

***EMBARGOED UNTIL
7:00 P.M. Eastern Time on
Friday, March 23, 2018 OR UPON DELIVERY***



***“Monetary, Fiscal, and Financial Stability
Policy Tools: Are We Equipped for the Next
Recession?”***

Eric S. Rosengren
President & Chief Executive Officer
Federal Reserve Bank of Boston

*Tenth Conference of the International Research
Forum on Monetary Policy*

Washington, D.C.
March 23, 2018



***“Monetary, Fiscal, and Financial Stability Policy Tools:
Are We Equipped for the Next Recession?”***

Eric S. Rosengren
President & Chief Executive Officer
Federal Reserve Bank of Boston

*Tenth Conference of the International Research Forum on
Monetary Policy*

Washington, D.C.
March 23, 2018

Good evening. I would like to thank the conference organizers for inviting me to speak at this, the tenth conference of the International Research Forum on Monetary Policy. I would like to commend all of today’s presenters for their research contributions, and I am looking forward to Saturday’s sessions.

Before I begin my remarks, let me note as I always do that the views I express are my own, not necessarily those of my colleagues on the Federal Reserve’s Board of Governors or the Federal Open Market Committee (FOMC).

I particularly appreciate the chance to focus today on monetary policy and financial stability. Much of my own research has focused on the ways that problems in the financial system can ripple through to the real economy. Certainly the last financial crisis – and the ensuing Great Recession and very slow recovery – underlined the role that financial instability can play in disrupting the economy and in slowing its recovery. These episodes also helped policymakers sharpen their thinking about the need for policy tools that can be deployed to attempt to *prevent* financial instability, as well as *minimize* the effects of instability when it does emerge.

Financial stability policy is generally associated with regulatory and supervisory measures, so the exercise of financial stability policy is often seen as being independent from the stance of monetary and fiscal policy. However, I am going to suggest that policymakers should view financial stability tools more holistically. Indeed, I would like to suggest that the ability to appropriately set financial stability tools is integrally related to the ability to fully utilize fiscal, monetary, *and* financial stability policy tools to respond to a large adverse financial shock.

Figure 1 provides a chart that shows how often from 1987 to 2008 the FOMC participants used words associated with financial stability concerns. The analysis of FOMC meeting transcripts is taken from a paper I wrote with Federal Reserve Bank of Boston economists Geoff Tootell and Joe Peek.¹ While there are mentions of financial instability terms during the times when markets are doing unusually well, the largest spikes in the series are associated with the occurrences of adverse financial shocks – particularly when they are accompanied by an economic downturn.

Tools intended to enhance the resilience of the financial system, such as increased capital and liquidity requirements, are important – and in my view, should be emphasized more

throughout an economic cycle. But the analysis we did suggests that the focus on financial stability concerns is most intense when the adverse consequences are apparent.

Crisis prevention is an important matter for further discussion, and one on which I believe we have made progress through implementing key aspects of the Dodd-Frank Wall Street Reform and Consumer Protection Act – but prevention is not really the focus of my remarks this evening. Tonight, I would like to focus on the tools that are available to policymakers once a significant adverse financial shock occurs (that is, crisis *response*).

If an adverse financial shock occurs, fiscal, monetary, and financial tools can all play a role in offsetting the economic fallout that often results – even though maintaining financial stability is not the primary goal of monetary or fiscal policy. But if monetary and fiscal policy have limited capacity to respond to such shocks – because public debt is already high, or because interest rates are already low, for example – then this should figure into policymakers’ thinking about how and when to use financial stability tools.

To be a bit more specific, I have in mind using a broad set of tools to respond to any large adverse financial shock that could have a broad impact on the economy. On the fiscal side, which of course the Fed does not control, that would likely include cutting taxes and increasing government spending. Monetary policy tools would include conventional tactics (reducing interest rates) and less conventional ones (like expanding the central bank’s balance sheet through asset purchases). Finally, I would note how important it is that financial stability tools provide sufficient buffers.

The use of financial stability tools is generally seen as being conditioned on and calibrated to the severity of likely economic stresses – but I would argue that it is also critically

important to take into account the extent to which monetary and fiscal policy are equipped to respond to an adverse financial shock, so that policymakers can best coordinate the response to a crisis across all available tools. Much of what I have in mind has to do with assessing each policy tool's *capacity to respond*.

For example, suppose that a country's government-debt-to-GDP ratio is high, limiting the ability or willingness to use fiscal tools to offset financial and other shocks. If that country has also not developed sufficient financial stability response tools, then most of the countercyclical policy response will likely fall to monetary policy. Alternatively, if the government-debt-to-GDP ratio is extremely high and interest rates are already at or near the effective lower bound, and the country is unable or unwilling to use less-conventional monetary tools like quantitative easing, then financial stability tools are likely to be more important. In sum, it is important to consider whether there is sufficient capacity in the toolkit for policymakers to adequately (let alone optimally) respond to severe financial shocks.

Turning to current conditions in the United States, our economy is now experiencing a very low unemployment rate – in fact, a rate below the level many would associate with full employment. In part due to relatively tight labor markets, we are beginning to see modest increases in wage and price inflation, and a more rapid increase in asset prices. Most economists expect continued solid growth and strong labor markets, so this may be the time to focus on whether we have adequate buffers among the available policy tools – to be prepared, should anything disrupt the recent trajectory.

Unfortunately, I would argue that rather than building sufficient capacity for possible downturns – which, by the way, I am not expecting or predicting – the U.S. has actually seen a reduction in the capacity of these so-called “buffers” across the policy tools. If fiscal and

monetary policy tools are likely to be limited in the event of a large adverse shock, I would suggest that policymakers need to think about and act on creating greater capacity and flexibility within the tools currently available – including those most directly related to financial stability.

Monetary Policy Response to Large Adverse Financial Shocks

Figure 2 shows the federal funds rate, covering the same period – 1987 to 2008 – as the earlier chart depicting mentions of financial instability terms by FOMC participants, and indicating the same episodes of financial disruption.² One can see that when a significant financial stability shock occurs, the Fed usually lowers the funds rate out of concern that the shock might precipitate slow growth or a recession. During the 2008 financial crisis, the federal funds rate was reduced to zero and the central bank’s balance sheet was expanded. In prior episodes, the funds rate was high enough that the Fed had plenty of room to reduce it – that is, plenty of cushion. When the monetary policy cushion is substantial, the need for very large fiscal or financial stability buffers may be correspondingly reduced.

Simple math suggests that the ability of conventional monetary policy to respond to a crisis is currently somewhat constrained, given low prevailing rates. **Figure 3** shows FOMC participants’ forecasts of the federal funds rate likely to prevail in the longer run from the Summary of Economic Projections (SEP). As real interest rates have been depressed by slow productivity and by demographic changes, FOMC participants’ estimates of the federal funds rate in the longer run have declined; the median is currently 2.9 percent.

Such a low “neutral” or long-run federal funds rate suggests a monetary policy cushion (again, the leeway to lower the funds rate) that is small by historical standards. As is shown in **Figure 4**, in most recessions the Fed lowers the nominal federal funds rate by much more than 3

percentage points. So in an economy like ours with low equilibrium interest rates, there is a strong likelihood that in a hypothetical future recession, policymakers will run out of room to lower the federal funds rate, and we will hit the effective lower bound.

While my own view is that unconventional policy can be a very important tool to provide stimulus once the effective lower bound is reached, it is fair to acknowledge that policymakers know far less about the effectiveness of unconventional monetary policy than they do about conventional, short-term interest rate policy. Perhaps even more constraining is the political unpopularity in many countries of central bank balance sheet actions. All this means that such policies could be avoided by policymakers, or even constrained by lawmakers, in the future.³

As I suggested earlier, if the monetary policy cushion available to offset financial shocks is smaller, policymakers should consider how the full array of policy tools might be used to address such shocks. Sticking with monetary policy for a moment, one approach could be to change the monetary policy operating procedures to make it less likely that the effective lower bound is hit in the future, perhaps by using an inflation range with an adjustable inflation target, as I have discussed in a recent talk.⁴ If this monetary policy approach is not feasible, policymakers may wish to consider whether Countercyclical Capital Buffers should be increased, or other financial stability tools employed, to provide greater buffers to adverse shocks.

Fiscal Policy Response to Large Adverse Financial Shocks

Figure 5 shows the U.S. federal government surplus or deficit, measured as a percentage of GDP. Fiscal policy has tended not to respond to financial stability shocks unless they are accompanied by a recession. Fiscal policy responses include “automatic stabilizers,” such as

unemployment benefits, which rise automatically as newly-unemployed workers file for benefits during significant economic downturns. While fiscal policy tools normally are not deployed for financial stability shocks, we can surmise that, were an accompanying recession to be large enough, a possible inability or unwillingness of fiscal policymakers to offset financial stability shocks with expansionary policy could exacerbate the problem.

Furthermore, we should recognize that fiscal limitations can impact the choices that policymakers have to utilize potential financial stability tools. In response to the financial crisis, the U.S. was much more willing than Europe or Japan to provide direct capital infusions into the financial system, which arguably limited the severity of credit crunches and promoted a quicker recovery in the financial sector in the U.S., relative to Europe.

There was sufficient fiscal capacity during the financial crisis to expand the deficit and engage in fiscal actions that promoted a faster recovery, but naturally such actions require a fiscal buffer that makes it possible to finance the effort. **Figure 6** shows the general government gross debt as a percentage of GDP for the U.S. and several European countries. The U.S. fiscal response to the financial crisis placed the government-debt-to-GDP ratio much closer to that of European countries. What's more, the Congressional Budget Office's current projections, done before the recent tax changes and increases in the federal budget, indicate that were a financial crisis to occur in the near-term, the U.S. would potentially have less fiscal capacity to respond as aggressively as it did during the last financial crisis.

The U.S. fiscal situation is noteworthy because of the experience of some European countries during the last recession. In particular, those European countries with severe banking problems were mostly southern European countries, and they experienced serious fiscal problems in addition to serious banking problems. Those countries in Europe with less severe

banking problems but substantial fiscal capacity did not want to use their fiscal capacity to resolve banking problems in other European countries. As a result, the banking problems could not be easily resolved with capital infusions from governments, resulting in banking problems dragging out and many European banks tightening credit availability in the middle of an economic downturn, in order to improve their capital-to-assets ratios. Thus the fiscal capacity problems caused difficulties in resolving financial stability problems, making both worse.

In sum, running large fiscal deficits can potentially have ramifications for the ability to respond to possible future financial stability shocks. If fiscal policy responses to financial stability crises are likely to be more constrained in the presence of larger government-debt-to-GDP ratios, it seems prudent to consider bolstering the tools available to monetary policy and financial stability policy.

Financial Stability Response to Large Adverse Financial Shocks

In many countries, a variety of financial stability tools are available,⁵ but this is not the case in the United States. The two primary financial stability tools available to the Federal Reserve to respond to financial shocks are, first, altering the scenarios used in the bank stress tests that are applied to the largest banks, and second, the setting of the Countercyclical Capital Buffer.

The stress test is primarily a microprudential tool, designed to ensure sufficient capital for banks in the event of a large financial shock, and is dependent on the risk characteristics of the individual institution.⁶ By “stressing” particular assets, the test alters the cost of capital for that asset class, with the overall impact on any financial institution depending on its exposure to the

asset class and its sensitivity to changes in cost of capital. Thus, the stress test does not alter the amount of post-stress capital relative to the bank's reported capital for all firms in the same way. Firms' post-stress capital may decrease (or increase) relative to reported capital by varying magnitudes, depending on the mix of assets and hence the mix of risks.

The Countercyclical Capital Buffer, on the other hand, is intended to be a macroprudential tool. The buffer increases capital for all financial firms it applies to during periods of financial excess, but is intended to release capital during stressful periods.⁷ Because it is not related to particular stress scenarios, it does not alter the cost of capital for specific assets and does not impact institutions differentially depending on exposure to specific assets.⁸ Moreover, it is intended to be lowered during stressful times in order to release capital for stronger banks, so that binding capital constraints are not addressed by reducing credit availability to firms and households.

Figure 7 provides the peak unemployment rate included in the severely adverse scenario since the stress tests began in the U.S. in 2009, the current level of the unemployment rate at the time of the development of each scenario, and the difference between the two. The stress test has quite high unemployment rates in its scenarios, even during periods when the actual unemployment rate is already high. As the actual unemployment rate has fallen, the change from the current rate to the scenario peak has increased. As a result, the stress test as currently utilized may not effectively release capital in a crisis. It is certainly possible that the stress tests could encourage banks to reduce credit availability to shrink assets to satisfy binding capital constraints. As always, we have to examine the possibility of unintended consequences and assess whether it may work at cross purposes to other tools designed to speed the recovery from a negative financial shock. While this reflects its focus on ensuring the solvency of *individual*

institutions relative to particular stress scenarios, it highlights why other tools may be better designed to release capital to avoid reductions in credit availability.

In contrast, a financial stability tool that is designed to be countercyclical is the aptly named Countercyclical Capital Buffer. Once an adverse financial stability shock occurs, the buffer would be reduced, releasing bank capital so the institution does not need to shrink its lending – and thus reduce credit availability to firms and consumers – by shrinking assets to satisfy a binding capital constraint.

Of course, the Countercyclical Capital Buffer has to be raised in times of financial excess if it is to build capital that can be used when adverse shocks do occur. **Figure 8** shows that many countries have indeed raised their Countercyclical Capital Buffer. In the U.S., the Countercyclical Capital Buffer remains at zero.⁹

Even if one were to ignore the opportunity to strengthen financial stability tools, in my view an argument can be made for increasing the Countercyclical Capital Buffer. **Figure 9** shows that commercial real estate valuations are quite stretched, as indicated by capitalization rates reaching series lows, particularly for apartment buildings (recall that the “cap” rate is the ratio of net operating income to the price paid for the property at the time of a transaction – a shorthand for the income yield that the property is expected to provide). While low cap rates are to be expected in a low-interest rate environment, **Figure 10** shows that the ratio has been importantly driven by price increases, particularly for apartment buildings.

Turning to equities, **Figure 11** shows that by historical standards current S&P 500 composite price-to-earnings ratios are at the high end of what we have observed since 1968.

This is even clearer if we use the Shiller cyclically-adjusted price-to-earnings ratio shown in **Figure 12**.

With asset valuations high, a non-zero Countercyclical Capital Buffer can in my view be justified. However, the case is even stronger in the U.S. if one considers that should a shock occur, monetary policy and fiscal policy may not be expected to respond as forcefully as they did – appropriately so, I would add – in the last financial crisis and its aftermath.

Concluding Observations

In summary and conclusion, I would argue that now is the time to assess *and strengthen* the various policy tools available to respond to adverse financial shocks – and yet, the tools have actually been diminishing. The Federal Reserve’s monetary policy buffer has essentially been depleted as the nominal equilibrium interest rate in the United States has fallen. This makes it more likely that the effective lower bound will be hit in the U.S. if we experience an adverse financial stability shock (or any other adverse shock) at some point in the future. Since monetary policy can do little to prevent the demographic or productivity changes that lead to lower prevailing rates, I believe that policymakers should consider adjusting the monetary policy framework, to address the possibility that the capacity of conventional policy tools may be too quickly depleted.¹⁰

Fiscal policy buffers are being bolstered in some European countries as their economies improve. However, we must acknowledge that the same cannot be said for the United States. The government-debt-to-GDP ratio is high by historical standards in many countries, but we see that it is rising in the U.S. My view is that U.S. fiscal policy we have seen since the crisis

emerged in 2008 will simply give future policymakers less flexibility to respond to a hypothetical large financial stability shock with fiscal policy tools.

Some countries have been using macroprudential tools to increase their policy buffers. While capital ratios in the U.S. are much improved, the Countercyclical Capital Buffer, which was designed to be released in response to a large adverse financial shock, is currently set at zero.

Many countries are not well equipped to address an adverse financial stability shock. In the United States, one can see that monetary, fiscal, and macroprudential buffers are modest, and in many cases are being drawn down further. In my view, now should be the time that policymakers carefully consider this state of affairs, and assess which tools could provide more potent buffers to draw upon should a large adverse financial shock occur. While that is, again, not my expectation or prediction, my view is that it is an opportune time to prepare for such a possibility.

Thank you.

¹ Peek, Rosengren, and Tootell. (2016) "[Does Fed Policy Reveal a Ternary Mandate?](#)" Federal Reserve Bank of Boston Working Paper no. 16-11.

² While the dates noted are the same, the charts are different in terms of frequency: one is by FOMC meeting and the other is monthly.

³ In the U.S., the Fed's ability to take emergency action was constrained by the Dodd-Frank Act.

⁴ For additional discussion, see Jan. 12, 2018 remarks at the Global Interdependence Center conference, by Eric S. Rosengren, [Considering Alternative Monetary Policy Frameworks: an Inflation Range with an Adjustable Inflation Target](#).

⁵ Tools available to other countries include loan-to-value ratios and debt-to-income ratios.

⁶ While stress tests primarily have a microprudential focus, they also present macroprudential benefits. See more: <https://www.bis.org/publ/othp13.pdf>.

⁷ It is worth noting that only a subset of banks are subject to the Countercyclical Capital Buffer, or CCyB. There will be differential impacts since some institutions will not be subject to the CCyB or to the stress test, and other institutions will be subject to the stress test but not the CCyB.

⁸ The CCyB amount applicable to a banking organization is weighted by jurisdiction according to the firm's risk-weighted private sector credit exposures for a specific jurisdiction as a percentage of the firm's total risk-weighted private sector credit exposures. For more, see: [Regulatory Capital Rules: The Federal Reserve Board's Framework for Implementing the U.S. Basel III Countercyclical Capital Buffer](#)

⁹ See, [Regulatory Capital Rules: The Federal Reserve Board's Framework for Implementing the U.S. Basel III Countercyclical Capital Buffer](#)

¹⁰ For additional discussion, see Jan. 12, 2018 remarks at the Global Interdependence Center conference, by Eric S. Rosengren, [Considering Alternative Monetary Policy Frameworks: an Inflation Range with an Adjustable Inflation Target](#).