FEDERAL RESERVE BANK OF BOSTON™

"Policymaking with a Diversity of Views"

Remarks for a Panel Discussion on
"Economics at the Federal Reserve Banks"
at the American Economic Association
Annual Meeting

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

Philadelphia, Pennsylvania
January 4, 2014

It is a pleasure to be at the American Economic Association's annual meeting, and in particular to take part in this panel discussion along with colleagues who head up other Reserve Banks and our distinguished moderator.[*]

As always, the views I express today are my own, not necessarily those of my colleagues on the Board of Governors or the Federal Open Market Committee (FOMC).

[*] The panel, moderated by Stanley Fischer of the Council on Foreign Relations, includes William Dudley (Federal Reserve Bank of New York), Narayana Kocherlakota (Federal Reserve Bank of Minneapolis), Charles Plosser (Federal Reserve Bank of Philadelphia), and Eric Rosengren.

The title of this session is "Economics at the Federal Reserve Banks." One of the great advantages of having twelve distinct reserve banks in the Federal Reserve System is that it allows for a diversity of views to flourish. While a range of views could, of course, develop under a more centralized system, it would depend on the willingness of Fed leadership to foster dissenting opinions. While that has certainly been the case recently, it arguably has not always been so during our 100 year history.

In many respects, the Federal Reserve System was designed to encourage the expression of diverse views, given the federated structure consisting of independent regional reserve banks and a Presidentially nominated Board of Governors in Washington. Diversity of views is particularly useful during a period of changing paradigms, and when substantially new facts confront the economics profession. In recent years, we experienced a so-called "Great Moderation" and a "Great Recession," so there has been no shortage of topics in need of further investigation – and, I would add, a need for a healthy dose of humility about how well the profession's models fit actual experience.

Today I will take up our moderator's invitation to provide a few examples of ways the Federal Reserve Bank of Boston (the Boston Fed) has tried to provide a distinctive perspective on economic issues. The Boston Fed has had a tradition of active involvement in a variety of policy areas over the years. For example, in the past the Boston Fed was proactive in looking at such issues as discrimination in mortgage lending[1] and the role of credit crunches in transmitting financial shocks to the real economy.[2] Today, however, I will focus on some more recent work – work done over the course of the last six years or so.

I will first discuss how the Boston Fed focused on problems emerging in the real estate sector during the early stages of the financial crisis, which in turn led us to try out a new role for a Reserve Bank – hosting large mortgage foreclosure events designed to bring borrowers and lenders together to address mortgage delinquency problems.

Next, I will mention some of our work on financial stability, with a particular focus on money market mutual funds. During the financial crisis, the Boston Fed was the only Reserve Bank outside of New York to host a Federal Reserve System emergency liquidity facility – specifically the AMLF (the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility). That experience underscored for us the importance of trying to prevent the need for such interventions in the future. Our continuing research on money market funds has resulted in published studies, op-ed pieces, comment letters, and speeches seeking to encourage the reform of financial structures that continue to pose systemic issues.

Finally, I will discuss monetary policy. The Boston Fed has been, and remains, focused on both elements of the Fed's dual mandate from Congress – employment as well as inflation. We have highlighted the high costs related to being below full employment for a long period of time. And we have strongly argued that policymakers should be as concerned about inflation being too low as being too high, given the toll and persistence of deflation were it to emerge. The analytical work done by the Boston Fed's Research department on these issues has also informed my choice to dissent twice as an FOMC member – first because of concern that financial shocks were going to have a much larger impact than many anticipated in December 2007; and again last month, to advocate for a patient approach to removing accommodation since the economy continues to have unemployment that is too high and inflation that is too low.

Mortgage Foreclosure Issues

In 2007, the Boston Fed's Regional and Community Outreach staff documented how foreclosures were disproportionately impacting low- and moderate-income neighborhoods around New England. These concerns were also surfacing in discussions with community development experts serving on our external advisory groups.

Also, staff in our research area began investigating the increase in foreclosure activity.[3] Much of that research highlighted that the behavior of home prices was critical to understanding the foreclosure crisis. As **Figure 1** highlights, while home prices had fallen in some regions of the country in the early 1990s, for *all* sections of the country to experience falling home prices simultaneously was unusual. Families experiencing a "life event" such as an unemployment spell, a divorce, or health issues *in a rising housing market* can sell their house. However, those same problems occurring during a period of falling housing prices often resulted in foreclosure. Many underestimated or ignored the potential for housing prices to fall nationally – something outside of recent historical experience. This proved problematic not only for individuals and families, of course, but also for a variety of financial instruments that were designed to perform well when housing prices were rising, but could generate large losses if housing prices fell.

I highlighted the research being done at the Bank on these sorts of residential real estate problems in speeches I gave soon after becoming president of the Boston Fed.[4] We also decided to pursue large-scale mortgage foreclosure prevention workshops. We held the first of these at Gillette Stadium, home of the New England Patriots, and thousands of residential borrowers came to work with lenders in an attempt to prevent foreclosure (see **Figure 2**). The long lines of borrowers underscored for the Boston Fed and other Reserve Banks that there was an opportunity to reach more distressed borrowers – and to focus policy discussions on more comprehensive ways to address these problems.

Financial Stability

Another area of focus that has been important and somewhat distinguishing for the Boston Fed is financial stability. The Boston Fed had always been attuned to less traditional financial intermediaries, such as money market mutual funds, because of the prevalence of such entities in New England. However, that longstanding interest took on great urgency when problems at a money market mutual fund, the Reserve Primary Fund, in the wake of the Lehman failure led to a run on prime money market mutual funds, illustrated in **Figure 3**.

With the run picking up steam, we worked closely with colleagues from the Board of Governors on ways in which the Federal Reserve might provide an emergency liquidity facility to stabilize the money market mutual fund industry, to prevent further collateral damage – including potential collateral damage to a wide range of companies that depended on money market funds purchasing their short-term debt to fund their operations. The result was that by the end of the week a new emergency credit facility was established, a call center to operate the facility was created within the Boston Fed, and the facility was up and running by the following Monday. The facility administered by the Boston Fed – the AMLF – provided loans on asset-backed commercial paper that banks purchased from money market mutual funds. Within the first 10 days of operation, lending under the AMLF grew rapidly – reaching a peak of over $150 billion on October 1, as shown in **Figure 4**. This program, along with the provision of insurance for money market funds by the federal government, helped stop runs that were seriously disrupting short-term credit markets.[5]

The crisis experience spurred interest in identifying and putting in place regulations that could help avoid a repetition of the problems experienced and the need for emergency measures. Boston Fed analysts studied publicly available reports and disclosures, and found that fund sponsors provided substantial support for money market funds to avoid numerous occasions of funds "breaking the buck." This underlines the fact that the funds' current structure poses significant financial stability concerns.[6] The Presidents of all the Reserve Banks jointly signed two comment letters advocating regulatory reform of the money market fund industry.[7] I also contributed two op-ed pieces in *The Wall Street Journal* advocating for reducing the financial stability risk posed by the current structure of money market mutual funds.

Monetary Policy

The Boston Fed has long been data driven when it comes to monetary policy – and willing to proactively advocate policy, based on the data and our empirical analysis. In our research and our public speeches, we have argued for a balanced approach to the dual mandate and have supported flexible inflation targeting. Research by our staff on inflation and employment dynamics has provided a strong empirical foundation for the monetary policy positions of the Boston Fed.[8]

With regard to inflation targeting, our research, speeches and policy actions have highlighted that monetary policymakers should be concerned about inflation being both too low as well as too high.[9] As **Figure 5** shows, over the past two years most measures of U.S. inflation have been trending down, and all are below the 2 percent target that the Federal Reserve reaffirmed at the beginning of last year. With the inflation rate below target and the unemployment rate significantly above target, we believe strongly that monetary policymakers have the opportunity to be patient in removing accommodation, speeding up the process of achieving both elements of the Fed's dual mandate. This was one of the motivations for my dissenting vote at the last FOMC meeting.

Even if we were not significantly undershooting our inflation target, there would still be a significant argument for monetary policy remaining highly accommodative. The theme of our Bank's April 2013 research conference was "Fulfilling the Full Employment Mandate." In sum, the conference highlighted how far the U.S. remains from full employment – and the costs of not returning to full employment more quickly.

Indeed, as **Figure 6** shows, the percent of those who are unemployed and have been so for more than six months has been unusually high during this recession and recovery, and remains well above the peak of previous recessions. Long-term unemployment has significant negative effects for individuals of course, but also the economy – for example through the atrophy of skills. So the failure of monetary and fiscal policy to generate a more rapid recovery risks creating a long-term *structural* unemployment problem out of a severe cyclical downturn. This concern also underlies my dissent at the last FOMC – because, in my view, the risks from generating a more rapid recovery seem small relative to the risks from generating a more permanent increase in structural unemployment.

Concluding Observations

I have discussed three examples of ways the Boston Fed has tried to make unique policy contributions within the Federal Reserve System. Moreover, my footnotes contain citations illustrating that we also make academic contributions by publishing our research on these topics, as well as many other topics that I do not have time to highlight today, in the top economics and finance journals.

However, as I hope my remarks have illustrated, we have tried to advance not only diversity of *thought* in the Federal Reserve System, but also diversity of *actions*. The work that I have highlighted today illustrates our belief that data-driven research of the type that can appear in major professional journals can also inform and guide policy actions – in monetary policy, supervisory policy, financial stability policy, and the economy more broadly. Ultimately, our hope is to make a positive difference in these important areas.

Finally, I would add that our work at the Boston Fed has benefitted significantly from our interactions with the rich academic community in New England. Most of the articles I have cited in my footnotes have multiple authors. We value collaboration with the academic community, and there are certainly important topics that would benefit from further academic work and collaboration. Let me provide some quick examples from the three areas I have discussed today:

- In the area of residential real estate, there remains much to be learned about what generates real estate bubbles, and why the rapid appreciation of real estate in countries around the world has generated collapses in some countries while other countries have seen little or no pull-back after rapid appreciation.

- In the area of financial stability, statistical models can help us identify and understand unusual occurrences and patterns up to a point – but when common assumptions prove wrong and historical relationships break down, serious and damaging problems can emerge. We should ask ourselves how various parties could do a better job of considering potential outlier experiences, and incorporate their risks into the ways financial institutions are led and managed (and supervised).

- And in the area of monetary policy, the dynamics of inflation both during and following the recession have presented puzzles. For instance, why is inflation both here and abroad remaining stubbornly low today, even as the economic recoveries in the U.S. and the Euro area strengthen, in part boosted by highly accommodative monetary policy? In Boston, we have examined the extent to which a number of factors might explain recent behavior – time-variation in the slope of the Phillips curve, a reduced impact of relative prices (especially oil) on inflation, survey measures as proxies for short-run and long-run inflation expectations, and downward nominal wage rigidities. While these factors appear to provide partial explanations, no effects singly or severally provide a complete accounting of recent inflation behavior. Given these uncertainties about inflation dynamics, we have reason to have less confidence than usual in the inflation forecasts from our suite of models, many of which would suggest a gradual rise toward the Fed's inflation target in coming quarters. This makes the current low level of inflation more troubling from the perspective of risk management. So, in short, we need to better understand inflation dynamics.

We will continue to benefit from the work of many of you in the audience. Hopefully the diversity of thought and actions that stems from the federated Federal Reserve System will continue to make our policymaking process resilient – especially in light of the uncertainties we continue to face.

Thank you.

NOTES:

[1] **See the following:**

"Redlining in Boston: Do Mortgage Lenders Discriminate Against Neighborhoods?" Geoffrey M.B. Tootell. The *Quarterly Journal of Economics*, 111(4): 1049-1079 (November 1996),

"Mortgage Lending in Boston: Interpreting the HMDA Data," Alicia H. Munnell, Geoffrey M.B. Tootell, Lynn E. Browne, and James McEneaney. *American Economic Review*, 86(1): 25-53 (March 1996).

[2] **See the following:**

"The Capital Crunch: Neither a Borrower Nor a Lender Be," Joe Peek and Eric Rosengren. *Journal of Money, Credit, and Banking*, 27(3): 625-638 (August 1995).

"The International Transmission of Financial Shocks: The Case of Japan," Joe Peek and Eric Rosengren. *American Economic Review*, 87(4): 495-505 (September 1997).

"Identifying the Macroeconomic Effect of Loan Supply Shocks," Joe Peek, Eric Rosengren and Geoffrey M.B. Tootell. *Journal of Money, Credit, and Banking*, 35(6): 931-946 (December 2003, Part 1).

[3] **See for example:**

"Reducing Foreclosures: No Easy Answers," Christopher Foote, Kristopher Gerardi, Lorenz Goette and Paul Willen. *NBER Macroeconomics Annual*, 69-159 *(*2009).

"The Impact of Deregulation and Financial Innovation on Consumers: The Case of the Mortgage Market," Kristopher Gerardi, Harvey Rosen and Paul Willen. *Journal of Finance*, 65(1): 333-360 (2010).

"Subprime Mortgages, Foreclosures, and Urban Neighborhoods," Kristopher Gerardi and Paul Willen. *The B.E. Journal of Economic Analysis and Policy*, 9(3) (2009).

"Making Sense of the Subprime Crisis," Kristopher Gerardi, Andreas Lehnert, Shane Sherlund and Paul Willen. *Brookings Papers on Economic Activity*, 69-145 (Fall 2008).

[4] **See the following:**

"Recent Developments in Real Estate, Financial Markets, and the Economy" (October 10, 2007) available at http://www.bostonfed.org/news/speeches/rosengren/2007/101007.htm

"Subprime Mortgage Problems: Research, Opportunities, and Policy Considerations" (December 3, 2007) available at http://www.bostonfed.org/news/speeches/rosengren/2007/101007.htm

[5] "How Effective Were the Federal Reserve Emergency Liquidity Facilities? Evidence from the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility," Burcu Duygan-Bump, Patrick M. Parkinson, Eric S. Rosengren, Gustavo A. Suarez, and Paul S. Willen. *The Journal of Finance, 68: 715-737 (2013)*.

[6] **See the following:**

"The Stability of Prime Money Market Mutual Funds: Sponsor Support from 2007 to 2011," Steffanie A. Brady, Ken E. Anadu, and Nathaniel R. Cooper. Working Paper No. RPA12-3 (2012).

"Our Financial Structures: Are They Prepared for Financial Instability?" Eric Rosengren. Journal of Money, Credit, and Banking. Forthcoming; currently available at http://www.bostonfed.org/news/speeches/rosengren/2012/062912/index.htm

Also see speeches such as the following:

http://www.bostonfed.org/news/speeches/rosengren/2012/041112/index.htm

[7] **See the following:**

http://bostonfed.org/news/press/2013/pr091213-letter.pdf, regarding the Securities and Exchange Commission's Money Market Fund Reform

http://bostonfed.org/news/press/2013/pr021213-letter.pdf, regarding the Financial Stability Oversight Council's Proposed Recommendations Regarding Money Market Mutual Fund Reform.

[8] **See for example:**

"Wage-Setting Patterns and Monetary Policy: International Evidence," Giovanni Olivei and Silvana Tenreyro. *Journal of Monetary Economics,* 57(7): 785-802 (2010).

"The Timing of Monetary Policy Shocks," Giovanni Olivei and Silvana Tenreyro. *American Economic Review,* 97(3): 636-663, (June 2007).

"Dynamic Inconsistencies: Counterfactual Implications of a Class of Rational Expectations Models," Arturo Estrella and Jeffrey C. Fuhrer. *American Economic Review,* 92(4) (September 2002).

"Monetary Policy Trade-Offs and the Correlation Between Nominal Interest Rates and Real Output," Jeffrey C. Fuhrer. *American Economic Review,* 85: 219-239 (March 1995).

"Inflation Persistence," Jeffrey C. Fuhrer and G. Moore. *Quarterly Journal of Economics,* 110(1): 127-159 (February 1995).

"Monetary Policy Shifts and the Stability of Monetary Policy Models," Arturo Estrella and Jeffrey C. Fuhrer. *Review of Economics and Statistics,* 85(1): 94-104 (February 2003).

"Inflation Persistence," Jeffrey C. Fuhrer, in the *Handbook of Monetary Economics*, Ben Friedman and Michael Woodford, eds. *(*2011*)*.

[9] **See for example:**

Inflation Dynamics When Inflation is Near Zero," Jeffrey C. Fuhrer, Giovanni P. Olivei and Geoffrey M.B. Tootell. *Journal of Money, Credit, and Banking,* 44(1): 83-122 (February 2012).

"Monetary Policy When Interest Rates Are Bounded at Zero," Jeffrey C. Fuhrer and Brian F. Madigan. *The Review of Economics and Statistics*, 79(4): 573-585 (1997).