"Take nothing on its looks; take everything on evidence. There's no better rule."
– Charles Dickens, Great Expectations

Macroprudential frameworks: (too) great expectations?

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Introduction

If there is one lesson from the Great Financial Crisis that has been embedded in policy, it is the need to put in place macroprudential frameworks. Following the crisis, the term "macroprudential" went from virtual obscurity – the idiom of a few cognoscenti – to rock-star status almost overnight, with the international community's full endorsement (G20 (2009), FSB-IMF-BIS (2011a)). This was source of some satisfaction at the Bank for International Settlements (BIS), which had been advocating the need for such an approach for years (Clement (2010)).

The lesson is welcome and important. There is no doubt that macroprudential frameworks must be part of the solution to the perennial quest for the so far elusive goal of lasting financial stability. Adopting a more systemic orientation in prudential arrangements is essential.

But intellectual pendulums have a habit of swinging too far. There is a risk of entertaining unrealistic expectations about what macroprudential schemes can do on their own. If these expectations become entrenched in policy, there is even an outside risk that, so far from being part of the solution, macroprudential frameworks could, paradoxically, become part of the problem. Complacency is always not too far around the corner. If the quest for financial stability has proved so elusive, it must be for a reason.

Put differently, macroprudential policy *must* be part of the answer but it *cannot* be the *whole* answer. Other policies also need to play their part, not least monetary and fiscal policy. And making the most of macroprudential frameworks calls for a mix of ambition and humility – ambition to make systematic use of the available tools; humility in recognising their limitations.[2]

This short article develops this basic point by considering various aspects of macroprudential frameworks: objectives, strategy, tools and governance, both nationally and internationally. But before delving into these aspects, it is worth recalling what macroprudential frameworks are about.

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[2] For a further elaboration, see Borio (2011) and, on the contours of macroprudential policy, Caruana (2010a).

The systemic dimension takes centre stage

Macroprudential frameworks have been the response to prudential regulatory and supervisory arrangements too heavily focused on *individual institutions*. By tending to target institutions on a standalone basis, such "microprudential" approaches had two drawbacks. First, they set the same standards *regardless of the impact* of an institution's failure on the financial system. It is as if the same speed limit applied to both trucks and cars. Second, they set the same standards *regardless of the financial system's condition*. It is as if the same speed limit applied irrespective of traffic conditions. In effect, the microprudential approach assumes that the sources of risk – asset prices, credit conditions and the macroeconomy – are independent of what financial institutions collectively do, ie they are what economists call "exogenous".

The macroprudential approach addresses the two drawbacks head-on by focusing on the system as a whole rather than on individual institutions – on the wood rather than the trees (Crockett (2000), Borio (2003)). The approach calibrates standards with respect to both the systemic footprint of individual institutions (the so-called "cross-sectional dimension") and the evolution of system-wide risk (the so-called "time dimension"). In so doing, it also addresses what has come to be known as the "procyclicality" of the financial system – those self-reinforcing processes that amplify financial booms and busts and are at the root of financial crises.

Post-crisis, policy has addressed both dimensions. Basel III illustrates this quite well. Capital surcharges for systemically important banks (SIBs) and the countercyclical capital buffer target, respectively, the cross-sectional and the time dimension (BCBS (2012a,b and 2010a,b)). But Basel III is just the core of a much broader response. Examples range from efforts to put in place orderly resolution schemes for SIBs, or centralise the clearing of derivatives, to the adoption of a whole set of instruments to deal with the build-up of disruptive financial booms, including minimum loan-to-value (LTV) and debt-to-income (DTI) ratios, to name just two.

Addressing the cross-sectional dimension raises thorny issues. For instance, the pace at which central clearing has gained ground has proved disappointing. At the same time, there are legitimate concerns about the risk of concentrating too much risk in central clearing counterparties (CCPs). As a result, a lot of work has been done to develop adequate recovery and resolution procedures for these key players (CPSS (2012)). Likewise, despite all the efforts under way, putting in place adequate resolution procedures for SIBs is still very much work in progress and faces huge challenges.[3] And tricky questions arise about how best to deal with non-bank financial institutions, including the shadow banking system (Caruana (2014)).

Even so, the time dimension is probably more controversial. It is here that macroprudential policy inevitably intersects with macroeconomic policy. The debate about their relationship is in full swing. Given space limitations, therefore, what follows focuses on this dimension.

What objective?

What should be the objective of macroprudential policy in the time dimension? Two possibilities should be distinguished. The first is to increase the resilience of the financial system; the second is to constrain

[3] For a useful narrative of the efforts under way, see FSB (2013).

financial booms. These objectives are sometimes referred to, respectively, as protecting the banks from the financial cycle and protecting the financial cycle from the banks (or taming the financial cycle).

The second objective is much more ambitious than the first. In order to increase the financial system's resilience, it is sufficient to build up adequate buffers in good times for the system to withstand a bust. In effect, all macroprudential tools do precisely that – provided, of course, they are vigorously deployed. By contrast, when it comes to constraining financial booms, the build-up of the buffers should also succeed in reining in the growth of credit and asset prices as well as risk-taking.

My reading of the growing empirical evidence is that the effectiveness of macroprudential measures in achieving this more demanding objective is limited, especially for the typical range of variation in the instruments. To be sure, some tools do work better than others. For instance, DTI ratios and, to a lesser extent perhaps, LTV ratios are comparatively more effective than increases in loan provisions or capital requirements.[4] Indeed, the recent activation of the Basel III countercyclical capital buffer in Switzerland seems to have had little impact on pricing and credit extension. It is no coincidence that the explicit objective of this buffer, as clarified in the Basel III framework, is to increase resilience, not to restrain the boom: restraining the boom is regarded simply as a desirable side benefit if it materialises. The limited effectiveness of the tools should not be that surprising. Similar constraints were extensively tried in the 1970s, albeit under different names (eg hire-purchase restrictions). And the results were not that different.

The main reason is regulatory arbitrage. Money, like water, has a nagging habit of finding the point of least resistance. This suggests that macroprudential policy cannot bear the whole burden – a point to which I return below.

The risk of unrealistic expectations applies not just to the boom, but also to the bust. And here the risk is, if anything, even greater.

A common view is that the objective of macroprudential policy during a bust should be to boost credit growth. This is seen as the mirror image of the objective of restraining it during the boom. It is a small step from here to feeling disappointed when the tool proves unfit for purpose.

This, however, is the wrong objective, for it fails to recognise the fundamental asymmetry between booms and busts. The right and more realistic objective is to prevent *unnecessary* constraints on the supply of credit. The legacy of the boom is too much debt. This debt overhang has to be reabsorbed if the basis for a lasting, self-sustained and sound recovery is to be established. In the meantime, the demand for credit is necessarily weak: people want to pay back what they borrowed on the basis of overly optimistic expectations about the future. There is, in fact, growing evidence for this effect, which is also why post-bust recoveries are credit-less.[5] To expect credit to grow strongly during the bust is both unrealistic and counterproductive.

How can one remove unnecessary constraints on credit supply? One precondition is to ensure that buffers are high enough to start with, so that markets do not become the limiting factor, at least for long. This is not easy, since markets become very demanding as financial strains emerge. In addition, it is worth thinking of ways to maximise the size of the buffer once the bust occurs. One option is to more actively use restrictions on dividend payments. If the restrictions are applied to the sector as a whole, rather than to specific institutions, the risk of unwelcome procyclical effects would be mitigated, as this

[4] For some recent cross-country empirical evidence, see Lim et al (2011), Claessens et al (2013) and Kuttner and Shim (2013).

[5] On the importance of deleveraging following crises and credit-less recoveries, see Bech et al (2013), Takáts and Upper (2012) and Calvo et al (2006).

would eliminate any stigma (the so-called "signalling effect"). No stigma can apply if everyone is in the same boat and the decision is taken by supervisors, not banks themselves.

What tools and strategy?

This analysis also has implications for the range of tools and their deployment strategy.

It suggests that a few well targeted tools may be superior to a vast array.[6] The risk of a vast array is that policymakers may soon find themselves extending the range of measures and inadvertently drift into credit allocation. And the temptation to resort to capital controls to underpin macroprudential instruments could at some point become quite strong, even where a more vigorous use of standard macroprudential tools could be superior. This puts a premium on well-designed governance arrangements: the authorities need to have control over the proper set of instruments and be mandated to use them to limit systemic risk rather than to pursue more ambitious goals. For instance, it is not surprising that, in countries where macroprudential frameworks are not yet in place, some central banks have relied on monetary tools as an alternative (eg reserve requirements). Nor is it surprising that reliance on a broad set of tools, including capital controls, has gone hand in hand with the pursuit of more ambitious goals, such as managing the business cycle, for which macroprudential frameworks were not originally intended.

The analysis also suggests that, to the extent that they are feasible, rule-based arrangements can help. They can limit the risk of regulatory drift. And, when the party gets going, they can stiffen policymakers' resolve to take the famous punchbowl away. Very much as in fiscal policy, automatic stabilisers are especially useful. For instance, very conservative LTVs or DTIs or even leverage ratios can limit the need for discretionary action, varying the calibration of the tools with economic conditions.[7] To be sure, there are clear limits to how effective automatic stabilisers can be, especially since financial imbalances come in various shapes and sizes. Even so, if arrangements across the world are considered, the impression is that the balance between rules and discretion is probably too heavily tilted towards discretion.

The increasing popularity of macro stress tests illustrates some of these potential risks. As discussed in detail elsewhere (Borio et al (2012)), such tests can be very useful tools for crisis management and resolution, helping to repair balance sheets once a crisis has erupted. They are also extremely helpful in bridging the hugely different perspectives of macroeconomists, prudential supervisors, risk managers and bank managements, thereby fostering a badly needed common culture. But, as early warning devices to identify vulnerabilities in tranquil times, they have so far proved woefully deficient. Their effectiveness is undermined by limitations of the modelling technology, not least the ability to capture sudden changes in behaviour, and by the context, not least the "this-time-is-different" syndrome. No macro stress test, in fact, identified the serious vulnerabilities that ushered in the financial crisis. While improvements have been made, there is a risk of putting too much faith in the tool's remedial properties.

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[6] For a discussion of possible tools, see, for instance, CGFS (2012).

[7] Another possibility is to rely more on simple and transparent indicators that have proved reliable in the past, such as the credit-to-GDP gap, used as reference guide for the countercyclical capital buffer. For a discussion of a range of candidate indicators and the role of this variable in particular, see Drehmann et al (2011) and Drehmann and Tsatsaronis (2014).

What governance?

Everyone would agree that good governance calls for a seamless alignment of instruments with the know-how and willingness to use them based on clear mandates. Efforts to put fully fledged macroprudential frameworks in place have sought to do precisely that, guided in part by the work of international organisations under the G20's aegis (FSB-IMF-BIS (2011a,b)).

Three governance issues merit special attention: the extent of insulation from political cycles, the tension between microprudential and macroprudential perspectives, and international coordination.

A degree of insulation from political cycles is even more important in macroprudential than in monetary policy. As noted, the essence of good macroprudential policy is to take the punchbowl away just as the party gets going. And this is even harder than in the case of monetary policy. The lag between measures and outcomes is longer: as extensively documented, the financial cycle, which is relevant for financial stability, is much longer than the business cycle, which is seen as relevant for inflation (Drehmann et al (2012)).[8] While some well-established constituencies are ranged against inflation, hardly any exist to combat the dizzying but illusory feeling of getting richer during a boom. And some of the policy instruments have more obvious distributional consequences, which strengthens political economy resistance to their activation. All this heightens the risk of an inaction bias. To be sure, this risk is necessarily country-specific, varying with intellectual and institutional traditions. But it can be increased by a prominent involvement of the Treasury in decision-making. Looking across countries, however, Treasures often have a leading role in the setting of macroprudential measures.

Tensions may also arise, and have already arisen, between the macroprudential and microprudential perspectives. Authorities in charge of the safety and soundness of individual institutions may at times find it harder to draw the link between macroeconomic developments and the fortunes of institutions: for historical reasons and given the importance of operational responsibilities, legal and accounting backgrounds dominate. Therefore, the authorities may naturally put less weight on the dangers of financial booms as long as financial institutions appear well capitalised. This, too, can heighten the risk of an inaction bias. For instance, in Switzerland, the supervisory authority (FINMA) openly opposed the central bank's proposal to activate the countercyclical buffer. And similar differences of view have emerged in Sweden. This suggests that assigning a core role to central banks should be a priority.

The need for international coordination in the governance of instruments has not received the attention it deserves. A lack of coordination can make arrangements especially vulnerable to cross-border arbitrage. In fact, one of the most underestimated achievements of Basel III's countercyclical capital buffer is that it addresses this question head-on (Borio et al (2011)). The relevant exposure measure is a weighted average of an institution's exposure to different jurisdictions. And specific reciprocity clauses tackle the inaction bias. It is the host authority that activates the buffer with respect to the exposure to its jurisdiction while the home authority can always do more but never less. This is particularly helpful whenever the exposures are large and hence systemic with respect to the host country but small and hence of little significance in relation to the lending institution's portfolio – a common state of affairs given the size of internationally active banks. Such reciprocity clauses could be a model for a broader set of macroprudential tools. Disappointingly, however, so far an extension of their scope has not been on the policy agenda.

[8] On this, see also Aikman et al (2010) and Claessens et al (2011).

Conclusion

Macroprudential frameworks are a very welcome response to the Great Financial Crisis: a stronger systemic orientation is essential to help secure financial stability. They are, however, very much still work in progress. There is scope for improving the range of tools available, the balance between rules and discretion, and governance arrangements, both nationally and internationally.

The key to success is to blend ambition with humility – ambition to put in place frameworks that are capable of constraining financial booms and to use the tools vigorously; humility to recognise the limitations in what the frameworks can achieve on their own. The experience so far indicates that it would be imprudent to rely exclusively on these frameworks, or even prudential regulation and supervision more generally, when seeking to tame the financial booms and busts that have caused such huge economic costs. Financial cycles are simply too powerful. As discussed in more detail elsewhere, other policies, not least monetary and fiscal, should also play a role.[9] Macroprudential frameworks must be part of the answer, but they cannot be the whole answer.

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[9] See, for instance, BIS (2014), Borio (2014) and Caruana (2010b).

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