

***EMBARGOED UNTIL March 18, 2016
at 11A.M. U.S. Eastern Time OR UPON DELIVERY***



***“Observations on Defining the
Objectives and Goals of Supervision”***

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

*Remarks at the Federal Reserve Bank of New
York’s Conference: “Supervising Large, Complex
Financial Institutions: Defining Objectives and
Measuring Effectiveness”*

New York, New York
March 18, 2016



***“Observations on Defining the
Objectives and Goals of Supervision”***

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

*Remarks at the Federal Reserve Bank of New York’s
Conference: “Supervising Large, Complex Financial
Institutions: Defining Objectives and Measuring
Effectiveness”*

New York, New York
March 18, 2016

Good morning. It is a pleasure to have been invited to participate in this panel discussion on defining the objectives and goals of supervision. I want to compliment the New York Reserve Bank for convening this important conference on supervising large, complex financial institutions.

At the outset, let me note as I always do that the views I will express are my own, not necessarily those of my colleagues at the Federal Reserve's Board of Governors or on the Federal Open Market Committee (the FOMC).

The discussion today of large-bank supervision is particularly germane, as we continue to analyze and learn from the last financial crisis, where problems at large financial institutions had an important impact on the severity and duration of the recession that followed.

It is also important that we have an international perspective on prudential regulation on this panel, provided by Andrew Bailey of the Bank of England. Large-bank problems were major contributors to the crisis globally. Actions taken during and in response to periods of bank stress in banking crises have varied across the world. This reflects, in part, differing attitudes about what represents the greatest risk posed by large banks and their potential problems.

Perspective on the Goals of Bank Supervision

In the United States, the most significant change to bank supervision in the past decade was the adoption of the Dodd-Frank Act. The preamble of the Act makes it quite clear that a central focus of the legislation was preventing the need for any future taxpayer bailouts of institutions whose demise could worsen a crisis.¹ The legislation, as well as the set of regulations that implement it, strongly emphasize avoiding taxpayer bailouts by increasing loss-absorbing capital, and liquidity, through regulation – all to reduce the probability of a large bank failure.² The legislation also emphasizes reducing the losses that would be borne by taxpayers in the event of an institution's default.^{3,4}

However, bailout risk to the taxpayers – while critical – is not the only risk that motivates careful regulation and supervision of financial intermediaries. The broader goal for supervision and regulation reflects the highest intention of all economic policy making: simply to maximize the well-being of the public. Bank failures – and financial instability in general – reduce the public welfare, because well-functioning financial intermediaries are essentially the lubricant for the real economy. A car engine without oil will seize up; similarly, countries with failed financial intermediaries can find their economies seizing up. It is no coincidence that the two worst economic cycles in the U.S. over the past one hundred years have coincided with the widespread failure of financial institutions.

The Great Depression and the Great Recession, of course, brought large losses to many financial intermediaries. But the largest costs were associated with lost employment, production, and wealth. Both the Dodd-Frank legislation and recent supervisory letters emphasize making financial institutions resilient, maintaining financial stability, and preventing problems at financial intermediaries from damaging the real economy.⁵ So a central focus of regulation and supervision should be to help improve public welfare by maintaining the efficient and effective conduct of intermediary services despite economic cycles.

Financial intermediaries play a critical role in efficiently channeling funds from savers to borrowers, whose investment in a business idea or household propels the real economy. Financial intermediaries are also the major conduit through which monetary policy affects the real economy, making them key to transmitting policies that foster economic recoveries.^{6,7}

Supervision aims to ensure that financial institutions are resilient to even severe shocks. With sufficiently high capital regulation and effective use of stress tests, supervision should help prevent systemic failures. Stress testing – a proactive supervisory approach introduced after the crisis – should, if properly implemented, make systematic failures quite unlikely. In fact, stress tests should lead to restrictions on dividends or share buybacks unless the supervisor is confident that systemic institutions are resilient to even severe stress. Financial institutions should be able to effectively intermediate throughout the cycle, including under severely stressed economic conditions, if supervisors successfully utilize stress tests.

But we must also be focusing on what will happen if a severe economic shock *does* fundamentally impair intermediaries. In that case, mitigating more severe economic dislocations in the broader economy should be a primary concern, not a secondary one.⁸

Trade-offs in Supervisory and Regulatory Policymaking

Supervisory policymaking involves a balancing of macroeconomic trade-offs. When addressing the financial condition of an institution, policymakers must be attuned to the broader impacts that can occur with the disruption of the vital intermediation services that lubricate economic activity.

Capital regulation provides a relatively simple but very important example of the trade-offs inherent in supervisory and regulatory policymaking. Maintaining standards for loss-absorbing capital has long been central to bank regulation. However, the specifics of *how* that regulation is implemented can have very different implications for the broader economy.

For example, a bank that falls below its regulatory capital-to-assets ratio can take one of two paths – raise new capital (by raising new equity or retaining earnings), or shrink assets (by selling assets or reducing lending, because loans are assets for financial institutions). These alternatives can differ in important ways, of course – for example, in the speed with which each option accomplishes recapitalization. But they also differ crucially in the impact they may have on the availability of credit to individuals and companies – essentially, in the institutions’ ability to continue to effectively and efficiently provide credit, and function as a financial intermediary.

Choosing to increase capital by suspending dividends or not repurchasing shares has the advantage of having less of an impact on borrowers seeking credit, but it is likely to increase capital only very gradually – particularly if the operating environment is one in which net income is low.⁹

Alternatively, issuing new equity to bolster loss-absorbing capital can be done relatively quickly. While it dilutes existing shareholders, if done proactively it can stave off severe financial stress on the institution.¹⁰

Turning to the assets in the capital-to-assets ratio – the denominator – we should note that the approach involving reducing lending can take time, since it works primarily through new loans, not existing ones. Moreover, a bank is limited in its ability to immediately curtail lending, given that it has previously committed to lines of credit (including the unused portions) and has made loan commitments to its customers. However, the reduction in lending is likely to result in a dearth of needed credit for individuals and companies, and thus a weaker economy.¹¹

Moreover, tighter loan terms change the calculations inherent in business plans, and may lead firms and entrepreneurs to reduce their borrowing. The reduction in credit extension by intermediaries may also partially offset the stimulative effects of accommodative monetary policy that the central bank is usually implementing in economic downturns.

In contrast, selling off assets can be accomplished relatively quickly. But depending on the asset and the prevailing economic conditions, the sales may have to occur at deeply discounted or even “fire sale” prices. However, an important nuance to recognize is that asset sales at much-reduced prices can affect the institution’s capital too,¹² with the losses on the asset sales feeding through to reduced net worth (capital).¹³

The speed of the recapitalization is important for several reasons. Certainly, quickly recapitalizing makes the financial system more resilient to continuing or future adverse shocks, and thus may help insulate the economy from future disruptions in the intermediation process. However, a more rapid recapitalization, if accomplished through shrinking assets, can also harm the broader economy if it entails a significant tightening of lending standards, and thus credit availability.¹⁴ Again, as is often the case with economic policy making, the supervisory process is a balancing of macroeconomic trade-offs.

Certainly, history shows a number of examples of supervisors taking different approaches to these trade-offs. In the United States, the recession in the early 1990s was exacerbated by binding capital requirements. Many banks addressed their binding capital ratios by reducing lending and tightening credit standards, and bank supervisors did not emphasize the need to recapitalize in ways that were less disruptive to the broader economy. This supervisory response

spawned an academic literature on credit crunches, highlighting how supervisory practice could adversely impact the real economy. Ultimately, the credit crunch was cited as a headwind to the recovery, at a time requiring more stimulative monetary policy.¹⁵

As **Figure 1** shows, after the 1990 recession, the level of real lending to businesses declined significantly, and in a way that had not occurred in the previous or subsequent recession.¹⁶ Arguably, in the early 1990s, not enough consideration was given to avoiding a situation where supervisory capital ratios were primarily achieved by tightening lending (shrinking assets). Less collateral damage to borrowers may have occurred if supervision had taken the tack of more forcefully requiring retention of earnings or the raising of new equity capital.

A very different supervisory approach occurred in 2009. The first supervisory “stress test” exercise – which followed the Troubled Asset Relief Program’s (TARP) funding that boosted institutions’ capital with investment of public funds – required that recapitalization not be accomplished by shrinking assets. Given that demand for loans declined during the recession, there was still a significant drop in business lending, but it would likely have been much more severe if bank supervisors had not discouraged banks from meeting capital requirements primarily by reducing lending.¹⁷ In part, the supervisory approach looked to recapitalize banks quickly, but to do it in a way that would have less severe “collateral damage” to the economy.

Importantly, we can examine the experience in other countries. Countries experiencing severe shocks have tended to see extremely slow progress in recapitalizing their banking system.

And some countries where the government did recapitalize the banks, such as Japan, did so only after a long delay.

Indeed, following the Japanese banking problems of the 1990s, the authorities counted on bank earnings to recapitalize the banking sector – but this was handicapped by continued declines in stock and real estate prices in Japan’s economy. Studies have observed that the long delays in recapitalizing the banks and reducing problem loans generated a misallocation of loans, which had a broader adverse impact on the country’s economy.¹⁸

It is my strongly held view that supervisors can effectively help prevent systemic events if sufficiently high capital standards are required and rigorous stress tests are regularly conducted. Ideally, bank regulation and supervision will help make financial intermediaries sufficiently resilient so that even severe economic shocks would not badly impair financial intermediaries over the entire business cycle. This is the logic behind using stress tests to ensure that banks are resilient before they are approved to pay out earnings, which of course depletes capital. Before the introduction of the post-crisis stress tests, banks were allowed to continue to pay dividends in 2007 and 2008, which resulted in a much greater need to recapitalize. Thankfully, the stress tests now provide a much more proactive way to address the potential of severe shocks before they occur.

However, if a shock or event occurs, and banks prove to be not sufficiently resilient, it is critically important to proactively recapitalize the banking sector as quickly as possible *while at the same time avoiding collateral damage from tighter credit standards*. Put another way, with respect to the capital-to-assets ratio, it is vital to increase the capital (the numerator of the ratio)

rather than allowing the adjustment to occur primarily through a reduction in assets, i.e. loans (the denominator).

Currently, there continue to be varying responses to the question. The Basel III accord made clear the existence of a broad international consensus to better capitalize banks.¹⁹ However, countries have taken different approaches to interpreting how low the acceptable minimum level of capital can be – and different approaches to reaching the higher capital standards. Countries that only slowly build up their banking sector’s resilience do risk, in my view, more severe repercussions should their economies encounter additional significant adverse shocks.

The Largest Institutions

Figure 2 provides the minimum Basel III leverage ratios applied to the largest and most systemically important institutions in several developed countries – the so-called Global Systemically Important Banking organizations, or GSIBs. You see that countries have chosen different minimum leverage ratios to apply to the largest institutions. In the United States, the GSIBs are required, by 2018, to have 5 percent leverage ratios for the holding company.²⁰ Switzerland has set similarly high leverage ratios. In contrast, the Eurozone and Japan have yet to require a higher minimum leverage ratio for the largest institutions – above the 3 percent leverage ratio – although additional requirements for GSIBs are under discussion by the Basel Committee’s Group of Central Bank Governors and Heads of Supervision (GHOS).²¹

These variations reflect different trade-offs made across jurisdictions – trade-offs concerning the size of GSIBs relative to the GDP of the country, the willingness of governments to risk large bank failures, and concern over how higher capital standards will impact the largest banks in the country as well as the broader economy.

Figure 3 shows, for different countries or regions, the recent leverage ratios for GSIBs and the fully-phased-in Basel III leverage ratio requirement. While the transition rules do not require fully meeting the regulatory requirements until 2018, the average GSIB Basel III leverage ratio in the U.S. already exceeds the fully-phased-in requirement.²² How quickly financial institutions have boosted capital ratios, and the size of the loss-absorbing buffer, presumably reflects different market pressures – but also different *supervisory* pressure to raise capital ratios.

In the U.S., an important supervisory tool has been the use of stress tests. Here the rigorous application of stress tests, and the desire of institutions to have comfortable buffers against future stress tests, have encouraged GSIBs to quickly improve their capital ratios.

The different supervisory and regulatory goals across jurisdictions reflect different trade-offs, but also make the country or region's financial sector more or less susceptible to additional adverse shocks. **Figure 4** shows global stock indices since December 1, 2015. The global financial market turmoil that occurred at the beginning of 2016 has resulted in declines in stock market indices around the world. This chart shows, however, that there are differences across countries and regions. For example, the United States and the United Kingdom are currently

only modestly below December 1 levels, reflecting the relatively strong U.S. and U.K. economies, while Japan and the Eurozone show a more negative impact.

Figure 5 shows differences in credit default swap (CDS) spreads of GSIB institutions across countries, scaled relative to December 1. GSIB CDS have been sensitive to global turmoil, and rose quite significantly in February. More recently, although volatility has continued, there has been substantial improvement among countries that saw the most dramatic increases in CDS spreads. While these differences likely reflect macroeconomic risks by country, they also likely reflect investors' views of potential financial concerns related to GSIBs in that country.

Figure 6 shows the differences in stock prices of GSIBs by country. Again the U.S. GSIBs have fared better, experiencing a lesser decline than counterparts in the Eurozone, Switzerland, and Japan, likely reflecting a better macroeconomic outlook – as well as a relatively stronger financial position even as global markets have become more volatile. A more proactive supervisory push to make U.S. GSIBs more resilient has been appropriate and, as this figure suggests, *beneficial* – as evidenced by market reaction to recent global volatility.

Concluding Observations

In summary and conclusion, I would observe that the extensive regulation and supervision of financial institutions reflects the important role that they, as financial intermediaries, play in the economy. In particular, higher capital and rigorous stress tests should make GSIBs more resilient over time. But, as I have discussed today, there are trade-offs to

carefully consider. Policymakers need to balance the resilience that higher capital ratios bring against the possibility of pullback in the provision of credit, and downstream impacts on the ability of firms and households to borrow and invest.

While the distribution of losses when financial institutions fail is very important, the primary goal of supervision should be to create effective intermediaries that can support the broader economy throughout the business cycle including periods of stress. I am in favor of using bank supervision to more quickly insulate the largest financial institutions from adverse economic shocks that may emerge. But ideally, this would be done in ways that also encourage financial intermediaries to continue lending. I am happy to observe that in the United States, banks have been able to significantly improve capital ratios while still expanding their lending.

Thank you.

¹ The Dodd-Frank Wall Street Reform and Consumer Protection Act begins with: “To promote the financial stability of the United States by improving accountability and transparency in the financial system, to end ‘too big to fail,’ to protect the American taxpayer by ending bailouts, to protect consumers from abusive financial services practices, and for other purposes...”

² See the speech by Federal Reserve Governor Jerome H. Powell, “[Ending ‘Too Big to Fail,’](#)” March 4, 2013. This speech highlights the too big to fail phenomenon.

³ For more discussion of how the probability of failure and cost of failure have been reduced in the United States, see “[Progress on Addressing ‘Too Big To Fail,’](#)” Eric S. Rosengren, BCBS-FSI High-level Meeting for Africa focused on Strengthening Financial Sector Supervision and Current Regulatory Priorities, held in Cape Town, South Africa, Feb. 4, 2016.

⁴ In particular, the Total Loss Absorbing Capacity proposal, or TLAC, would force large banks’ bondholders to directly suffer losses in the event of failure.

⁵ Supervision and Regulation Letters, such as [SR 12-17](#), provide detailed discussions of the consolidated supervision framework for large financial institutions. Two primary objectives for bank supervision are provided: see “Enhancing resiliency of a firm to lower the probability of its failure or inability to serve as a financial

intermediary,” and “Reducing the impact on the financial system and the broader economy in the event of a firm’s failure or material weakness.”

⁶ See, for example, “[What Do a Million Banks Have to Say about the Transmission of Monetary Policy?](#),” Anil K. Kashyap and Jeremy C. Stein, June, 1997. *American Economic Review*, 90, 407–28.

⁷ In the event of an institution’s dissolution, the arrangements for how its losses are allocated among equity holders, bondholders, and taxpayers, are – of course – highly important after the fact. But how the rules for this allocation are set before the fact are also extremely important – they can affect financial incentives in critical ways, and thus the behavior of both the financial intermediaries and those who fund them.

⁸ Stress tests are ideally suited to ensure that banks are resilient during difficult economic circumstances.

⁹ This leaves the institution vulnerable during the slow recapitalization process to any additional adverse economic shocks, which would require an even greater accumulation of capital.

¹⁰ In addition, proactively issuing new equity to bolster loss-absorbing capital can also allow future capital actions to recalibrate once markets stabilize.

¹¹ Of course, how much a reduction in bank lending affects the nonfinancial economy depends, in part, on whether borrowers have access to alternative credit suppliers, and on what terms. During the financial crisis, larger firms substituted bond finance for bank finance, but that option was not available to all firms.

¹² Can affect the numerator as well as the denominator of the capital-to-assets ratio.

¹³ Such sales may also affect the health of other financial institutions by reducing the market value of their assets, and thus their capital.

¹⁴ I would underline the trade-offs between addressing the financial condition of the institution expeditiously, and the broader impacts that can occur with the disruption of vital intermediation services that lubricate economic activity.

¹⁵ For a discussion of this period, see “[The Capital Crunch: Neither a Borrower Nor a Lender Be](#),” Joe Peek and Eric Rosengren, 1991. Also see, “[Bank Regulation and the Credit Crunch](#),” Joe Peek and Eric Rosengren, 1993.

¹⁶ The chart shows the decline in commercial and industrial and commercial real estate loans outstanding.

¹⁷ The emphasis on capital adjustment rather than shrinking assets stemmed further deterioration, and probably mitigated problems of credit access – although credit was certainly impaired, regardless, given the severity of the crisis.

¹⁸ See “[Zombie Lending and Depressed Restructuring in Japan](#),” Ricardo J. Caballero, Takeo Hoshi, and Anil K. Kashyap, 2008. See also “[Unnatural Selection: Perverse Incentives and the Misallocation of Credit in Japan](#),” Joe Peek and Eric S. Rosengren, 2005.

¹⁹ See <http://www.bis.org/bcbs/basel3.htm>.

²⁰ Implementation dates vary by country. For example, the date is Jan. 1, 2018 for the U.S., the Eurozone, and Japan, whereas the date is Jan. 1, 2019 for the U.K., and Dec. 31, 2019 for Switzerland.

²¹ See January 2016 Bank of International Settlements press release highlighting new market risk framework endorsed by the Basel Committee's oversight body, the Group of Central Bank Governors and Heads of Supervision: <http://www.bis.org/press/p160111.htm>.

²² In the United States, the requirement is known as the supplementary leverage ratio requirement.

DRAFT