VII. Macroprudential policy and addressing procyclicality

We must use the opportunity to establish macroprudential frameworks ...

Macroprudential policy frameworks are critical to putting the financial system on a more stable foundation. The financial crisis has accelerated efforts to develop them.[1] And authorities are acquiring greater experience with using prudential instruments for system-wide goals. The opportunity to establish credible macroprudential frameworks firmly must not be squandered.

The broad goal of macroprudential policy is to limit systemic risk – the risk of financial system disruptions that can destabilise the macroeconomy.[2] To implement macroprudential policy, instruments typically used in the prudential regulation and supervision of individual financial institutions are adapted to limit risk in the financial system as a whole (see box).

... to address the risk of joint failures from linkages and common exposures ...

Macroprudential policy limits systemic risk by addressing the two key externalities of the financial system. The first is joint failures of institutions because of interlinkages and common exposures among them. Chapter I discusses a range of initiatives under way to reduce vulnerabilities arising from these sources.

... and the vulnerability of the financial system to procyclicality

The second externality is procyclicality. Procyclicality is the phenomenon of amplifying feedbacks within the financial system and between the financial system and the macroeconomy. As we have seen recently, procyclicality can promote the emergence of unsustainable booms. As boom turns to bust, procyclicality can magnify the disruption and cause a deep economic recession.

Addressing procyclicality and countercyclical macroeconomic policy are related

Addressing procyclicality is closely linked to traditional countercyclical macroeconomic policy. And likewise, the development of an effective framework to address procyclicality raises some questions that are familiar from the development of fiscal and monetary policy. For example, how should the objective be defined? What is the right balance between instruments that vary countercyclically and static measures that act as automatic stabilisers? How much room should be allowed for discretion as opposed to rules? Who should decide on the instrument settings? And what should be the relationship with macroeconomic policies, especially monetary policy? In this chapter, these questions will be examined as we describe the essential elements of a macroprudential framework to address procyclicality. Before proceeding, however, we emphasise three broad points.

[1] See, for example, Group of Twenty, *Enhancing sound regulation and strengthening transparency*, March 2009; and M Brunnermeier, A Crockett, C Goodhart, A Persaud and H S Shin, "The fundamental principles of financial regulation", *Geneva Reports on the World Economy*, 11, July 2009.

[2] For an elaboration, see J Caruana, *Systemic risk: how to deal with it?*, paper, BIS, 12 February 2010, www.bis.org/publ/othp08.htm.

What is a macroprudential instrument?

The term "macroprudential" has become so popular since the crisis that its use has spread to many policy measures whose primary goals lie beyond the specific realm of financial stability.[1] Such indiscriminate extension risks impeding and obscuring policy development, and thus undermining public support for macroprudential policy.

Many policy functions – including monetary, fiscal and exchange rate policy – can, and often do, promote financial stability in one way or another. But only instruments operated with the explicit primary objective of promoting the stability of the financial system as a whole, and which have the most direct and reliable impact on financial stability, should be thought of as macroprudential.

Those tools are prudential tools. Macroprudential policy essentially broadens the perspective of traditional prudential policy, whose tools promote sound practices and limit risk-taking at the level of individual financial institutions and instruments. The definition of a macroprudential instrument certainly has grey areas, and the suitability of tools can change as the structure of the economy and financial system changes. For example, reserve requirements are seeing increasing use in emerging market economies for financial stability purposes, and could be seen as macroprudential to the extent that they limit liquidity risk.

Conceiving of the core set of macroprudential instruments as overlays to existing prudential instrument settings, or as adjustments to those settings, has the practical advantage of clearly distinguishing macroprudential measures from microprudential settings of the instruments. Implementation in the form of overlays highlights the independence of the macroprudential function and the difference between the macroprudential and the microprudential perspectives. It clarifies the focus of macroprudential policy, which is to target the stability of the financial system as a whole, rather than that of individual institutions within it. Moreover, this rigorous definition of macroprudential instruments helps keep governance arrangements simple and thus more likely to promote accountability and clear policy.

[1] For more extensive discussion of the use of the term, see P Clement, "The term 'macroprudential': origins and evolution", *BIS Quarterly Review*, March 2010, pp 59–67.

The macroprudential objective should be realistic

First, the macroprudential objective should not promise more than policymakers can deliver. In particular, the objective should not be defined in terms of managing the economic cycle. An objective of eliminating credit cycles or targeting asset prices would also reach too far. Rather, the most realistic objective is to strengthen the resilience of the financial system to the emergence of financial strains. This objective is achievable through the well timed, countercyclical building-up and releasing of capital and other buffers in the financial system. Such an approach should also help restrain excessive credit growth and unsustainable asset price dynamics.

Instruments should be set as much as possible using simple rules

Second, the instruments used to promote resilience should be set as much as possible using simple rules and guidelines, such as constraints on extreme risk-taking and links to clear indicators of systemic risk. Such an emphasis on simple rules will help policymakers manage the public's typically strong resistance to countercyclical actions during a boom. Closely tying instrument settings to risk indicators that are not well understood and whose reliability is not well established should be avoided.

Central banks need to be closely involved ...

Third, central banks will need to be closely involved in the development and implementation of macroprudential policy. That imperative reflects both the deep experience of central banks in system-wide analysis and intervention and the close, two-way relationship between addressing procyclicality and conducting monetary policy.

Several caveats are important. There is no silver bullet that will eliminate financial system instability. Frameworks will need to reflect country-specific circumstances. Improving financial system resilience will not prevent economic recessions. And finally, monetary policy should be an essential partner in promoting financial stability. In particular, monetary policy must lean more against the build-up of financial system risks. It can do that while retaining its focus on price stability by lengthening its effective policy targeting horizon.

... and monetary policy must lean more against the build-up of financial system risks

Essential elements of a macroprudential framework

The essential elements of a macroprudential framework consist of: a clearly defined and realistic objective; an operating strategy; choices about sectoral specificity; governance arrangements; sensitivity to economy-specific circumstances; and international coordination.

A clearly defined and realistic objective

Increasing the resilience of the system is an achievable macroprudential objective

The objective for macroprudential policy must aim for a clear but achievable reduction in systemic risk. Given the current state of our knowledge, stability can be most reliably achieved by emphasising strengthening of the resilience of the system through countercyclical management of the system's buffers against shocks.[3] The objective could include mitigating the build-up of excesses in credit growth and asset prices, but we should recognise that that is much more elusive. It would strain our current knowledge and probably require measures that are less well tested. The objective should not go so far as to aim explicitly at eliminating credit booms and unsustainable asset price increases.

In contrast, the use of prudential instruments to manage buffers countercyclically is not new. The most effective method for increasing the strength of the system is to ensure that adequate buffers are available and released during downturns. That would reduce the risk of fire sales and credit crunches in the downturn, and might also moderate financial ebbs and flows by restraining risk-taking during the boom.

A broad range of tools is available

Many instruments have been applied in such a manner and others are under development. Some measures aim to reduce short-termism and other procyclical features of decision-making in financial institutions. Their imposition need not depend on prevailing financial and economic conditions (Table VII.1).

Other instruments constrain balance sheet structure (eg capital, liquidity or provisioning standards), characteristics of lending contracts (eg maximum loan-to-value ratios) or other types of risk exposure (eg limits on currency mismatches) directly. They can be set once and for all, or varied according to changing assessments of systemic risk (Tables VII.2 and VII.3).

The most efficient way to create countercyclical buffers is to build them up during booms. Although still at an early stage and generally not done in the

[3] See BIS, *Addressing financial system procyclicality: a possible framework*, Note for the Financial Stability Forum Working Group on Market and Institutional Resilience, September 2008.

Measures to reduce procyclicality caused by decision processes	
Objective	Intervention
Improve risk measurement by banks	Require the use of through-the-cycle or conservative inputs to risk models
Raise awareness of systemic risk	Regularly publish official assessments of vulnerabilities
Reduce procyclicality in financial reporting	Require through-the-cycle valuations
Enhance market discipline	Require disclosure of risk positions, including uncertainties in measuring them
Reduce compensation incentives to take excessive risk	Require longer horizons for risk-adjusted employee performance measurement; back-load bonuses

Table VII.1

context of an explicit macroprudential objective, such an approach has been used more extensively since the crisis, and further proposals are under review.[4] The Basel Committee on Banking Supervision, for example, is using this approach in its recommendations for the reform of banking regulation and supervision.[5]

Tools used thus far seem to have been effective in enhancing resilience ...

Recent evidence suggests that the use of traditional prudential instruments for macroprudential purposes does help to enhance financial system resilience.[6] In particular, the fairly widespread use of such measures in Asian economies to strengthen banks in the region over the past decade or so might help explain why those banks were less affected by the exuberance in property markets.

... but their impact on financial booms is untested

However, the overall experience to date does not suggest that countercyclical variations in buffers have powerful and lasting effects on credit and asset prices. Despite the fairly active use of measures related to property lending in Asia, the region's economies continue to see quite large and frequent property price cycles.

Yet the benefits of successfully moderating both phases of the credit and asset price cycle are clearly worth pursuing over the longer term. An approach to actively restrain credit and asset market excesses in booms could develop with improved knowledge of the relationships between macroprudential instrument settings and financial and economic fluctuations. The approach might require more restrictive or broad applications of the instruments and greater reliance on judgment and discretion. Because the role of macroprudential policy in macroeconomic policy would be more prominent in

[4] See, for example, Financial Stability Forum, *Report of the Financial Stability Forum on addressing procyclicality in the financial system*, April 2009.

[5] See Basel Committee on Banking Supervision, *Strengthening the resilience of the banking sector*, December 2009.

[6] See Committee on the Global Financial System, "Macroprudential instruments and frameworks: a stocktaking of issues and experiences", *CGFS Papers*, no 38, May 2010.

that situation, macroprudential governance arrangements would have to be stronger to manage the interaction with monetary policy.

Materially moderating credit and asset price cycles would maximise the contribution of macroprudential policy to macroeconomic stabilisation and hence would maximise its support of monetary policy. But experience thus far suggests that an ambitious macroprudential objective specified in such terms risks unintended consequences and should be avoided at this stage.

The best approach to restraining excesses in credit and asset prices would be achieved by a combination of macroprudential policy and monetary policy leaning against the build-up of imbalances. Each alone should not be expected to do the full job.

Operating strategy

Macroprudential operations can differ in terms of how much and how often the instruments are adjusted in response to movements in systemic risk, and in terms of whether those adjustments are governed by rules or discretion. Instrument settings might even be completely fixed – "set and forget" – and still act as automatic stabilisers by reducing the scope for extremes of risk-taking.

Prudential instruments to directly constrain elements of financial institution activity

	Instrument	Mechanism
Lending contracts	Caps on LTV ratios for property lending	Limits lender's exposure to property market downturn; limits highly leveraged property investment
	Caps on ratios of debt service to income for household lending	Limits chances of borrower default; limits highly leveraged property investment
Funding contracts	Countercyclical variation in minimum margins or haircuts on funding contracts (tied to capital requirements)	Discourages underpricing of systemic risks created by secured lending with low haircuts; reduces risk of sharp contraction in the supply of secured funding if risk perceptions of collateral quality are abruptly revised
Financial institution balance sheets	Countercyclical capital surcharge	Builds up countercyclical capital buffers in good times to restrain risk-taking, and runs down the buffers in bad times to allow the financial system to absorb emerging strains more easily
	Adjustments to risk weights	Ensures that capital buffers are sensitive to build-ups of risk in specific sectors
	Statistical provisioning	Reduces risk of underprovisioning during booms by anticipating the impairments expected to arise when the economy turns down
	Caps on loan-to-deposit ratio, core funding ratio and other liquidity requirements	Reduces the tendency to rely on short-term or unstable funding markets to support rapid lending growth

Table VII.2

Countercyclical prudential instruments in use or proposed	
In use	
Caps on LTV ratios for property lending	Hong Kong SAR, Korea, Malaysia, Singapore
Caps on ratios of debt service to income for household lending	Hong Kong SAR, Korea
Adjustments to risk weights	India, Turkey
Statistical provisioning	Spain
Caps on loan-to-deposit ratio, core funding ratios, reserve and other liquidity requirements	Argentina, China, Hong Kong SAR, Korea, New Zealand
Proposed	
Countercyclical variation in minimum margins or haircuts on funding contracts (tied to capital requirements)	Proposed by the Committee on the Global Financial System
Countercyclical capital surcharge	Under consideration by the Basel Committee on Banking Supervision

Table VII.3

Fixed limits on risk-taking have been used fairly often during upswings

The use of fixed ratios, or absolute limits, in upswings has been quite common. They have been applied to loan terms (eg loan-to-value (LTV) ratios, ratios of debt service to income, and margin limits),[7] currency mismatches[8] and, less frequently, loan loss provisioning through the use of long-term average loss experience ("through the cycle" or "dynamic" provisions).[9]

Greater use of set-and-forget instruments is currently under consideration. The capital reforms advanced by the Basel Committee on Banking Supervision, for instance, base minimum capital requirements for trading books on the assumption of stress conditions rather than on recent loss history, which varies highly procyclically.[10] Similarly, the Committee on the Global Financial System has recommended consideration of margin requirements based on through-the-cycle valuations of collateral assets, which would reduce the procyclical sensitivity of margins to financial and economic conditions.[11]

[7] For the use of LTV ratio limits, risk weights and other measures to restrain property lending, see, for example, S Gerlach and W Peng, "Bank lending and property prices in Hong Kong", *Journal of Banking and Finance*, vol 29, issue 2, February 2005, pp 461–81; Central Bank of Malaysia, *Financial stability and payment systems report 2009*, March 2010; and Reserve Bank of India, *Report on trend and progress of banking in India 2008–09*, October 2009.

[8] See M Goldstein and P Turner, *Controlling currency mismatches in emerging markets*, Institute for International Economics, Washington DC, April 2004.

[9] See J Saurina, "Loan loss provisions in Spain: a working macroprudential tool", Bank of Spain, *Revista de Estabilidad Financiera*, vol 17, November 2009, pp 11–26.

[10] See Basel Committee on Banking Supervision, *Strengthening the resilience of the banking sector*, December 2009.

[11] See Committee on the Global Financial System, "The role of margin requirements and haircuts in procyclicality", *CGFS Papers*, no 36, March 2010.

For bank capital, one can set fixed buffers above the regulatory minima that can be released, or at least be allowed to be drawn down, as banks incur losses.

Instrument settings can be fixed and act as automatic stabilisers ...

Fixed settings for instruments can still be automatically stabilising to the extent that their incidence, or "bite", varies over the cycle. For example, a maximum LTV ratio fixed at a low level will be more binding during a credit boom, when banks seek to expand property lending, than in a bust, when heightened risk aversion reduces their propensity to extend loans with a high LTV ratio. At the same time, fixed instruments need to be designed with care to avoid inducing procyclicality. For example, if binding during the upswing, minimum capital requirements can constrain risk-taking. But if they become binding as strains emerge, they can encourage hasty shedding of risky assets and tighter credit conditions.

... or vary according to developments in indicators of systemic risk

Instrument settings that vary according to developments in indicators of risk can be tied tightly to the indicators or only loosely. For example, capital buffers might be built up opportunistically, when capital is cheap, and varied in only a roughly countercyclical way. Alternatively, leading indicators of system-wide financial distress could be relied on more rigidly for steering instrument settings.

The development of systemic risk measures to guide instrument settings is under way. Work at the BIS and elsewhere suggests that simple indicators – based on simultaneous deviations from historical norms of both the credit/GDP ratio and asset prices – can fairly reliably signal financial distress years ahead, in real time and out of sample. As leading indicators of systemic risk improve, the instrument settings could respond to them more sensitively.[12] Ultimately, with enough improvement in modelling, policymakers could link instrument settings closely to systemic risk to maintain it within an acceptable range, in a manner akin to the use of inflation forecasts in inflation targeting regimes.

Discretionary adjustments have often been made in response to property market exuberance

In practice, policymakers have tended to rely heavily on discretionary adjustments to instrument settings that are only loosely linked to quantitative risk indicators. Especially in Asia, the adjustments have been made in connection with property-related lending during financial upswings, in response to concerns with overheating. Authorities have cited developments in property prices, growth in property sector credit, secondary market sales and construction activity as risk indicators warranting the actions. Adjustments have included tightening limits on loan contract terms such as LTV ratios, raising risk weights for regulatory capital, raising reserve and other liquidity requirements and, sometimes, limiting foreign currency exposures. Often, policymakers have made more than one adjustment at the same time – eg modifying LTV ratios while limiting the concentration of lending to certain sectors (Table VII.4). They have typically adjusted instrument settings at intervals of a few years, but the degree of activism has varied across countries.

[12] See C Borio and M Drehmann, "Assessing the risk of banking crises – revisited", *BIS Quarterly Review*, March 2009, pp 29–46.

There are good reasons to base the adjustment of instrument settings on simple and transparent rules. The main advantage of rules is that, once in place, they do not require continuous justification. If well structured and durable, they can reduce uncertainty. They can also contribute to automatic stabilisation by reducing lags in recognition and decision-making and by precommitting authorities to a tightening of instrument settings when needed. Precommitment can be especially important in a boom, when the financial industry, politicians and the public will all strongly challenge any discretionary tightening on the grounds that the outlook is rosy. Moreover, the temptation to believe that "this time things are different" can be very powerful for everyone, including the authorities themselves. Rules can thus be particularly helpful in relieving the pressure on supervisors to abstain from restraining actions during economic expansions.

Well structured rules can precommit policymakers and act as automatic stabilisers

A range of domestic and international initiatives, including a project within the Basel Committee's capital reform programme, are examining rules for countercyclical capital buffers. An example of such a rule would be to set the buffers as a function of above-trend credit expansion and other rough indicators of systemic risk. Rules could also specify that adjustments will be made only if the indicators exceed certain thresholds. The better the signal value of the indicators, the tighter the thresholds. The ability of rules to help overcome the lobbying problem is less dependent on their precise form than on their role in tying policy action to observable indicators.

The precise form of rules is less important than their reference to observable indicators

Examples of discretionary prudential interventions in response to property market developments

Economy	Date of first intervention	Intervention
Hong Kong SAR	1991	Limits on LTV ratios (LTV limits) varying by value of property; supervisory letters encouraging prudence in residential property lending; advice to limit to industry average the ratio of property-related lending to total loans for use in Hong Kong SAR; advice to limit growth rate of residential mortgages to nominal GDP growth rate
Malaysia	1995	LTV limits; limits on loan growth in property sector
Singapore	1996	LTV limits
Korea	2002	LTV limits and limits on ratio of debt service to income applied to specific property lending markets defined regionally and with variation depending on maturity and collateral value
India	2005	Risk weights and provisioning requirements for housing and commercial real estate, differentiated by size and LTV ratios; requirement for board-level policy on real estate exposure covering exposure limits, collateral and margin

Table VII.4

However, no rule can be effective under all circumstances. Some degree of discretion will inevitably be necessary. Discretion allows policymakers flexibility to employ a wide range of risk indicators and to make judgmental assessments about the evolution of systemic risk. Discretion also allows tailoring of responses to the nature of the build-ups in risk-taking and vulnerabilities (as long as these are identifiable in real time). Discretionary measures are also harder to circumvent than a known and predictable rule.

The design of countercyclical capital buffers illustrates these issues. As discussed in last year's Annual Report, it is hard to design simple rules linking the buffers to a small number of macroeconomic indicators that would reliably build up and release buffers at the right time. For example, the credit/GDP ratio works well during the build-up phase, but it tends to lag the emergence of strains and so is slow in releasing the buffers (Graph VII.1).

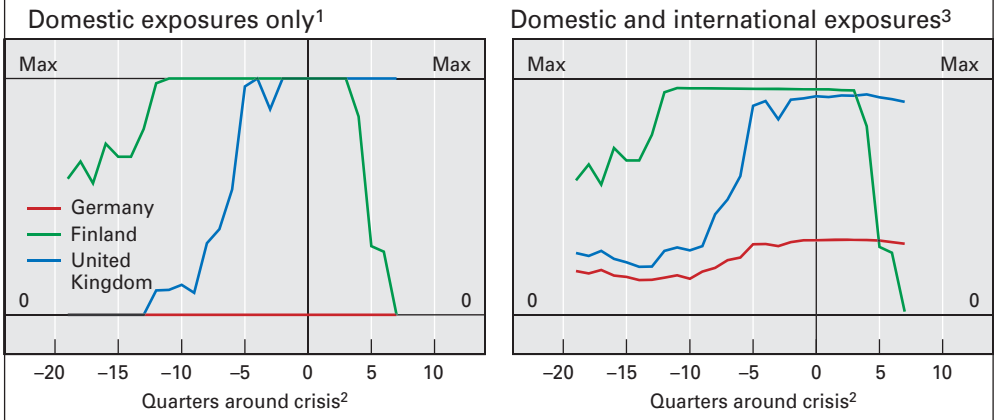
What is needed is a variable that is both a leading indicator of financial distress during the boom and a contemporaneous indicator of distress when it emerges. Because such a variable might well not exist, some discretion is probably inevitable in the operation of capital buffers.

Sectoral specificity

Sector-specific interventions are less blunt ...

Policymakers can apply instruments broadly across the financial sector or target exposures to specific sectors of the economy if these pose a threat to the system as a whole. Localised sources of risk might warrant a targeted, sectoral approach to avoid bluntly hitting the whole economy. For example, the real estate sector is a popular target, as it has often been a source of financial instability.

Build-up and release of capital buffers based on credit gaps



[1] The capital buffer for domestic exposures is the buffer for an average bank in the country indicated with only domestic exposures. It is based on deviations of the domestic credit/GDP ratio from its long-term trend (the credit gap). The buffer is at zero if the credit gap is below a lower threshold and it is at its maximum if the gap is above an upper threshold. [2] Quarter 0 is the onset of the respective crises, which is Q3 1991 for Finland and Q3 2007 for Germany and the United Kingdom. [3] The capital buffer for domestic and international exposures is the buffer for the average bank headquartered in the country indicated, with shares of domestic and cross-border lending corresponding to the aggregate exposures for that country. For each foreign country exposure, the domestic buffer for that country applies. Country weights for cross-border lending are based on the BIS international banking statistics and fixed at Q4 2006 values.

Sources: IMF; national data; BIS calculations. Graph VII.1

However, sector-specific strategies can present some difficulties too. They are less effective in protecting the whole system if they can be circumvented. And because they can stray into (or be misrepresented as) credit allocation policy, they put a heavy load on governance arrangements to keep policy intentions properly focused and clear. And finally, they require more information and judgment concerning the economy-wide impact of sectoral developments. Policymakers should therefore be cautious about taking highly sector-specific approaches.

... but might be circumvented more easily and stray into credit allocation

The design of countercyclical capital requirements for banks illustrates the issues of sectoral specificity. Linking the increase of capital buffers to a rise in bank lending to the real estate sector would ensure that the buffers take account of the systemic risks emanating from that sector. However, it would not address the indirect exposures arising from the transmission of problems in the sector to the financial system and wider economy. Moreover, banks might respond to a narrowly imposed measure by relaxing loan terms in other areas to maintain their overall loan growth. The temptation to apply ad hoc measures to a growing list of credit instruments and sectors would be strong.

Governance

Governance mechanisms are needed both to constrain discretion and to provide the independence needed for discretion to be exercised with some insulation from lobbying pressures. Another reason for the first element we addressed – a clear and realistic objective – is that it makes governance simpler.

Macroprudential policy needs carefully designed governance

However, measurement of the macroprudential objective, which is important for the accountability of policymakers, is challenging.[13] The concept of financial stability is multidimensional. It is also elusive compared with, say, price stability. The financial system might be fragile for a very long time before financial distress emerges. And even if vulnerabilities can be measured reliably, they might build up only gradually and so fail to signal a clear-cut case for action. In the meantime, excessive risk-taking can be masked by surging asset prices, low measured leverage, compressed risk premia and subdued volatility. Even if the objectives cannot be precisely specified, however, the strategy and intended actions for promoting financial stability need to be clearly articulated.

Another challenge is that regulators and supervisors, who control the instruments, have tended – or been required – to focus on the safety and soundness of individual institutions rather than on the system as a whole. As a result, they may tend to be less familiar with macroeconomic considerations. By contrast, central banks have an edge in understanding the behaviour of markets and the relationship between the financial system and the real economy. Indeed, it is mostly central banks that have taken the discretionary measures noted above in response to signs of overheating. Central banks have a stronger incentive to activate tools for macroprudential purposes (such as by modifying lending terms system-wide) to complement their macroeconomic policy functions.

Instruments, know-how and objectives should be well aligned

[13] See C Borio and M Drehmann, "Towards an operational framework for financial stability: 'fuzzy' measurement and its consequences", *BIS Working Papers*, no 284, June 2009.

Specific authorities with clear mandates and control over the instruments are desirable

New and specific institutional structures would be desirable to support further development of macroprudential frameworks. Those arrangements should bring together the macroeconomic and financial market expertise of central banks with the prudential expertise of financial regulators and supervisors. Specific authorities are needed, with clear mandates, powers and control over instruments. Financial stability committees, modelled along the lines of current monetary policy committees, are one option.

Such arrangements should preserve the independence of central banks, including financial independence. But they would also have significant implications for central bank accountability. Financial stability decisions may in many cases require more interaction with the government than monetary policy decisions, especially under crisis management conditions.

More interaction with the government need not compromise central bank autonomy. It does imply, though, a need for well specified coordination mechanisms, and for clarity about the central bank's financial stability mandate and strategy. Accountability can be promoted by requiring that actions and decision-making processes be disclosed to the public or reviewed by the legislature. These procedures are common in both monetary policy and financial stability policy. However, central bank reporting on financial stability to date has been generally less frequent and less policy-oriented than that on monetary policy. That will probably need to change.

Economy-specific circumstances and international aspects

Economy-specific circumstances matter ...

Authorities will choose objectives, strategies, instruments and governance arrangements that reflect their economy-specific circumstances. For example, to date, macroprudential interventions have been more frequent in bank-dominated financial systems, which offer fewer opportunities for circumventing the measures (eg through securitisation). The interventions also seem to have been more common in economies with fixed or managed exchange rates (such as Hong Kong SAR and other Asian economies) or in countries within currency unions (such as Spain), where the scope for using official interest rates for macroeconomic stabilisation purposes is limited or non-existent.

... as do international considerations

The likelihood of international variation in macroprudential frameworks and settings also highlights the need for international coordination. Instrument settings will have to recognise that financial developments are not synchronised across countries and that financial institutions operate across borders. For example, settings for capital buffers should relate to an institution's exposures to systemic risk across all the countries to which it is exposed, whether due to cross-border lending or to operations in host countries. Taking international exposures into account can make a big difference to the size and evolution of the capital buffers (Graph VII.1).

Close cooperation between home and host authorities will be inevitable. And some responsibility will have to shift to host authorities for deciding on the settings that apply to exposures in their jurisdictions and for advising home authorities of local financial conditions.

Implications for monetary policy

Successful monetary policy and macroprudential policy will complement each other ...

The implementation of macroprudential frameworks will affect the behaviour of the financial system and hence alter the monetary policy transmission mechanism. Monetary policy will need to take account of the influence of macroprudential actions on asset prices and yields.

By stabilising the financial system, a successful macroprudential policy will lighten the burden on monetary policy in several ways. It will reduce the frequency and intensity of financial disruptions that cause or amplify economic fluctuations. It will enhance the effectiveness of monetary policy by preventing financial distress from blunting the impact of interest rate changes. And perhaps most importantly, if macroprudential measures are effective, monetary policy will face less pressure to cut interest rates unduly in order to address threats to financial stability in the downturn.

... and influence each other's instrument settings

Most of the time, both policies – macroprudential and monetary – will be in the same phase of tightening or loosening. However, their relative efficacies will still need to be weighed carefully. For example, if inflation risks are emerging, macroprudential measures cannot take the place of interest rate increases. Macroprudential measures are well suited to enhancing the resilience of the financial system, but their effects on aggregate demand and inflation expectations are weak and uncertain compared with those of interest rates.

Sometimes, however, macroprudential policy and monetary policy will move in opposite directions, most obviously when the financial system is under stress but inflation risks are a threat. Under such circumstances, macroprudential settings might be loosened to ease the stress, while monetary policy is simultaneously tightened to reduce inflationary pressures. Such a combination does not indicate policy conflict. Rather, it illustrates how the two policies can complement each other.

Monetary policy will still be focused on price stability ...

In a system with a macroprudential framework, monetary policy will still be primarily responsible for price stability. Ebbs and flows in financial activity can still cause major economic fluctuations even if the financial system remains resilient to them. And recessions and inflation threats can still arise without a significant contribution from financial fluctuations.

... but will also need to play a bigger role in promoting financial stability

Monetary policy must, however, increase its contribution to the promotion of financial stability if it is to attain its own longer-term macroeconomic goals. Experience shows that a monetary policy strategy narrowly focused on stabilising inflation, looking out over a short horizon of about two years, is not sufficiently forward-looking to ensure financial stability, and is thus not sufficient to stabilise inflation over the longer term. Credit and asset prices have boomed during periods of low and stable inflation as well as during high inflation. Therefore, with a relatively short forecasting horizon, monetary policy could inadvertently accommodate or even contribute to the build-up of financial vulnerabilities. Monetary policymakers must give greater weight to that concern by extending the horizon of their targeting period.

Moreover, for the reasons discussed in the previous section, one should not necessarily expect nascent macroprudential policy aimed at enhancing the resilience of the financial system to materially restrain credit and asset price

booms too. The potential impact on credit growth of building larger buffers during the boom is not yet known. In contrast, the influence of monetary policy on broader credit conditions is relatively well understood.

Monetary policy frameworks do not need extensive adjustment to take account of financial stability. Systemic risk builds up over a long time. Adding a few years to the monetary policy targeting horizon, beyond the two years ahead commonly focused upon, would help monetary policymakers to weigh longer-term threats to financial stability, including the impact of interest rate settings, against nearer-term inflation. The result would be a more comprehensive assessment of the balance of risks facing the economy. Many central banks are already moving in this direction.

A financial stability objective for monetary policy is not necessary if policy horizons are lengthened

Central bank modelling and target horizons that incorporate longer-term risks to financial stability obviate the need for an explicit financial stability mandate for monetary policy. Such an approach would make clear that financial stability is part of the widely accepted concern with macroeconomic stability. But an explicit financial stability mandate for monetary policy might still be helpful because, in a booming economy with low inflation, it could alleviate the pressure on the central bank to refrain from monetary tightening. In that situation, the financial stability mandate would allow the monetary authority to tighten with the aim of countering longer-term threats to stability.

Governance arrangements must protect the credibility of the price stability objective

In any case, certain broad features of governance arrangements will be critical in preserving the credibility of the central bank's commitment to price stability: clear mandates and strategies for the macroprudential and monetary policy functions, operating independence, mechanisms that ensure effective public communication of the decisions taken, and ways of addressing any trade-offs that might emerge. Here, too, the arrangements will depend on country-specific circumstances, including the central bank's role in prudential regulation and supervision.

Summing up

Preserving financial and macroeconomic stability over the long term requires implementing carefully designed macroprudential frameworks and adjusting prevailing monetary policy frameworks. The current policy consensus provides a unique opportunity to accomplish those tasks.

The challenge for macroprudential policy is to establish a framework that is effective and gains public support over time. Macroprudential policy clearly cannot be an economic cure-all and should not be presented as one – we will continue to see recessions even under conditions of financial stability. Public expectations need to be kept aligned with what policy frameworks can actually deliver.

Given the evidence on what is achievable, the objective of macroprudential policy at this stage should emphasise strengthening the resilience of the financial system. Pursuing that objective successfully could also help restrain excessive credit growth and unsustainable asset price dynamics. Over time, as we learn more, we can correspondingly enlarge the framework to include greater emphasis on the moderation of credit and asset price cycles.

The resilience of the financial system can be strengthened by using simple macroprudential tools. Fixed limits, automatic stabilisers and rough adjustments of instrument settings – that is, adjustments commensurate with the reliability of the available indicators of systemic risk – can be implemented fairly easily. Particular sectors, such as real estate, can be targeted when it is clear that they are frequent sources of system-wide problems. But, in general, macroprudential policy should be cautious about targeting economic sectors too precisely, because that can resemble credit allocation policy and because the system-wide character of macroprudential policy needs to be established firmly.

Macroprudential policymakers should design governance arrangements carefully to ensure a sound basis for implementation. A degree of operational independence for macroprudential policy is essential, but beyond such general considerations, governance arrangements will reflect country-specific circumstances.

Successful macroprudential policy will support monetary policy. But the conduct of monetary policy must nevertheless adapt as macroprudential frameworks are developed and implemented. In addition, to maximise its contribution to both financial and macroeconomic stability, monetary policy needs to look beyond near-term inflation. Lengthening the policy horizon would naturally allow monetary authorities to consider financial stability more fully. In doing so, they would in fact promote price stability more effectively over the longer term.