



## Macroprudential policy: opportunities and challenges

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### Introduction

Good morning, ladies and gentlemen. It is a great pleasure to join you here at the Tenth High-Level Meeting for the Middle East and North Africa Region. I would like to thank the Arab Monetary Fund for being our most gracious host and for co-organising this event with the Basel Committee on Banking Supervision and the Financial Stability Institute.

Our collaboration with the Arab Monetary Fund and its members is, in fact, longer-standing than the 10th anniversary of this High-Level Meeting would suggest. Indeed, back in 2000, the Financial Stability Institute was already in contact with the Arab Monetary Fund to organise seminars for this region on Basel-related issues. I am very pleased to see that this fruitful collaboration has continued.

In my remarks this morning, I would like to share with you some thoughts on macroprudential policy. I will start with a few words about the post-crisis framework for financial stability, of which macroprudential policy is one component. I shall then highlight some of the challenges we face in implementing that policy – including the risk of expecting too much. I shall close by drawing your attention to some new sources of potential vulnerability that arise from the changing pattern of credit intermediation. These are risks that may soon require our attention, even if they could be difficult to address with existing prudential instruments.

### A new framework for financial stability

In the pre-crisis decades, the monetary policy framework was broadly converging towards one target, namely inflation, and one instrument, the short-term interest rate. This reflected the notion that keeping inflation under control was generally equivalent to maximising welfare, if price rigidities were the only distortion in an otherwise smoothly functioning economy with efficient financial markets. In those days, financial stability was seen as a separate discipline from monetary stability. The aim of microprudential policy was to reduce the risk that individual institutions would fail, without explicit regard for their impact on the system as a whole or on the overall economy.

Post-crisis, it is clear that price stability cannot be pursued in isolation from financial stability – indeed, these public goods are two sides of the same coin. It is also clear that financial stability has a macroprudential or systemic dimension that cannot be ignored. If the financial system is looked at merely as the sum of its parts, it is easy to overlook the system's historical tendency to swing from boom

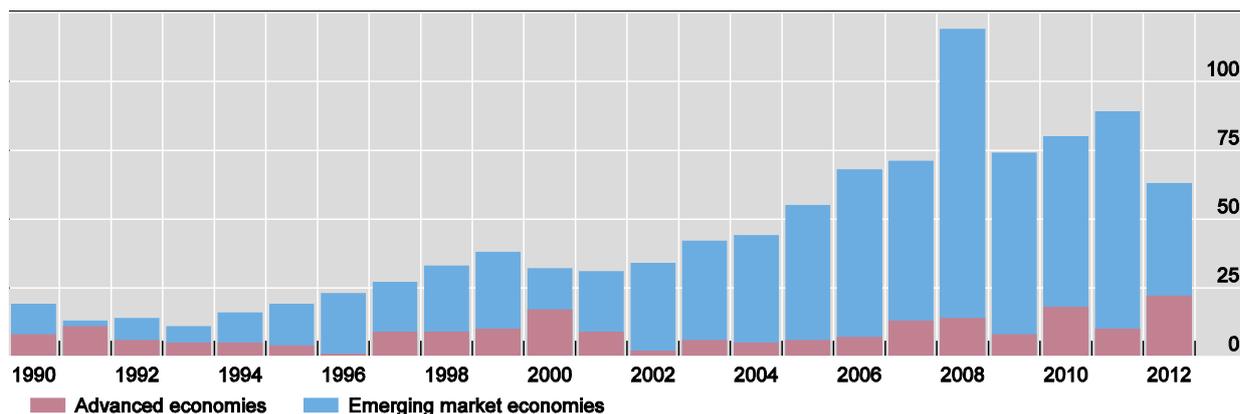


to bust. Interestingly, it was in the more advanced economies that the macroprudential dimension was most neglected in the run-up to the crisis. Emerging market economies have generally been more aware of the need to think about the financial system as a whole, and policymakers there have shown greater willingness to take action against a build-up of imbalances and risks. And their use of macroprudential tools has further intensified following the financial crisis (Graph 1).

### Use of macroprudential measures over time<sup>1</sup>

Number of macroprudential policy actions

Graph 1



<sup>1</sup> The sample covers 1,034 macroprudential policy actions adopted in 64 countries (29 advanced and 35 emerging market economies). The database has been constructed using information in K Kuttner and I Shim, "Can non-interest rate policies stabilise housing markets? Evidence from a panel of 57 economies", *BIS Working Paper Series*, no 433, November 2013; and C Lim, I Krznar, F Lipinsky, A Otani, and X Wu, "The macroprudential framework: policy responsiveness and institutional arrangements", *IMF Working Paper*, no 166, 2013.

Sources: IMF; BIS.

## Macroprudential tools are only part of the answer

No doubt the crisis has taught us that a systemic perspective is essential. But some policymakers and commentators may now be expecting too much from macroprudential policies as tools for controlling financial system risk or even for managing macroeconomic conditions.<sup>1</sup> My view is that while we should welcome the adoption of new policy tools, we should also remain pragmatic and modest in our expectations. We cannot rely only on prudential policies to achieve financial stability; other policies, not least monetary and fiscal, also play a role. Indeed, all policies can benefit from taking a systemic view.

For example, a monetary policy focusing only on near-term price stability runs the risk of overlooking developments that are relevant to financial stability over a longer horizon. Asset prices and credit cycles are not exogenous – they are inherently influenced by the monetary policy stance. Accordingly, a more systemic way of thinking about monetary policy would take into account financial stability effects over the medium to long term.<sup>2</sup> In particular, monetary policy decisions should be more symmetrical over the financial and business cycle. Cleaning up after the bust is not enough: monetary policy also needs to lean against the build-up of financial imbalances during the boom; moreover,

<sup>1</sup> C Borio, "Macroprudential frameworks: (too) great expectations?", contribution to the 25th anniversary of *Central Banking Journal*, 5 August 2014.

<sup>2</sup> L Gambacorta and F Signoretti, "Should monetary policy lean against the wind? An analysis based on a DSGE model with banking", *Journal of Economic Dynamics and Control*, vol 43, 2014, pp 146–74.



easing should be less aggressive and persistent during the bust.<sup>3</sup> True, there could be some short-run tensions between the price stability and the financial stability objectives. In the long run, though, these two goals are likely to be compatible. Maintaining financial stability keeps the financial system functioning smoothly, which is conducive to durable price stability.

Fiscal policy also has a role to play in a financial stability framework. One role is to let fiscal automatic stabilisers play their part in difficult times, provided that the fiscal position will permit. Another role is that of an insurer or backstop in the event of a crisis. To perform this role, the fiscal authority needs to create some room for manoeuvre in good times – this requirement takes on additional significance when one considers how rapid credit growth and high asset prices tend to flatter the fiscal accounts in good times. Fiscal policy may be well advised to err on the side of caution and build up reserves that may be called upon in bad times.

Tax policy may be the best way to address sectoral developments with potential financial stability implications. One way to ensure that the tax code works for, rather than against, financial stability would be to trim or even eliminate the tax bias in favour of debt over equity. The global financial crisis has demonstrated the distorting effects that this bias can have on asset prices and leverage, most notably in housing markets.

## Challenges

### How policies interact is still not well understood

Taking a macroprudential or systemic approach to financial stability raises a fresh set of challenges. While we now have a sense that all the policies involved need to pull their weight, the truth is that our understanding of how they might interact is still limited.

For example, it is likely, though not undisputed, that the search for yield in a low interest rate environment can contribute to the build-up of financial imbalances. This so-called risk-taking channel of monetary policy<sup>4</sup> could be particularly relevant when economic agents anticipate that the low rate environment will persist or that monetary policy will be eased in the case of market turmoil – a kind of central banker's put, if you will.

But macroprudential measures could also influence the transmission of monetary policy. For example, changes in loan-to-value or debt-to-income ratios could alter the supply of lending and, therefore, affect consumption decisions. Moreover, by changing credit conditions, macroprudential policies could also influence the relevant real interest rate, indirectly modifying the monetary policy stance, even in the absence of any direct policy rate changes. Now that macroprudential instruments are being more widely used, it is necessary to accumulate practical experience and analyse their interaction with monetary policy instruments.

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<sup>3</sup> C Borio and P Lowe, "Securing sustainable price stability: should credit come back from the wilderness?", *BIS Working Paper*, no 157, 2014.

<sup>4</sup> C Borio and H Zhu, "Capital regulation, risk-taking and monetary policy: A missing link in the transmission mechanism?", *Journal of Financial Stability*, vol 8, no 4, 2014, pp 236–51; Y Altunbas, L Gambacorta and D Marques-Ibanez, "Does monetary policy affect bank risk?", *International Journal of Central Banking*, vol 10, no 1, 2014, pp 95–135.



The interactions between macroprudential and fiscal policies also need to be better understood. For example, as mentioned earlier, a financial boom can cover up the underlying weakness of public finances and flatter the sovereign debt profile. To the extent that macroprudential policy restrains the financial cycle, it can strengthen fiscal policy. To take another example, some fiscal tools (such as housing-related taxes or subsidies or the tax relief on mortgage interest payments) can work in similar ways on the housing market as certain macroprudential tools (eg loan-to-value or debt-to-income ratios as applied to housing finance). In these cases, the line between fiscal and macroprudential policy is blurred – and macroprudential policy may actually be only the second-best approach.

In view of these interactions with other policies, and possibly between several responsible authorities, macroprudential policy is necessarily somewhat more complex in its implementation. Coordination and ex ante clarity about roles, responsibilities and powers among the relevant authorities will be key to ensure that decision-making is timely and effective.<sup>5</sup>

### How effective are macroprudential policies?

Gauging the effectiveness of macroprudential policies is another big challenge, especially when more than one tool is deployed. Effectiveness should be analysed with respect to the specific goal that the policy is designed to achieve – that is, to increase financial system resilience or, more ambitiously, to tame the financial boom and bust cycle.

For instance, recent evidence suggests that debt-to-income ratios and, probably to a lesser extent, loan-to-value ratios seem to be more effective than capital requirements as tools for containing credit growth.<sup>6</sup> Indeed, Switzerland's recent activation of the Basel III countercyclical capital buffer has been effective from the viewpoint of building resilience, but it seems to have had little impact on pricing and credit extension.<sup>7</sup> As clarified by the Basel III framework, the main objective of this buffer is to increase the banking system's resilience. To restrain a boom, however, is a more elusive goal, and requires a mix of policies. This means that while we should welcome the use of macroprudential policies, we also need to remain realistic about what they can and cannot do. Some instruments may work well when used to increase financial system resilience, a limited objective, but less so when used with the broader aim of constraining the cycle.

In general, macroprudential policies are more effective when they push in the same direction as other policies.<sup>8</sup> To be sure, there are situations in which macroprudential tools pull in the opposite direction – for instance, when monetary policy remains persistently easy but macroprudential policy is tightened in order to restrain credit growth. But in such cases, the effectiveness of macroprudential policies in taming the financial cycle and curbing excessive risk-taking is likely to be weak.

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<sup>5</sup> J Caruana, "The challenge of taking macroprudential decisions: who will press the button(s)?", speech, 13th Annual International Banking Conference, Chicago, 24 September 2010.

<sup>6</sup> S Claessens, S Ghosh and R Mihet, "Macro-prudential policies to mitigate financial system vulnerabilities", *Journal of International Money and Finance*, vol 39, 2013, pp 153–85.

<sup>7</sup> C Basten and C Koch, "Higher bank capital requirements and mortgage pricing: Evidence from the countercyclical capital buffer", Bank for International Settlements, mimeo, 2014.

<sup>8</sup> V Bruno, I Shim and H S Shin, "Comparative assessment of macroprudential policies", paper presented at the BIS-Reserve Bank of New Zealand conference on "Cross-border financial linkages", Wellington, 22–24 October 2014.



## One size does not fit all

Yet another set of challenges pertains to the varied nature of macroprudential objectives and instruments. There is no one-size-fits-all approach. Which tools to use, how to calibrate them, and when to deploy them will all depend on how the authorities view the vulnerabilities involved, and how confident they are in their analysis. The legal and institutional setup will also be relevant.

As already discussed, a given instrument's effects depend on a variety of factors, which have to be assessed against the chosen objective. Some tools may have a broader reach than others. For instance, countercyclical capital buffers aim to build cushions against banks' total credit exposures, whereas loan-to-value ratio caps only affect new borrowers (and usually only those that are highly leveraged). This argues in favour of capital buffers if the objective is to improve overall resilience. But loan-to-value ratios may work better if the aim is to curb specific types of credit extension.

In principle, rule-based arrangements may be preferable to discretionary decision-making for reasons of transparency, communication and commitment.<sup>9</sup> However, in practice, assessments of systemic vulnerability are complex and fraught with uncertainty. Therefore, rules-based arrangements are feasible only in specific cases where the relevant vulnerability indicators are sufficiently well tested and reliable.<sup>10</sup> But, more often than not, macroprudential policies will require a significant degree of judgment. This means that tough and often politically difficult decisions may need to be taken even if the signal from some indicators is ambiguous. In particular, if the aim is to prevent rather than to cure, the macroprudential authority cannot afford to err on the side of optimism. Nor will it have the luxury of waiting for irrefutable evidence; timely decisions will have to be taken under conditions of significant uncertainty.

## New sources of vulnerability coming from the markets

We need to be alert to the continuous changes in financial markets and the emergence of new risks. Most of the experience with macroprudential tools to date has come from banking. There is relatively little knowledge as to what policy measures could be taken to address the build-up of financial excesses that originate from outside the banking system.

A relevant consideration here is the way in which credit intermediation is moving away from the banking sector to the debt securities market. This shift is happening against the backdrop of a significant rise in global debt since the beginning of the crisis. Globally, debt as a share of GDP – adding together households, non-financial corporates, and governments – rose from 216% of GDP at end-2007 to 238% of GDP at end-2013 – a rise of more than 20 percentage points. The shift is especially pronounced for emerging market corporate borrowers, where international bond issuance has gained a lot of ground post-crisis (Graph 2). This is a positive development insofar as it reflects financial market deepening and a diversification in the sources of finance. That said, this is a relatively new and fast-moving development. We are still learning what this might mean in financial stability terms. It raises an important question: Is a market-driven boom more or less risky than a bank-driven boom? I will not venture a

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<sup>9</sup> Committee on the Global Financial System, "Operationalising the selection and application of macroprudential instruments", *CGFS Papers*, no 48, December 2012.

<sup>10</sup> M Drehmann, C Borio and K Tsatsaronis, "Anchoring countercyclical capital buffers: the role of credit aggregates", *International Journal of Central Banking*, vol 7, no 4, 2011, pp 189–240.

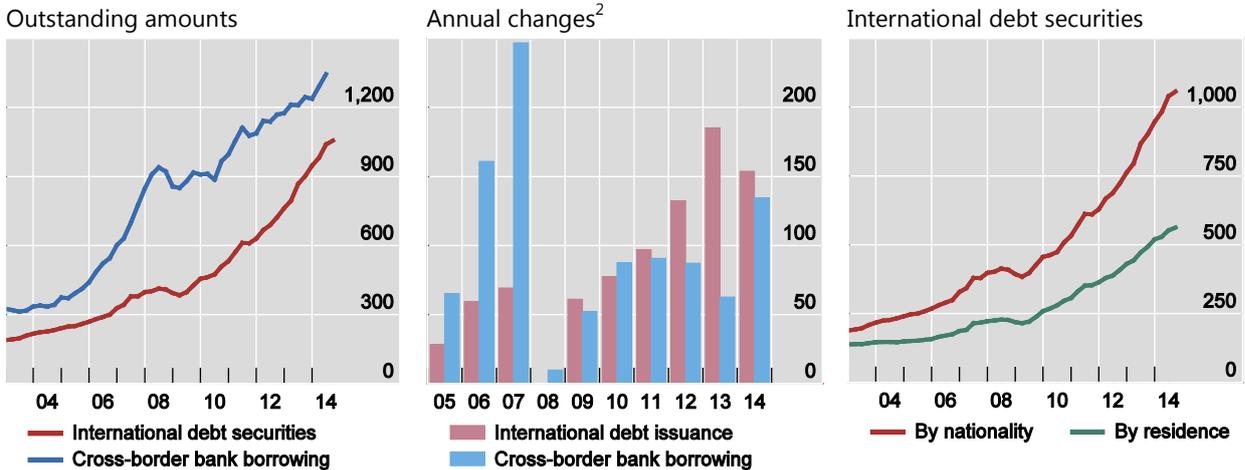


complete answer here; instead, let me draw your attention to three particular aspects that I believe need to be better understood.

### EME private cross-border bank borrowing and international debt issuance<sup>1</sup>

In billions of US dollars

Graph 2



<sup>1</sup> Private non-bank sector. Cross-border bank borrowing (by residence) also includes claims on the household sector and claims on portfolio debt investment (implying a degree of double-counting), while international debt issuance (by nationality) includes securities issued by non-bank financials and non-financial corporations; and these securities could be denominated in local or foreign currency. <sup>2</sup> Based on end-of-year data; for 2014, based on data up to Q3 for international debt issuance and up to Q2 for cross-border bank borrowing.

Source: BIS consolidated banking statistics and international debt securities statistics.

First, we need to understand market liquidity better. If markets threaten to dry up, bondholders rush for the exits or try to hedge their risks in one market by shorting a related, more liquid one. The resulting fire sales and contagion may be amplified by instruments that offer investors the illusion of liquidity – which vanishes just when it is most needed. So we need to analyse and understand the potential for runs on markets in the same way that we study runs on banks.

Second, we need to understand the business models and incentives faced by institutional investors, including asset managers. Such investors are traditionally less leveraged entities. Yet the incentives and industry practices driving these investors can sometimes result in a leverage-like amplification of market dynamics. For example, the aversion to relative underperformance can exacerbate buying and selling pressure. Or benchmark-hugging can lead to the concentration of exposures, higher correlations and herd behaviour – because it is always better to be collectively wrong than wrong on your own.

Finally, we need to understand how rollover and duration risk is distributed between borrowers and institutional investors, and what that implies. We see that emerging market corporate borrowers are issuing international debt securities at increasingly long maturities (Graph 3). For borrowers, longer-dated bonds mitigate rollover risk, but at the expense of greater price sensitivity to yield changes –



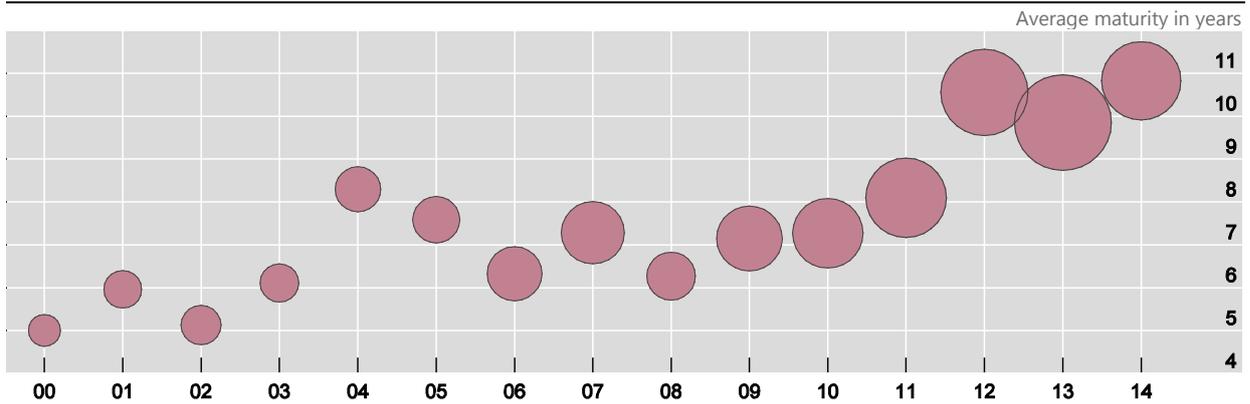
spelling greater duration risk for lenders. As investor reactions tend to amplify market disruptions, longer maturities may herald a new type of vulnerability.<sup>11</sup>

Given the linkages between banks, non-banks and the capital markets, prudential authorities and bank risk managers should have a common interest in monitoring these risks and seeking a better understanding of their implications.

Annual gross issuance and weighted average maturity of EME non-bank international debt securities<sup>1</sup>

Residence basis

Graph 3



Sum of non-financial corporations and non-bank financial corporations. The size of the bubbles reflects the relative volume of gross issuance in each year. Data for 2014 as of end-September.

Source: BIS international debt securities database.

## Conclusions

Let me conclude. We have a unique opportunity at present to build a macroprudential perspective into the policy framework for financial stability. But this also confronts us with new challenges. The conduct of macroprudential policy requires a better understanding of how the various instruments will work, and also of how they may interact with monetary and fiscal policy. Macroprudential policy cannot deliver financial stability on its own.

We do need to learn the lessons of the crisis – yet, at the same time, we should take care not to end up fighting the last war. The pattern of credit intermediation has been shifting, giving rise to new sources of potential vulnerability. As we – regulators, supervisors and market participants – press on with implementing the regulatory reforms for banks, we should also remember to keep an eye on how risks have been mutating and migrating across the broader system – our highly interconnected financial system.

Thank you for your kind attention.

<sup>11</sup> H S Shin, "The changing face of financial intermediation and lessons for central banks", speech, Bank of France Annual Conference, 7 November 2014.