

Conference Summary

CAN MACROPRUDENTIAL POLICY MAKE GLOBAL FINANCE SAFER?

Next Steps in Macroprudential Policies conference
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Columbia University

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Experts recently assembled at Columbia University to discuss how newly enlisted macroprudential policy tools or “macropru” might head off the next big financial meltdown. Economists, regulators, and academics described macropru as a powerful, countercyclical tool meant to strengthen the global financial system. Some warned that unintended consequences could be game-changers.

After the 2008 financial crisis hit, governments, international financial institutions, and economists began to look for ways to create a buffer against financial implosions. Their experiments centered on tactics to contain spillover shocks from financial institutions whose interconnected webs crisscross the globe. Economists have dubbed the toolchest that they came up with "macroprudential policies" – "macro" because the approach applies to the large, macro workings of economies and financial systems, and "prudential" because its intent is to contain risks. The International Monetary Fund found 46 countries have brandished a combination of macroprudential tools in the last seven years.

In November 2015, macroprudential policy experts from academia, regulators, and the financial sector gathered to debate "Next Steps for Macroprudential Policy," a conference co-sponsored by Columbia's School of International and Public Affairs and the IESE Business School of the University of Navarra. This paper provides an overview of that day's presentations and includes links to documents provided by some of the speakers. To encourage frank discussion, the conference was held under Chatham House Rules, meaning we have not attributed ideas and quotes to any specific individual or institution.

This overview is divided into four main parts: A discussion of the evolving definition of macroprudential policy; a look at how governing bodies and financial institutions are stress-testing implementation of tools and regulations; a section assessing the effectiveness of macropru, zeroing in on the ways some specific countries have wielded it; and a final segment that examines some of the unintended consequences of macroprudential policy.

Just What Is Macropru?

Speaker after speaker at the conference reiterated that nobody invented macropru strategies specifically in reaction to the financial crisis. Most tools have been used before, historically by many advanced economies, and by emerging markets trying to ease their way into the world economy and financial system. Other policies are variations on the long-standing Basel accords, which have been used for decades as baselines for bank regulations internationally.

Although many macropru tools indirectly trigger spillovers from one sector to another, the tools can be broadly classified as those targeting borrowers and those aimed at financial institutions. See ["Macroprudential Policies: Goals, Conflicts and Outcomes,"](#) by Stijn Claessens.

Borrower-based tools attempt to slow down debt spending, and at least one conference participant included in this definition Tobin taxes, which penalize short-term financial roundtrip excursions into a second currency, and haircuts, which set a lower limit on the difference between the market value of assets used as loan collateral and the amount of a loan. But most borrower-directed macropru policies have been used to cool off real estate booms, which many economists see as the root of boom/bust cycles in Japan, the US, the UK, and Spain, among other places.

The most common tools aimed at homebuyers include loan-to-value (LTV) caps, which set the minimum size of downpayments, and debt-to-income or loan-to-income ratios, which restrict lending to a portion of the borrower's total income.

Macroprudential directives aimed at financial institutions cover an even wider range. The most important include limits on the types and amount of debt banks can take on, and the amount of equity capital they must hold in reserve to cover losses. Some macropru policies may also place restrictions on foreign lending or limit specific exposure or asset concentrations.

Many policies specifically focus on so-called Systemically Important Financial Institutions (SIFIs), the largest financial groups, whose failure could spur contagion to other organizations, markets, or individuals. Higher capital charges for SIFIs based on their size, complexity and interconnectivity are key, as are rules on when and how to shut down an insolvent SIFI. The surcharges are "a super important regulation," said one financial industry speaker. "It makes sure that large institutions can die – no more too big to fail. Failure comes at no cost to taxpayers, and makes sure they can still go to the ATM."

Conference participants reiterated that "we're really at the beginning of the macropru process with lots of talk and little action." Many expect wholesale tweaks to come as regulators sort through what works and what

doesn't. And it's likely that new tools will be added, albeit at a cautious pace – as policy experience with existing approaches deepens and the impact of macroprudential tools is better measured.

Testing the Stress Tests

When the US Federal Reserve released the results of its first modern-era stress tests in 2009, more than half of the 19 bank holding companies it reviewed were deemed to have inadequate capital to survive a massive recession. The Fed called on the most egregious to shore up their balance sheets with capital infusions equivalent to budgets of small countries. The largest bank in the nation needed to add a whopping \$33.9 billion.

Over the next six years, US financial institutions infused \$1 trillion worth of liquidity onto their collective balance sheets through major operational shifts and capital raising (including funds borrowed from the government). Internal risk assessments that go hand-in-hand with those of regulators have led banks, as a group, to dial way back on trading and on loans to presumptive risky borrowers, while increasing their concentrations in high-quality liquid assets.

The US is not the only country to take a deep dive into bank capital and liquidity assessments, although many observers consider its approach to be among the most rigorous. Capital requirements vary considerably around the world, with the US currently compelling banks to hold 6 percent of their assets as a cushion – about double the world required backstop. But, according to one speaker, "The US banking community now averages [a capital cushion of] about 12.4 percent, so more than twice the amount of capital required." Put another way, between stepped-up Basel, US, and voluntary internal requirements, "We've really changed the quantum of shock absorbency" in the finance sector, said the speaker.

US stress tests have become increasingly diverse and strenuous as Fed guidelines take into account dire economic consequences both domestic and international. As one regulator said at the conference, "Rather than probable scenarios, we make assumptions on how bank balance sheets would react to severely adverse recession models." The point is not to save a specific bank or limit shareholder losses. Instead, the regulators ask, would the institution have enough capital to stave off contagion catastrophe?

American regulators follow a two-step testing process. The Dodd-Frank Act stress test (DFAST) reflects how capital ratios of individual banks measure up under hypothetical economic conditions, such as 13 percent unemployment or a 50 percent plummet in the stock market or a freefall of housing prices. The Comprehensive Capital Analysis & Review (CCAR) process assumes similar calamitous scenarios, but also looks at the quality of risk-weighted assets and bases results on the bank's own capital action plan that predicts internal actions, such as dividends and share buybacks, nine quarters in advance.

Should an organization fail either the DFAST or CCAR test, the Fed acts on two levels. First, it can ask an institution to shore up capital or submit a new action plan, and it also makes results public. "That publicity alone can have consequences, such as impacting the bank's share price or making it more expensive to borrow money," explained one regulator. Further, the regulators can cap a bank's dividends and buybacks, and even require the organization to raise capital.

Fed officials emphasize that US stress tests have both micro and macroprudential aspects. Each bank sets its own operational and fiscal path. Said one speaker: "We are not trying to do risk management for institutions or determine an organization's risk goals. We provide a check." The speaker also indicated that, although certain regulations set a floor, the process is designed to be cyclical rather than structural and so specific tools may vary over time.

Parameters of March 2015 US stress tests had grown to cover 31 financial firms, including not just the SIFIs, but also smaller banks and large foreign-based institutions. Together, this group holds 80 percent of US domestic banking assets.

Although the latest report raised a few red flags regarding several banks' intended capital plans, all of the institutions passed. That's not to say the banks would come through a downward spiral intact. The Fed estimated the band of 31 would lose close to a half trillion dollars over the nine-quarter planning horizon it considers should a severe recession slam their balance sheets.

Other regulators have also embraced stress testing, including those from Australia, New Zealand, the UK, and the European Union. A number of speakers worried that the EU tests, in particular, have been too lenient and European regulators may be underestimating catastrophic risks.

An increasingly noisy debate involves whether global standards for regulatory stress testing would help. Some critics worry that the lowest denomination factor would reduce risk hurdles worldwide, while others say a one-size-fits-all approach makes no sense for economies as diverse as emerging and developed markets, or in economies where the government plays a bigger role.

In addition, other conference participants noted that stress tests don't get at key risks in global finance. Regulators largely ignore fee-based services, for example. Risk weighting by assets is a tricky maneuver. See "Macroprudential stress tests should not rely on regulatory risk weights" by Viral Acharya, Robert Engle, Diane Pierret, <http://www.voxeu.org/article/making-macroprudential-stress-tests-more-effective>. And regulations don't extend into the shadows occupied by nonbank financial firms.

Regulators continue to grapple with such issues and are continuously evaluating the stress tests to understand which tests and tools are most effective and which side effects they should try to mitigate. Critics point to the time and manpower burden that financial institutions and regulators carry to run scenarios for each institution. "Given the implementation costs," said one banker, "we need to make stress tests more useful for management purposes."

How Effective is Macropru?

The big question, the one that really matters: Do macroprudential policy tools work? Not to be wishy-washy, but the answer: No one knows for sure. Large-scale implementation of the wide variety of policies is too new, and in some cases too untested by adverse scenarios. We haven't yet seen all the side-effects, nor plastered up all the cracks that those meant to be regulated are slipping through.

But regulators, bankers, academics, and other experts attending the recent conference pointed to a number of real-life case studies where central banks and regulatory authorities have implemented, lived with, and tweaked macroprudential policies over the past seven years. See "[Macroprudential Measures for Addressing Housing Sector Risks](#)," by Dong He, Erlend Nier and Heedon Kang. In developed economies, consensus holds that banking has become a much safer industry thanks to the implementation of financial sector regulations. Macropru has a longer history in emerging markets, but results have been a more mixed bag.

Most suggest structural macropru policies – such as applied to the SIFIs – have made the US in particular, and global finance as a whole, less risky. As ripples continue to spread from Fed interest rate hikes and continued enforcement of banking regulations, the financial world will undoubtedly keep a close eye on how American policy continues to function and evolve. Top of the list of questions: How permanent are certain caps and asset requirements? Can – and should – the US extend oversight to less regulated players?

Japan has taken a targeted approach to macropru. See "[Policy Responses to Asset Price Bubbles in Japan and the US: The Myth and the Reality](#)," by Ryozi Himino. The country shied away from broad policy implementation during the financial crisis of the 1990s. While companies repaid loans and bank assets dwindled with the declining stock market, consumers sat on their cash. The government's role "was to spend and borrow," noted a speaker, and Japan required more than a decade, by liberal estimates, to emerge from stagnation.

The country's foray into macroprudential policy largely targeted real estate lending with tools including higher capital requirements for mortgage lenders and a cap debt-service-to-income ratios for home buyers. Japan's success makes the case that carefully designed tools deployed in a targeted, persistent manner can tame real estate financial excesses, at the very least.

Switzerland chose a multipronged macropru approach, fueled by a sharply rising house prices and weakening mortgage standards during an extended period of exceptionally easy monetary policy following the global financial crisis. See "[Macroprudential Policy in Switzerland: The first lessons](#)," by Jean-Pierre Danthine.

The Swiss have enacted five measures since 2012, beginning with bank self-regulation to increase down payments and shorten amortization, followed by tighter regulatory standards for higher risk (high LTV)

mortgages, and an additional countercyclical capital buffer. The Swiss experience suggests that a cooperative, pragmatic approach that includes regulators, the central bank and the banking industry can “get the job done,” said a participant. Since enactment, Swiss mortgage growth rates and real estate price growth have fallen, although they have not reversed.

Emerging markets run the gamut when it comes to macropru. Chile, for example, has largely ignored macropru policies since the 1990s, opting instead for a tightly regulated financial sector shaped by careful monetary and fiscal policies. As a central banker said, Chile “has been prudent about macroprudential policies.” See “[Macroprudential Policies, A View From Chile](#),” by Claudio Raddatz.

Chile did not suffer significantly from 2008 financial crisis, partially due to earlier actions that clearly define what banks can and cannot do, such as restrictions on holding stock, commodities and derivatives. The country's banking law does contain some macropru-like features, such as applying risk weights to assets and setting a maximum loan-to-value ratio on mortgages. Regulators also carry out annual stress tests on individual banks.

On the other extreme is Brazil, which was highlighted as a case study in the misuse of macroprudential tools. In recent years, Brazil has implemented a series of macroprudential tools as a substitute for tightening monetary and/or fiscal policy – with a disastrous outcome. See “[Macroprudential Policies in Emerging Markets](#),” by Paulo Veiuro de Cunha.

Coming out of the financial crisis, Brazil pursued very expansionary policies and recovered quickly. But rather than tightening fiscal and monetary policy thereafter, the government introduced a slew of subsequent macropru measures such as increased reserve requirements on term deposits and taxes on foreign investment and financial operations. At the same time, regulators eased credit standards via increased limits on bank exposure and loan-to-value ratios on car loans. As economic storm clouds continued to gather, Brazil's government scrapped some of its earlier policies, replacing them with yet another round of easier credit and fiscal policy, but tighter macropru measures in 2012.

A researcher at the conference did not mince words: “The outcome of these measures was a recession and deep crisis not seen since the 19th century.” The government's “hyperactivism,” he said, “played a major role in Brazil's destabilization.”

Altogether, conference participants agreed that much more research and many more controlled experiments are needed to definitively answer the question of whether and under what circumstances macroprudential strategies “work.”

Pointing out that, typically, economic booms and busts follow a cycle for which state policies share some credit and blame, one conference participant said: “When implementing macropru policies, governments need a clarity in motives. The tools should be more focused to control risk, not a substitute for monetary policy and microeconomic policy.” Added another speaker: “Governments need to pay attention to the risks of growth.”

Unintended consequences

As the name suggests, adherents of macroprudential policy are a prudent bunch. They don't attribute all the uncertainty of the post-crisis global economy to macropru policies. But some worry that along with making the financial system more resilient, regulators may also trigger unwanted consequences that will change the face of international finance – and not always for the better.

With that in mind, a whole contingent at the conference and elsewhere have suggested that central banks and regulators should go slow when it comes to implementing even temporary macropru policies. Some say the measure should be whether a policy action can stop (or slow) contagion from one bank to the whole system. Efforts to spur the economy or protect consumers and shareholders are not only beyond the scope of regulators, they say, but could also backfire.

To begin with, conference participants warned that global waves of liquidity injected by central banks in recent years have obscured the fact that bank debt-to-equity ratios in some countries, particularly emerging markets, have risen. Skittishness is growing about potential imbalances and adjustments that may have to

happen when the US and other countries begin to normalize monetary policy and withdraw the underlying QE liquidity support.

Meanwhile, controversies swirl, especially around three themes: Could additional regulations, combined with normalization of monetary policy, maim international banks or impair credit formation and global financial intermediation? Might withdrawal from traditional lending activities spur an already apparent migration to the shadow banking sector? Will markets as we know them become ever more volatile or even dry up as banks abandon traditional market making duties?

Both micro- and macroprudential regulations since the crisis have required the SIFIs to hold larger buffers, consistent with the higher risk they pose to the global financial system. But more stringent regulations may cause global banks as we know them to become a rare, if not extinct, species. Higher capital standards and ring-fencing of assets within countries make it more costly and cumbersome for big international financiers to lend across borders. The international complexity of a bank can actually lower its market value, warned one asset manager.

Several conference participants predicted that the world will operate with significantly fewer global banks in the future. Two subsectors seem at particular risk: Emerging market banks have ridden an unsustainable wave of GDP growth fed through easy loans. And, in Europe, asset sales and bank consolidation are likely.

For some emerging market banks, the pullback by global SIFIs has allowed for wholesale expansion in local lending and leverage in recent years. However a weakening global economy could cause significant distress, particularly for those banks that have grown quickly and may have inadequate risk controls.

Higher liquidity ratios and tighter Basel capital requirements are a particular challenge for European banks. "In a period of prolonged QE and higher capital requirements, it will be increasingly hard for European banks to earn anywhere near an adequate return," noted one participant, with many banks shrinking their balance sheets and businesses. Despite significant increases in capital in recent years, many continental European banks remain undercapitalized because of their low capital ratios heading into the crisis.

As financial institutions become more prudent, they have trimmed their debt-to-asset ratios – which is a good thing. But leverage for the world as a whole is higher than ever before. In the worst cases, macroprud policies applied to the SIFIs may simply push excessive credit growth to nonbanks, where leverage may be harder to measure and manage. "We've just shuffled it from one lender to another," warned one participant.

Many of those new lenders are institutions that operate outside the regulated banking sector: aka "shadow banks." By some estimates, half of US lending is now done through entities other than banks, with asset managers, insurance companies, hedge funds, money market accounts, private equity companies, and government-owned entities buying substantial amounts of debt in the secondary markets. Each of these shadow players is held to different regulatory and even reporting standards, making it very difficult to determine where risky lending and particularly leverage resides. A central question: As credit formation shifts to nonbanks, can macroprudential policies be adapted to curtail financial excesses at shadow players?

Then there's the issue of how macroprud policies are changing markets. Just as SIFIs are cutting back on lending to reduce their risk profiles, many are abandoning or altering their traditional roles as traders and market makers. In this scenario, though, not even shadow financial players are filling the counterparty role. "Broker dealers used to have more skin in the game, more reason to step in," lamented one conference participant. "If the time comes, who is the buyer when everyone wants to sell?"

Some argue that the growing scarcity of market makers has greatly added to market volatility, changing not just bank behavior but investor mentality. Since shareholders and especially bondholders can't count on a buyer, they jostle to be first out of the door. "Everyone is long today and planning on being first out through the exits tomorrow," said a speaker.

The SIFIs also are zeroing in on a smaller number of business lines where they feel most comfortable in their business prospects and risk profile, which sets up another kind of systemic peril. "The biggest risk to an economy is concentration," said the speaker. "If one bank holds 10 percent of car loans, for example, we're not too concerned. But what happens if the lender holds 20 percent? At what point do we start to worry?"

Final thoughts

Despite the controversy surrounding macroprudential policies, critics and adherents alike stress one point of agreement: We still have more questions than answers. The examples of successful macroprudential policies call for a careful, pragmatic approach that is likely to involve coordination across both the private and official sectors, and ongoing adjustments and assessment of the effectiveness of policies. And the prospect of misuse of macroprudential tools looms.

In light of the uncertainties, some advise central banks to stick to controlling interest rates and microprudential regulation – foregoing macroprudential policies, asking, is it really central banks' mandate to weigh in on the market allocation of different types of credit? A number of conference participants cautioned against over-regulation, noting that the economy can be hurt by too little risk taking by the financial sector as well as too much. Some noted that policies to generally contain credit excesses, such as limits on haircuts and leverage, have been effective in slowing booms and bubbles without large-scale regulation.

One former central banker in particular advised treading carefully in deploying activist tools meant to derail future risks. "The illusion that we have the ability to predict the future is very dangerous," he said. "Our job should be to explore how the world operates and avoid the risk of hubris."