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***“Financial Stability:  
The Role of Real Estate Values”***

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

*Remarks at the Asia-Pacific High Level Meeting  
on Banking Supervision*

Bali, Indonesia  
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Good morning. I would like to commend the organizers of this important gathering of bank supervisors and policymakers – the Basel Committee on Banking Supervision, the Financial Stability Institute, and the Executives’ Meeting of East Asia-Pacific Central Banks Working Group on Banking Supervision. I would also like to thank our host, Bank Indonesia.

It is a pleasure to be here to share what are my own perspectives on assessing financial stability risk. At the outset, let me note as I always do that the views I express today 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).

Let me also take a moment to underline my appreciation for the Financial Stability Institute's instrumental role in the dissemination of important information on financial stability and bank supervision. Given that the topic of financial stability is rather less established than monetary policy, it is particularly important to have ongoing opportunities to share analysis and perspectives on what works, and what does not, around the world.

In that spirit, I would like to share my own views on the sources of financial instability that have, historically, led to widespread economic disruption not only in large economies like the United States, but in many parts of the world as well. I would like to specifically address the problems that arise when the value of commercial or residential real estate fluctuates significantly – a dynamic that often leads to episodes of financial instability.

My comments should be placed in some very important context, however. First, I am not here today to predict problems, but rather to suggest we continue working to head them off. Secondly, it is important to note that we see much safer financial systems in many countries today, as a result of regulatory enhancements that were enacted since the financial crisis of 2008. Many of the largest banks in the world are much better capitalized and have much more liquidity than they did during the period leading up to the financial crisis. This has undoubtedly made the global financial system more stable; being both less likely to be the source of a major disruption, and better prepared to withstand an external shock, should one occur.

Despite having a more resilient financial system, I would suggest that other macroeconomic factors may – unfortunately but perhaps inevitably – have some unintended side

effects that are less supportive of financial stability. For example, very low interest rates in many parts of the world – which were wholly necessary to propel the global economy out of the Great Recession, and I strongly supported – may inevitably encourage a “reach for yield” in a world with an increasingly global flow of investment funds. Demographically, we are seeing aging populations whose need for reasonable yields on retirement assets may further incent a reach, often in riskier assets. So while increased regulatory scrutiny has established important “fire breaks” against financial flare-ups, other trends could actually mean more frequent and possibly more intense “fires.” My point is just that we should not feel overconfident, thinking that strengthening the resilience of global banks is, by itself, sufficient. Further thoughtful actions may be called for.

Certainly, one risk to be mindful of has been the acceleration of real estate values in some parts of the world, and I will use the United States as an example in my remarks today.

### **Real Estate and Financial Stability**

In the years since the financial crisis of 2008, there has been a coordinated effort to make the financial sector more stable, given the widespread difficulties of many of the very large financial institutions in developed countries during the crisis. Many regulators now require more capital, greater liquidity, and detailed resolution plans. The absence of these defenses contributed to the severity of the financial crisis, and the disruption of the availability of credit from financial intermediaries contributed to the dramatic contraction in the broader economy, amplifying problems.

Make no mistake, the steps taken to increase the stability of financial intermediaries and the financial system are vital. While such steps will likely mitigate the severity of future problems and recessions, I would however suggest that they may not be sufficient.

As helpful as steps taken to date have been, policymakers and market participants need to stay focused on several issues, including what I would consider the root cause of the financial crisis. I would argue that the root cause of the financial crisis was a significant decline in collateral values of residential and commercial real estate. This was not particularly unusual; in fact, financial crises of the past 70 years have generally been caused by exposures across the banking system that are correlated and sizeable – primarily either exposure to foreign-denominated debt that is subject to exchange rate risk, or exposure to real estate that becomes vulnerable when its value declines precipitously.

In the former scenario, the Mexican peso crisis (in 1994) and Asian financial crisis (in 1997) are two examples where large exposure to debt denominated in foreign currency became problematic when the home country's currency devalued, making repayment in foreign currency prohibitively expensive.

The other main triggering mechanism has been a rapid and sizeable decline in real estate values.<sup>1</sup> Because many financial intermediaries lend to households and businesses with real estate as the collateral, recessions that are accompanied by significant declines in real estate valuations can lead to broader problems. Because recessions or rapid changes in asset values entail a loss or reduction of income for many households and businesses, and a loss of equity that can leave loans underwater, the likelihood of borrower default increases, adding to problems. Examples include the decline in real estate values that occurred during periods of banking

problems in Japan (in 1990) and Sweden (in 1991), as well as the credit crunch and financial crisis periods in the United States (for example, the credit crunch of the early 1990s and the financial crisis of 2008).

Today, I will focus on financial problems triggered by changes in real estate values. I would note that over the past roughly 70 years, there have been 11 recessions in the United States. Of those recessions, two featured a significant financial stability component, where banking problems significantly aggravated the severity of the recession.

In the early 1990s recession in the U.S., commercial real estate values – particularly on the two coasts – declined significantly. The large losses in commercial real estate values triggered a wave of bank failures and an ensuing credit crunch. While a large number of banks failed, as shown in **Figure 1**, most of the banks involved were relatively small. In the recession that began in December of 2007, the loss in residential real estate values also caused a notable, but not as large, jump in the number of bank failures – but this time the affected banks were among the largest. **Figure 2** shows that the value of failed-bank assets in real terms was much more severe as a result of the large-bank failures.

In terms of the real economy, both recessions were quite severe. The unemployment rate peaked at 7.8 percent in June 1992; and in the aftermath of the 2008 financial crisis, the unemployment rate peaked at 10 percent (in October 2009).

**Figure 3** shows that commercial and residential real estate prices behaved differently during these two periods. First, commercial real estate prices have been more volatile than residential real estate prices, and actually declined during both the earlier credit crunch period and during the more recent financial crisis. Second, commercial real estate prices did diverge

from residential prices in the late 1980s commercial real estate downturn; in fact, there is relatively little movement in the national residential real estate price index during that period.<sup>2</sup> Third, while the financial crisis is normally considered to have been primarily motivated by residential real estate problems, commercial real estate prices during the financial crisis also declined quite dramatically.

The impact of these price movements is best seen in **Figure 4**, which shows the delinquency rates of commercial and residential real estate. While the credit crunch period had more than 8 percent of commercial real estate loans as delinquent, there was only a modest increase in the delinquency of residential loans. In contrast, both commercial and residential real estate loan delinquencies rose sharply during the more recent financial crisis.

### **Leveraged Banks and Real Estate**

Real estate has a significant financial stability implication because real estate tends to be leveraged by the owners, and those loans represent a significant exposure for financial institutions that are themselves highly leveraged. When large losses have occurred because of declines in real estate values,<sup>3</sup> banks have historically shrunk their lending to meet binding capital-to-assets ratios (given that loans are assets for financial institutions).

Such a tightening of lending has several compounding effects. In addition to negatively impacting economic activity, tighter lending conditions also make it more difficult to sell impaired assets, given that potential buyers would need bank loans at a time when banks would be much less willing to lend.

As **Figure 5** illustrates, banking institutions continue to hold a significant share of loans related to real estate. I would note the share of commercial real estate mortgages held by banks with under \$50 billion in assets. However, even the largest banks have a significant exposure to the real estate sector.<sup>4</sup> Importantly, even though the commercial real estate cycle has been trending up for some time, the more-recent growth in lending has been quite significant. Over the past year, holdings of commercial mortgages by the banking sector have increased 8.9 percent, while bank holdings of multifamily mortgages have increased 12.0 percent. This growth has occurred while bank supervisors have been cautioning about the potential risks emanating from the high valuations in some sectors of the real estate market.

### **Regulatory Response to Real Estate Lending Exposures**

In 2006, commercial real estate guidance was issued by U.S. bank regulators that encouraged institutions to improve their risk management if their exposure to commercial real estate became large relative to their risk-based capital.<sup>5</sup> As of the end of 2015, as commercial real estate activity and lending became more buoyant in the United States, bank regulators issued a statement on Prudent Risk Management for Commercial Real Estate Lending. The statement reemphasized policy issued in 2006 and other existing guidance, and further required enhanced risk management and commensurate capital levels for banks with large commercial real estate exposures. The statement noted that “the agencies have observed that many CRE asset and lending markets are experiencing substantial growth, and that increased competitive pressures are contributing significantly to historically low capitalization rates and rising property values.”<sup>6</sup>

Even with the issuance of real estate guidance, loans held by banks have increased. While the risk management of banks with large commercial real estate exposures has likely improved, the impact of the guidance on the trajectory of commercial real estate prices appears modest, as **Figure 6** shows. In particular, apartment building prices have increased sharply and are now significantly above the peak prior to the financial crisis. While there have been changes in home ownership rates and household formation that may reflect a secular shift to apartments, and large apartment buildings in major United States cities have become quite trendy (including in my area, Boston), the increase in prices may suggest a need for further consideration of the potential financial stability implications if this trend were to continue.

Other sectors of commercial real estate have also experienced significant price increases. The only sector to show some moderation is retail, a sector that has been impacted by the very sizable movement from brick-and-mortar retail sales to online retail purchases – a secular trend that may still be playing out.

Increases in prices would not be as problematic if rental income were rising commensurately. However, **Figure 7** provides the capitalization or “cap” rates – defined as net operating income<sup>7</sup> divided by the price of the property – for different property types. All the capitalization rates have fallen substantially, which means that price increases have been outpacing growth in net operating income. Apartment capitalization rates are particularly low, and are at their lowest point over the past 16 years.

As the economy improves, higher market interest rates would normally slow new construction as well as valuations in interest-sensitive sectors. However, the slow recovery and the possibility that equilibrium interest rates may remain relatively low, reflecting demographic

and productivity trends, may make it more difficult to slow down the real estate sector with higher interest rates. This would require a greater emphasis on macroprudential tools if valuations became a source of concern. However, with limited macroprudential tools available and only a modest price response to date to guidance, it is prudent to keep a healthy, ongoing focus on the sufficiency of these tools and their ongoing enhancement.

### **Concluding Observations**

In summary and conclusion, I would observe that real estate has played an important role in past periods of financial instability. Its use as collateral by leveraged institutions has factored into significant problems in countries that have experienced a significant revaluation of real estate asset values. As I have noted today, in the United States the two most significant recent periods of financial instability were accompanied by declines in real estate values that impacted financial institutions and intensified the business cycle.

Currently, commercial real estate capitalization rates are very low by historical standards, meaning that price increases have been outpacing growth in net operating income. This is occurring despite the gradual tightening of short-term interest rates and the issuance of real estate guidance by bank regulators.

Because real estate holdings are widespread, and the monetary and macroprudential tools for handling valuation concerns are somewhat limited, I believe we must acknowledge that the commercial real estate sector has the potential to amplify whatever problems may emerge when we at some point face an economic downturn. I am not expecting such problems in the near

term, but would say that awareness, informed by data and analysis, is a first important step to continued actions that can head off unwelcome problems in the future.

Thank you.

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<sup>1</sup> This mechanism has been examined in the monetary policy literature, see for instance Iacoviello (2005) and Justiniano, Primiceri, and Tambalotti (2015) among others. Specifically, see: Iacoviello, M. (2005). House prices, borrowing constraints, and monetary policy in the business cycle. *American Economic Review* vol. 95(3); and Justiniano, A., G. E. Primiceri, and A. Tambalotti (2015). Household leveraging and deleveraging. *Review of Economic Dynamics* 18(1), 3-20.

<sup>2</sup> A national average can mask regional differences. Although the national index shows relatively little movement in residential real estate prices on average during that period, it is worth noting New England housing prices did experience a decline. See [https://www.fdic.gov/bank/historical/history/337\\_378.pdf](https://www.fdic.gov/bank/historical/history/337_378.pdf).

<sup>3</sup> Banks and banking systems have generally fared poorly when values of large exposures boom and bust. Another facet of the problem for banks is when residential borrowers or distressed commercial borrowers become “under water.”

<sup>4</sup> Also notable is that smaller banks hold a larger share of commercial and multifamily residential mortgages than large banks, whereas large banks hold a larger share of home mortgages than smaller banks.

<sup>5</sup> See <https://www.federalreserve.gov/boarddocs/srletters/2007/SR0701.htm>.

<sup>6</sup> See <https://www.federalreserve.gov/newsevents/press/bcreg/20151218a.htm>, which includes the following: “Recent Supervisory Findings: The agencies have observed that many CRE asset and lending markets are experiencing substantial growth, and that increased competitive pressures are contributing significantly to historically low capitalization rates and rising property values. [Footnote 2: For example, between 2011 and 2015, multi-family loans at insured depository institutions increased 45 percent and comprised 17 percent of all CRE loans held by financial institutions, and prices for multi-family properties rose to record levels while capitalization rates fell to record lows. Sources: Consolidated Reports of Condition and Income, Costar Property Price Index, and CBRE.] At the same time, other indicators of CRE market conditions (such as vacancy and absorption rates) and portfolio asset quality indicators (such as non-performing loan and charge-off rates) do not currently indicate weaknesses in the quality of CRE portfolios. Influenced in part by the continuing strong demand for such credit and the reassuring trends in asset-quality metrics, many institutions' CRE concentration levels have been rising.”

<sup>7</sup> Gross income from rents and other sources, less property operating expenses.