Frequently Asked Questions

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Bailout Barometer™ FAQs

This document answers frequently asked questions about the Richmond Fed's Bailout Barometer™, an estimate of the size of the federal financial safety net. For additional information, see Special Reports.

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What is the Bailout Barometer™?

- The Bailout Barometer™ is the Richmond Fed's estimate of the size of the financial safety net, which is the set of government guarantees of the financial system that protects creditors from losses.
- We define the Bailout Barometer™ as the share of all financial system debt that is protected from losses by explicit or implicit government guarantees. To our knowledge, we are the first to estimate the size of the financial safety net. Read more on our methodology.

Why is the Bailout Barometer™ important?

- The size of the financial safety net, which the Bailout Barometer™ estimates, is important because it represents the share of the financial sector that is encouraged, by government policies, to take excessive risks. Specifically, when creditors expect to be protected from losses, they will overfund risky activity, which could lead to crises and bailouts like those that occurred in 2007-08.
- In the Richmond Fed's view, shrinking the safety net is essential in order to achieve financial stability. Read more on our perspective.

What's the difference between "explicit" and "implicit" guarantees?

- Explicit guarantees are based on an official government policy that defines the relevant liabilities as guaranteed, such as insured deposits.
- Implicit guarantees are not defined by government policy but rather include liabilities for which some market participants believe that – under certain circumstances – policymakers will step in to provide guarantees. Our approach to implicit guarantees is to ask, "Based on past government actions, what might market participants reasonably expect future government actions to be?" Short-term liabilities of the largest banking companies, some deposit balances not explicitly covered by deposit insurance, and the liabilities of certain government-sponsored enterprises are believed by many market participants to be implicitly guaranteed by the federal government.

Why were Fannie Mae and Freddie Mac counted as explicit guarantees starting in 2011 but implicit in previous years?

- Since Sept. 6, 2008, Fannie Mae and Freddie Mac have been in conservatorship, supervised by the Federal Housing Finance Agency (FHFA). Under the agreements associated with the conservatorship, the Treasury has committed to ensuring that each entity maintains a positive net worth – guaranteeing the entities' liabilities.[1]

[1] "Statement by Secretary Henry M. Paulson, Jr. on Treasury and Federal Housing Finance Agency Action to Protect Financial Markets and Taxpayers." Washington, DC. Sept. 7 2008. U.S. Department of the Treasury. http://www.treasury.gov/press-center/press-releases/Pages/hp1129.aspx.
Fannie Mae Form 10-K. Dec. 31, 2016, p. 16-17.
https://www.sec.gov/Archives/edgar/data/310522/000031052217000096/fanniemae201610k.htm

- The ongoing nature (from late 2008) of the Treasury commitment implies that Fannie Mae and Freddie Mac liabilities should be treated as explicit in our 2011 and later estimates.

When did the Richmond Fed start compiling these estimates?

- We created our first estimate of the size of the financial safety net in 2002, based on end-of-year 1999 data.
- Going back to at least the late 1980s, the Richmond Fed has been studying the risks created by government backstops of financial institutions. Early examples of our research and comments on the topic include Goodfriend and King (1988), Dotsey and Kuprianov (1990), Hetzel (1991), and Broaddus (1994).[2] Following up on this research, economists John Walter and John Weinberg developed a concrete measure of the amount of financial liabilities guaranteed by the government in order to approximate the scope of market distortions that might arise as a result of such guarantees. This measure, along with an explanation of the significance of such guarantees, was first published in 2002.

Is it appropriate to directly compare your Bailout Barometer™ estimates across years? That is, are they "apples to apples" comparisons?

- We believe our estimates are roughly comparable across years, though there are slight methodological changes from year to year due to availability of data. In addition, changes in government policies and actions over time have led us to alter our assumptions about the scope of implicit guarantees.

Why is there no "Least Inclusive" table for 2013 and later?

- While in 1999 we produced only one table estimating the size of the safety net, in 2009 and 2011 we produced two: a more inclusive estimate (table was called "Most Inclusive" in 2011) and a less inclusive ("Least Inclusive" in 2011). We described these two tables as bounds within which market participants' expectations are likely to be found (see 2009 methodology and 2011 methodology).
- However, our most inclusive estimates were conservative along several dimensions, so that some financial market participant expectations of the safety net, or their expectations under certain circumstances, likely exceeded our more inclusive estimate, implying that the more inclusive table was not an upper bound.

Freddie Mac Form 10-K. Dec. 31, 2016, p. 163-164.
https://www.sec.gov/Archives/edgar/data/1026214/000102621417000018/a201610k.htm

[2] Goodfriend, Marvin, and Robert King. "Financial Deregulation, Monetary Policy, and Central Banking." Federal Reserve Bank of Richmond *Economic Review*, May/June 1988. Dotsey, Michael, and Anatoli Kuprianov. "Reforming Deposit Insurance: Lessons from the Savings and Loan Crisis." Federal Reserve Bank of Richmond *Economic Review*, March/April 1990. Hetzel, Robert L. "Too Big to Fail: Origins, Consequences, and Outlook." Federal Reserve Bank of Richmond *Economic Review*, November/December 1991. Broaddus Jr., J. Alfred. "Choices in Banking Policy." Federal Reserve Bank of Richmond *Economic Quarterly*, Spring 1994.

- As a result, for 2013 and later we produced only one table of estimates, which should be thought of as an informed approximation of the safety net with a margin of error created by the variety of possible market expectations.
- Our estimate of explicitly guaranteed liabilities (Column A in the Bailout Barometer™ table) can be thought of as the minimum – but not likely the total – amount of financial sector liabilities that have government guarantees.

What might cause the financial safety net to grow over time?

- Two things cause the financial safety net to change over time: changes in government guarantees and shifts in financial sector liabilities. Importantly, these factors may be related. Government guarantees may help firms obtain cheaper funding from financial markets, or they may make certain liability types less expensive than others, helping these firms or liability types to grow larger than they would without guarantees.
- More broadly, it is not surprising that the financial safety net would grow over time. The safety net creates two mutually reinforcing problems. First, the creditors of some financial institutions feel protected by an implicit or explicit government commitment of support should the institution become financially troubled. Second, policymakers feel compelled to provide support to certain financial institutions to insulate creditors from losses. The expectation of support encourages risk-taking and the likelihood of crises, while bailouts reinforce the expectation that some creditors will be protected, leading to yet more risk-taking and an ever-growing safety net. Read more on our perspective.
- Overall, it would be difficult to disentangle how much of the safety net's growth has resulted from expanded government guarantees, including any resultant effects on firm size, versus how much resulted from natural growth in certain firms' liabilities.

What major changes in government policy account for the growth in your Bailout Barometer™ estimates since 1999?

- There were no government policies after 1999 and before the 2007-08 financial crisis that affected our financial safety net estimates. For changes that occurred as a result of the financial crisis and the subsequent government actions, please see: "How did the 2007-08 financial crisis affect the safety net estimates?" and "How did the 2010 Dodd-Frank Act affect the safety net estimates?"

How did the 2007-08 financial crisis affect the safety net estimates?

- Safety net coverage grew from about 45 percent of the financial sector in 1999 to 60 percent in 2016.
- In part, this growth reflected government actions. During the crisis, the government extended implicit or explicit guarantees to financial institutions and markets that had never before received such support. Therefore, the government's response to the financial crisis expanded the financial safety net. Specifically:

    - In February 2009, the U.S. Treasury Department promised to inject capital, if needed, into any of the largest U.S. bank holding companies (BHCs) under its Capital Assistance Program.
        - Among these BHCs were Morgan Stanley and Goldman Sachs, which converted to BHCs in September 2008.
    - In October 2008, FDIC and NCUA deposit insurance coverage was increased from $100,000 to $250,000.
    - The Treasury announced in September 2008 that it would protect shareholders in money market mutual funds (MMFs) from losses. For subsequent government actions that affect our treatment of MMFs, see "Why were MMFs dropped from the Bailout Barometer™ in 2016?"
    - Financial support provided by the Federal Reserve protected the creditors of Bear Stearns (in March 2008) and AIG (in September 2008).
- While the various financial-crisis-motivated Federal Reserve lending programs certainly helped to encourage the public's view that financial institution creditors might be protected in future crises, we do not separately (with the exception of those listed above) attempt to estimate the impact of these programs on market expectations and therefore on the size of the safety net.
- See the 2009 article and 2011 methodology for more information on the effect of the crisis on the safety net.

How did the 2010 Dodd-Frank Act affect the safety net estimates?

- The Orderly Liquidation Authority (OLA) provisions in Dodd-Frank (intended to provide an alternative to bankruptcy or bailouts for resolving large failing financial firms, specifically those firms whose failure would produce "serious adverse effects on financial stability in the United States") *may* reduce the likelihood that systemically important financial institutions (SIFIs) would receive capital injections to allow their uninterrupted operation. However,
    - OLA will likely have less impact than some observers might hope: One can imagine that many market participants will remain skeptical that the government would allow operations of the very largest and most systemically important institutions to be disrupted, even if the interruption might be minimized and carefully managed by the OLA process.
    - Similarly, OLA's impact on short-term creditors of SIFIs may be muted, including those nonbank financial firms designated by the Financial Stability Oversight Council (FSOC) as SIFIs. While a SIFI designation does not necessarily imply OLA treatment in resolution, market participants are likely to expect that these institutions would not be allowed to enter bankruptcy because it seems ill-suited to handle the failure of SIFIs (Pellerin and Walter 2012, p. 14–16). The OLA provisions of Dodd-Frank permit the FDIC to pay some creditors more than bankruptcy might allow (Pellerin and Walter 2012, p. 16), and the FDIC's OLA implementing rule suggests that this treatment could apply to short-term creditors (FDIC final rule, July 15, 2011, 12 CFR 380, p. 41644).

Why were money market mutual funds (MMFs) dropped from the Bailout Barometer™ in 2016?

- Before 2008 Bailout Barometer™ estimates did not include MMF balances.
    - As explained in Malysheva and Walter (2010), p. 283: "… mutual fund liabilities are excluded because the principal value of mutual fund investments, including money market mutual fund investments, can decline, without the mutual fund defaulting, if the entity in which the funds are invested defaults. As a result, these investments are akin to equity and unlike private liabilities—the focus of our estimates—which typically must pay back full principal (or else be in default). For example, an investor in a money market mutual fund, which in turn invested in financial firm commercial paper, could lose principal if the commercial paper was not repaid, but the mutual fund can continue to operate (i.e., not default)."
- After the government granted protection to the MMF industry following large withdrawals from some MMFs in 2008, MMF balances were added to the estimate of the Bailout Barometer™ (see "How did the 2007-08 financial crisis affect the safety net estimates?"). MMF's addition to the Barometer occurred because that grant of protection likely increased market participants' perception of a government backstop for MMFs and indicated that MMF balances were being treated more like liabilities and less like equity (for which values can decline without default).[3]
- In 2016, the Securities and Exchange Commission's (SEC) implementation of significant new MMF rules a) led to a massive shift away from risky MMF investments and b) required the funds that had experienced large withdrawals in 2008 move to floating net asset values (NAVs).[4]
- Together, the outcome of the SEC's rules (a and b in previous bullet point) probably reduced market participants' perception of the likelihood of a bailout, so that the 2016 Bailout Barometer™ estimate is returning to the treatment of MMFs used before 2008: MMF are excluded.

Does the safety net include firms' off-balance-sheet commitments?

- Currently, no. However, our 1999 and 2009 estimates do include the GSEs' off-balance-sheet guarantees because, especially for Fannie Mae and Freddie Mac's guarantees of mortgages they securitized, to have neglected to include such guarantees would have meant we missed a large part of these two GSEs' exposures. Following an accounting rule change that took effect in 2010, most such guarantees were reported as on-balance-sheet liabilities so we include only total liabilities of the GSEs starting in 2011.

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[3] See Marshall, Pellerin and Walter 2015, p. 2 (explanatory material below the table) for an explanation of the 2009 addition of MMF balances to the Bailout Barometer™ estimate.

[4] The new MMF rules were adopted by the SEC on July 23, 2014. As described by the Investment Company Institute: "The new rules largely centered around two key reforms. First, nongovernment (prime and tax-exempt) money market funds that are sold to institutional investors must price and transact their shares to the nearest one-hundredth of a cent (i.e., float their net asset values [NAVs]). Additionally, all prime and tax-exempt money market funds, whether retail or institutional, can impose gates (i.e., temporarily halt redemptions) or redemption fees on redeeming shareholders under limited situations." See, Investment Company Institute. *2017 Investment Company Fact Book: A Review of Trends and Activities in the Investment Company Industry*, p. 50.

What else is excluded from the Bailout Barometer™?

- The Bailout Barometer™ excludes government-protected debts of individuals because they are not debts of private financial firms. Examples of such debts include government-guaranteed student loans, Small Business Administration-guaranteed business loans, Federal Housing Administration-guaranteed individual home mortgages, and government guarantees of loans for clean energy projects.
- The Bailout Barometer™ also does not include federal government loans, such as loans to exporters made by the Export-Import (Ex-Im) Bank of the United States. Ex-Im loans are the debt of the federal government, not of private financial firms.

What is the Bailout Barometer™ <u>not</u>?

- Though it is tempting to read the Bailout Barometer™ as the dollar amount that taxpayers are "on the hook" for, this would not be accurate. Creditors of failing firms almost never lose everything – meaning the total amount they have loaned to the failing firm. While a failed firm's assets are normally worth less than the firm's liabilities, these assets typically have some value, which can be retrieved by creditors. Therefore, it is unlikely that the government will ever bail out the entire set of liabilities for any one firm, let alone the safety net for the entire financial system.
- Moreover, the safety net covers such a large share of the financial sector that the federal government could not feasibly provide bailouts of this size. For example, total GDP of the United States was roughly $19 trillion in 2016. Federal debt held by the public, the most common measure of the government's debt burden, was $14 trillion in December 2016. During the 2007-08 financial crisis, the Troubled Asset Relief Program was $700 billion. By comparison, our Bailout Barometer™ measure is $26 trillion as of the end of 2016, substantially larger than any of these numbers.
- In other words, the Bailout Barometer™ represents the share of the financial sector that is explicitly or implicitly guaranteed and thus encouraged to take excessive (i.e., underpriced) risk. The dollar value of the Bailout Barometer™ is informative but not necessarily as informative as its share.

For additional questions please contact John Walter, john.walter@rich.frb.org.