Macroprudential frameworks, implementation and relationship with other policies

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Emerging market central banks have a long history of using macroprudential instruments. In the aftermath of the Asian crisis, central banks in the region deployed macroprudential tools first to deal with the fallout of crisis and then to prevent vulnerabilities from building up again. Similarly, central banks in Latin America and other regions used macroprudential tools to prevent large swings in external financing from turning into domestic financial booms and busts.

This volume collects the background papers of a meeting of Deputy Governors of central banks from emerging market economies (EMEs), who met in Basel in February 2017 to exchange their experience with designing macroprudential frameworks and implementing macroprudential instruments. The volume includes country notes prepared by participating central banks, as well as the background papers by the BIS.

Goals and objectives

Most central banks carry a heavy responsibility for financial stability, both formally and in the public's mind. But legal objectives are generally vague, do not define success or failure, and say nothing about competing objectives. In some cases, they are missing altogether (Villar, this issue). Unclear mandates raise issues for accountability, These can be particularly severe when it comes to macroprudential frameworks, whose primary objective is to prevent financial stress rather than managing it once it arises.

Clear objectives are important because macroprudential actions are not taken in a vacuum but may have implications for the other objectives of the central bank, most importantly price stability. In Indonesia, financial deepening is a third objective of the central bank, alongside ensuring monetary and financial stability. Financial inclusion also ranks among the multiple goals of the Reserve Bank of India. To make things even more complicated, the Indian government uses state-owned banks to promote financial inclusion. This can lead to tensions with the central bank's goal of ensuring financial stability, even though there haven't been any major conflicts between these different goals so far (see country note).

But even in countries with more narrowly-defined central bank objectives, macroprudential actions are often driven by considerations that go beyond ensuring financial stability. For instance, foreign currency mortgages do not pose a major threat to financial stability in many Central and Eastern European countries, but central banks nevertheless implemented policies to reduce their importance in order to protect borrowers from sharp fluctuations in debt service costs. Similarly, restrictions on auto loans in Singapore cannot be justified purely on financial stability grounds given the small size of the portfolios. Rather, they also reflect consumer protection considerations. At the same time, as one participant warned, mingling financial stability and social policy objectives draws the central bank into government policy realm.

A clear mandate also helps when the central bank bears responsibility for financial stability but does not have control the tools required to do the job. The extent to which this is an issue varies across countries. At the one end of the spectrum, the central banks of Peru and Chile only have monetary policy tools such as reserve requirements (in domestic and foreign currency) under their immediate control, whereas banking supervisors are responsible for prudential instruments such as capital requirements or lending restrictions. This makes some coordination across entities necessary. Different responsibilities can strengthen accountability and help preserve central bank independence. Separation may also increase the diversity of views. At the same time, coordination is made more complex by the fact that the interaction of different tools is not well understood.

Other central banks have more instruments, but these are usually limited to the banking sector. In the Philippines, the central bank is responsible for banking supervision but not for the oversight of other financial institutions. It therefore needs to coordinate with other agencies to ensure that financial stability policies affect the entire financial system. A similar issue arises in Malaysia, where an inter-agency committee has helped to extend macroprudential measures beyond banks.

Coordination issues do not only arise externally but also internally. Economists and financial stability experts do not always speak the same language. Different backgrounds can support better decisions if the same issues are viewed from different angles. But it also makes communication more difficult. One meeting participant described the macroprudential division as a "translator" between the economic and financial stability functions of the central bank. Some central banks, for instance the Central Bank of Brazil, have internal committees to bring all relevant departments together. In Brazil's case, this committee has a dedicated secretariat that acts as a hub for financial stability work.

Implementation

Participants drew several lessons from their experience with implementing macroprudential instruments. First, macroprudential authorities need to act early if they want to address systemic risk effectively. At the same time, diffuse signals and long reporting lags stand in the way of timely intervention. In addition, political considerations could delay or prevent action (see Arslan and Upper, this issue, and note by Poland).

Second, building buffers or shifting the composition of credit is easier than managing the cycle. A study by the Hong Kong Monetary Authority shows that loan-to-value ratios (LTVs) strengthened banks' resilience to property shocks even if they had limited impact on house prices themselves. That said, there is some evidence that macroprudential measures do have an impact on the financial cycle. In Colombia, marginal reserve requirements and dynamic provisioning slowed credit growth, in particularly that of risky loans. In general, the effectiveness of macroprudential tools in affecting the cycle depends on the precise nature of the boom. In Malaysia, rapid house price and credit growth reflected speculation, which tends to be very sensitive to credit conditions. High LTVs proved therefore quite effective in slowing down the financial cycle. In Singapore, the house price boom reflected a mixture of strong underlying demand and speculative activity. Here, credit policies were less effective in constraining the boom than other measures such as higher stamp duties and measures to boost supply.

Third, macroprudential measures tend to be better at constraining booms than at dampening busts. One factor contributing to this asymmetry is that loosening requirements could trigger further instability when the financial system is already vulnerable. To be effective in a bust, buffers need to be fairly large and requirements tight to start with and need to be released well before concerns about financial stability become too large. That said, the issue of symmetry does not arise to the same extent when the objective of macroprudential frameworks is to reduce the riskiness of the loan portfolio.

Fourth, although macroprudential tools could, in principle, be targeted very precisely, circumvention by lenders and borrowers require more broad-based approaches. For example, in Malaysia tighter LTV limits on mortgages by individuals led to more home purchases by firms. The Banka Negara Malaysia responded by introducing tighter LTV caps also on loans to corporations. In several countries, borrowers responded to LTV caps or similar restrictions by borrowing from several banks or from unregulated off-balance sheet subsidiaries of banks. Chinese wealth management products are a particularly notorious example of such circumvention. The People's Bank of China (PBoC) responded to the rise of shadow banking by broadening the definition of credit to cover off-balance sheet lending.

Fifth, macroprudential measures and monetary policy can reinforce each other when used in the same direction. A BIS-coordinated research project by a group of Latin American central banks found that macroprudential measures tend to me more effective in dampening the credit cycle if accompanied by countercyclical monetary policy (see Box 1 in Arslan and Upper, this issue). Macroprudential and monetary measures that go into different directions also raise significant communication challenges.

Sixth, the jury is still out whether macroprudential instruments could be used effectively to address regional disparities within economies. For example, the Bank of Korea has applied different LTVs for Seoul and other parts of Korea, reflecting different house price developments. The PBoC also sets LTVs at the regional level, to reflect the very different situation in the property market across the country. Meanwhile in Hungary, house prices in Budapest have outgrown those in the remainder of the country. The central bank has studied the feasibility of deploying regional tools, for instance regionally differentiated capital requirements or debt limits, but had not implemented them by the time of the meeting.

Dealing with external flows and currency mismatches

EMEs have generally been quite vulnerable to fluctuations in global financial conditions, which often result in large swings in capital flows. One factor behind this is that borrowers in many EMEs have traditionally borrowed heavily in foreign currency, often without the corresponding foreign currency revenues. It is therefore natural that central banks in these economies have used macroprudential instruments to address currency mismatches and the impact of fluctuations in capital flows on the domestic financial system and the wider economy. For example, Bank Indonesia limits foreign currency assets and liabilities of domestic bank, and all external borrowing is subject to central bank approval. Non-banks face minimum hedge and liquidity ratios on their foreign currency debt, and foreign creditors are informed in case of non-compliance.

However, there was some debate about the extent to which currency mismatches call for policy action. In one country, huge losses made by one firm on its foreign currency served as a wake-up call for others and made them start hedging their own exposures. The representative of another central bank conceded that it was important to gather information on foreign currency exposures, not least to avoid multiple borrowing, but was reluctant to go beyond reporting requirements. One participant questioned even the need for reporting requirements, arguing that large positions would be reflected in market prices. Others disagreed, pointing to the opacity of hedging markets and the large impact on prices when many players head to the exit simultaneously.

Several central banks used macroprudential instruments to address problems caused by large fluctuations in international capital flows (Patel, this issue). But the evidence on their effectiveness is mixed. The note by Chile found that instruments such as reserve requirement on foreign deposits, limits to capital outflows or limits or provisioning requirements on banks' currency mismatches have little impact on the size of foreign inflows, although they can affect their composition. In Peru, by contrast, capital requirements on currency mismatches did succeed in curbing the growth of dollar credit. In a way, the de-dollarisation programme of 2013-2016 was even too successful: dollar-denominated credit fell more rapidly than dollar deposits, creating currency mismatches were none had existed before. The central bank reacted by offering hedging instruments against dollar appreciation to curb the fallout of such mismatches.

Communication issues

The lack of a clear benchmark of what constitutes financial stability and of intermediary objectives observed in real time, the large number of potential instruments and the high degree of uncertainty about the transmission process complicate the communication of macroprudential decisions (Patel, this issue). At the same time, these challenges make clear communication even more important to ensure that measures are properly understood and are having the desired effects. A key issue is the effectiveness of central bank warnings about developments that could imperil financial stability. In theory, such warnings might quell destabilising developments at an early stage, rendering any remedial action by the central bank unnecessary. In practice, however, there are not that many examples of warnings without concrete action (or the threat of action) having been effective. Examples abound where a central bank issued warnings about developing vulnerabilities but nobody listened, let alone acted. But there were also examples of warnings being followed by altered behaviour, which reduced risks.

One critical issue is timing. Ideally, warnings come early enough to allow market participants to change their behaviour and reduce vulnerabilities. But in practice such early warnings tend to receive much less attention than warnings about risks that are on everybody's radar screen already. This does not just reflect short-sightedness on part of market participants; as discussed above central banks themselves face large uncertainty about the sustainability and effects of current trends and may therefore choose to wait before issuing any warnings.

International spillovers and coordination

As is the case with monetary policy, the impact of macroprudential actions does not stop at a country's borders. Central banks present at the meeting have mostly been on the receiving side of spillovers. For example, research by the Hong Kong Monetary Authority shows that macroprudential actions in home countries of international banks affect lending in Hong Kong. The note from the Singapore Monetary Authority reports that the increase in foreign demand for Singaporean properties in 2009-2011 at least in part originated from countries that had implemented macroprudential measures to cool their own property markets. Similarly, tighter macroprudential measures in Singapore led to increased demand for overseas properties by Singapore residents.

In principle, international spill-overs should make coordination of macroprudential actions more desirable. At the same time, the complexity of the spillovers make such coordination difficult (see note by Mexico on the scope for coordination). Nonetheless, there have been successful examples for coordination, especially concerning actions addressing risks that were cross-border in nature. For example, Hong Kong, Singapore and Malaysia coordinated the lifting of deposit guarantees put in place during the global financial crisis.