

# The Financial Crisis Response In Charts

April 2012



## Introduction

This week, the U.S. Department of the Treasury released its latest cost estimates for the Troubled Asset Relief Program (TARP), which was only one part of the government's broader effort to combat the financial crisis. These charts provide a more comprehensive update on the impact of the combined actions of the Treasury, the Federal Reserve, and the Federal Deposit Insurance Corporation (FDIC).\*

Collectively, these programs—carried out by both a Republican and a Democratic administration—were effective in preventing the collapse of the financial system, in restarting economic growth, and in restoring access to credit and capital. They were well-designed and carefully managed. Because of this, we were able to limit the broader economic and financial damage. Although this crisis was caused by a shock larger than that which caused the Great Depression, we were able to put out the financial fires at much lower cost and with much less overall economic damage than occurred during a broad mix of financial crises over the last few decades.

Our economy is stronger today because of the strategy we adopted and the financial reforms now being put in place. This, in turn, has allowed our financial system to return as an engine for economic growth, jobs, and innovation. These are the most important measures of the impact of the financial strategy adopted by the United States.

In addition, the latest available estimates indicate that the financial stability programs are likely to result in an overall positive financial return for taxpayers in terms of direct fiscal cost. These estimates are based on gains already realized and on a range of different measures of cost and return for the remaining investments outstanding. These estimates do not include the full impact of the crisis on our fiscal position. And they do not include the cost of the tax cuts and emergency spending programs passed by Congress in the Recovery Act and after that were critically important to restarting economic growth.

Although the economy is getting stronger, we have a long way to go to fully repair the damage the crisis has left behind. We are still living with the broader economic cost of the crisis, which can be seen in high unemployment, the moderate pace of recovery, fiscal deficits still swollen by the crisis, the remaining constraints on access to credit, and the remaining challenges in the housing market.

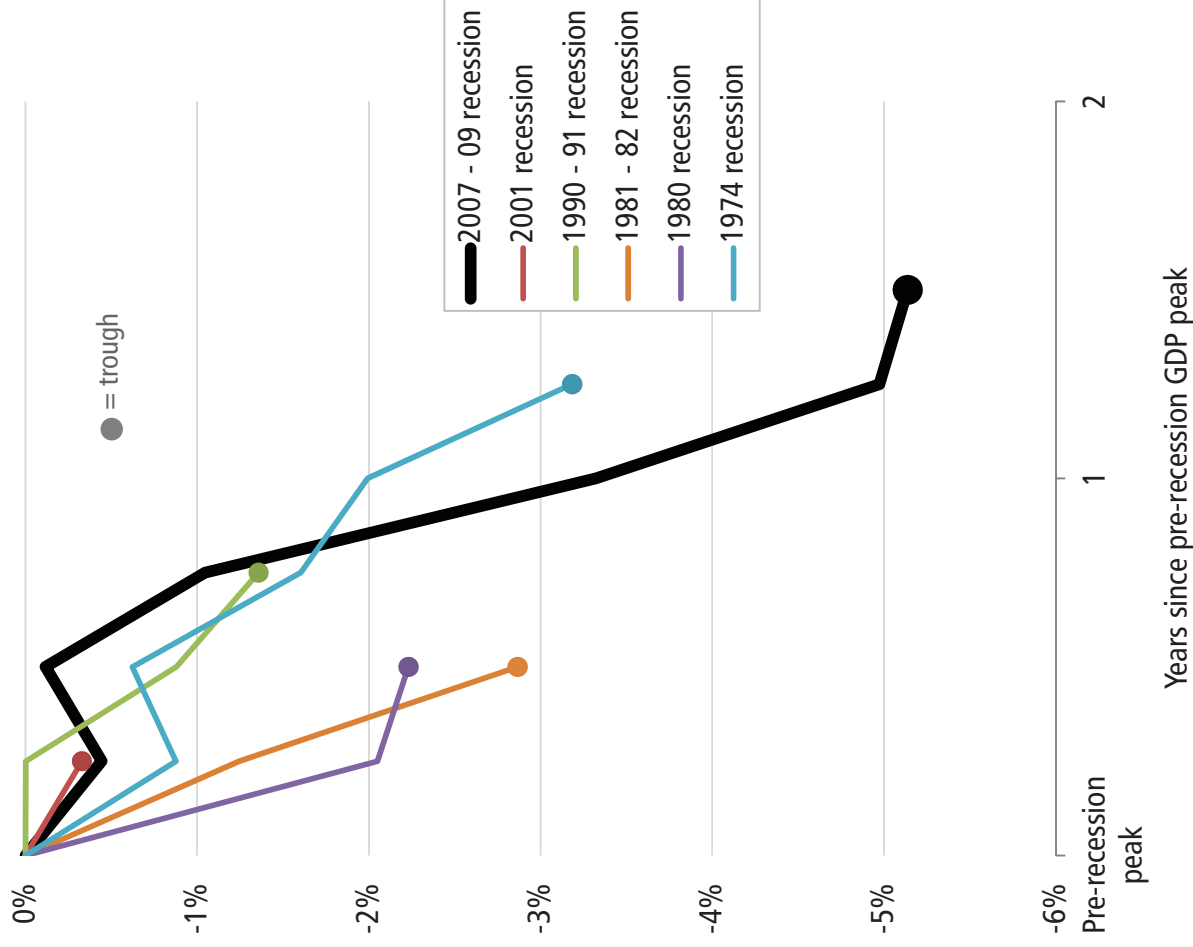
But the damage would have been far worse, and the costs far higher, without the government's forceful response.

\* This document focuses on many actions that made up the coordinated government response but is not meant to provide a complete inventory. In particular, while the Federal Reserve coordinates with other government agencies on some actions, it acts independently with regard to monetary policy.

# 1 This recession was the worst since the Great Depression

Real GDP, percent fall from pre-recession peak

Metrics of the '07 - '09 financial crisis, peak-to-trough:

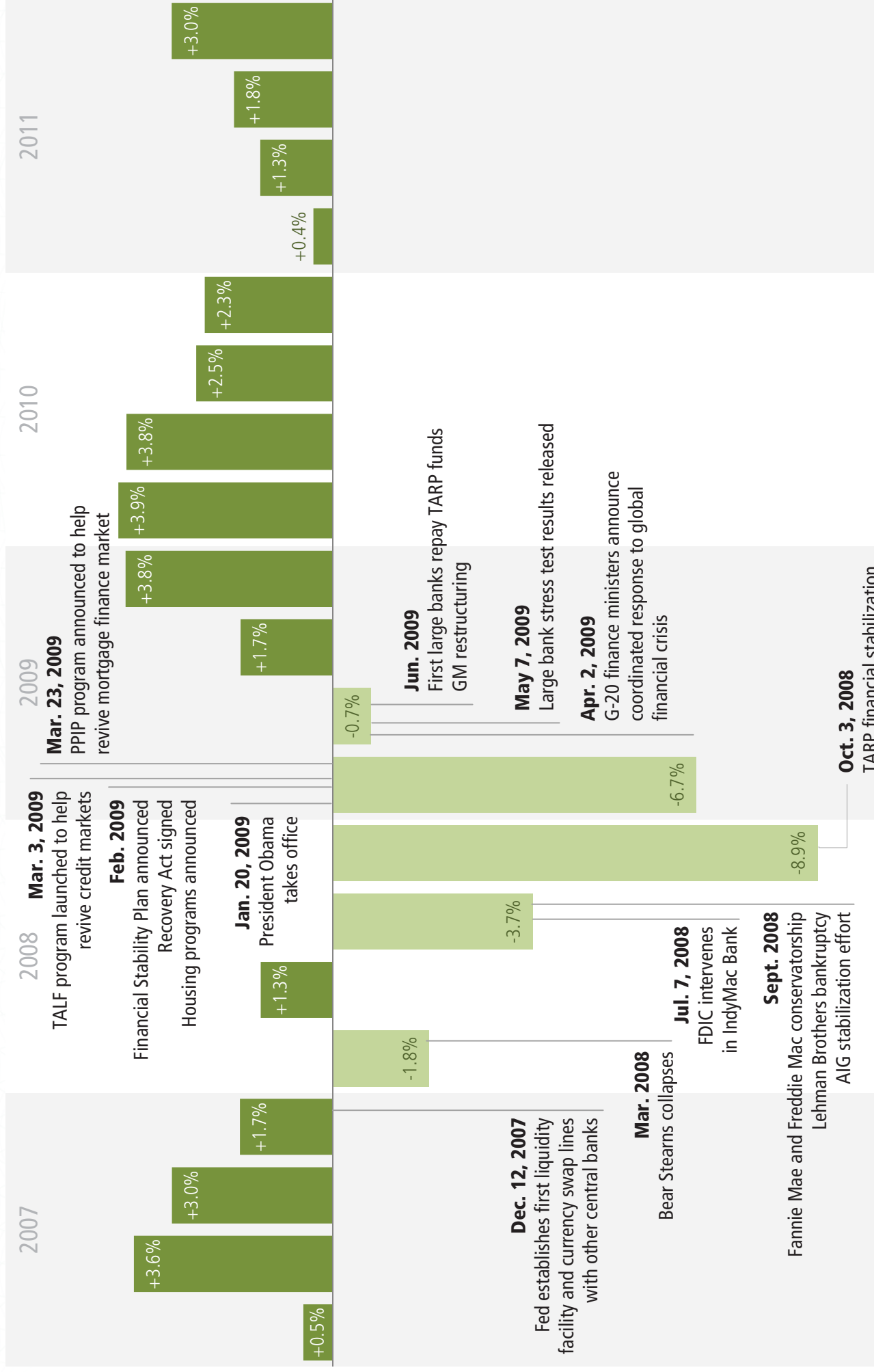


**8.8 million**  
jobs lost

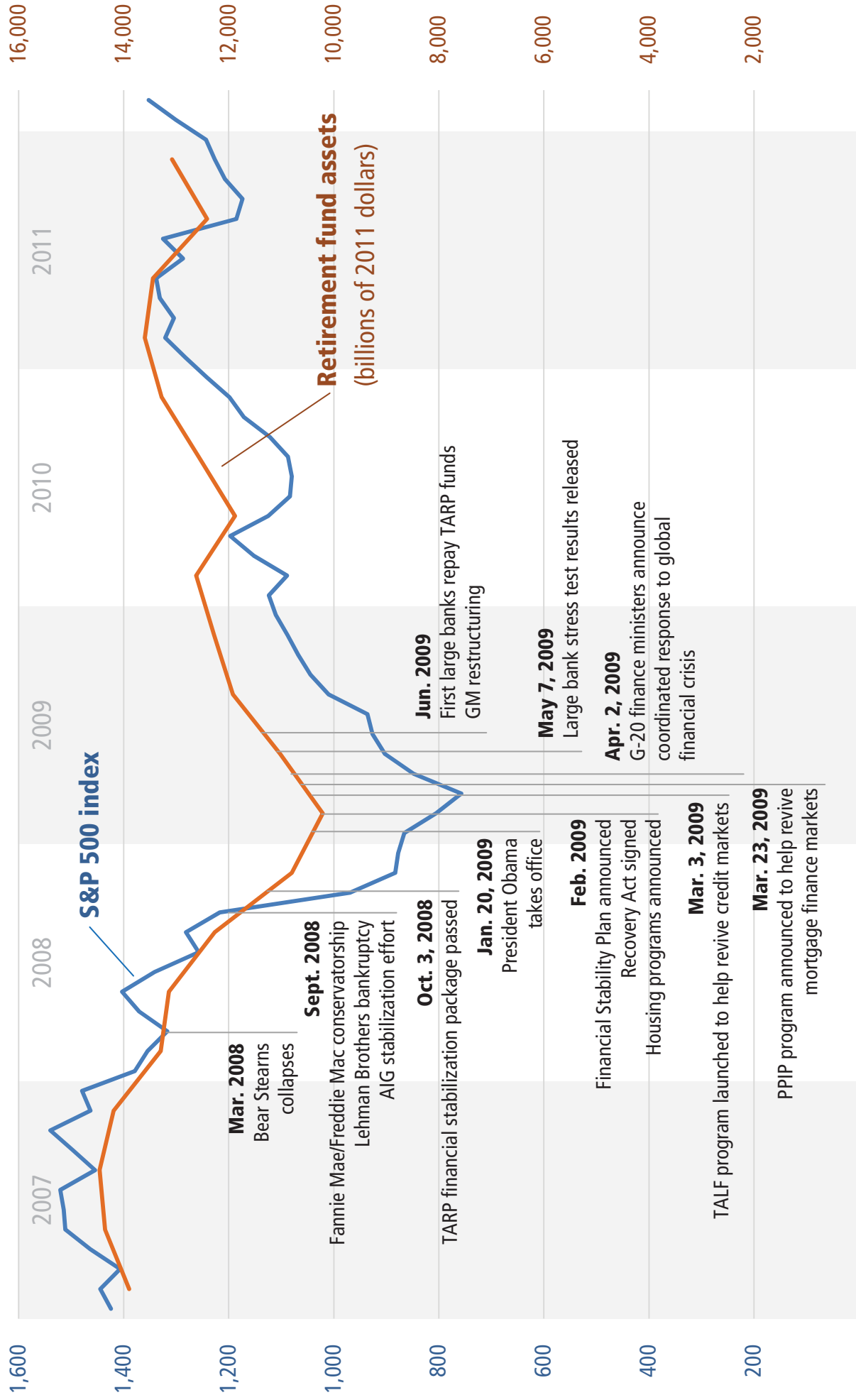
**\$19.2 trillion**  
lost household wealth  
(2011 dollars)

# 2 The crisis response helped restart economic growth

Real GDP growth, quarterly



# 3 The crisis response paved the way for retirement savings to recover

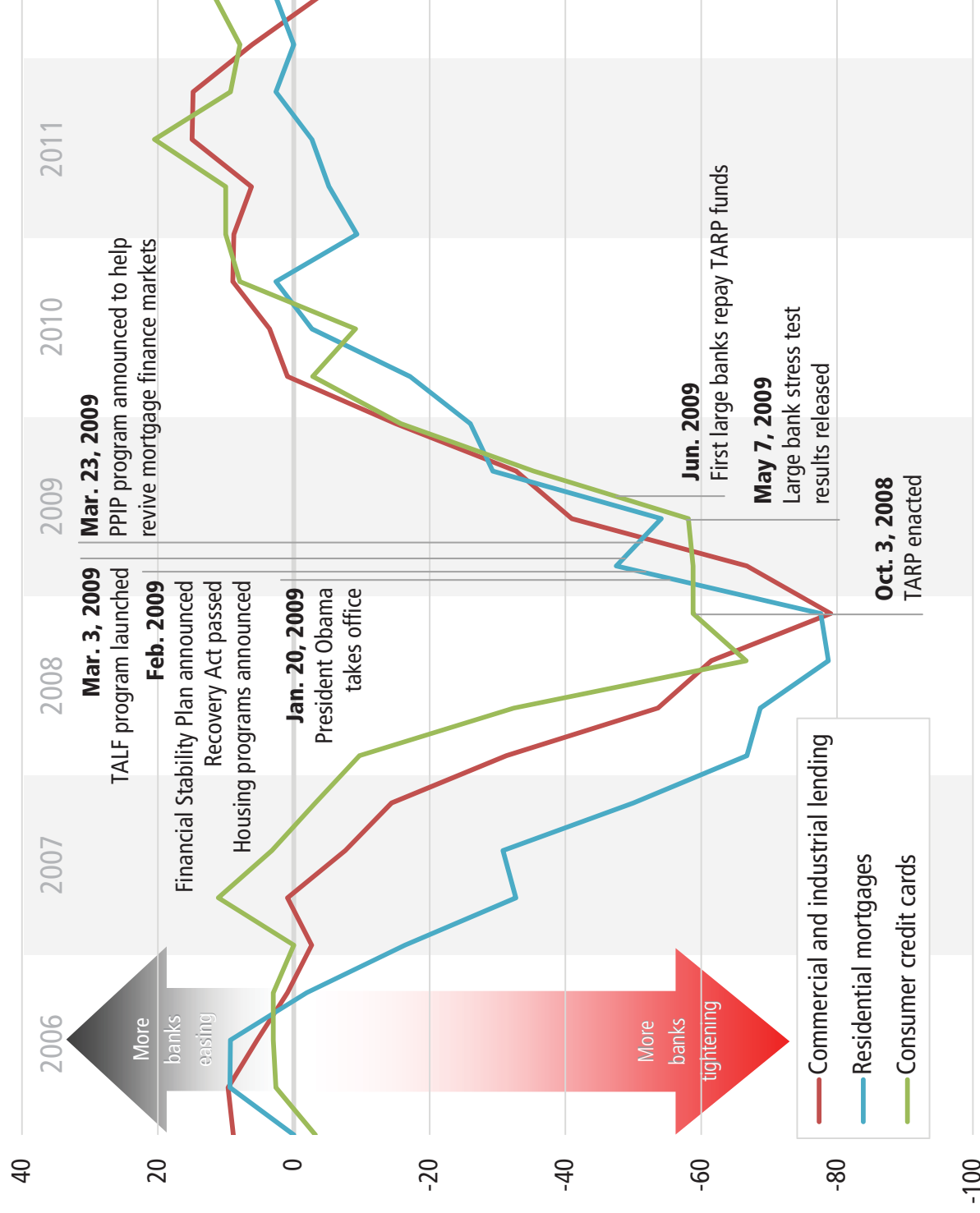


Source: Federal Reserve Flow of Funds.



# 4 The crisis response helped unclog the credit pipes of the financial system

Net percentage of banks easing lending standards, by loan type



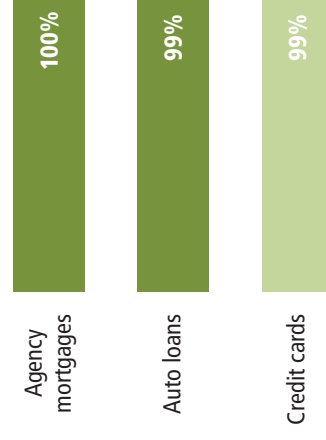
► The crisis response helped restart the markets that provide financing for auto, credit card, mortgage, and business loans.

► For borrowers, it:

- Improved credit access
- Lowered borrowing costs.

**How much has the price of credit recovered since the crisis?**

*As measured by the return of yields of asset-backed securities to their pre-crisis levels*

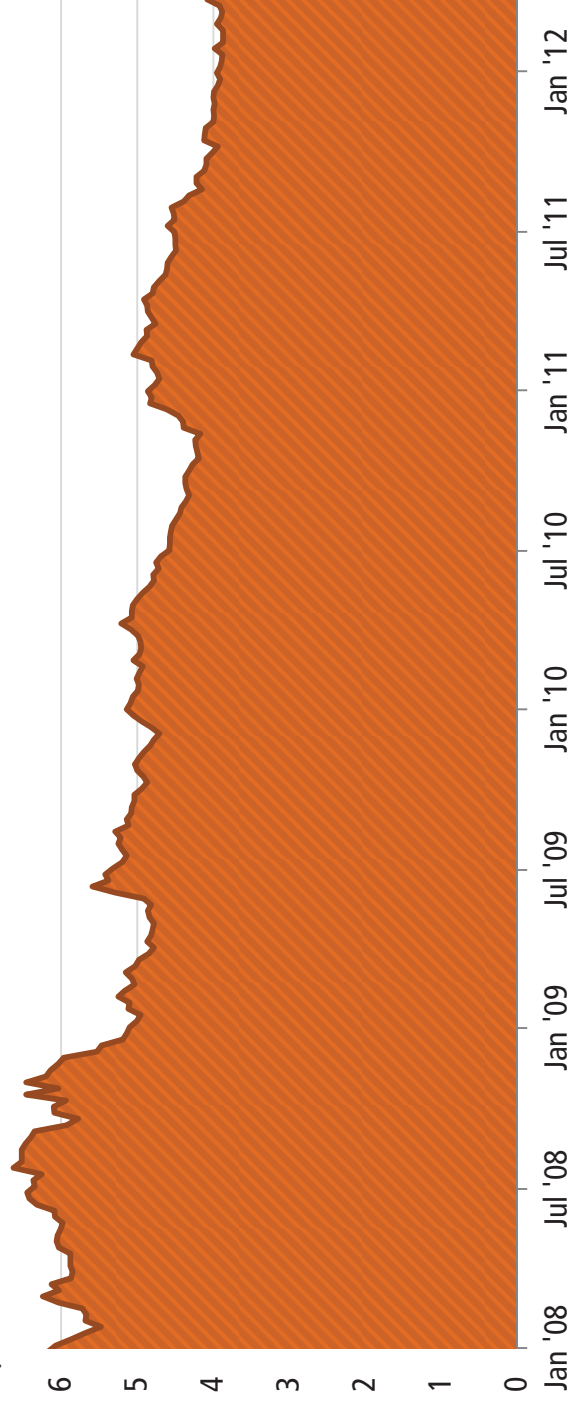




## 6 The crisis response helped stabilize the housing market

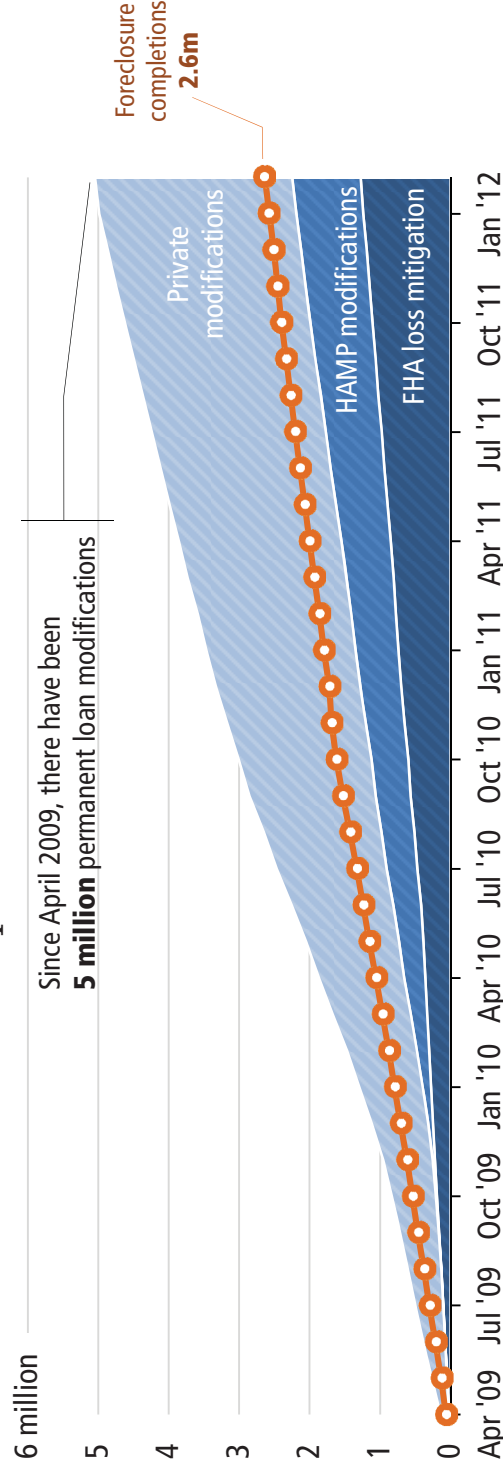
► The government's efforts helped keep mortgage rates low so that Americans could continue to buy homes and refinance in the wake of the crisis.

Conventional 30-year mortgage rates  
7 percent



► Since April 2009, loan modification programs have helped millions of borrowers stay in their homes, more than the number who have lost their homes to foreclosure.

Cumulative foreclosures and permanent modifications started\*



\* Cumulative HAMP permanent modifications, FHA loss mitigation (such as modifications, partial claims, and forbearance plans), and early delinquency interventions, plus proprietary modifications completed as reported by the HOPE NOW Alliance. Some homeowners may be counted in more than one category. Foreclosure completions are properties entering Real Estate Owned (REO) as reported by Realty Trac. This does not include other loss mitigation actions taken under Treasury housing programs or by the GSEs, such as forbearance plans, short sales, and second lien modifications, which would increase the totals.

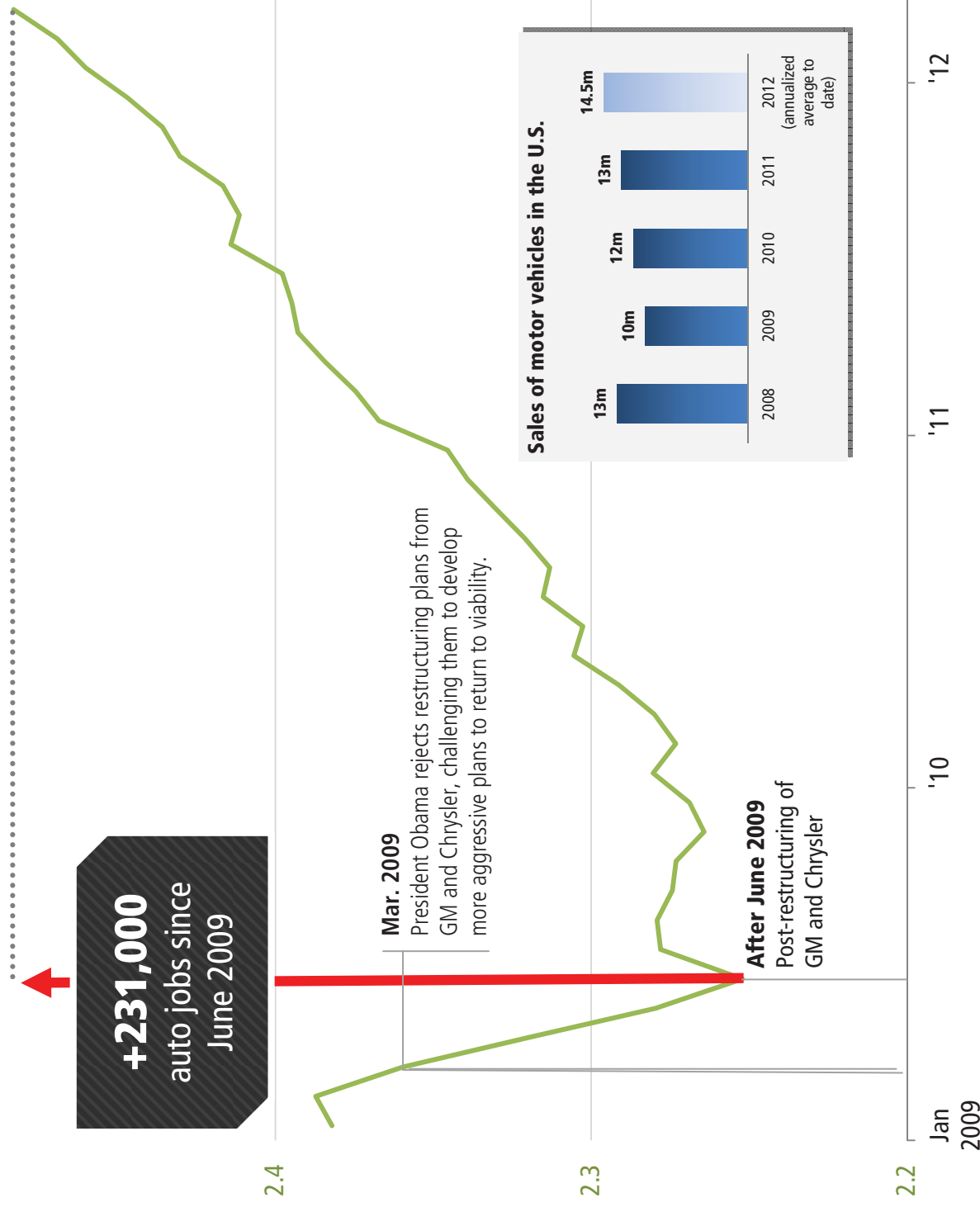


# 7 The crisis response saved the auto industry and one million American jobs

- ▶ According to independent estimates, the rescue of the auto industry saved more than one million American jobs.
- ▶ Since the rescue, the auto industry has added more than 230,000 jobs.
- ▶ The auto industry rescue is currently estimated to cost about \$22 billion, but the cost of a disorderly liquidation to families and businesses across the country that rely on the auto industry would have been far higher.

Auto-industry employment

2.6m auto industry workers



## 8 The crisis response curbed the damage and helped restart the economy

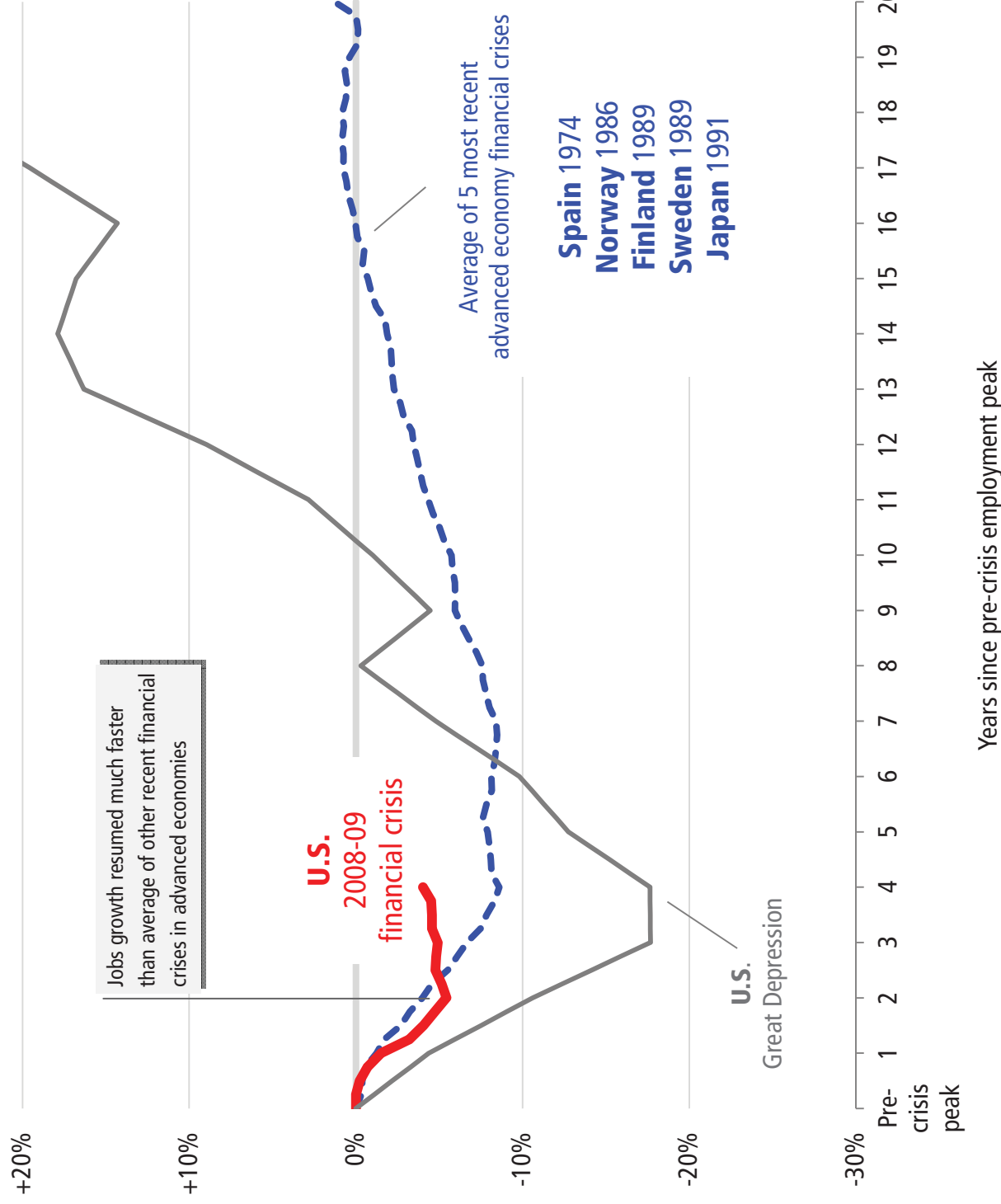
### ► **Jobs are returning.**

Despite the size of the financial shock, the speed and force of the response helped restore job growth more quickly than in most other recent crises.

### ► **There is still more work ahead, but businesses have....**

- Added workers over the last 25 straight months.
- Created 4.1 million jobs.

Total civilian employment, percentage change from pre-crisis peak



# 9 How much were the financial stability programs expected to cost?

Projections of potential cost of financial stability programs

“ Bank bailout could cost  
**\$4 trillion**  
*CNNMoney.com*  
*January 27, 2009*

“ U.S. pledges top  
**\$7.7 trillion**  
 to ease frozen credit  
*Bloomberg*  
*November 24, 2008*

“ Fannie, Freddie bailout  
 could cost taxpayers  
**\$1 trillion**  
*The Christian Science Monitor*  
*June 18, 2010*

Estimated cost of TARP  
**\$341 billion**  
*Office of Management and Budget, August 2009*

Estimated cost of TARP  
**\$356 billion**  
*Congressional Budget Office, March 2009*

IMF March 2009 estimate of the cost  
 of U.S. response to '08-'09 crisis  
**12.7% of GDP**  
**(\$1.9 trillion in 2011\$)**

Estimated total potential exposure  
 from financial rescue  
**\$24 trillion**  
*Special Inspector General for TARP, July 2009*

# 10 In fact, taxpayers may realize a gain

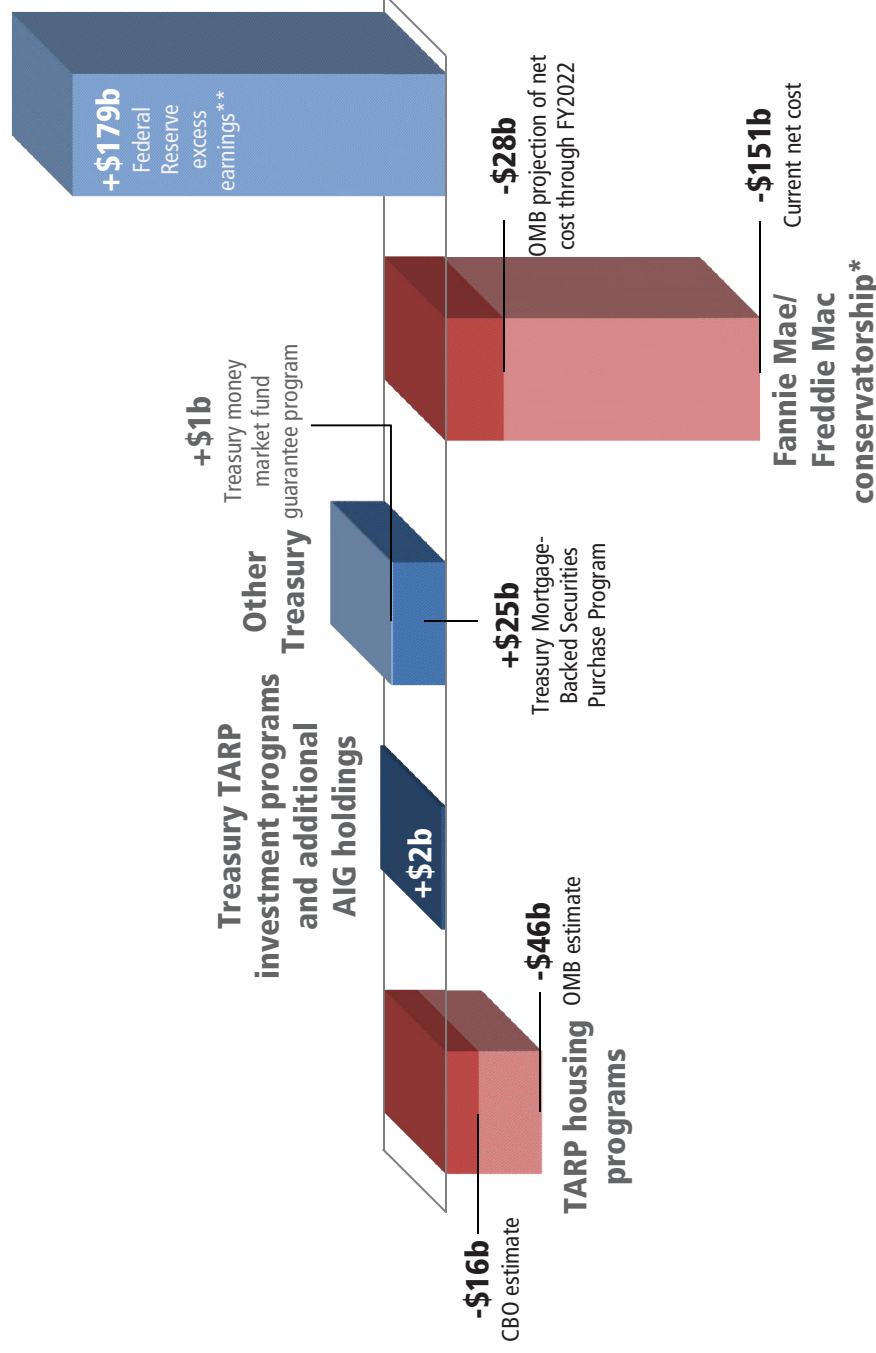
Projections of financial stability program returns/costs, based on latest estimates

**Overall, the government is now expected to at least break even on its financial stability programs and may realize a positive return.**

Treasury's TARP investments and overall stake in AIG, purchase of mortgage-backed securities, and Money Market Fund guarantee program are each currently expected to realize an overall positive return for taxpayers. Additionally, the Federal Reserve is remitting significant excess earnings to the Treasury.

There are a range of estimates on the ultimate cost of TARP's foreclosure prevention programs and stabilizing Fannie Mae and Freddie Mac, which will depend upon future housing market conditions and other factors.

However, the overall positive returns from the other financial stability programs are currently expected to more than offset those costs, according to the latest estimates.



\* Treasury currently has a net investment of \$151b in Fannie Mae and Freddie Mac, which is expected to be reduced over time as those firms generate positive earnings. OMB projects the eventual cost to fall to \$28b by fiscal year 2022. This estimate however could change materially depending on future changes in home prices, enterprise market share, and other operating assumptions.

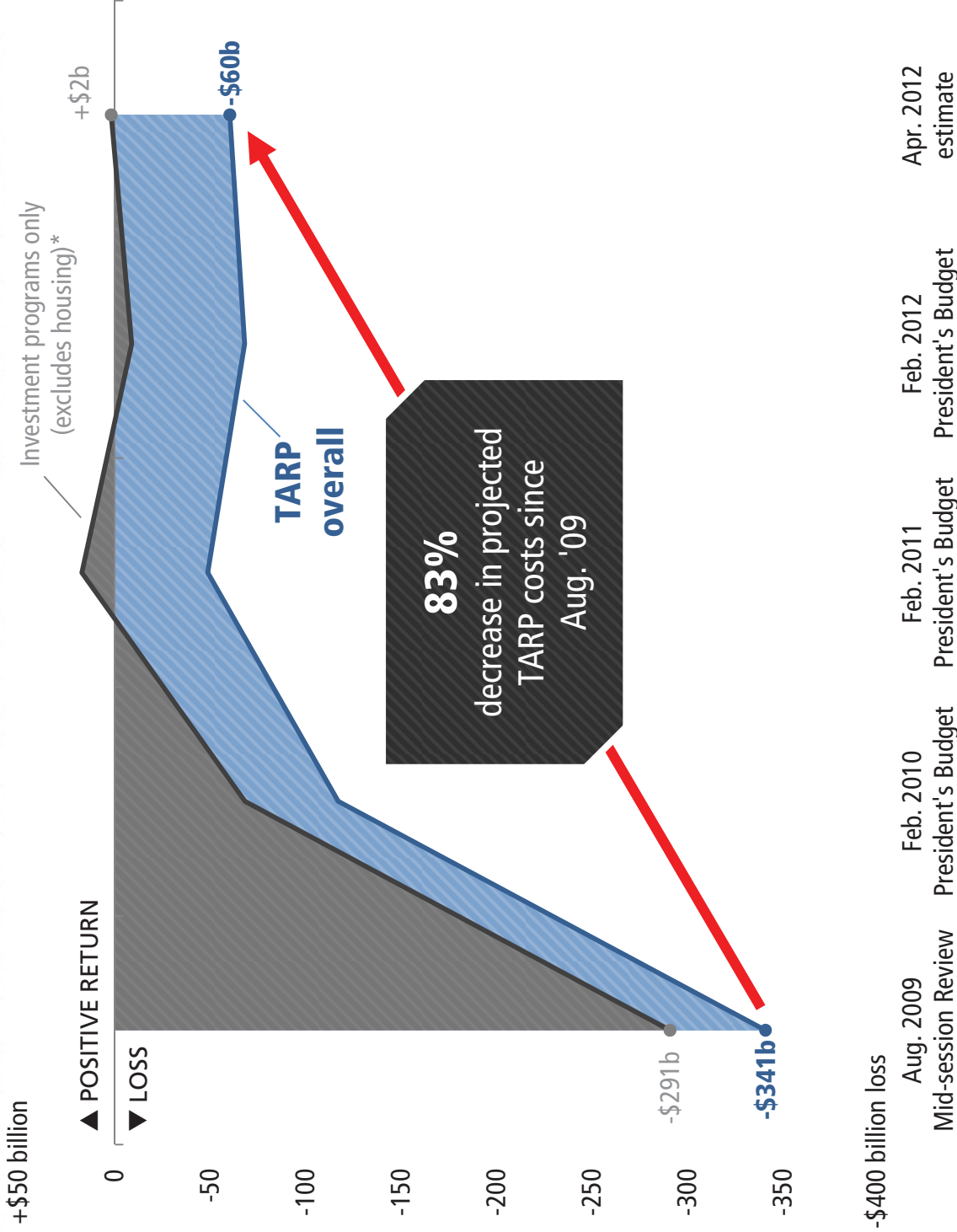
\*\* Treasury estimates. Based on the President's FY2013 Budget, the Federal Reserve has already remitted \$82 billion in excess earnings – above what would be expected in normal times – to the Treasury through fiscal year 2011. Total excess earnings from the Federal Reserve to be remitted to the general fund are currently forecast to reach \$179 billion through fiscal year 2015. The amount of future Federal Reserve earnings is uncertain and will depend on future financial, economic, and market conditions.

Note: Estimates are most recently available as of publication and are subject to revision based on future market conditions. Chart includes income and costs for the financial stability programs only. It does not include figures related to the Recovery Act or tax revenues lost from the crisis.

Source: Treasury, Office of Management and Budget. See Notes for further details on calculations.

# 11 The projected cost of TARP has fallen significantly

Projections of TARP programs and additional Treasury AIG holdings, gain (cost)



- ▲ The projected cost of TARP has fallen significantly over the last three years.
- ▲ TARP's investment programs, together with Treasury's additional stake in AIG, are currently expected to realize a positive return for taxpayers.
- ▲ The remaining projected cost is primarily attributable to support for struggling homeowners; these funds were not intended to be recovered.
- ▲ TARP programs have received three straight clean audits.\*\*

\* This represents the TARP investment programs and includes Treasury's additional AIG common stock holdings valued as of February 29, 2012. It excludes foreclosure prevention funds, which were not intended to be recovered (\$46B).

\*\* GAO annually reviews Treasury TARP cost estimates.

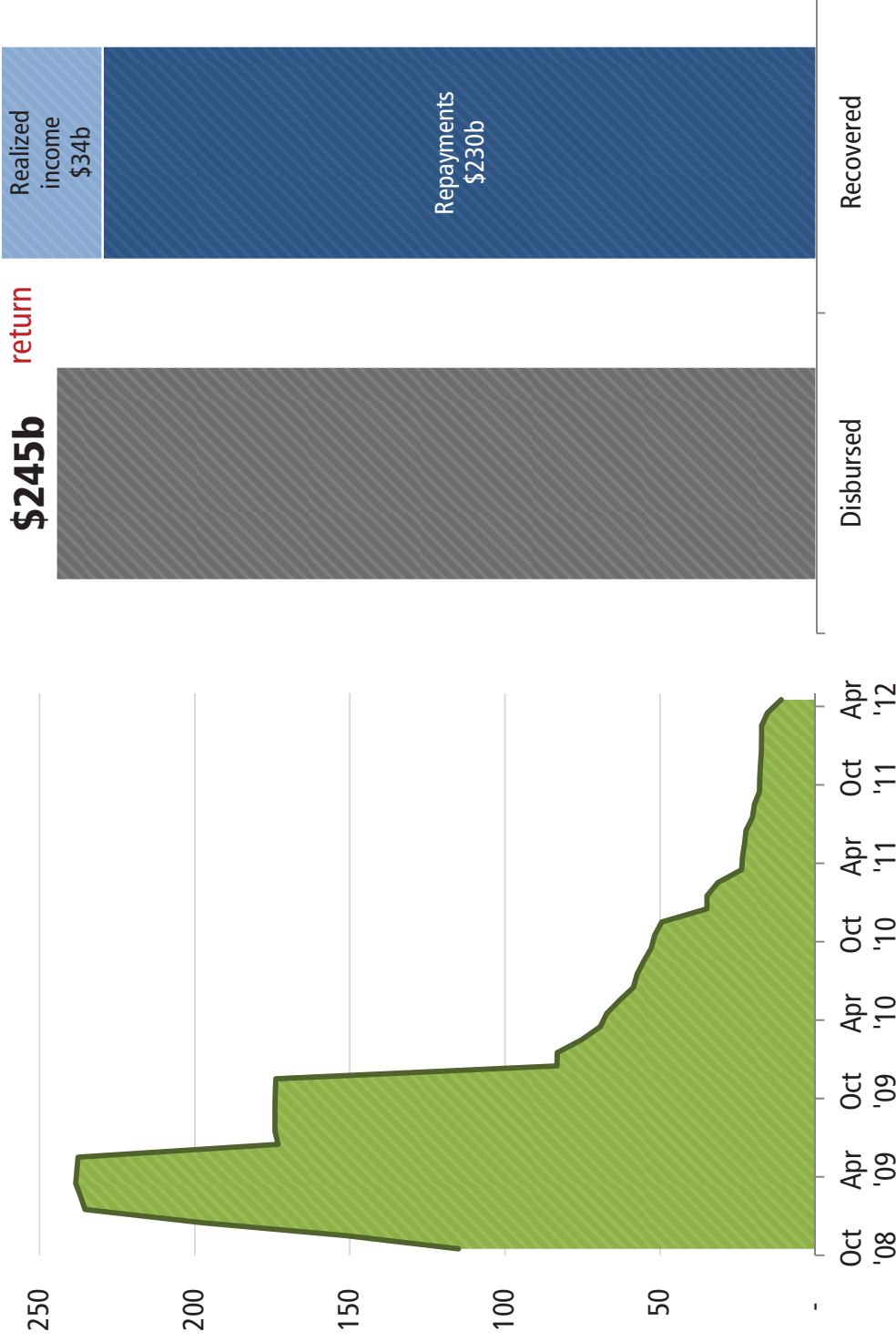
# 12 The bank investment program helped stabilize the financial system

Outstanding bank program investments, principal

\$300 billion

Returns as of April 12, 2012

**+\$19b**  
positive  
return



▶ TARP's bank investment programs helped stabilize the financial system by providing capital to more than 700 banks throughout the country.

▶ More than 450 were small, community banks.

▶ Treasury is continuing to wind down those investments, which have already realized a significant return for taxpayers.

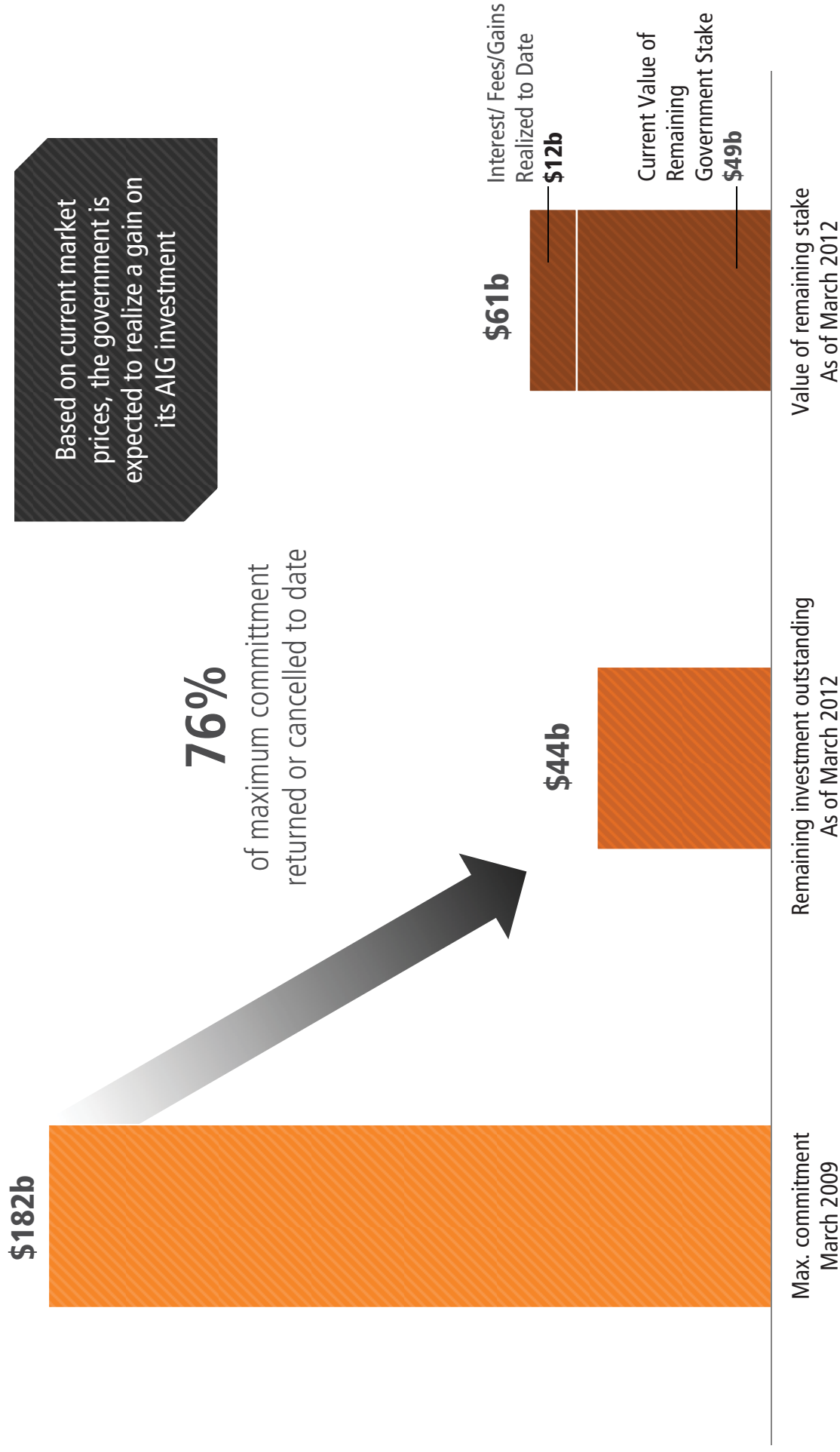
Note: About \$2b of the funds invested in banks refinanced into the SBLF program. This reflects less than 1% of the total TARP funds invested in banks.

A total of 348 banks remain in TARP's Capital Purchase Program and 82 banks remain in TARP's Community Development Capital Initiative

Source: Treasury.

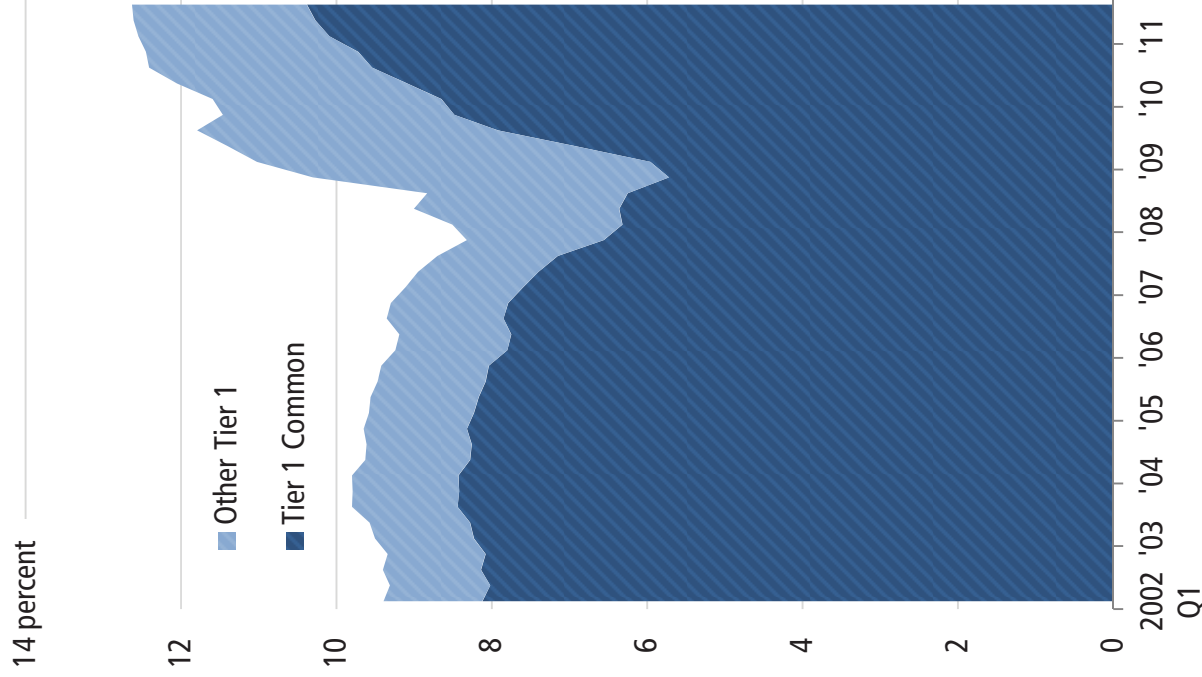
# 13 The crisis response helped prevent the collapse of the financial system and stabilized AIG

Total commitment (Treasury and Federal Reserve), outstanding investment, and value of ownership stake in AIG, billions of dollars



# 14 The financial industry is less vulnerable to shocks than before the crisis

Capital in bank holding companies as a percentage of risk-weighted assets



Short-term wholesale funding as a percent of assets, 4 largest U.S. banks



▲ Banks have added nearly \$400 billion in fresh capital as a cushion against unexpected losses and financial shocks.

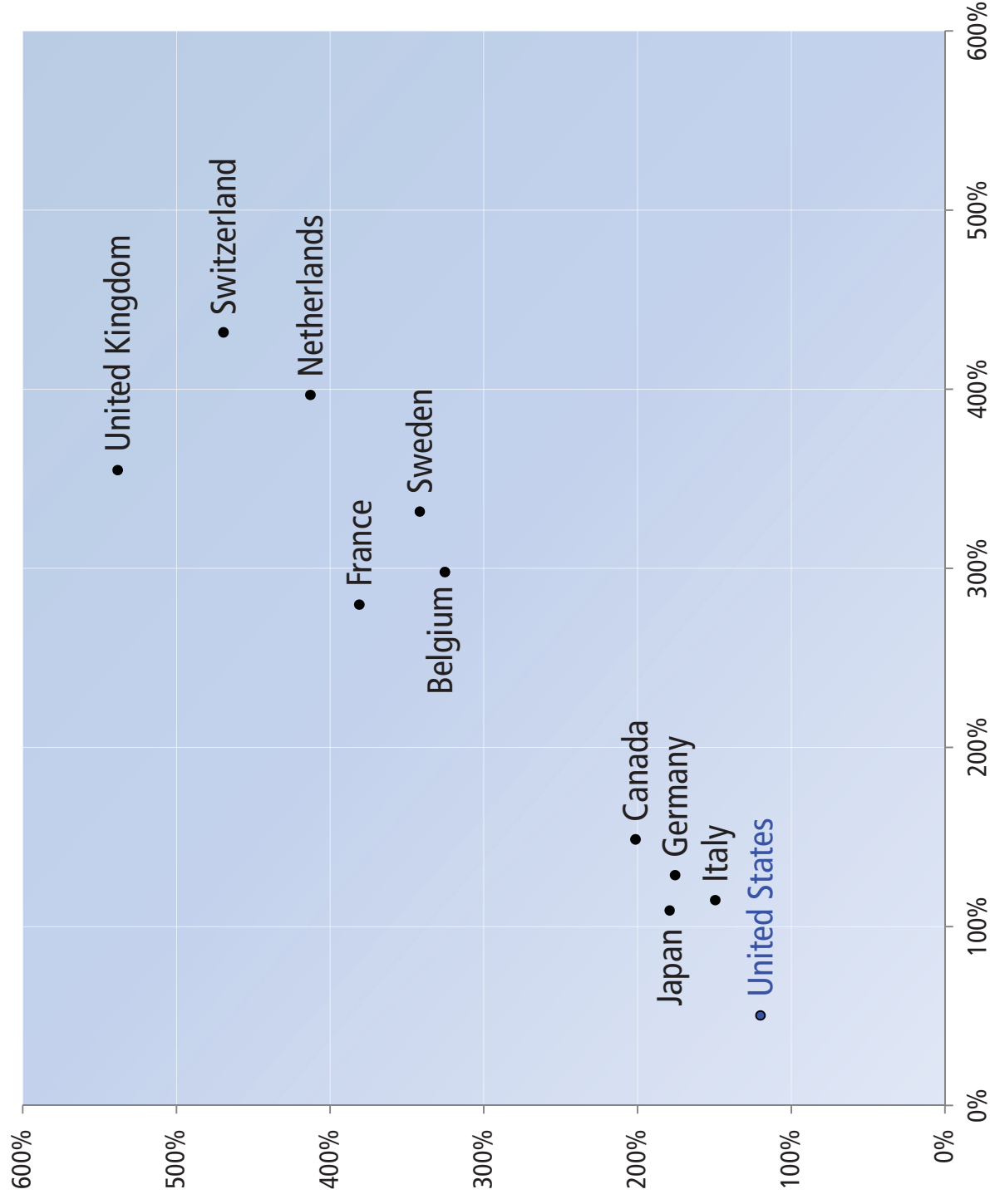
▲ Banks are also less reliant on short-term funding, which can disappear in a crisis and leave them more vulnerable to panics.



# 15 The U.S. banking system is proportionally smaller than that of other advanced economies

- ▶ Even with the consolidation of some of the weakest players during the crisis, the United States has...
  - the least concentrated banking system of any major economy.
  - the smallest banking system relative to the size of its economy.
- ▶ The new legal tools established by the Dodd-Frank Act mean that regulators will be better able to dismantle and resolve large financial institutions if necessary.

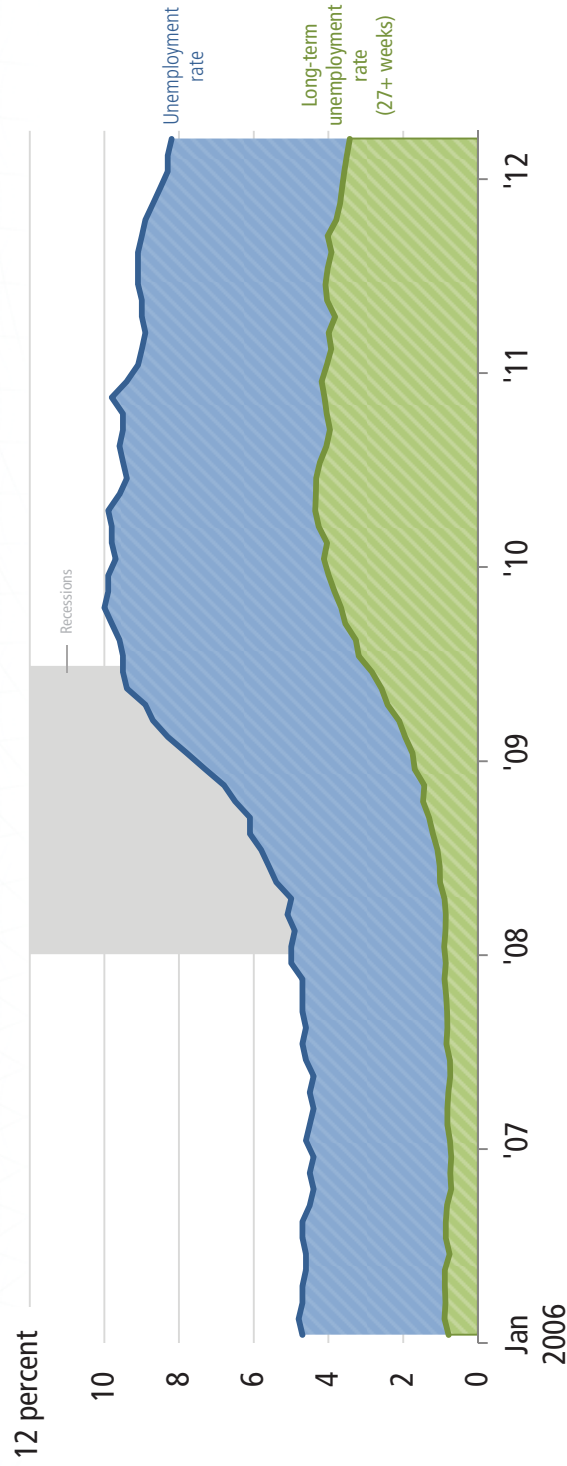
Total assets of commercial banks, percent of GDP



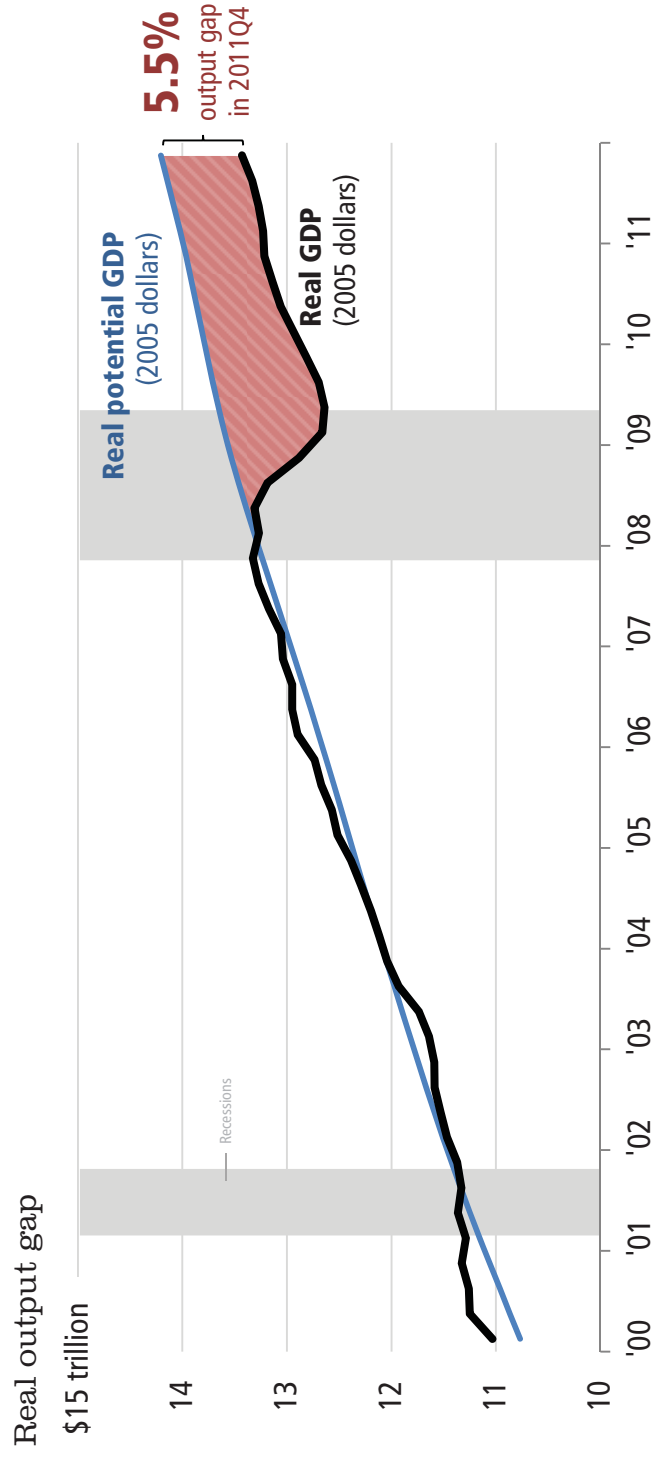
Total assets of 4 largest commercial banks, percent of GDP

# 16 The economy still has far to go to fully recover from the financial crisis

Unemployment rate, percent of the labor force



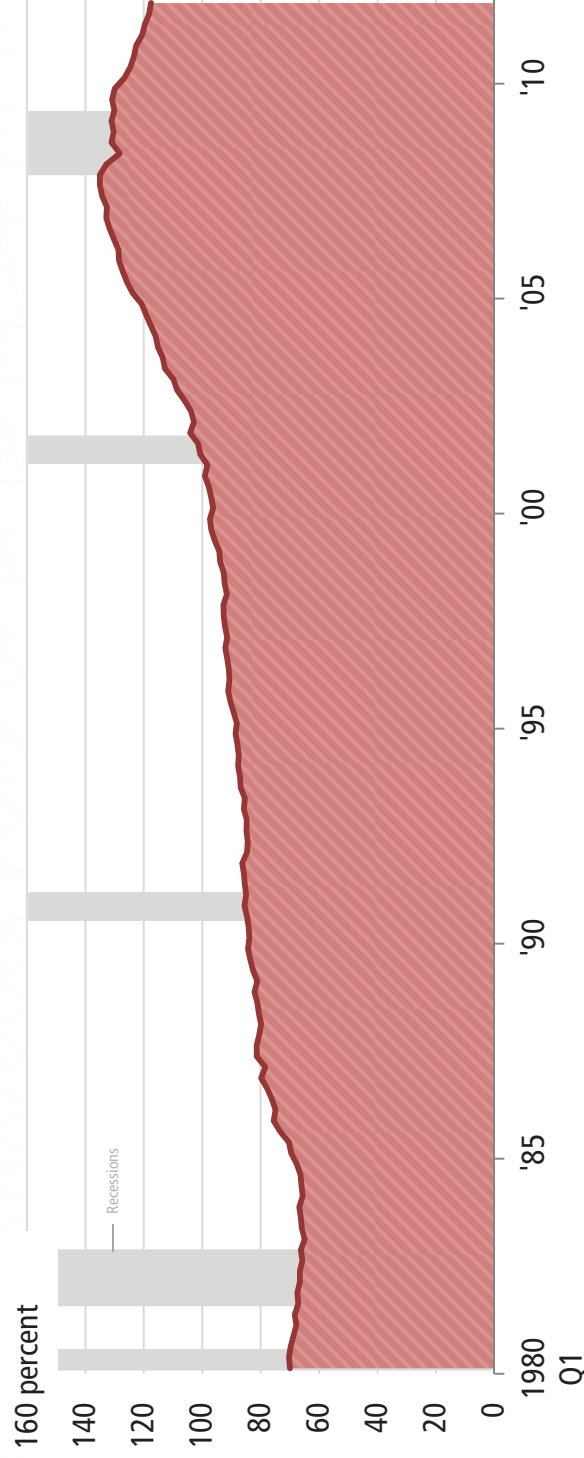
► Unemployment has fallen, but it still remains high.



► Economic output remains well below its potential.

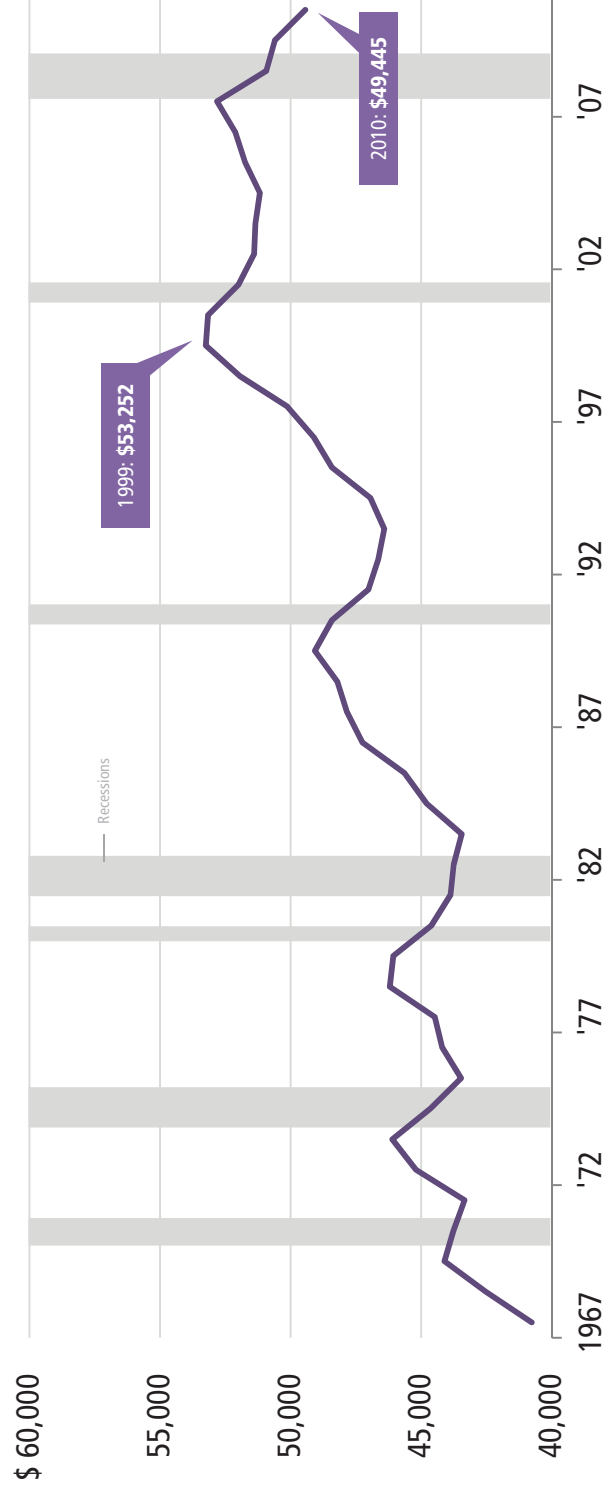
# 17 The longstanding financial difficulties facing households persist

Household debt, percent of disposable income



- ▶ Household debt is down relative to income, but a large overhang of debt remains.

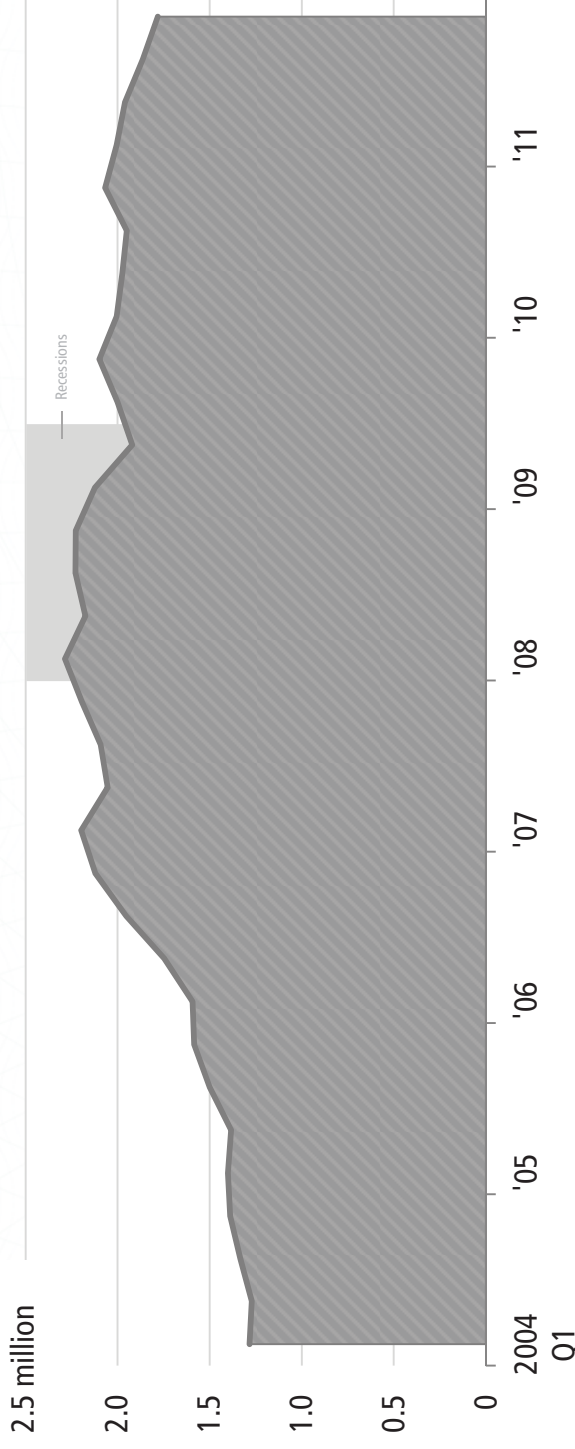
Real median household income



- ▶ Median household income has declined over the last decade.

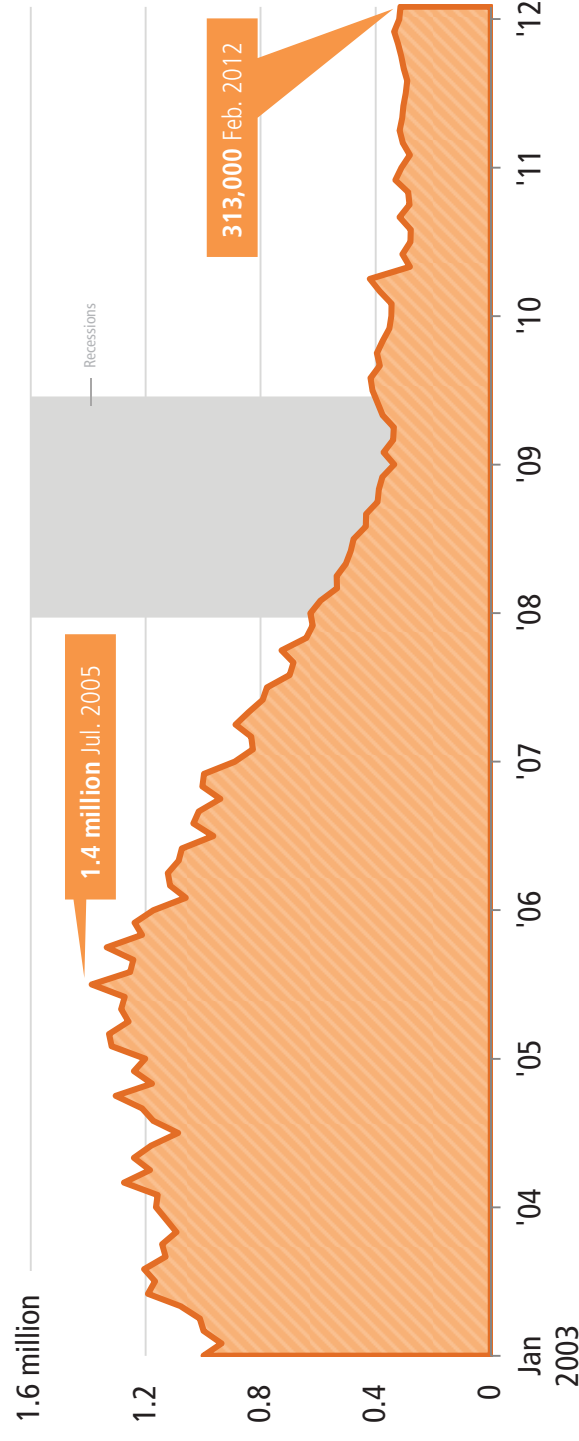
# 18 The housing market remains a challenge

Inventory of vacant homes for sale only



- ▶ Inventories of unsold homes are declining, but slowly. The overhang from the crisis continues to weigh on prices.

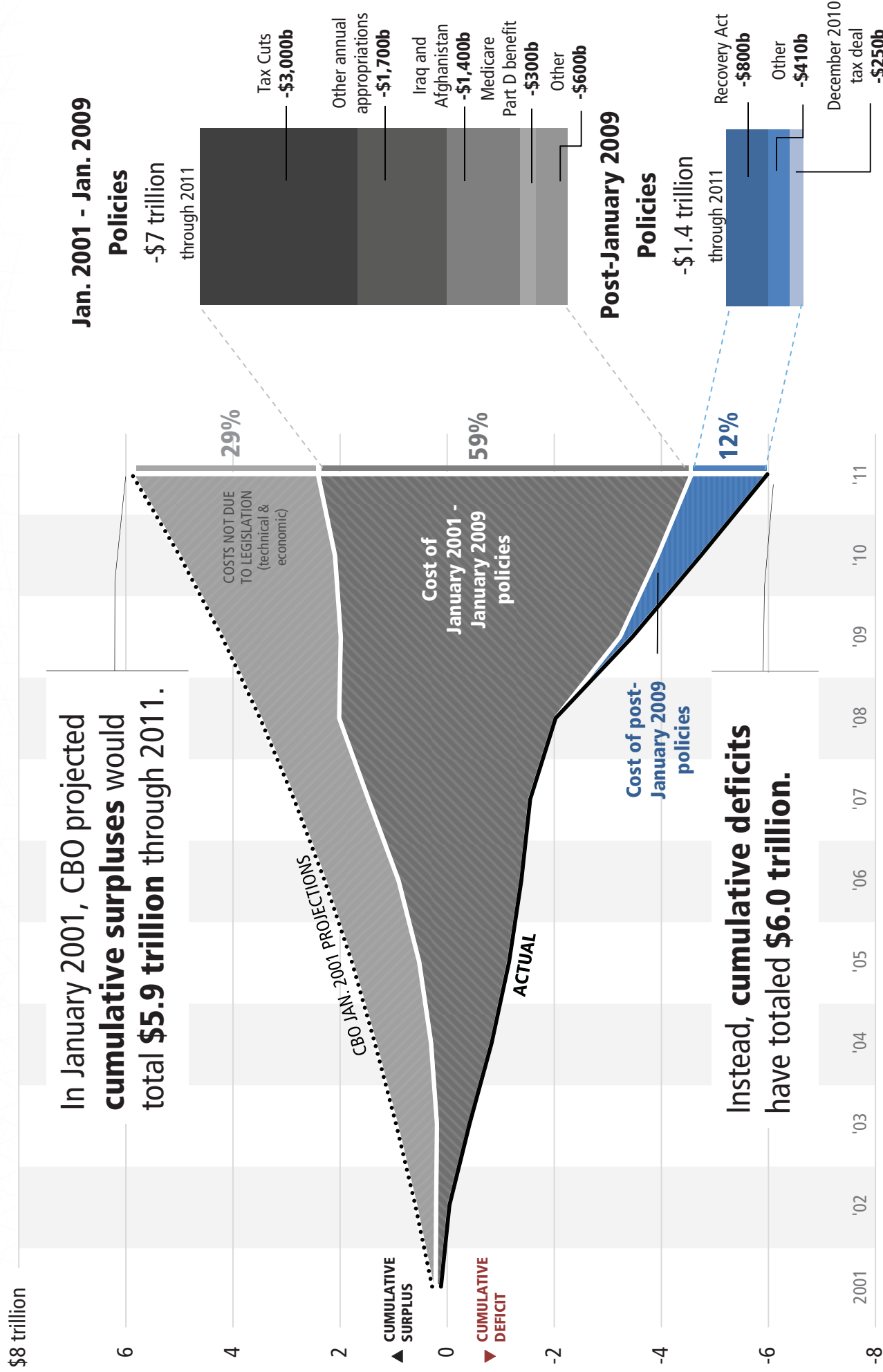
New single-family home sales



- ▶ New home sales are stabilizing, but the housing market remains weak.

# 19 The federal budget deficit must be reduced to begin paying down debt

Causes of the difference between projected and actual cumulative budget surpluses/deficits, fiscal years 2001 - 2011



Source: Treasury analysis of Congressional Budget Office data. See Notes for more details.

**Chart 1**

"Household wealth" measured as net worth of households in the Flow of Funds. Adjusted to 2011 dollars using the personal consumption expenditures chain price index.

**Chart 3**

"Retirement fund assets" measured as pension fund reserves held as assets by households in the Flow of Funds. Adjusted to 2011 dollars using the personal consumption expenditures chain price index.

**Chart 4**

Mortgage price of credit measured by spread between jumbo and conventional mortgages.

Credit cards measured by the 3 year spread-to-swap of fixed AAA.

Autos measured by the 3 year spread-to-swap of prime fixed AAA.

**Chart 7**

"Auto industry employment" includes all payrolls in retail motor vehicle and parts dealers, both in the manufacturing and service sectors.

White House, "The Resurgence of the American Automotive Industry", June 2011. Available at [http://www.whitehouse.gov/sites/default/files/uploads/auto\\_report\\_06\\_01\\_11.pdf](http://www.whitehouse.gov/sites/default/files/uploads/auto_report_06_01_11.pdf)

Center for Automotive Research, "The Impact on the U.S. Economy of the Successful Automaker

Bankruptcies," 17 November 2010. Available at <http://www.cargroup.org/assets/files/bankruptcy.pdf>

**Chart 8**

"Average of 5 most recent advanced economy financial crises" includes Spain (indexed to 1974Q2), Norway (1986Q4), Finland (1989Q3), Sweden (1989Q4), and Japan (1991Q1). Advanced country financial crises selected based on Reinhart & Rogoff 2009 and indexed to pre-crisis civilian employment peak based on OECD Outlook data. U.S. employment data for the Great Depression series comes from the U.S. Census' *Historical Statistics of the United States: Colonial Times to 1970*, Table A-3.

**Chart 9**

CNN Money, <http://money.cnn.com/2009/01/27/news/bigger.bailout.fortune/>

International Monetary Fund, The State of Public Finances: Outlook and Medium-Term Policies After the 2008 Crisis, at p17, available at <http://www.imf.org/external/np/pp/eng/2009/030609a.pdf>

Special Inspector General for TARP, Quarterly Report to Congress, July 21, 2009, [http://www.sig tarp.gov/reports/congress/2009/July2009\\_Quarterly\\_Report\\_to\\_Congress.pdf](http://www.sig tarp.gov/reports/congress/2009/July2009_Quarterly_Report_to_Congress.pdf)

Christian Science Monitor, <http://www.csmonitor.com/Business/new-economy/2010/0618/Fannie-Freddie-bailout-could-cost-taxpayers-1-trillion>

Bloomberg, <http://www.bloomberg.com/apps/news?>

[sid=an3k2rZMNgDw&pid=newsarchive](http://www.cbo.gov/ftpdocs/100xx/doc10014/03-20-PresidentBudget.pdf)

Congressional Budget Office, "A Preliminary Analysis of the President's Budget and an Update of CBO's Budget and Economic Outlook", Mar. 2009, p8. Available at

<http://www.cbo.gov/ftpdocs/100xx/doc10014/03-20-PresidentBudget.pdf>

Government Accountability Office, *Financial Audit: Resolution Trust Corporation's 1994 and 1995 Financial Statements*, 1996, p13. Available at <http://www.gao.gov/archive/1996/ai96123.pdf>.

Office of Management and Budget, *President's FY2013 Budget*, "Analytical Perspectives", p39. Available at <http://www.whitehouse.gov/sites/default/files/omb/budget/fy2013/assets/spec.pdf>

**Chart 10**

Data reflect latest available estimates in each category. "Gain" or "positive return" defined as cash received (whether as principal, interest, dividends, or other) exceeds cash disbursed, regardless of the timing of collection.

**TARP housing program** figures reflect estimates as of February 2012. Office of Management Budget projections assume that the \$46 billion in funds committed through TARP's foreclosure prevention programs to help struggling homeowners will be spent. Congressional Budget Office projections reflect

a cost of \$16 billion for these programs. TARP housing program funds are not intended to be recovered.

<http://www.cbo.gov/sites/default/files/cbofiles/attachments/03-28-2012TARP.pdf>

**TARP investment programs and additional Treasury holdings in AIG** reflect market values and realized gains as of February 29, 2012. The estimated lifetime return of \$22 billion on TARP's bank investment programs and more than \$2 billion return on TARP's credit market programs are expected to more than offset the \$22 billion expected cost of the auto industry rescue. Treasury's investment in AIG (which includes both TARP and non-TARP shares) is expected to at least break even at current market prices. See the latest 105(a) report for further details on TARP cost estimates: <http://www.treasury.gov/initiatives/financial-stability/briefing-room/reports/105/Documents105/March%2012%20Report%20to%20Congress.pdf>

**Treasury money market fund guarantee purchase program** reflects realized gains as of the close of the program in September 2009. Treasury incurred no losses under this program and earned approximately \$1.2 billion in participation fees.

**Treasury mortgage-backed security program** reflect realized returns as of the close of the wind down of the program in March 2012. Those positive returns totaled \$25 billion. Overall, Treasury invested

\$225 billion in MBS and recovered \$250 billion through principal and interest payments, and sales.

The ultimate cost of **Fannie Mae and Freddie Mac conservatorship**, which was necessary to keep mortgage credit available in the wake of the crisis, will depend on housing market conditions over time as well as how the agencies are wound down. The \$28 billion amount is the net cost to Treasury through 2022 as projected by the Office of Management and Budget for the purposes of the President's FY2013 Budget. The current net cost is \$151 billion. Fannie Mae and Freddie Mac's losses are primarily the result of loans written before the crisis. OMB's estimate assumes that Fannie Mae and Freddie Mac will generate positive earnings from the run off of their more conservative post-crisis book of business to help pay back taxpayers.

Treasury's estimate of **Federal Reserve excess earnings** is based on calculations from the President's FY2013 Budget, released in February 2012. The Federal Reserve has already remitted \$82 billion in excess earnings – above what would be expected in normal times – to the Treasury through fiscal year 2011. Total excess earnings from the Federal Reserve expected to be remitted to the general fund are currently forecast to reach \$179 billion through fiscal year 2015. The amount of future Federal Reserve earnings is uncertain and will depend on future financial and economic conditions.

*Methodology:* Treasury estimates reflect "excess" earnings from the Federal Reserve applied to the

federal budget. Excess earnings reflect earnings on loans and asset purchases made by the Federal Reserve through extraordinary programs established to mitigate the financial crisis. Treasury assumes earnings will converge to normalized levels by fiscal year 2015. The Federal Reserve generates significant income on its assets during "normal" times, the majority of which it remits to Treasury. For example, in 2006, prior to the financial crisis, the Federal Reserve remitted \$30 billion of such earnings. To estimate excess earnings, Treasury calculates a normalized path of earnings from 2006 through 2015. Treasury assumes earnings would have increased at a uniform rate from 2006 to the level projected by the President's FY2013 Budget for fiscal year 2015. The amount of future Federal Reserve earnings is uncertain and will depend on future financial and economic conditions.

The **FDIC** currently expects that fees paid by participating institutions will cover any losses associated with its bank debt insurance program put in place during the crisis, known as the Temporary Liquidity Guarantee Program (TLGP). Any excess proceeds from TLGP are remitted to the FDIC's Deposit Insurance Fund (DIF). The DIF, which helps protect savers, is funded through assessments on insured depository institutions. The FDIC has not drawn upon its Treasury line of credit for the DIF.

#### Chart 11

See the latest 105(a) report for further details on TARP cost estimates: <http://www.treasury.gov/initiatives/>

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## Notes

[financial-stability/briefing-room/reports/105/Documents105/March%2012%20Report%20to%20Congress.pdf](http://www.treasury.gov/initiatives/financial-stability/briefing-room/reports/105/Documents105/March%2012%20Report%20to%20Congress.pdf)

### Chart 13

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### Chart 15

Four largest U.S. banks by assets are JPMorgan Chase, Bank of America, Citigroup, and Wells Fargo.

### Chart 19

Based on data from three annual Congressional Budget Office publications: the *Budget and Economic Outlook*, the update to the *Outlook*, and CBO's estimate of the President's Budget. "Technical and economic" factors include all changes in deficit projections not due to the cost of new legislation, including updates to economic and demographic projections. "Post-January 2009 policies" only reflects the effect of policies, including temporary policies, through 2011. Does not reflect the deficit reduction proposed in the President's FY2013 Budget going forward. Numbers may not sum due to rounding.