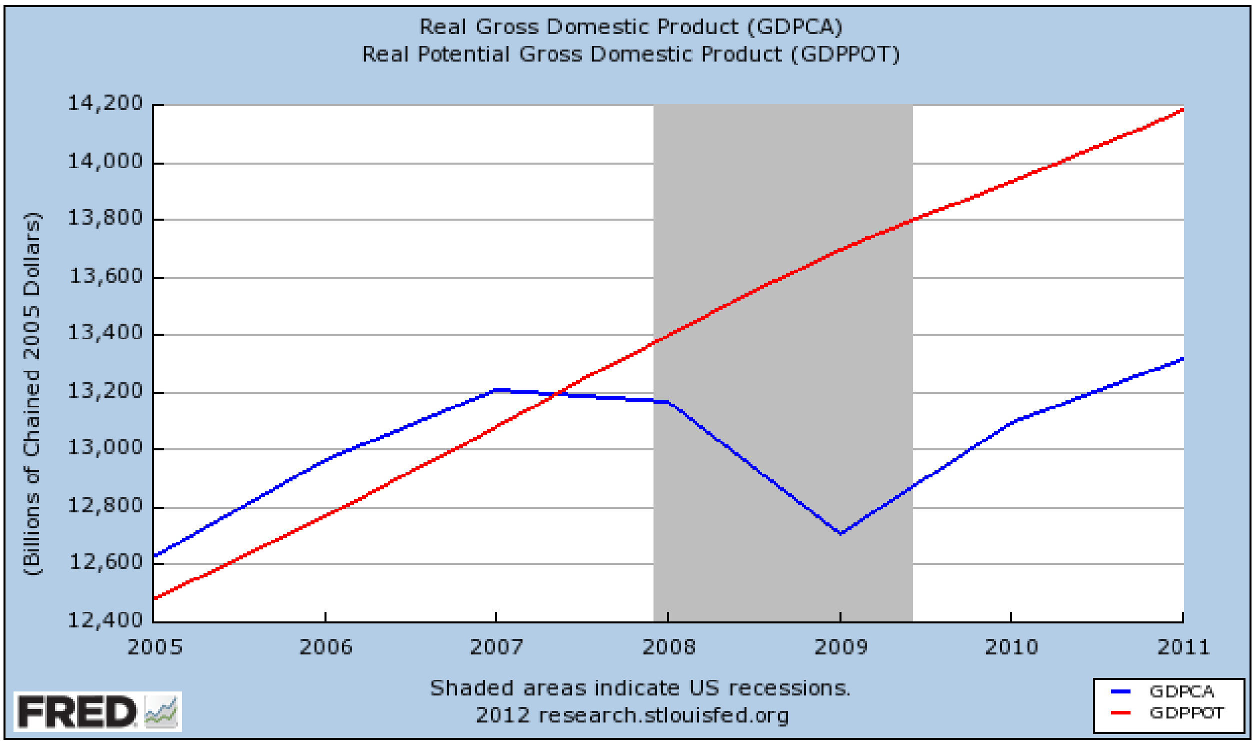
[19] USDA, NATIONAL SCHOOL LUNCH PROGRAM: PARTICIPATION AND LUNCHES SERVED, Apr. 30, 2012, http://www.fns.usda.gov/pd/slsummar.htm.

[20] It is important to note that GDP is not the best measure of economic and social progress because it fails to take into account numerous significant statistics such as the distribution of growth. *See* Lew Daly & Stephen Posner, Demos, *Beyond GDP: New Measures for a New Economy* (2012).

[21] *See* BUREAU OF ECON. ANALYSIS, U.S. DEPT. OF COMMERCE, NEWS RELEASE, GROSS DOMESTIC PRODUCT: FIRST QUARTER 2012 (ADVANCE ESTIMATE) (Apr. 27, 2012) (available at http://www.bea.gov/newsreleases/national/gdp/2012/pdf/gdp1q12_adv.pdf).

trillion."[22] Real GDP is projected to remain below potential until 2018, and as of late 2011 "the economy was only about halfway through the cumulative shortfall in total output that will result from the recession and its aftermath."[23]

The impact of this $5.7 trillion cost ultimately reflects a decrease in the quality of life for most Americans. Less production translates to less income, and for many, less ability to purchase the necessities of life, including housing, food, and medical care. It also means widespread loss of the opportunity to raise standards of living through a college education or promotion at work.



2. JOB LOSS: 12.5 million Americans are unemployed.

Unemployment now rests at 8.1 percent, representing 12.5 million American workers, 41.3 percent of whom have been jobless for 27 weeks or more.[24] (See Figures below). The unemployment rate peaked at 10.1 percent in October 2009, which, "[a]fter adjusting for changes in the demographic composition of the labor force, . . . represents the highest unemployment rate

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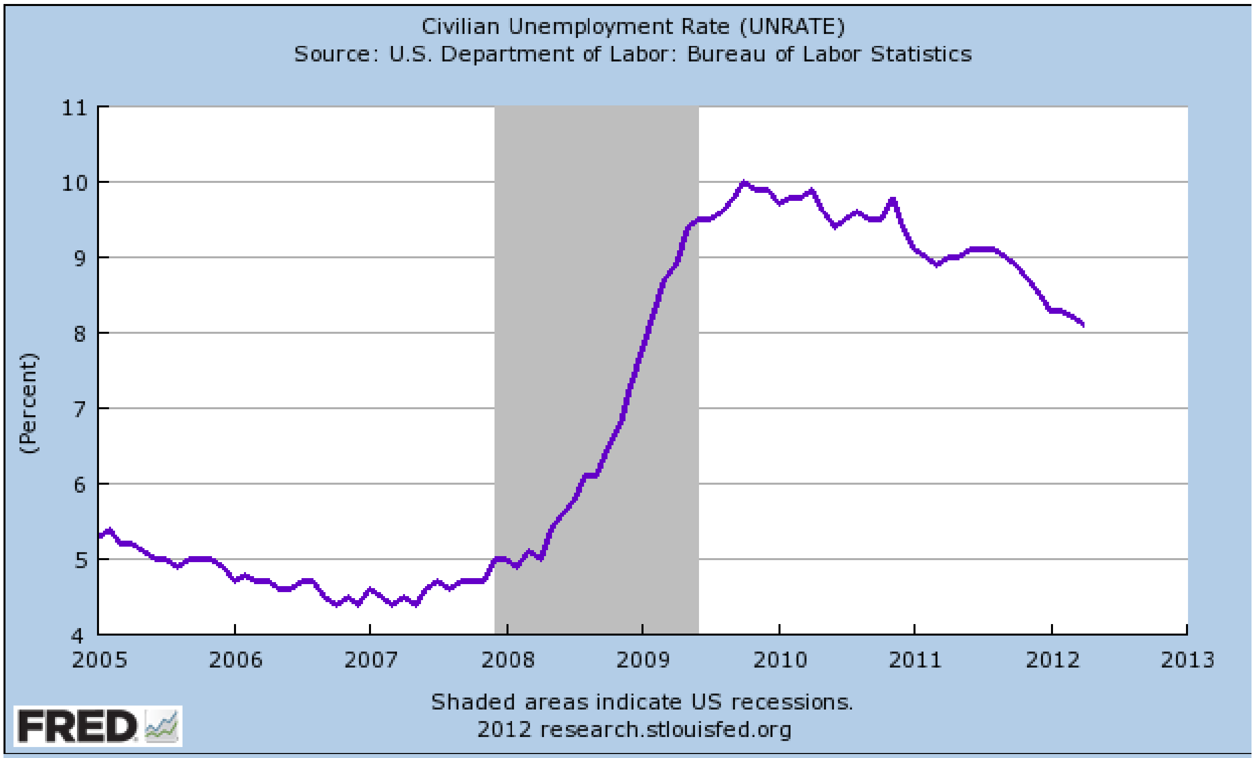
[22] CONG. BUDGET OFFICE, THE BUDGET AND ECONOMIC OUTLOOK: FISCAL YEARS 2012 TO 2022 at 26, Jan. 2012 ("CBO 2012 to 2022 Outlook").
[23] *Id.* at XIV.
[24] BUREAU OF LABOR STATISTICS, US DEPT. OF LABOR, NEWS RELEASE, THE EMPLOYMENT SITUATION – APRIL 2012 (May 4, 2012).

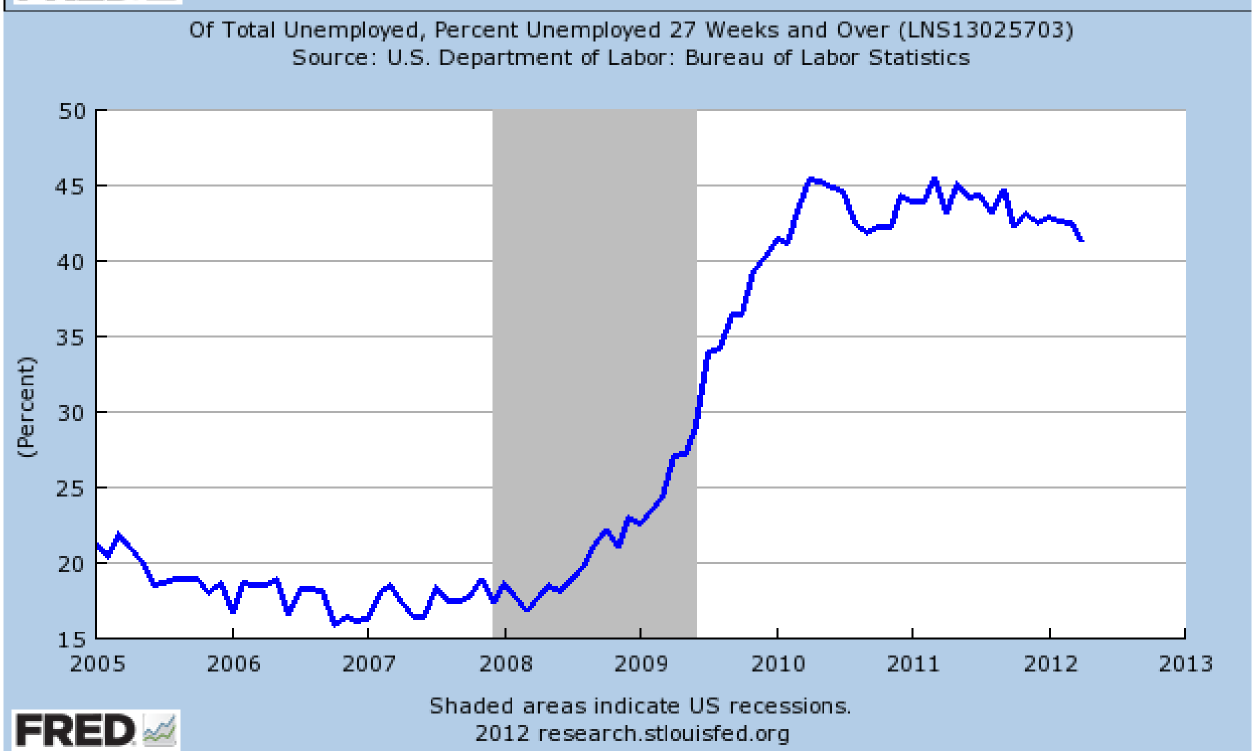
reached since the Great Depression."[25] The average number of weeks of unemployment is 38.2 as of January 2012. Although this figure is down from its peak of 41.4 weeks in April 2011, it remains far above the level of 16.4 weeks in December 2007 (the start of the recession).[26] Unemployment is expected to remain at 8% through 2013 and remain above 7% until 2015.[27]

[25] Mary Daly et al., *A Rising Natural Rate of Unemployment: Transitory or Permanent?*, Fed. Reserve Bank of San Francisco, Working Paper 2011-05, at 2 (Sept. 2011); *see also* BUREAU OF LABOR STATISTICS, U.S. DEPT. OF LABOR, SPOTLIGHT ON STATISTICS: THE RECESSION OF 2007-2009 (Feb. 12, 2012) (October 2009 peaked at a level not witnessed since 1983).

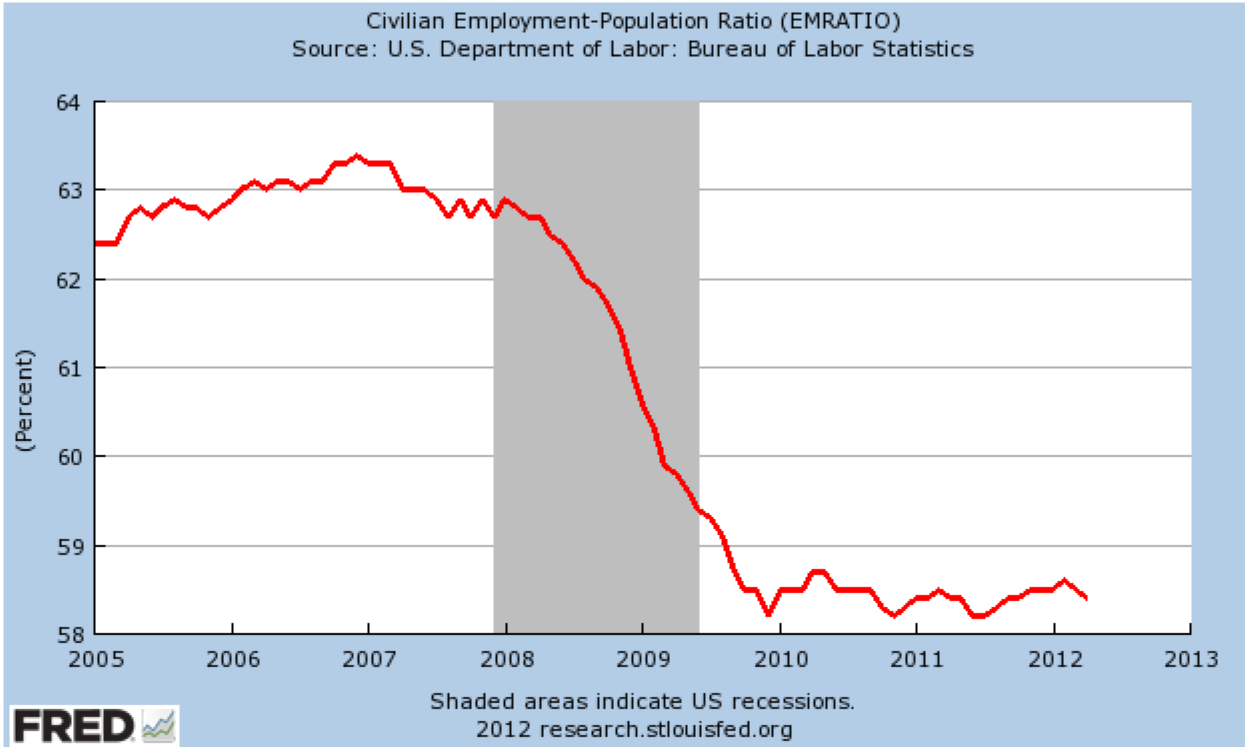
[26] There is some evidence that only a small fraction of the increase in long term unemployment is structural. *See, e.g.*, Mary Daly et al., *A Rising Natural Rate of Unemployment: Transitory or Permanent?*, Fed. Reserve Bank of San Francisco, Working Paper 2011-05 (Sept. 2011).

[27] CBO 2012 to 2022 Outlook, *supra* note 22, at XIV.





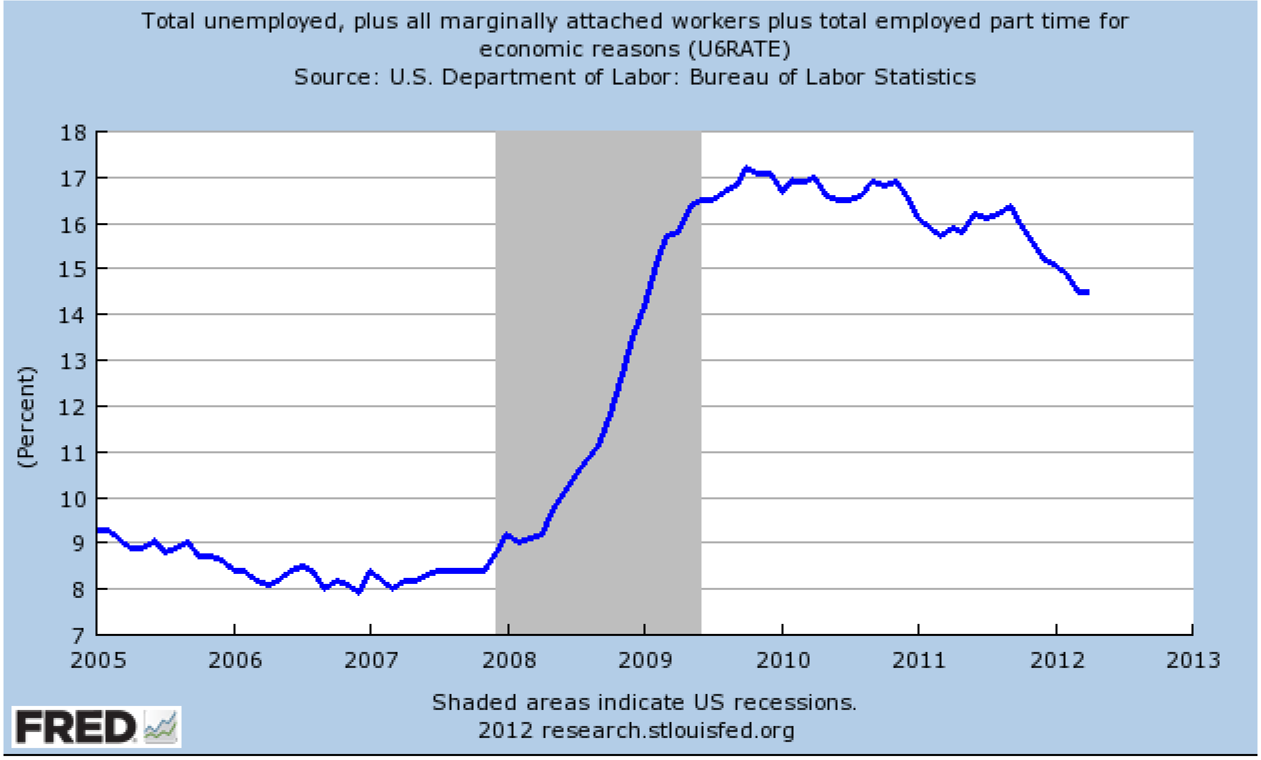
Although unemployment rates have declined somewhat since their crisis highs, the civilian employment population ratio is barely above its 2009 lows. This indicates that job growth has barely kept up with growth in the working age population. (See Figure below).



Perhaps more telling is the broadest measure of unemployment, the U-6 rate, which counts unemployed, marginally attached workers, and those employed part time for economic reasons.[28] As of April 2012, the U-6 rate was down from its October 2009 peak of 17.2 percent,

[28] "Persons marginally attached to the labor force are those who currently are neither working nor looking for work but indicate that they want and are available for a job and have looked for work sometime in the past 12 months. Discouraged workers, a subset of the marginally attached, have given a job-market related reason for not currently looking for work. Persons employed part time for economic reasons are those who want and are available for full-time work but have had to settle for a part-time schedule." BUREAU OF LABOR STATISTICS, U.S. DEPT. OF LABOR, ECONOMIC NEWS RELEASE, TABLE A-15, ALTERNATIVE MEASURES OF LABOR UNDERUTILIZATION, last modified May 14, 2012, http://www.bls.gov/news.release/empsit.t15.htm.

but still extremely high at 14.5 percent. (See Figure below).



According to the Department of Labor's March 2012 estimate, there are 3.4 unemployed persons for every job opening. [29] This is down from a reported 6.2 unemployed persons per job opening in June 2009 (at the end of the official recession), but still remains high in comparison to the 1.8 unemployed per job opening at the start of the recession in December 2007.

The number of workers quitting their jobs also sheds light on the employment situation since "[q]uits tend to rise when there is a perception that jobs are available and tend to fall when there is a perception that jobs are scarce."[30] For most of the 11-year history of the Department of Labor's Job Openings and Labor Turnover Survey, the number of quits exceeded the number of layoffs. However, "[d]uring the latest recession, this relationship changed as layoffs and discharges outnumbered quits from November 2008 through March 2010."[31] Thus, the public's perception of the job market has weakened, given the number of unemployed persons per job opening. In March 2012, there were still only 2.1 million quits, compared with 2.9 million quits in December 2007, the start of the recession.

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[29] BUREAU OF LABOR STATISTICS, U.S. DEPT. OF LABOR, JOB OPENINGS AND LABOR TURNOVER SURVEY HIGHLIGHTS: MARCH 2012, 1 (May 8 2012).
[30] *Id.* at 4.
[31] *Id.*

Moreover, out of the nation's 363 metropolitan areas, only 26 have completely recovered jobs lost in the recession. [32] While another 26 are expected to fully recover job losses by the end of 2012, almost 50 metropolitan areas will not experience full recovery for five years.

In addition to the loss of buying power and decrease in the quality of life, which is reflected in the GDP, the high number of unemployed Americans leads to other socially undesirable costs. The emotional suffering from losing a job can take a high toll on workers, even resulting in a loss in life expectancy. For example, for male workers in high-seniority jobs, mortality rates in the year following mass layoffs are "50% - 100% higher than would otherwise have been expected."[33] Although this mortality rate declines over time, an estimated 10 percent to 15 percent of annual death hazards remain twenty years after job loss.[34] "If these increases lasted beyond the 25-year window . . . they would imply a loss in life expectancy of 1.0–1.5 years for workers displaced in middle age."[35]

Prolonged mass unemployment also destroys human capital. This loss in human capital will have a lasting effect, resulting in a future loss in potential GDP and income to affected workers. Sustained job loss diminishes the capacity of a worker to re-enter the work force at the same level or at all. Moreover, new entrants cannot gain skills and experience when there are no jobs. A workforce thus impaired means less future GDP than otherwise.

Mass layoffs result in large, long-term earnings losses for affected workers. Research shows that workers who lose their jobs in mass layoffs when the unemployment rate is higher lose more of their pre-job-loss earnings than those who lose their jobs in mass layoffs when the unemployment rate is lower.[36] For example, when the national unemployment rate is below 6 percent, affected workers lose on average 1.4 years' worth of earnings.[37] In contrast, when the unemployment rate is above 8 percent, which it has been since 2009, affected workers lose an average of 2.8 years of pre-job-loss earnings.

Long-term effects are not limited to the affected worker. Unemployment can also reduce educational achievements more broadly "by threatening early childhood nutrition; reducing families' abilities to provide a supportive learning environment (including adequate health care, summer activities, and stable housing); and by forcing a delay or abandonment of college plans."[38] A delay or reduction in college attendance forgoes the benefits of a college education,

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[32] IHS GLOBAL INSIGHT, STUDY PREPARED FOR THE US CONFERENCE OF MAYORS AND THE COUNCIL FOR THE NEW AMERICAN CITY, U.S. METRO ECONOMIES: 2012 EMPLOYMENT FORECAST AND THE IMPACT OF EXPORTS, at 4 (Jan. 2012).
[33] Daniel Sullivan & Till von Wachter, *Job Displacement and Mortality: An Analysis Using Administrative Data*, QUARTERLY J. OF ECON., 1265, 1265 (Aug. 2009).
[34] *Id.* at 1302.
[35] *Id.* at 1266.
[36] Steven J. Davis & Till von Wachter, *Recessions and the Costs of Job Loss*, Brookings Paper on Economic Activity (Nov. 23, 2011).
[37] *Id.*at 1.
[38] John Irons, *Economic Scarring: The long-term impacts of the recession*, EPI Briefing Paper 243, at 1 (Sept. 30, 2009).

such as higher earnings, lower unemployment, better health, and lower incarceration rates.[39] For those who do go to college and are forced to graduate during a recession, less advantaged graduates experience high and unequal losses in cumulative earnings.[40]

3. **GOVERNMENT BAILOUTS: In response to the crisis, the U.S. government has spent, lent, pledged, committed, or used trillions of dollars through new and preexisting regulatory authority designed to prevent financial collapse, and these expenditures have resulted in increased government debt and, consequently, a loss in fiscal capacity.**

Government spending to mitigate the crisis has produced large increases in government debt. The result is a substantial loss of fiscal capacity. Fiscal capacity measures a country's ability to finance larger fiscal deficits without negatively impacting its macroeconomic performance or standing in financial markets.[41] With adequate fiscal capacity, a country can borrow to deal with cyclical downturns or crisis developments. However, with less fiscal capacity, such as the level we now have as a result of large increases in government debt, the government will be less able to deal with future cyclical downturns or crises. The measures adding to government debt include:

- **Economic Stimulus Act of 2008**: One of the first responses to the financial disaster was the stimulus package under the Economic Stimulus Act of 2008.[42] Among other things, the act provided individuals with tax rebates and businesses with tax breaks, but cost American taxpayers $152 billion in 2008.[43]

- **TARP:** Recognizing the financial turmoil in 2008, Congress originally authorized $700 billion for the Troubled Asset Relief Program ("TARP") to "restore liquidity and stability to the financial system of the United States."[44] The Dodd-Frank Act later reduced this authority to $475 billion. Treasury estimates that $414.24 billion in TARP funds had been disbursed.[45] "[A]s of December 31, 2011, [Treasury] had written off $4.2 billion and realized losses of $7.8 billion that the taxpayer will never get back."[46] OMB's

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[39] *Id.* at 5.
[40] Philip Oreopoulos et al., *The Short- and Long-Term Career Effects of Graduating in a Recession*, at 5 (2006).
[41] Fiscal capacity is the potential to use the government budget to achieve a goal without damaging its overall financial position, including its ability to meet its obligations and borrow when necessary. *See e.g.*, Peter S. Heller, *Understanding Fiscal Space*, IMF Policy Discussion Paper, PDP/05/4 (2005).
[42] Pub. L. No. 110–185, 122 Stat. 613 (2008).
[43] *See* CONG. BUDGET OFFICE, COST ESTIMATE: H.R. 5140 ECONOMIC STIMULUS ACT OF 2008 (Feb. 11, 2008) (available at http://www.cbo.gov/doc.cfm?index=8973&zzz=36540).
[44] *See* The Emergency Economic Stabilization Act of 2008, Pub. L. No. 110-343, 122 Stat. 3765 (2008).
[45] U.S. DEPT. OF TREASURY, TARP MONTHLY 105(A) REP.- FEBRUARY 2012, 4 (Mar. 12, 2012).
[46] OFFICE OF THE SPECIAL INSPECTOR GEN. FOR THE TROUBLED ASSET RELIEF PROGRAM, QUARTERLY REP. TO CONGRESS, 33 (Jan. 26, 2012).

recently revised estimate suggests the lifetime cost of TARP will be $67.8 billion[47] and estimates total purchases under TARP authority to be approximately $475 billion.[48]

- **Supplemental Appropriations Act of 2008:** Title IV of the Supplemental Appropriations Act of 2008,[49] created the Emergency Unemployment Compensation ("EUC08") program, a new temporary unemployment insurance program to extend unemployment insurance for an additional 13 weeks for those who exhaust their regular benefits.[50] The Act increased projected outlays by $13 billion through 2009.[51]

- **ARRA:** As an added measure to jumpstart the economy, the American Recovery and Reinvestment Act of 2009 ("ARRA") provided a stimulus package and tax relief in the amount of $787 billion. [52] According to the Congressional Budget Office, ARRA will increase the federal budget deficit by $831 billion over the 2009-2019 period.[53]

- **Worker, Homeownership, and Business Assistance Act of 2009**: To build on ARRA, Congress passed the Worker, Homeownership, and Business Assistance Act of 2009,[54] which extended and expanded the Homebuyers Tax Credit, cut taxes for struggling businesses, and provided 20 additional weeks of unemployment insurance.[55] CBO estimated that the Act would increase direct spending by $6.6 billion over the 2010-2019 period and "reduce revenues by $39.0 billion in 2010, but yield a net increase in revenues of $6.7 billion over both the 2010-2014 and 2010-2019 periods." [56] Accordingly, the CBO projected that the Act would increase the deficit in 2010 by $44.7 billion, and that thereafter, the Act would reduce the deficit by $37 million over the 2010-2019 period.

- **Other Health Insurance Extensions:** Additionally, the Department of Defense Appropriations Act of 2010[57] amended ARRA to extend Consolidated Omnibus Budget Reconciliation Act ("COBRA") subsidies so as to continue health insurance coverage for workers leaving unemployment. The COBRA subsidy was later extended by the Temporary Extension Act of 2010,[58] and again by the Continuing Extension Act of 2010.[59]

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[47] U.S. DEPT. OF TREASURY, TARP MONTHLY 105(A) REP.- FEBRUARY 2012, 4 (Mar. 12, 2012).
[48] OFFICE OF MGMT. & BUDGET, EXEC. OFFICE OF THE PRESIDENT, ANALYTICAL PERSPECTIVES: BUDGET OF THE U.S. GOVERNMENT, FISCAL YEAR 2012, 33 (2011).
[49] Pub. L. No. 110- 252, 122 Stat. 2323 (2008).
[50] CONG. BUDGET OFFICE, THE BUDGET AND ECONOMIC OUTLOOK: AN UPDATE, at 56 (Sept. 2008).
[51] *Id.*
[52] Pub. L. No. 111-5, 123 Stat. 115 (2009).
[53] CBO 2012 to 2022 Outlook, *supra* note 22, at 8-9.
[54] Pub. L. No. 111-92, 123 Stat. 2984 (2009).
[55] OFFICE OF THE PRESS SECRETARY, THE WHITE HOUSE, FACT SHEET: THE WORKER, HOMEOWNERSHIP, AND BUSINESS ASSISTANCE ACT OF 2009 (Nov. 6, 2009) (available at http://www.whitehouse.gov/the-press-office/fact-sheet-worker-homeownership-and-business-assistance-act-2009).
[56] CONG. BUDGET OFFICE, COST ESTIMATE: H.R. 3548 (Nov. 25, 2009).
[57] Pub. L. No. 111-118, 123 Stat. 3409 (2009).
[58] Pub. L. No. 111-144, 124 Stat. 42 (2010).
[59] Pub. L. No. 111-157, 124 Stat. 1116 (2010).

- **Other Extensions of Unemployment Insurance:** The EUC08 program created by the Supplemental Appropriations Act of 2008 has been repeatedly amended to continue providing unemployment benefits beyond the normal period. The first amendment was the Unemployment Compensation Extension Act of 2008.[60] According to CBO estimates, the Act increased spending by $5.7 billion in 2009 and decreased revenues by $8 million over the 2009-2018 period.[61] Likewise, ARRA; the Worker, Homeownership, and Business Assistance Act of 2009; the Department of Defense Appropriations Act of 2010; the Temporary Extension Act of 2010; and the Continuing Extension Act of 2010, mentioned above, contained provisions to continue the EUC08 program. The Unemployment Compensation Extension Act of 2010[62] also extended the length of time unemployed persons could receive benefits. The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010[63] again extended unemployment insurance for an additional 13 months. According to the White House, this extension "provides crucial economic security to American families," and "while 14 million people received federally supported unemployment insurance benefits through October 2010, an additional 26 million people living in their households benefitted indirectly."[64] The Act also included a tax cut package, and provided for a reduced payroll tax.

- **Payroll Tax Cuts:** The Temporary Payroll Tax Cut Continuation Act of 2011[65] continued for two months the reduced payroll tax provided under the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010.[66]

- **Additional Job Creation Legislation:** In light of rising unemployment, Congress passed the Hiring Incentives to Restore Employment Act of 2010,[67] which provided tax breaks and incentives for businesses to hire and retain previously unemployed workers. Additional job creation legislation was passed under the FAA Air Transportation Modernization and Safety Improvement Act,[68] which provided $10 billion for education jobs. The Act also included a $16.1 billion extension of the Federal Medical Assistance Percentages program.

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[60] Pub. L. No. 110–449, 122 Stat. 5014 (2008).
[61] CONG. BUDGET OFFICE, COST ESTIMATE OF H.R. 6867 (Dec. 2008) (available at http://www.cbo.gov/doc.cfm?index=9951&zzz=38396).
[62] Pub. L. No. 111-205, 124 Stat. 2236 (2010).
[63] Pub. L. No. 111– 312, 124 Stat. 3296 (2010).
[64] THE WHITE HOUSE, OFFICE OF THE PRESS SECRETARY, THE TAX RELIEF, UNEMPLOYMENT INSURANCE REAUTHORIZATION, AND JOB CREATION ACT OF 2010: WIN FOR WOMEN, MOTHERS AND WORKING FAMILIES (Dec. 10, 2010), http://www.whitehouse.gov/the-press-office/2010/12/10/tax-relief-unemployment-insurance-reauthorization-and-job-creation-act-2.
[65] Pub. L. No. 112-78, 125 Stat. 1280 (2011).
[66] CBO 2012 to 2022 Outlook, *supra* note 22, at 1.
[67] Pub. L. No. 111-147, 124 Stat. 71 (2010).
[68] Pub. L. No. 111-226, 124 Stat. 2389 (2010).

- **Small Business Assistance:** To further combat rampant unemployment and assist small businesses, The Small Business Jobs Act of 2010[69] created the State Small Business Credit Initiative ("SSBCI") and the Small Business Lending Fund ("SBLF"), which are currently being administered by Treasury. SSBCI provides federal grants to state programs that support lending to small businesses and was allocated $1.5 billion from the Jobs Act.[70] SBLF is a $30 billion fund that provides capital to qualified community banks with assets of less than $10 billion to encourage their lending to small businesses.[71]

- **Homebuyer Tax Credits:** Building on the Worker, Homeownership, and Business Assistance Act of 2009, The Homebuyer Assistance and Improvement Act of 2010[72] extended the application deadline of the homebuyer tax credit.

- **Student Loan Purchases:** Under the authority granted by the Ensuring Continued Access to Student Loans Act of 2008,[73] the U.S. Department of Education has purchased $219 billion in federally-backed student loans made by private lenders.[74]

	2007-2008	**2008-2009**	**2009-2010**	**Total**
Loan Purchase Commitment Program	$997,945,088	$48,538,600,137	$59,791,424,674	$109,327,969,899.00
Loan Participation Purchase Program		$33,359,067,388	$38,135,422,962	$71,494,490,350.00
Asset-Backed Commercial Paper			$38,225,066,985	$ 38,225,066,985.00
Total	$219,047,527,234			

- **Automotive Industry Encouragement:** The Advanced Technology Vehicles Manufacturing ("ATVM") Loan Program, established by Section 136 of the Energy Independence and Security Act of 2007, provides "direct loans to support the development of advanced technology vehicles and associated components in the United States."[75] Thus far, credit subsidies of $8.4 billion have been provided to support a

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69 Pub. L. No. 111-240, 124 Stat. 2504 (2010).

70 U.S. DEPT. OF TREASURY, STATE SMALL BUSINESS CREDIT INITIATIVE (SSBCI) (Mar. 2012), http://www.treasury.gov/resource-center/sb-programs/Pages/ssbci.aspx.

71 U.S. DEPT. OF TREASURY, OVERVIEW OF THE SMALL BUSINESS LENDING FUND (Mar. 28, 2011) (available at http://www.treasury.gov/resource-center/sb-programs/Documents/SBLF_Fact_Sheet_03-28-11.pdf).

72 Pub. L. No. 111-198, 124 Stat. 1356 (2010).

73 Pub. L. No. 110-350, 122 Stat. 3947 (2008).

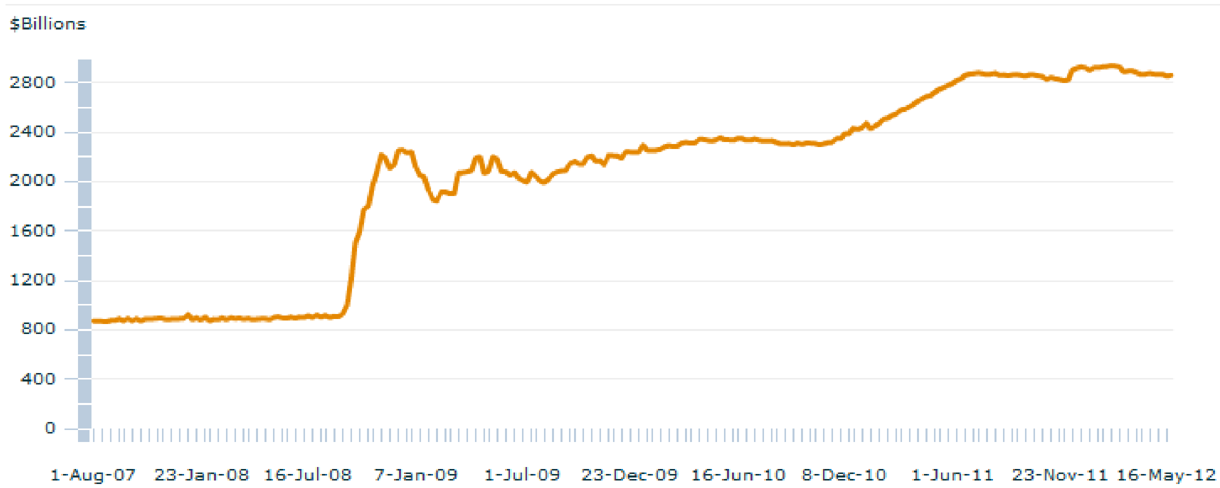
74 U.S. DEPT. OF EDUC., LOAN PURCHASE PROGRAM ACTIVITY Reports (Nov. 1, 2010), http://federalstudentaid.ed.gov/ffelp/reports.html.

75 *See* ELECTRIC DRIVE TRANSPORTATION ASSOCIATION, ADVANCED TECHNOLOGY VEHICLES MANUFACTURING LOAN PROGRAM ONLINE APPLICATION PORTAL WEBINAR (Mar. 1, 2012),

maximum of $25 billion in ATVM loans. Additionally, the Car Allowance Rebate System, also known as "Cash for Clunkers," provided $3 billion in federal funds to boost automobile sales and place safer, more fuel-efficient cars on the roads.[76]

- **GSE Bailouts:** Through Treasury's authority to stabilize the housing market under the Housing and Economic Recovery Act of 2008,[77] Treasury is estimated to spend $224 billion from 2009 through 2012, and receive dividends of $55 billion over the same period, for a net cost of $169 billion, on the Government Sponsored Entities, Fannie Mae, and Freddie Mac. [78]

- **Federal Reserve spending:** "Since the beginning of the financial market turmoil in August 2007, the Federal Reserve's balance sheet has grown in size and has changed in composition. Total assets of the Federal Reserve have increased significantly from $869 billion on August 8, 2007, to well over $2 trillion as of December 2011." [79] (See Figure below).



  - To provide liquidity to the mortgage markets, the Federal Reserve purchased $1.25 trillion in GSE mortgage-backed securities, and has purchased $172 billion, out of its $175 billion authorization, of GSE debt as of December 2010.[80] "The

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http://www.electricdrive.org/index.php?ht=d/ContentDetails/id/28580; LOAN PROGRAMS OFFICE, U.S. DEPT. OF ENERGY, ATVM, https://lpo.energy.gov/?page_id=43.

[76] *See* Supplemental Appropriations Act, 2009, Pub. L. No. 111-32, 123 Stat. 1859, Title XIII The Consumer Assistance to Recycle and Save Program (C.A.R.S.) (2009).

[77] Pub. L. No. 110–289, 122 Stat. 2850 (2008).

[78] OFFICE OF MGMT. & BUDGET, EXEC. OFFICE OF THE PRESIDENT, ANALYTICAL PERSPECTIVES: BUDGET OF THE U.S. GOVERNMENT, FISCAL YEAR 2012, 31-32 (2011).

[79] BOARD OF GOVERNORS OF THE FED. RESERVE SYS., RECENT BALANCE SHEET TRENDS, http://www.federalreserve.gov/monetarypolicy/bst_recenttrends.htm.

[80] OFFICE OF MGMT. & BUDGET, EXEC. OFFICE OF THE PRESIDENT, ANALYTICAL PERSPECTIVES: BUDGET OF THE U.S. GOVERNMENT, FISCAL YEAR 2012, 29 (2011).

Federal Reserve also purchased $300 billion in longer-term Treasury securities in 2009 to improve interest rate conditions in mortgage and other private credit markets."[81] In 2010, the Fed announced its intention to purchase up to $600 billion of additional long-term Treasury securities to foster economic recovery through its "quantitative easing" program.[82]

- Created in December 2007 and lasting until March 2010, The Term Auction Facility ("TAF") provided short-term liquidity to banks. "[I]n total, the Federal Reserve disbursed over $3.8 trillion in TAF loans" (which were all paid back with interest).[83]

- Other measures by the Federal Reserve to provide liquidity to banks were the Primary Credit Dealer Facility ("PCDF") and the Term Securities Lending Facility ("TSLF"). The PCDF was an "overnight loan facility that provided funding to primary dealers in exchange for a specified range of eligible collateral."[84] In the wake of the Lehman Brother's failure, PDCF borrowing reached more than $140 billion in October 2008.[85] "Under the TSLF, the [Fed] could lend up to an aggregate amount of $200 billion of Treasury securities . . . to primary dealers on a secured basis for a term of twenty-eight days."[86]

- To provide "liquidity directly to borrowers and investors in key credit markets," the Federal Reserve set up the Commercial Paper Funding Facility ("CPFF"),[87] the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity

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[81] *Id.*
[82] *Id.*
[83] *Id.*
[84] FED. RESERVE BANK OF N.Y., PRIMARY DEALER CREDIT FACILITY, http://www.newyorkfed.org/markets/pdcf.html.
[85] TOBIAS ADRIAN ET AL., FED. RESERVE BANK OF N.Y., THE FEDERAL RESERVE'S PRIMARY DEALER CREDIT FACILITY, CURRENT ISSUES IN ECONOMICS AND FINANCE, VOL. 15, No. 4, at 7 (Aug. 2009).
[86] FED. RESERVE BANK OF N.Y., 2010 ANNUAL REP. at 31 (2010).
[87] *See* FEDERAL RESERVE BANK OF N.Y., COMMERCIAL PAPER FUNDING FACILITY: FREQUENTLY ASKED QUESTIONS (Oct. 19, 2009), http://www.newyorkfed.org/markets/cpff_faq.html (closed) ("The Federal Reserve will not publicly disclose the individual issuers or the amounts provided to individual issuers by the CPFF.").

Facility ("AMLF"),[88] the Money Market Investor Funding Facility ("MMIFF"),[89] and the Term Asset-Backed Securities Loan Facility ("TALF").[90] [91]

- Additionally, the Federal Reserve played a key role in several bailouts. For example, the Federal Reserve "extended a senior loan of approximately $28.8 billion" to finance the acquisition of assets by Maiden Lane LLC to facilitate the merger between Bear Stearns Companies, Inc. and JPMorgan Chase & Co.[92] Moreover, the Board of Governors, the Treasury, and the Federal Deposit Insurance Corporation, in January 2009, set aside funds to support Citigroup Inc. for possible losses up to $301 billion.[93] No funding support, however, was provided under this agreement and the agreement terminated in December of that year.[94]

- To increase global liquidity, the Federal Reserve entered into swap agreements with foreign central banks, namely the Bank of Canada, Bank of England, Bank of Japan, European Central Bank, and Swiss National Bank.[95]

The Congressional Budget Office ("CBO") has forecast that there will no cash losses from these programs to aid banks. Total remittances to Treasury by the Federal Reserve, which are counted as revenues in the federal budget, are expected to "grow from about $34 billion in fiscal year 2009 to more than $70 billion in fiscal years 2010 and 2011." [96] However, because Federal Reserve asset holdings are now riskier, it is exposed " to a considerably greater possibility of losses than its usual holdings of Treasury securities" and "there is also a small chance that it will remit much less—or even nothing—if serious problems reemerge in the

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[88] *See* FED. RESERVE, DISCOUNT WINDOW, ASSET BACKED COMMERCIAL PAPER (ABCP) MONEY MARKET MUTUAL FUND (MMMF) LIQUIDITY FACILITY (AMLF OR "THE FACILITY") (Feb. 5, 2010), http://www.frbdiscountwindow.org/mmmf.cfm?hdrID=14#f1 (expired Feb. 1, 2010).

[89] The MMIFF, authorized under section 13(3) of the Federal Reserve Act, provided liquidity to money market investors through Special Purpose Vehicles ("SPVs"). The SPVs were authorized "to purchase a maximum amount of $600 billion in eligible assets," with the Federal Reserve Board having exposure to $540 billion. FED. RESERVE BANK OF N.Y., MONEY MARKET INVESTOR FUNDING FACILITY: FREQUENTLY ASKED QUESTIONS (June 25, 2009), http://www.newyorkfed.org/markets/mmiff_faq.html (closed).

[90] *See* FED. RESERVE BANK OF N.Y., TERM ASSET-BACKED SECURITIES LOAN FACILITY: TERMS AND CONDITIONS (Jul. 21, 2010), http://www.newyorkfed.org/markets/talf_terms.html; FED. RESERVE BANK OF N.Y., TERM SECURITIES LENDING FACILITY: FREQUENTLY ASKED QUESTIONS (June 25, 2009), http://www.newyorkfed.org/markets/tslf_faq.html.

[91] OFFICE OF MGMT. & BUDGET, EXEC. OFFICE OF THE PRESIDENT, ANALYTICAL PERSPECTIVES: BUDGET OF THE U.S. GOVERNMENT, FISCAL YEAR 2012, 29 (2011).

[92] FED. RESERVE BANK OF N.Y., 2010 ANNUAL REP. at 33 (2010).

[93] *Id.* at 37.

[94] *Id.*

[95] *See* FED. RESERVE BANK OF N.Y., CENTRAL BANK LIQUIDITY SWAPS, http://www.newyorkfed.org/markets/liquidity_swap.html.

[96] CONG. BUDGET OFFICE, THE BUDGETARY IMPACT AND SUBSIDY COSTS OF THE FEDERAL RESERVE'S ACTIONS DURING THE FINANCIAL CRISIS, at 4-5 (May 2010).

financial markets or the economy greatly weakens again."[97] Bearing these risks raises the economic cost of the Federal Reserve actions. These costs are estimated by calculating the "fair value" subsidies conferred on participants in the Federal Reserve rescue programs. The CBO projects that "the economic cost of the Federal Reserve System's actions to stabilize the financial markets—which incorporates the risks to taxpayers"—totals about $21 billion.[98]

The deterioration in the economy since 2008, with decreased tax revenues and increased outlays for unemployment insurance, food stamps, and other safety-net programs is estimated to account for $3.5 trillion in extra deficits in 2009 through 2018.[99] The deficit attributable to TARP, Fannie, and Freddie from 2009-2019 is $276 billion. Moreover, ARRA and many of the above legislative responses to the crisis are estimated to "account for $1.4 trillion of the nearly $13 trillion in deficits over the 2009-2019 period."[100] According to CBO projections, 2012 will mark the fourth consecutive year the budget deficit will have exceeded $1 trillion.[101]

Along with a reduction in revenues, these government expenditures and legislative responses to the crisis result in a loss of fiscal capacity. This in turn has broader implications.

First, there is a drop in discretionary spending. (See Figure below). As a result, those in poverty, for example, will not receive the funds necessary to help maintain, let alone improve, their quality of life.

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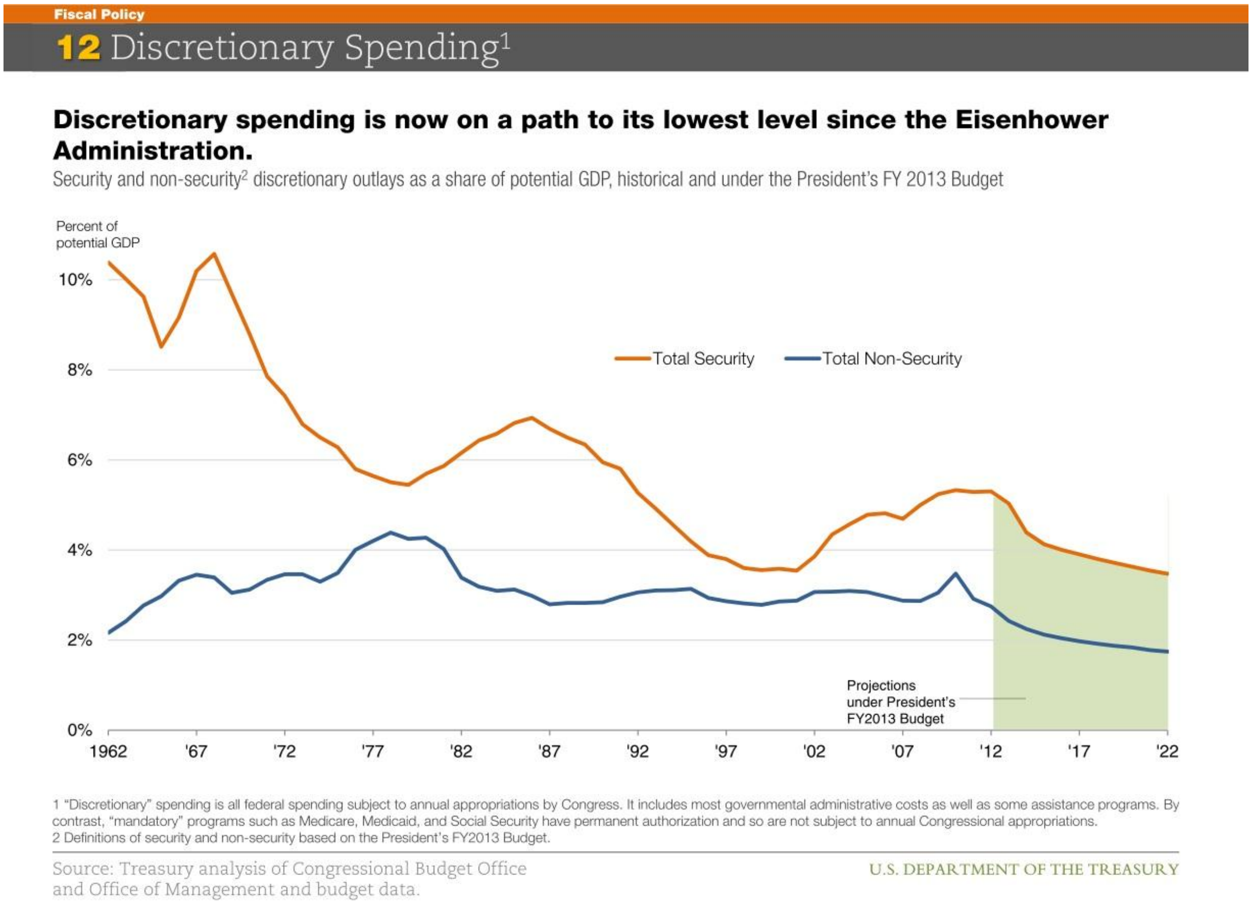
[97] *Id*. at 5.
[98] *Id.* at 5-7.
[99] KATHY A. RUFFING & JAMES R. HORNEY, CENTER ON BUDGET AND POLICY PRIORITIES, ECONOMIC DOWNTURN AND BUSH POLICIES CONTINUE TO DRIVE LARGE PROJECTED DEFICITS: ECONOMIC RECOVERY MEASURES, FINANCIAL RESCUES HAVE ONLY TEMPORARY IMPACT, at 7 (May 10, 2011).
[100] *Id.* at 3
[101] CBO 2012 to 2022 Outlook, *supra* note 22, at 4.



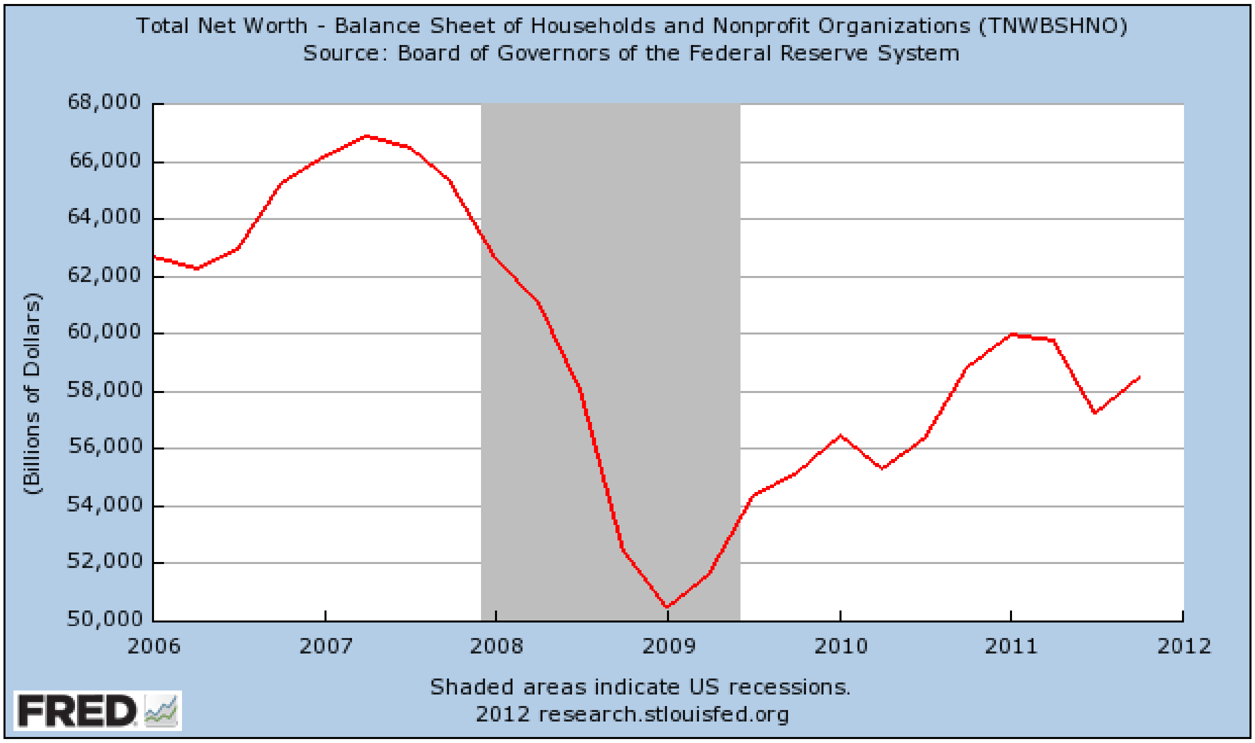
Second, a loss in fiscal capacity translates into a loss of the ability of the U.S. to head off or absorb the consequences of a future crisis, thus placing the economy at higher risk of (1) another crisis and (2) one that is worse than the current crisis.

4. HOUSEHOLD WEALTH: There has been a steep decline in household wealth, including massive losses in real estate value and retirement accounts.

Household wealth or household net worth is the difference between the value of assets and liabilities held by U.S. households. Data on household wealth provides a useful insight to the economic circumstances of the population. It "indicates the extent to which households have savings to draw on in the event of unemployment or illness;" "sheds light on the question of how well prepared today's working households will be to finance consumption during retirement;" and "provides indications of households' ability to service their debts, including their potential vulnerability to default or bankruptcy."[102] At the end of 2011, household wealth was $58.5

[102] GERHARD FRIES ET AL., FED. RESERVE BOARD OF GOVERNORS, THE MEASUREMENT OF HOUSEHOLD WEALTH USING SURVEY DATA: AN OVERVIEW OF THE SURVEY OF CONSUMER FINANCES, at 1 (Mar. 1998); *see also* JESSE BRICKER ET AL., FED. RESERVE BOARD, SURVEYING THE AFTERMATH OF THE STORM: CHANGES IN FAMILY FINANCES FROM 2007 TO 2009, FRB FINANCE AND ECONOMICS DISCUSSION SERIES, NO. 2011-17 (2011) (discussing changes to household wealth from 2007-2009).

trillion, up from $50.05 trillion at the start of 2009, but well below the $67 trillion level at the beginning of the crisis.[103] (See Figure below).



- **Home value declines:**

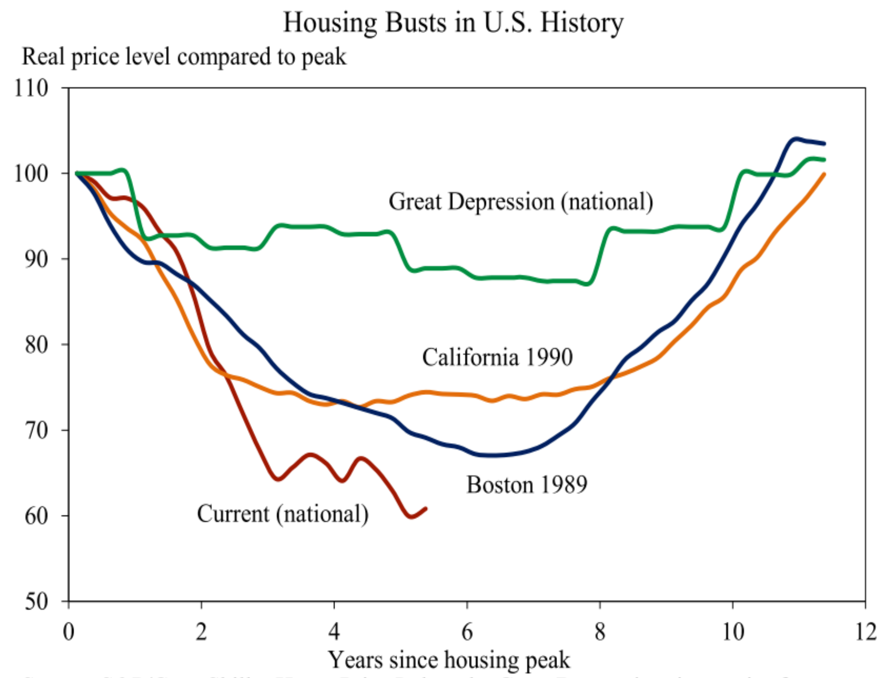
A major component of household wealth in the U.S. is houses. Home values have declined 33% since the crisis began, representing $7 trillion in household wealth lost.[104] According to CoreLogic, this is the fifth consecutive year with a decrease in the Home Price Index. [105] "Including distressed transactions, the peak-to-current change in the national Home Price Index (from April 2006 to December 2011) was -33.7 percent."[106]

Moreover, the decline in *real* housing prices greatly exceeds the decline witnessed during the Great Depression.[107] According to the 2012 Economic Report of the President:

[103] *See* BOARD OF GOVERNORS, FED. RESERVE SYS., FEDERAL RESERVE STATISTICAL RELEASE, FLOW OF FUNDS ACCOUNTS OF THE U.S.: FLOWS AND OUTSTANDINGS FOURTH QUARTER 2011(Mar. 2012).
[104] BOARD OF GOVERNORS OF THE FED. RESERVE SYS., WHITE PAPER, THE U.S. HOUSING MARKET: CURRENT CONDITIONS AND POLICY CONSIDERATIONS, at 3 (Jan. 4, 2012).
[105] Corelogic, December Home Price Index Gives First Look at Full-year 2011 Price Changes, at 1, Feb. 2, 2012 (available at http://www.corelogic.com/about-us/researchtrends/asset_upload_file382_14069.pdf).
[106] *Id*. at 2.
[107] ECONOMIC REPORT OF THE PRESIDENT 2011, at 33-34 (Feb. 2011).

> [T]he decline in inflation-adjusted home prices was unprecedented in the post-World War I U.S. economic experience in both its severity and its geographic scope. Some of the regional housing recessions—notably in California and New England in the early 1990s—generated sharp and long-lasting price declines, but neither was as steep and prolonged as the current episode. And during the Great Depression, the only other instance of nationwide price declines since WWI, much of the comparably-sized decline in nominal home prices was offset by a concurrent drop in general price levels, so the decline in *real* housing values was only about one-quarter as large as the one we recently experienced. [108]

(See Figure Below).



Source: ECONOMIC REPORT OF THE PRESIDENT 2012, at 101 (Feb. 2012).

This sharp decline in housing prices coupled with poor lending practices led to increased debt to asset ratios, resulting in numerous foreclosures and delinquencies. Over 11 million homeowners own homes worth less than their mortgages, or about 22.8 percent of all residential properties with a mortgage.[109] Since the start of the financial crisis in 2008, about 3.5 million foreclosures have been completed.[110] The average duration of delinquencies on loans that are 90

[108] ECONOMIC REPORT OF THE PRESIDENT 2012, at 101 (Feb. 2012).

[109] Corelogic, Negative Equity Back to Q3 2009 Housing Market Trough Level (Mar. 1, 2012); Joint Center for Housing Studies of Harvard University, *The State of the Nation's Housing*, at 11, 2011.

[110] Corelogic, Largest Improvements in Foreclosure Rate from a Year Ago were in Nevada and Arizona (May 1, 2012).

or more days delinquent was 374 days as of April 2011.[111] In contrast, in early 2008, the average was 192 days.

The loss of household wealth from housing-related debt and declines in house prices also affects GDP since consumer spending decreases as home values fall.[112] Thus, research shows that because of the negative effect on aggregate demand, higher levels of household debt are proving to be a substantial obstacle to overall economic recovery.[113]

Additionally, homeowners whose mortgages are underwater, with negative equity and rising interest rates, are less socially mobile over time.[114] Mobility rates for homeowners with negative equity in their homes is almost 50 percent lower than those who have positive equity.[115] Less social mobility raises concerns about future employment, since the likely result is "inefficient matching in the labor market, as some households will not be able to move to access better jobs in alternative labor markets."[116]

- **Drop in retirement accounts**

Retirement accounts are another form of lost household wealth with an especially significant and painful impact on seniors. As of March 2009, retirement accounts have lost $3.4 trillion, or 40% in value.[117] Likewise, pension plans lost about $1 trillion, or about 10 percent of pension fund assets, from the second quarter of 2007 to the second quarter of 2008.[118]

Although accounts may rebound for relatively young adults, with negligible consequences, for those at or near retirement age during the crisis, irreversible harm was inflicted. Such social harms included the inability to meet basic needs, the need to return to workforce in a menial capacity, and an overall loss of quality of life during retirement.

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[111] RAJDEEP SENGUPTA & BRYAN J. NOETH, FED. RESERVE BANK OF ST. LOUIS, SOME CLOSURE ON FORECLOSURES? (Jul. 2011).
[112] *See* ATIF MIAN & AMIR SUFI, FED. RESERVE BANK OF SAN FRANCISCO, CONSUMERS AND THE ECONOMY, PART II: HOUSEHOLD DEBT AND THE WEAK U.S. RECOVERY, FRBSF ECONOMIC LETTER (Jan. 18, 2011) (measuring differences in auto sales among high household and low household debt countries to illustrate the relationship between residential investment and durable consumption).
[113] *Id*.
[114] FERNANDO FERREIRA ET AL., FED. RESERVE BANK OF N.Y., HOUSING BUSTS AND HOUSEHOLD MOBILITY, No. 350 (Aug. 28, 2008) (available at http://www.newyorkfed.org/research/staff_reports/sr350.html).
[115] *Id*.
[116] *Id*. at 18-19.
[117] MAURICIO SOTO, URBAN INSTITUTE, HOW IS THE FINANCIAL CRISIS AFFECTING RETIREMENT SAVINGS? (Mar. 10, 2009).
[118] Peter R. Orszag, Director of the Congressional Budget Office, Testimony before the Committee on Education and Labor, U.S. House of Representatives, The Effects of Recent Turmoil in Financial Markets on Retirement Security, at 2 (Oct. 7 2008) (available at http://www.cbo.gov/publication/41740).

According to a November 2008 survey, "[m]any people approaching retirement suffered substantial losses in their retirement accounts."[119] Twenty-five percent of the respondents between the ages of 50 and 59 reported losing more than 35% of their retirement savings, and "some of them locked in their losses prior to the partial recovery in the stock market by selling out."[120] Because of unemployment, some people retired early, leading to reduced economic resources for their futures.[121]

Additionally, "[s]ome people on the verge of retirement might respond to a decline in financial markets by working longer."[122] In fact, even though the unemployment rate increased sharply for those over 55 since 2007, the labor force participation rate rose during the recession.[123] According to the Bureau of Labor Statistics, the civilian labor force participation rate for those 55 years or older increased from 38.0 in 2006 to 40.2 in 2011.[124] For those 65 years or older, the rate increased from 15.4 in 2006 to 17.9 in 2011.

5. Human suffering

Last but not least, and pervading the entire analysis, are the many non-quantitative consequences of a financial crisis and a resulting recession, including hunger, depression, untreated maladies, humiliation, crime, and breakdowns in families and communities. Although difficult to quantify, these costs of a financial crisis are reflected in some indicators.

- **The number of families falling below the poverty line has climbed steadily since 2007, rising from 12.5 to 15.1 percent in 2010.**[125] "The number of people in poverty in 2010 (46.2 million) is the largest number in the 52 years for which poverty estimates have been published" by the U.S. Census Bureau.

- **Food stamps:** Over 46 million, or about 15%, of Americans currently receive food stamps, about a 13 million increase from 2009.[126] The USDA estimated that the 44.7 million on food stamps in 2011 cost $71.8 billion.

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[119] Michael D. Hurd & Susamm Rohwedder, *Effects of the Financial Crisis and Great Recession on American Households*, NBER Working Paper No. 16047, at 21 (Sept. 2010).
[120] *Id.*
[121] *Id*.
[122] Peter R. Orszag, Director of the Congressional Budget Office, Testimony before the Committee on Education and Labor, U.S. House of Representatives, The Effects of Recent Turmoil in Financial Markets on Retirement Security, at 5 (Oct. 7 2008) .
[123] EMY SOK, BUREAU OF LABOR STATISTICS, DEPT. OF LABOR, RECORD UNEMPLOYMENT AMONG OLDER WORKERS DOES NOT KEEP THEM OUT OF THE JOB MARKET (MAR. 2010), http://www.bls.gov/opub/ils/summary_10_04/older_workers.htm#chart2.
[124] *See* BUREAU OF LABOR STATISTICS, DEPT. OF LABOR, DATABASES, TABLES & CALCULATORS BY SUBJECT, http://www.bls.gov/data/#employment.
[125] CARMEN DENAVAS-WALT ET AL., U.S. CENSUS BUREAU, INCOME, POVERTY, AND HEALTH INSURANCE COVERAGE IN THE UNITED STATES: 2010, at 14 (Sept. 2011).
[126] USDA, SUPPLEMENTAL NUTRITION ASSISTANCE PROGRAM, Apr. 30, 2012, http://www.fns.usda.gov/pd/34snapmonthly.htm.

- **School lunches.** The number of children receiving free or low-cost school lunches through The National School Lunch Program has surged in recent years. To be eligible for a free meal, family income must be at or below 130 percent of the poverty line, or $29,055 for a family of four.[127] To be eligible for a reduced-priced meal, family income must be between 130 percent and 185 percent of the poverty level, or between $29,055 and $41,348 for a family of four. In 2010, over 31.7 million children received their lunches through the program, 20.6 million of whom received free or reduced-price lunch. The 2010 cost to the government was $10.5 billion, compared to $6.1 billion in 2000. An estimated 21 million received free or reduced-price lunch in 2011, a 17 percent increase from the 18 million children who did so in 2006-2007.[128]

- **Suicide:** "Suicide had consistently been the 11th cause of death at least since 1999;" however, in 2008, suicide became the 10th leading cause of death.[129] As of 2010, suicide remains in that ranking.[130]

- **Homelessness:** The number of families using homeless shelters has increased. In fact, "the number of families with children that used homeless shelters at least once increased by about 30 percent from 2007 to 2009, to more than 170,000."[131]

[127] USDA, NATIONAL SCHOOL LUNCH PROGRAM FACT SHEET, Oct. 2011, http://www.fns.usda.gov/cnd/lunch/AboutLunch/NSLPFactSheet.pdf.
[128] USDA, NATIONAL SCHOOL LUNCH PROGRAM: PARTICIPATION AND LUNCHES SERVED, Apr. 30, 2012, http://www.fns.usda.gov/pd/slsummar.htm.
[129] ARIALDI M. MINIÑO ET AL., NATIONAL VITAL STATISTICS REPORTS, DEATHS: FINAL DATA FOR 2008, Vol. 59, No. 10, at 9 (Dec. 7, 2011).
[130] SHERRY L. MURPHY ET AL., NATIONAL VITAL STATISTICS REPORTS, DEATHS: PRELIMINARY DATA FOR 2010, Vol. 60, No. 4, at 7 (Jan. 11, 2012).
[131] Joint Center for Housing Studies of Harvard University, *The State of the Nation's Housing*, at 28, 2011.