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Systemic Financial Risks, Macroprudential Tools and Monetary Policy

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KEY TAKEAWAYS

- Macroprudential tools, such as capital requirements and loan-to-value ratios, are designed to protect the health of the whole financial system.
- Financial crises can prevent central banks from achieving their macroeconomic objectives, which implies that macroprudential tools are useful adjuncts to monetary policy.
- Since the Great Financial Crisis of 2007-08, central bankers have become more open to the possibility that monetary policy might be adjusted to contribute to financial stability.

Macroprudential tools are policies designed to prevent or mitigate systemic risks that could arise from excessive lending, asset price bubbles or other financial vulnerabilities. Such policies are designed to protect the health of the whole financial system, not just one firm or sector. In contrast, *microprudential* tools are traditional financial regulations to limit risk-taking by one financial firm or bank. This article describes systemic financial risks and macroprudential tools, and the relation of such tools to monetary policy.

Monetary Policy and Reducing Systemic Financial Risks

Should monetary policy be used to supplement macroprudential tools? St. Louis Fed economist Chris Neely explains the debate over the extent to which central bankers ought to



Transcript

Systemic Financial Risks

Many types of financial behavior—such as excessive borrowing or asset-liability mismatch in maturity, liquidity or currency—can put the broader financial system at risk, because the failure of any large, interconnected firm threatens others.¹ There are many historical examples of imprudent behavior driving financial bubbles or imbalances, such as the famous 17th century Tulip Mania, [the U.S. savings and loan crisis of the late 1970s to mid-1980s](#), the dot-com bubble in the late 1990s and the global house-price bubble in the first decade of the 21st century.

While economists and historians debate the causes of these episodes, in each of these cases, demand for certain assets drove the prices of those assets to historic levels. Many purchasers of those assets had borrowed to buy them, and when prices plunged, they could not afford to pay back those loans. Consequently, many loans defaulted, causing lenders to fail.

Macroprudential Tools to Prevent or Alleviate Imbalances



the firm to the owners. It is important for a financial firm to have substantial value to its owners, or else [they would have an incentive to take risky bets with other people's money](#). For example, if a commercial bank had little or no capital, the owners would have an incentive to make potentially lucrative but risky loans, or to buy risky assets. If the bets pay off, the owners get to keep the gains, but if the bets fail, the bank's depositors and/or the Federal Deposit Insurance Corp. (FDIC) would be on the hook for the losses.

The Federal Reserve, Office of the Comptroller of the Currency and FDIC all set and enforce capital requirements for the banks they each supervise. The Securities and Exchange Commission (SEC) authorizes the Financial Industry Regulatory Authority (FINRA) to establish and enforce capital requirements for broker-dealers. The SEC oversees and approves the rules proposed by FINRA.

Banks and financial institutions are subject to capital adequacy requirements and countercyclical capital buffers. While *capital adequacy requirements* ensure that banks can absorb losses during downturns, *countercyclical capital buffers* require banks to accumulate additional capital during economic expansions. This excess prepares banks to better withstand losses during downturns. There are also sector-specific capital buffers, such as those [Swiss authorities imposed for residential mortgage and real estate markets \(PDF\)](#). In addition to these mandates, [some European countries impose a systemic risk buffer](#) on certain institutions that are not covered by other capital requirements to offset the risks they might pose.

[Reserve requirements](#), a second type of macroprudential tool, function somewhat similarly to capital buffers in that they regulate a bank's portfolio structure. In particular, reserve requirements force banks to hold a minimum level of cash and/or deposits with the central bank. Changing reserve requirements can influence bank lending and credit expansion. As of March 26, 2020, [the Fed eliminated reserve requirements on its depository institutions](#), but they are commonly used by other central banks.

Liquidity requirements extend reserve requirements to mandate that financial institutions retain liquid assets—cash, government bonds or highly marketable securities—sufficient to meet their short-term obligations. These regulations are often considered microprudential rather than macroprudential. If authorities apply such mandates to systemically important institutions, however, it might be reasonable to consider liquidity requirements to be macroprudential as well as microprudential.

A third type of macroprudential policy attempts to forestall excessive debt and inflated housing prices by limiting how much individuals can borrow to buy a house. [Loan-to-value \(LTV\)](#) and [debt-to-income \(DTI\)](#) limits constrain how much a household can borrow relative to



DTI limits.

While this list of macroprudential tools is far from exhaustive, many of the remaining tools are variations of those listed above.

Monitoring Systemic Risks

Authorities must identify emerging risks and vulnerabilities before they can curb them with macroprudential tools. In the United States, the Financial Stability Oversight Council (FSOC) monitors systemic risks and recommends the implementation of various macroprudential tools to maintain financial stability in the country. The FSOC consists of representatives from the Fed, SEC, FDIC, and CFPB.

This monitoring includes stress tests on banks and other financial institutions to ensure that they could cope with economic downturns that reduce asset prices and increase default risk. In the United States, this set of tests is called the Comprehensive Capital Analysis and Review (CCAR). If such tests suggest the presence of systemic vulnerabilities, authorities could use other macroprudential tools to limit such dangers. Therefore, stress tests also could be considered a type of macroprudential tool, or at least a supplement to them.

The Relation of Monetary Policy and Macroprudential Tools

Traditionally, central banks have used monetary policy—influencing interest rates—to achieve price stability and employment objectives. Financial crises—such as that caused by the bursting housing bubble in 2006-08—can prevent central banks from achieving their macroeconomic objectives, however. Therefore, macroprudential tools, which attempt to stabilize the financial system, are a useful adjunct to monetary policy.

One of the most debated issues with respect to macroprudential tools is the extent to which monetary policy should be used to reduce financial risks.² Authorities can rely exclusively on targeted macroprudential tools to directly attack financial vulnerabilities, or the central bank can contribute to financial stability by also adjusting monetary policy to appropriately change broad credit and financial conditions. For example, regulators could limit an incipient housing bubble by raising the LTV and/or DTI ratios, or a central bank could also contribute to that policy with higher interest rates.

There are reasonable arguments both for and against the use of monetary policy to supplement macroprudential tools. On one hand, central banks have a lot of experience with the powerful tools of monetary policy and their broad effects can usefully supplement the targeted effects of macroprudential tools, with which regulators have limited experience. On the other hand, monetary policy is a blunt instrument; it is difficult to justify undesired effects



The conventional wisdom among economists about the role of monetary policy in reducing financial risks has changed over the years. [Chairman Alan Greenspan took the widely held view](#) that asset price bubbles were difficult to identify and that the use of contractionary monetary policy to preempt them might produce a recession. Since the Great Financial Crisis of 2007-08, however, economists and central bankers have been more open to the possibility that monetary policy might sometimes be adjusted to maintain financial stability in the greater interest of price stability and real activity. In 2014, [former Fed Chair Janet Yellen](#) summarized this new view:

“A more balanced assessment, in my view, would be that increased focus on financial stability risks is appropriate in monetary policy discussions, but the potential cost, in terms of diminished macroeconomic performance, is likely to be too great to give financial stability risks a central role in monetary policy decisions, at least most of the time.”

International Use of Macroprudential Tools

The type and use of macroprudential tools vary internationally. For example, the U.S. disperses macroprudential tools across agencies and institutions, while the European Union has a more centralized framework. The European System of Financial Supervision (ESFS), which consists of the European Banking Authority (EBA), the European Securities and Markets Authority (ESMA), and the European Insurance and Occupational Pensions Authority (EIOPA), provide macroprudential and microprudential supervision over the European financial and economic system.

Similarly, there are differences in how such tools are used. The Fed’s countercyclical capital buffer depends on predefined credit-to-gross domestic product ratios, for instance, while the Monetary Authority of Singapore is able to flexibly adjust LTV ratios and debt service ratios in response to changing market conditions. Despite these differences in implementation, regulators seek to balance economic growth and financial stability.

Conclusion

After the Great Financial Crisis of 2007-08, policymakers and economists began to pay much more attention to the use of macroprudential tools to prevent or mitigate risks to the financial system. This article has explained some of the more important macroprudential tools and the relation of such tools to monetary policy.

Notes



of St. Louis *Review* in September/October 2009.

2. See, for example, a June 16, 2023, speech, “[Financial Stability and Macroeconomic Policy](#),” by Fed Gov. Christopher J. Waller.

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