BANK FOR INTERNATIONAL SETTLEMENTS

Central bank governance and financial stability

A report by a Study Group

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Project Origin and Contributors

Origins

This project was initiated by the Central Bank Governance Group following a detailed discussion of governance issues relating to financial stability. This report contains details of new arrangements in a number of places, set in the context of a wider discussion of relevant governance issues. Such new arrangements usefully illustrate the different institutional solutions that are possible for a complex problem.

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Preface

The recent financial crisis has raised a number of important questions concerning the role of the central bank in the prevention, management and resolution of financial crises. As the crisis unfolded, a number of central banks were confronted with unusually challenging circumstances, which required a sharp expansion in the use of traditional intervention tools and the introduction of entirely new ones. At the same time, the public debate about the appropriate role of central banks in the financial stability arena and their relationship with other relevant bodies intensified.

The Central Bank Governance Group recognised that such events were likely to lead to a reconsideration of the mandates of central banks in the area of financial stability and commissioned a Study Group to evaluate the specific governance implications of such a reconsideration. The resulting report explores the implications of the crisis for the financial stability mandates of central banks. This includes looking at the implications for autonomy and governance of allocating macroprudential responsibilities to central banks and changing their capacity to provide support to the financial system. A particular focus is the governance arrangements needed for the effective and sustainable conduct of core monetary policy functions in combination with the addition of an explicit mandate to contribute to the stability of the financial system.

Given that central banks differ significantly in the scope and nature of their functions, and in the political and economic conditions in which they operate, the report does not try to establish a set of best practices or recommendations. Instead, it constitutes a "roadmap" that discusses existing practices, highlights some of the limitations and strengths of such practices, and traverses some possible organisational solutions to specific challenges.

The new arrangements that are being put in place in a number of countries, and that are planned for others, neatly illustrate with live examples most of the range of possible organisational solutions that are identified and discussed. Accordingly, extensive coverage of these new arrangements is provided.

Contents

Executive summary and main conclusions

1. The recent financial crisis has raised important questions about the role of the central bank in financial stability policy and how the execution of such a function influences the central bank's governance. This report explores these questions. Its purpose is not to set out a one-size-fits-all approach, but instead to highlight the issues that arise within the wide variety of institutional settings, historical contexts and political environments in which central banks operate. Nonetheless, the Study Group reached certain general conclusions:

   - Central banks must be involved in the formulation and execution of financial stability policy if such policy is to be effective.
   - Central banks' financial stability mandates and governance arrangements need to be compatible with their monetary policy responsibilities.
   - Charging the central bank with responsibility for financial stability is not sufficient – appropriate tools, authorities and safeguards are also needed.
   - Ex ante clarity about the roles and responsibilities of all authorities involved in financial stability policy – central banks, supervisors, deposit insurers, treasuries and competition authorities – is of paramount importance for effective and rapid decision-making, for managing trade-offs and for accountability.
   - In general, there is no simple structure to ensure that the actions needed to achieve all relevant policy objectives will easily be recognised and adopted in all circumstances. Complexities and uncertainties aside, various policies can affect interested parties in different ways that generate tensions. This provides a compelling rationale for careful attention to the design of governance arrangements.

2. There are three key reasons why central banks should have a prominent role in financial stability policy. Financial instability can affect the macroeconomic environment, with substantial consequences for economic activity, price stability and the monetary policy transmission process. Central banks are the ultimate source of liquidity for the economy, and appropriate liquidity provision is crucial to financial stability. The performance of their monetary policy functions provides central banks with a macroeconomic focus and an understanding of financial markets, institutions and infrastructures needed for the exercise of a macroprudential function.

3. Clarity about financial stability responsibilities is needed to reduce the risk of a mismatch between what the public expects and what the central bank can deliver, as well as to promote accountability. Institutions should not be held accountable for tasks they are not clearly charged with pursuing nor equipped to achieve. Even though it is difficult to define and operationalise financial stability concepts, it is important for the central bank to have a formal mandate. Where that mandate gives central banks broad financial stability responsibilities, the group sees potential merit in the public announcement of a financial stability strategy that clarifies the central bank's intentions. A similar approach is sometimes used for monetary policy, where the legislative framework sets out overarching objectives and the central bank formulates and publishes its strategy.

4. When the central bank has macroprudential policy responsibilities, it must have either tools that it can use autonomously or the means to prompt or even require action by other authorities that have the power to take appropriate action.

5. Central banks need access to a wide range of information to discharge their financial stability functions. They need information on the quality of collateral provided for central bank credit, the solvency of institutions seeking liquidity support, the state of systemically important institutions, and interconnections between institutions, markets and systems. This may require extensive information sharing between agencies. The central bank should also have the power to obtain information directly from financial firms, through the legal authority to call for reports and to conduct onsite inspections if judged necessary.

6. The extent and nature of collaboration with other public authorities will be shaped by how responsibilities for supervision and regulation, bank resolution, deposit insurance, the provision of public guarantees and solvency support are allocated. Knowing who is responsible for what, including at different stages of a crisis, can aid rapid decision-making. Inter-agency councils may be forums for exchange of information and advice, or joint decision bodies. In the former case, transparency of recommendations and comply-or-explain requirements may reduce the risk that consultation will be perfunctory. In the latter case, the decision-making arrangements need to be clearly specified (whether using formal voting procedures, mandatory double-veto arrangements, or an optional veto).

7. Autonomy is needed in the conduct of financial stability policy to ensure that it is shielded from short-term political pressures and undue influence from business and industry. Because close collaboration will be needed among the different agencies, arrangements to ensure autonomy should permit effective cooperation. A clear delineation of responsibilities helps achieve a suitable balance between autonomy and cooperation.

8. Central bank accountability for monetary policy actions is now heavily based on transparency. For the most part, the same will be needed for financial stability functions. Disclosure of financial stability decisions and actions, and the reasons for them, is therefore essential, though delay in disclosing some elements of the decisions may be necessary if immediate disclosure risks triggering destabilising behaviour. Since financial stability objectives cannot at present be specified with the same degree of precision as monetary policy ones, accountability arrangements may need to be refined. The articulation of a financial stability policy strategy could help. In addition, it may be useful in some jurisdictions for reviews of decisions and/or processes to be conducted by impartial bodies with the appropriate expertise and mandate. As with monetary policy, care is required to ensure that review and accountability supports rather than undermines the autonomy provided to enable the central bank to perform its public policy tasks.

9. In order to conduct monetary policy successfully and independently, the central bank needs to have control over its balance sheet. The greater the responsibility afforded the central bank for emergency actions to support financial stability, the greater the central bank's risk-bearing capacity will need to be, and/or the more robust the mechanisms for transferring financial losses to the Treasury. The point at which, and the mechanisms by which, the Treasury takes over responsibility for financial risks should be clearly stated.

Introduction

Mandates and governance arrangements for the core monetary function are largely settled. The recent financial crisis has raised questions about the central bank's financial stability role in crisis prevention, management and resolution. Much work has been undertaken over the last two years on the design of financial stability policy and related governance arrangements, with new legislation passed or in process in some of the world's major jurisdictions.

The aim of the report is to explore the implications of alternative financial stability mandates (explicit/implicit, wide/narrow, etc). This includes looking at the implications for autonomy and governance of allocating macroprudential responsibilities to central banks and changing their capacity to provide support to the financial system. A particular focus is the governance arrangements needed for the effective and sustainable conduct of core monetary policy functions.

It is important to clarify what this project is about and what it is not about. It is a roadmap to the issues. Its mandate is clearly not to establish any best practices or recommendations. Instead, a number of practices, organisational solutions and policies have been identified (the list is not exhaustive since only a limited number of central banks were represented in the Study Group). The report is arranged around a set of issues related to the conduct of macroprudential supervision. For each of the issues a number of actual practices/solutions have been described. The description is accompanied by a discussion on pros and cons – which advantages can be obtained and which challenges have to be met when selecting a specific alternative – but there is no assessment of the balance.

The report fully acknowledges that central banks fulfil different roles in different countries. This is due to, for example, different national legislation and mandates, the political environment, organisational setup, division of roles with other authorities, even tradition. For example, a central bank which performs monetary policy, is responsible for microprudential supervision, and has a mandate to provide emergency liquidity assistance (ELA), will obviously meet different challenges and potential trade-offs in relation to macroprudential monitoring than a central bank with other mandates. The European Central Bank (ECB) with its clear statutory focus on monetary policy and its organisation as a supranational institution will, for example, have different governance issues to consider than will the Bangko Sentral ng Pilipinas – which has a wider mandate (including microprudential supervision and financial regulation) and a single fiscal authority with which the central bank needs to liaise.

The 13 central banks participating in this study span the spectrum of central bank roles and functions. Their experience demonstrates that different mandates, powers and accountability arrangements are needed in different circumstances. Their experience also provides grounds for the general conclusions set out in the Executive Summary.[1]

The report is set out as follows: Part I and Part II present information on the situation within Study Group countries with respect to the central bank's role in regular ongoing ("normal times") policy related to the financial sector and financial stability (Part I), and associated emergency actions in crisis times (Part II). Major reform initiatives in these

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1 Though not members of the Study Group, the central banks of Malaysia and Thailand were kind enough to provide extensive information to the Study Group in order to help the report achieve balance in its coverage of different country and central bank circumstances. Without these central banks, the sample would have under-represented those with microprudential regulatory and supervisory responsibilities in addition to their broad monetary and financial sector responsibilities.

areas are discussed, including those in continental Europe, the United Kingdom and the United States. (The Annex contains more detailed information on some of these reforms.) Part III discusses a number of governance issues that may need to be considered when financial stability policy is expanded to include a specific macroprudential policy function. Part IV considers governance issues in the context of four different institutional structures representing different allocations of policy responsibility to the central bank. Conclusions and central themes have already been presented in the interest of assisting the reader to quickly extract the main points.

Part I: Financial stability responsibilities of central banks in normal times – pre-crisis arrangements and recent innovations

1. Mandates and powers as they stood before the financial crisis

The survey that was conducted amongst study group central banks for this report captured arrangements for financial stability policy as they stood before the financial crisis. The results of this survey thus provide a useful point of departure for the discussion of new arrangements in the next main section.

1.1 Mandates[1]

Prior to the financial crisis, the financial stability mandates of central banks surveyed for this report differed widely, both for normal times (Table 1[2], next page), and for crisis times (Table 4 in Part II). The only mandate held by almost all central banks in the group was the oversight of payment systems. The Bank of Thailand was one of the few central banks that had the mandate and powers ahead of the crisis to act as the macroprudential regulator; the Central Bank of Malaysia acquired such a mandate following passage of the 2009 Central Bank Act.[3]

Proceeding with caution because of the small sample (13 institutions), there are tentative suggestions of some informative patterns in Table 1:

- Central banks with a heavy involvement in banking supervision have seen themselves as having established means of addressing broader financial stability issues, even though the supervisory instruments may need to be further developed. And central banks with no or less direct involvement in banking supervision seem to have made a particular effort to develop system-wide financial stability related analytical capabilities. It is not a hard and fast rule but it seems consistent with evidence from larger surveys to say that central banks acting as banking supervisors are somewhat less likely to have dedicated financial stability departments or to publish regular financial stability reports than those who have little or no role in banking supervision.

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1 The terms “mandate” or “policy mandate” in this document refer to a combination of the responsibility and authority to wield state powers in pursuit of public policy objectives. The existence of a policy mandate is clearest when law explicitly establishes the agent’s responsibility for executing a policy function, states the objective(s), and provides the powers and authorities that may be needed. But some of these elements may be missing – for example, objective(s) may not be stated, or powers not expressly provided. The law may not be completely clear, especially after the passage of time has changed the way we interpret public policy. Depending on the jurisdiction, some degree of inference as to what the law intends may be acceptable, especially if the agent is transparent about the interpretation of its policy responsibilities, is accountable, and sufficient time has passed to allow that interpretation to be tested – if anyone chose to do so – within the accountability process. The implications are discussed further in Part III of this report.

2 Table 1 represents the more detailed information collected in the survey as an index, using weights based on judgement. The columns in Table 1 as well as in further similar tables are sorted by central banks’ combined score for banking regulation, licensing and supervision, to help trace potential patterns along a familiar dimension.

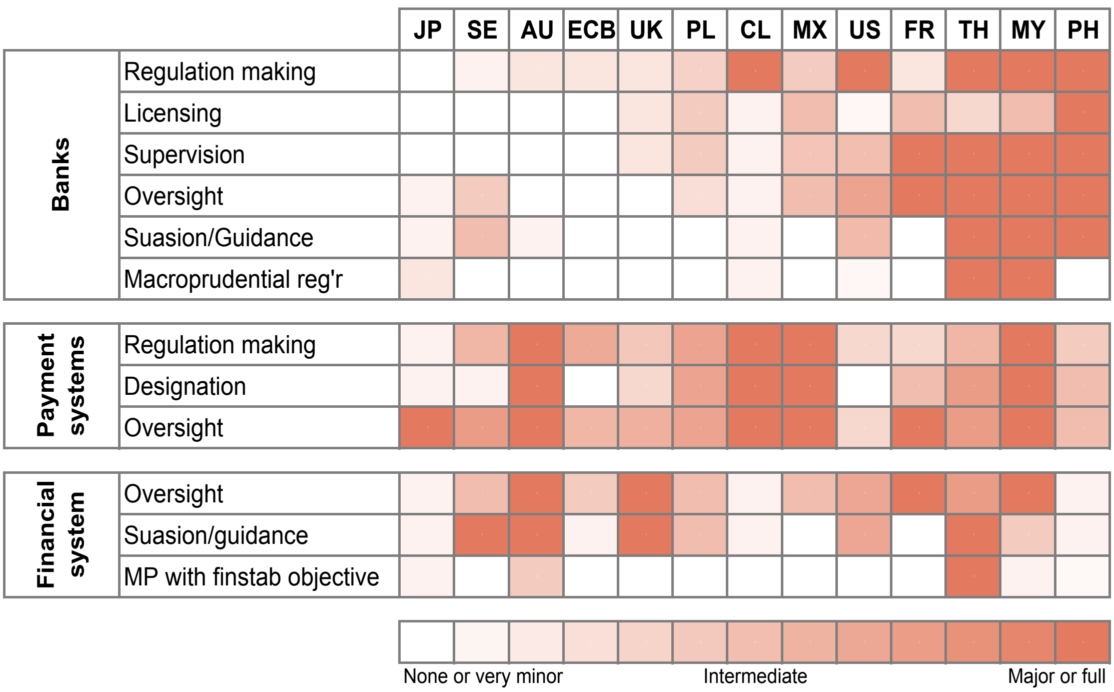
3 As explained later, the Bank of England will join that small group after planned legislation is enacted and implemented – expected by the end of 2012.

- If one wanted to identify one handle most central banks have on a financial stability mandate in normal times, it is payment systems.[4] A well-functioning payment system is needed for the smooth operation of money markets in which central banks typically conduct monetary policy operations. A number of central banks have used their payment systems responsibilities as a motivator of wider financial stability responsibilities, not least because payment system functioning has a pervasive effect on the financial sector and the broader economy.
- Last, consider what a corresponding table for monetary policy mandates would look like: it would have one row, shaded dark.[5] Whatever the specific objectives, the central bank is usually responsible for their pursuit. The counterpoint may be useful in order to appreciate the diversity of financial stability mandates prior to the recent financial crisis.

Table 1

Financial stability related mandates of central banks in 2009

(The darker the shading the bigger the mandate)



Source: BIS survey of participating central banks, conducted in 2009

In Table 2, the strength of pre-crisis financial stability related mandates is shown as in Table 1 (the darker the shading the bigger the mandate), with the strength of the formal grounding of those mandate superimposed as a full black circle for mandates that are laid down as explicit legal obligations or permissions. Less black in the circle

4 This is not to say that central banks' authority over payment systems is identical. The Federal Reserve, for example, currently has a somewhat fragmented authority for regulation and supervision of payment and settlement systems.

5 The Bank of France shares monetary policy responsibilities with the other members of the Eurosystem and would therefore need to be represented by a Eurosystem entry.

Table 2

Grounding of financial stability related mandates of central banks in law, extra-statutory statements or tradition

(The darker the circle the stronger the grounding of the mandate)

		JP	SE	AU	ECB	UK	PL	CL	MX	US	FR	TH	MY	PH
Banks	Regulation making		◔	◔	●	◑	●	●	●	◕	○	●	●	●
	Licensing					◑	●	○	◕		●	●	●	●
	Supervision					◑	●	●	◑	◔	●	●	●	●
	Oversight	◑	◑				◑	◑	●	◔	●	●	●	●
	Suasion/Guidance	◑	◑	◔		◑	◑	◑		◑		◑	◑	◕
	Macroprudential reg'r							●				◕	●	
Payment systems	Regulation making	◑	◑	●	◕	●	●	●	●	●	◔	●	●	◑
	Designation	◑	◑	●		●	●	●	●		●	●	●	◑
	Oversight	○	◑	●	◕	◑	◑	●	●	○	●	●	●	◑
Financial system	Oversight	◑	◑	◑	●	●	◑	◑	◑	○	◑	◑	●	◑
	Suasion/guidance	◑	◔	◔	●	◑	◑	◑		○		◑	◑	◑
	MP with finstab objective	○		◑								◔	○	◑
			○	○	○	◔	◔	◔	◑	◑	◕	◕	●	●
		No or very weak grounding						Intermediate						Strong grounding

Source: BIS survey of participating central banks, conducted in 2009

indicates weaker forms of legal grounding, ranging from mandates that were implied in law to mandates specified in extra-statutory statements or based on tradition or similar reasons (white circle). Thus, for example, both the Reserve Bank of Australia and the Bank of England had prime responsibility for financial system oversight, but in the United Kingdom this was an explicit responsibility assigned to the Bank in the Banking Act of 2009, while in Australia it was (and still is) an extra-statutory mandate derived from the Minister's statement announcing the creation of the Australian Prudential Regulation Authority (APRA) in 1998.

Patterns in Table 2 worth considering are:

- Across the full range of financial stability related functions surveyed, there was quite a strong association between the extent of the mandate and the strength of its grounding.
- Mandates concerning the financial system as a whole (bottom part of Table 2) tended to be grounded in law less clearly than those concerning the major system components (banks and payment systems).

1.2 Objectives

The survey information on mandates provided a rather heterogeneous picture of what was entailed in a central bank having financial stability responsibilities, pre-crisis. Was there a relationship between the breadth of financial stability mandates and the clarity of the objectives specified (if any) in law or extra-statutory statements? The picture is mixed, as Figure 1 shows by plotting the extent of financial stability related mandates on the x-axis against the clarity of financial stability objectives in the law or in extra-

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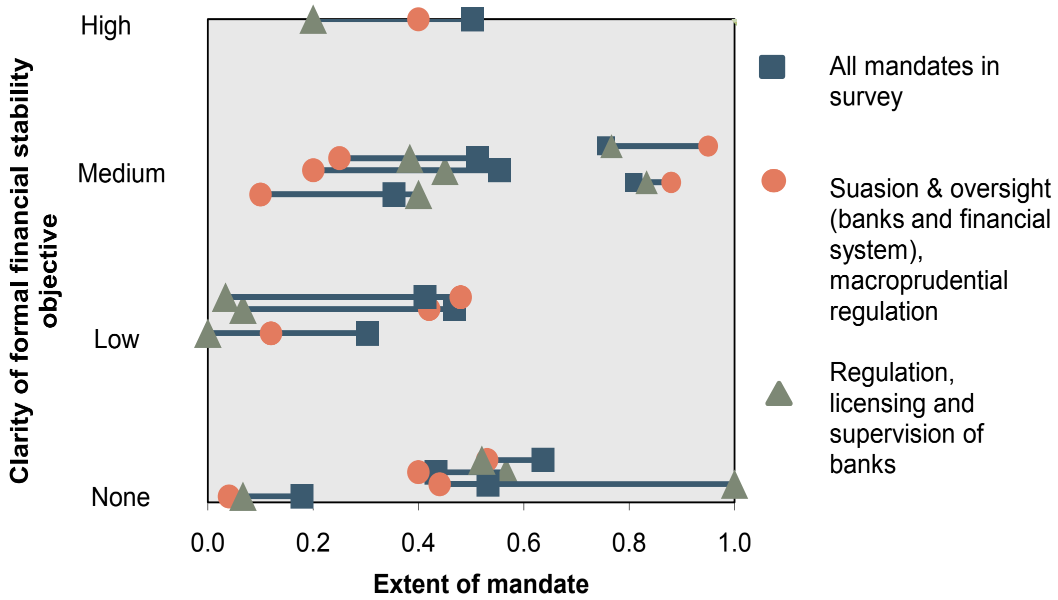
Figure 1

Extent of financial stability related mandate and clarity of financial stability related objectives



Source: BIS survey of participating central banks, conducted in 2009

legal statements on the y-axis. For central banks that had explicit objectives for financial stability, there was a mild tendency for those objectives to have been clearer where the mandate was broader (the clustering of points moves to the right as the graded clarity moves from low to high). This may have reflected an effort to spell out mandates more clearly as they became more complicated. At the same time, there were three central banks in the sample where mandates were comparatively broad, and no (or next to no) objectives had been specified. This may reflect the difficulty of crafting objectives that work well in more complicated circumstances.

1.3 Financial stability mandates and the use of microprudential instruments for systemic purposes

Much of macroprudential policy is and will be implemented via regulatory interventions, using instruments that are often deployed for microprudential purposes. This suggests that central banks that are microprudential supervisors would have an easier vehicle for discharging a macroprudential mandate. Indeed central banks with heavy involvement in microprudential supervision tend to see themselves as having broader financial stability responsibilities and capability (Table 1), even in cases where the formal grounding for such responsibilities may be incomplete (see Table 2 and discussion).

A recent report from the Committee on the Global Financial System (CGFS) – “Macroprudential instruments and frameworks: a stocktaking of issues and experiences”

– surveyed the use of macroprudential instruments by countries.[6] It pointed to the tendency for regulatory powers to be used for macroprudential policy more actively in emerging market economies than in advanced economies. It also drew attention to the tendency for such regulatory powers to be used to implement microprudential policy, and to be deployed in conjunction with microprudential supervision. Emerging market economy central banks are more often the main microprudential supervisor than is the case in advanced economies. In the CGFS sample, 10 of the 17 emerging market economy central banks had significant microprudential responsibilities, compared with just three of the 18 advanced economy cases.

Table 3

Propensity to use macroprudential instruments

Nature of financial stability mandate:	Extensive	Constrained	Minor/None
Average number of categories of macroprudential instrument deployed, per country in the CGFS sample			
Advanced economies	–	0.6	0.5
Emerging Market Economies	2.3	2.0	1.4
Average number of categories of macroprudential instrument deployed, per country where the central bank has a major role in microprudential supervision			
Advanced economies	–	1.0	0.5
Emerging Market Economies	2.0	2.0	1.8

Source: Committee for the Global Financial System Survey, 2009; BIS data

Notes: Financial stability mandates are classified as: (1) Extensive if relevant statutes give the central bank an unqualified objective for the stability of the financial system as a whole; (2) Constrained if the stability objective is expressed in directional terms (eg to promote, to reinforce, on a best endeavours basis), or is related only to a specific central bank function (eg bank supervision, bank licensing, payments system oversight), or is only for a part of the financial system (eg banks, deposit-takers, payment system providers); and (3) Minor/None if there is no such stability objective in the law. The categories of macroprudential instruments referred to are the four presented in Table 3 of the CGFS report cited in footnote 1. No number appears for advanced economies with extensive financial stability mandates because there were no such countries in the CGFS sample.

From a governance perspective, one question of interest is whether countries that are more inclined to deploy macroprudential instruments do so because of their ready access to the relevant microprudential regulatory powers, combined with a perception of a wider responsibility for the financial system, or instead because they have a wider statutory objective for financial stability.

In Table 3 we relate the reported use of macroprudential instruments documented in the CGFS report to the nature of the central bank's formal mandate for overall financial

[6] CGFS Paper No 38, May 2010. The survey was conducted in 2009. The CGFS report discussed four categories of regulatory instrument that could be used either for microprudential or macroprudential ends, including those aimed: at restricting credit growth (eg tightened load to valuation ratios); at reducing interconnectedness (eg size-dependent leverage limits or risk weights); at limiting procyclicality (eg dynamic provisioning); and at reducing specific financial risks (eg core funding ratios, aimed at liquidity risks). A fuller discussion of macroprudential instruments is also contained in Part III of this report).

stability. Here the focus goes beyond a microprudential supervision role, a payment systems oversight role, or responsibility for lender of last resort, and extends to formal mandates that contain an objective specified in terms of the stability of the overall financial system.[7] The financial system stability objectives have been placed into three categories: extensive, constrained, and minor or none (as explained in the notes to the table).

Table 3 confirms the tendency suggested in Tables 1–2, namely that emerging market economies have so far been inclined to use regulatory or administrative instruments more actively for financial system stability purposes than are advanced economies. The upper panel suggests a tendency for such greater activeness to be related to the nature of the financial stability mandates given to emerging market economy central banks. The more extensive the mandate, the more likely it seems that macroprudential instruments would be deployed.

Looked at more carefully, the tendency for greater use of macroprudential instruments seems be related more to the type of economy and the nature and existence of a financial stability mandate than to the presence of microprudential supervision within the central bank. The lower panel of Table 3 shows the data only for central banks with a major role in microprudential supervision, with the dominant source of differentiation being the degree of financial sector development. Emerging market economies seem to be more willing to deploy regulatory instruments for wider financial stability purposes than are advanced economies, even in the comparison where both are microprudential supervisors.

Finally, we checked for the possibility that the willingness to use microprudential instruments might be in some way related to the existence of decision-making structures focused on financial stability matters. Specifically, does the existence of a board for financial stability decision-making help explain the propensity to use microprudential instruments for wider purposes? Of the 35 countries in the CGFS survey, only seven had such a board before the financial crisis, and none of those was dedicated to macroprudential policy.[8] Advanced economies were roughly as likely to have a microprudential policy board as their emerging market counterparts. The issue of decision-making structures for macroprudential policy is examined in greater detail in Parts III and IV of this report.

1.4 Specific mandates

Banking regulation, licensing and supervision. In the Study Group, central banks with full or major supervisory responsibilities were under-represented relative to the world at large, where such responsibilities are held by the central bank in half or more of countries, depending on the sample one considers.[9] The Study Group also had an interesting diversity of intermediate cases where the central bank was not the supervisor but still had a number of supervisory tools at hand. One of these was senior central bank representation on the board of the supervisory agency. Where the Governor or Deputy Governor is an ex officio member of such a board by law and if the board has executive rather than (only) oversight or broad strategic responsibilities, then the central

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[7] Synonyms for “stability” (eg good order, smooth functioning) and “financial system” (eg financial institutions, markets and infrastructure) are allowed for.

[8] Bank Negara Malaysia created a Financial Stability Executive Committee in 2009, and the Bank of England has recently instituted a Financial Stability Committee.

[9] The sample will become more consistent with the global picture once the Bank of England takes responsibility for banking supervision, as is intended under the new arrangements.

bank has a direct voice on how banks are regulated, licensed and supervised. In Mexico and Poland all of this was true; in Sweden it applied to a lesser extent. Another tool is access to supervisory information – again in Poland, the National Bank of Poland (NBP) owned the supervisory database, and banks were legally required to provide, at the request of the NBP, data necessary to assess their financial standing and risks to the banking system. In Japan, formal supervision for microprudential regulatory purposes has been the responsibility of the Financial Services Agency (FSA), but the Bank of Japan conducts supervision-like activities through regular on-site examinations (based on contracts with financial firms, not on administrative authority) and off-site monitoring.

Monetary policy with a financial stability objective. No central bank in the Study Group had a clearly articulated financial stability objective that was an explicit part of its formal monetary policy objective – although the Bank of Thailand came close. However, all central banks in this sample reported having used analytical frameworks that take financial market developments into account when formulating monetary policy, and in some cases central banks have articulated how a distinct role for such developments is provided for. The ECB's two-pillar[10] monetary policy strategy is one example, the Bank of Japan's "one objective, two perspectives"[11] another.

1.5 Transparency and accountability

For financial stability related activities of the central bank, legal requirements or formal commitments to extensive disclosure have been rare compared to monetary policymaking.[12] Publication of decisions are typically discretionary and often bounded by requirements (or powers) to keep information on individual financial institutions confidential. The decision to publicise a given financial stability action may trigger a destabilising market reaction, making it necessary to delay disclosure.

At the same time, several Study Group central banks – the Sveriges Riksbank and the Bank of England in particular – have seen their financial stability report as a flagship communications vehicle for financial stability messages they have wanted to communicate actively to market participants and the government.[13] The Riksbank, for example, includes the results of stress tests for individual banks in its report. Having said that, it seems that financial stability reports that were not reporting analysis linked to actual or prospective policy actions did not have an impact comparable to monetary policy communications in the run-up to the recent crisis. As discussed in Section 2.5 below, future financial stability reports from the Bank of England will present the analysis leading to actual policy decisions in a manner that parallels the function of inflation reports

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[10] The monetary pillar identifies medium- to long-term risks to price stability and, thereby, provides an additional channel for financial system developments to enter the analysis and be given special attention.

[11] The second perspective includes longer-term low probability risks such as risks associated with financial instability.

[12] For example, the Bank of Japan Act distinguishes explicitly between Policy Board meetings on "monetary control matters" and other meetings, and requires the publication of minutes and transcripts of the former, but not the latter.

[13] All Study Group central banks except for Bangko Sentral ng Pilipinas and the US Federal Reserve publish a dedicated financial stability report, typically twice a year. The Federal Reserve Board's semi-annual Monetary Policy Report contains a section on financial stability. The fact that two of the three Study Group central banks with major supervisory responsibilities do not publish such a dedicated report squares with findings from larger surveys.

– alongside several other new vehicles for reporting on the operation of macroprudential policy. These innovations may be the leading edge of a new approach to transparency and accountability in the financial stability area.

2. New mandates and powers

Major reforms to the governance arrangements for financial stability policy have been implemented in a number of countries, alongside an even more general reconsideration of financial stability policy itself. In the United States, the far-reaching Dodd-Frank Wall Street Reform and Consumer Protection Act was passed into law in July 2010. In the European Union, a common view was forged around a proposal originally made by the de Larosière Group, which formed the basis for legislation adopted in September 2010 by the European Parliament with respect to new governance arrangements in both the micro- and macroprudential spheres. France and Ireland also re-engineered their supervision arrangements in March and October 2010 respectively, and Mexico introduced a new inter-agency framework in July 2010. In the United Kingdom, the incoming Government published consultative documents in July 2010 and February 2011 with a view to the introduction of new arrangements by the end of 2012. Legislative reform is under way in the Philippines to formalise the central bank's existing de facto mandate for financial stability.

2.1 Highlights of the major reforms and reform proposals

The Annex provides a summary of the major reforms undertaken or about to be undertaken by the Study Group countries. (In some countries, no active proposals are on the table, either because analysis of need and options has not progressed far enough, or because recent events have not revealed any major deficiency in local arrangements.) The main highlights are provided here.

In the **European Union**, new legislation beefs up coordination of microprudential supervision, while retaining its national base, and creates a centralised structure for macroprudential policy. With respect to microprudential policy, three new European Supervisory Authorities (ESAs) replaced existing advisory committees, and a joint committee was created to promote cooperation among them. ESAs have budgetary independence and a stronger legal basis for coordinating national regulatory and supervisory approaches.

With respect to macroprudential supervision, almost everything is new, including the concept of macroprudential policy itself. The new European Systemic Risk Board (ESRB), with representatives primarily from central banks and supervisors, is responsible for macroprudential oversight of the financial system within the European Union in order to contribute to the prevention or mitigation of systemic risks to stability that arise from developments within the financial system and the macroeconomy more generally. This should help to avoid episodes of widespread financial distress and contribute to the smooth functioning of the internal market.

The ESRB does not have direct authority over any policy instruments, but instead has the power to issue recommendations and risk warnings concerning systemic risks to the authorities that wield relevant instruments. Such recommendations, which carry an "act or explain" obligation, could be made public under certain circumstances. The ESRB relies heavily on the expertise of national central banks and supervisors (the ECB provides the secretariat as well as analytical, statistical, administrative and logistical support). The ESRB's views on macroprudential risks will be formulated by the members of the General

Board: the national central banks, the ECB, the ESAs, the European Commission (EC) and scientific experts, who all participate with voting rights; and the national supervisors and the Economic and Financial Committee (EFC), who participate without voting rights. Implementation of appropriate policy responses is today mainly the responsibility of microprudential supervisors, although the division of national responsibilities in the formulation and implementation of macroprudential policy is currently under consideration in many countries. How much discretion the network of microprudential supervisors will exercise in practice in responding to ESRB recommendations, including with respect to instrument selection, calibration, and pan-European consistency, remains to be seen. The ECB's clearly expressed view is that monetary policy should continue to be directed to a price stability objective, not a wider price and financial stability objective.

In the **United States**, the Dodd-Frank Act ("the Act") created a new centralised multi-agency macroprudential body, the Financial Services Oversight Council (FSOC). As is the case with the ESRB, the FSOC has no rule-writing or enforcement authority (with limited exceptions for payment, clearing and settlement activities). Instead, the FSOC has powers to recommend, and in some cases require, action by member agencies; and it has powers in relation to determining important aspects of the regulatory boundary (eg by designating financial companies and providers of financial infrastructure as warranting heightened supervision and regulatory standards, because of their systemic importance[14]). In this, the proposed FSOC is similar to the European ESRB, but with two notable differences. First, recommendations to member agencies to tighten regulatory standards or fill gaps in supervisory arrangements will be public. Accordingly, the comply-or-explain requirement that accompanies recommendations may have a somewhat different character. Second, there is a less prominent role for the central bank in the new US arrangements, by comparison with the new arrangements in Europe. The FSOC is chaired by the Secretary of the Treasury, and the Chairman of the Board of Governors is one of ten voting members. Further, the main analytical support body for the Council – the Office of Financial Research – is to be housed in the Treasury.

However, unlike in Europe, under the Act the Federal Reserve is the microprudential supervisor for all systemically important firms (including non-banks), with the express power to adjust prudential standards for macroprudential reasons. In contrast with the proposed European approach, therefore, the central bank has a significant *direct* formal responsibility for macroprudential regulation and supervision; in Europe the ECB's role would be *indirect* (though some national central banks are supervisors, and would thereby also have a direct role). Both jurisdictions emphasise regulatory instruments in the accompanying (implicit) macroprudential policy frameworks, consistent with the view that interest rate policy is a poor macroprudential instrument.

In **France**, a post-crisis reform of financial regulation and supervision is largely completed. An administrative order consolidating several regulators (with the exception of the markets regulator) into a super-regulator within the Bank of France (the Bank) was issued in January 2010. The new Prudential Supervisory Agency (PSA), which comprises 16 experts and is chaired by the Governor of the Bank, began its operations in March 2010. With consolidation, the regulatory boundary moved from a sectoral/institutional to a regulatory objectives basis. And, with the PSA being given a new, explicit mandate for financial stability, those regulatory objectives will contain a new systemic focus. In October 2010, the Banking and Financial Regulation Act created a Financial Regulation

[14] Such designations requiring a two thirds majority vote of FSOC members, including the affirmative vote of the Treasury Secretary.

and Systemic Risk Council (FRSRC)[15] to provide a systemic focus to financial risk analysis and decision-making.

In the **Philippines**, a review of financial stability arrangements did not identify major gaps – perhaps consistent with the relatively easy passage that the Philippine financial system experienced during the recent global financial crisis. The central bank is already responsible for supervision of the banking system and oversight of payment systems, and takes a broad, systemic view of that responsibility. However, for the sake of clarity, an amendment specifying that financial stability is an explicit objective of Bangko Sentral ng Pilipinas – while leaving price stability as the prime objective – has been submitted to the legislature.

In the **United Kingdom**, the incoming Government issued consultation documents in mid-2010 and early 2011 that proposed a radically different approach to financial stability policy. Under the new framework, which should be in place in 2012, the existing structure will be replaced by an arrangement placing the Bank of England at the heart of financial sector supervision. The current integrated financial services regulator, the Financial Services Authority, will be abolished. Its responsibilities for microprudential supervision of banks and insurers will be transferred to a new operationally-independent subsidiary of the Bank, the Prudential Regulation Authority (PRA). The PRA will be responsible for the oversight of the safety and soundness of all prudentially significant financial firms (including non-banks). Market and conduct of business regulation will be transferred to a new specialist body, the Financial Conduct Authority (FCA). A new Financial Policy Committee (FPC) will be established as a formal committee of the Bank's Court of Directors (the Court), with responsibility for delivering systemic stability through macroprudential regulation and oversight of the microprudential function. The FPC, which will be composed of top central bank officers, regulators and external experts, will have a policymaking role paralleling that of the Monetary Policy Committee (MPC).

The Bank's existing financial stability objective – introduced by the Banking Act in 2009 – will be reaffirmed but amended to emphasise the need for coordination with other relevant bodies. The FPC and the PRA will each be given overarching strategic objectives that will match those of the Bank, but will have specific operational objectives intended to provide an elaboration of how each authority is to interpret and pursue its strategic remit. Coordination of macro- and microprudential policy will occur via the FPC, which will have powers to make recommendations and, under certain conditions, to direct both the PRA and the securities regulator (the FCA) on general policies and rules. The chief executives of the PRA and FCA will be members of the FCA. Coordination with monetary policy will be facilitated by overlapping membership between the MPC and the FPC. The new framework will also encompass improved accountability and transparency arrangements for all policy functions.

The FPC, in interim form, will be heavily involved in designing the details of macroprudential policy, including the specification of the relevant toolkit. Ultimately the FPC's powers to use specific instruments for macroprudential policy purposes will be determined by Parliament in secondary legislation. Further, the government of the day will be given the power to flesh out the specific objectives of the FPC. This fleshing out will take the form of a remit provided to the FPC by the Chancellor of the Exchequer, in a similar manner to that provided to the Monetary Policy Committee (where the inflation target is specified).

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15 Chaired by the Minister of Finance and composed of the Governor of the Bank (also as President of the PSA), the President of the Financial Markets Authority, and the President of the Accounting Standards Authority (or their deputies).

2.2 Is a new macroprudential policy function being created?

One of the issues facing those considering policy reforms is whether existing policy functions simply need adjustment, or an entirely new policy function needs to be developed and implemented. Does microprudential supervision simply need to take a wider focus and monetary policy a more expansive view of objectives, or is something distinctly different required?

In several of the jurisdictions covered above, the focus of reform proposals revolves around the implementation of a new macroprudential policy function. This is clearly evident in continental Europe at the level of the European Union as well as at a national level in France and the United Kingdom. It is also clearly evident in the United States. In these places, new high-level coordination or decision-making bodies have been or are being formed with explicit mandates to focus on systemic risk identification and management. The addition or clarification of the existence of a financial stability objective also features in the Philippine reform proposals.

It may be worth noting that in no cases so far has an independent macroprudential policy function been carved out for implementation by a separate, specialist agency. Such a specialist agency would have been created under a draft proposal submitted by the Chairman of the US Senate Banking Committee, but that option was eventually rejected.

A main focus of the Dodd-Frank Act's treatment of systemic risk concerns the identification of systemically important entities and the requirement that they be subject to heightened regulation and supervision. It is an inherently institutional focus. In contrast, the ESRB has a less institutionally rooted perspective. Having said that, another major focus of the Dodd-Frank Act's treatment of systemic risk is ensuring that gaps in the regulatory framework are not allowed to develop or persist. A specific duty of the FSOC is to identify gaps in supervision and recommend ways of filling them. Each member of the FSOC is required individually to perform that function, attesting to their analysis to Congress. Further, the Act provides powers for secondary regulators to encourage primary regulators to take action to address emerging risks, and to take action themselves in the event that the primary regulator does not. In the United Kingdom, the clear division of labour between the microprudential regulator (the PRA) and the macroprudential supervisor (the FPC) is to be reinforced by two elements that will ensure that a distinctive macroprudential orientation is taken. First, the specific objectives of each will be different in detail. And second, instruments provided to the FPC will be purpose-designed for a macroprudential perspective.

Except for the United States, macroprudential analysis is primarily assigned to the central bank – usually (but not always) within the context of a specialist division within the central bank. In the case of the ESRB, the ECB provides analytical support, with the assistance of networks of technical and subject matter experts drawn from agencies that form the European financial regulatory system. In the United Kingdom, the Bank of England is responsible for servicing the needs of the FPC. While the Federal Reserve undertakes its own macroprudential analysis, the main responsibilty for providing information and analysis to the FSOC falls on the new OFR, housed in the Treasury. Identification of policy options and selection of preferred policy responses are usually the responsibilities of the coordinating body. But final decision-making on actual instrument settings is usually proposed to be decentralised, remaining with the authority currently responsible for deployment of the relevant instrument. The French reforms and the ongoing situation in the Philippines have similar characteristics to those being adopted in the United Kingdom: both the Bank of France and Bangko Sentral ng Pilipinas are responsible for analysis, policy selection and implementation.

2.3 Are financial stability objectives being given prominence and clarity?

While many of the reform proposals feature the introduction of financial stability objectives, the attention to objective specification is particularly strong in the United Kingdom, consistent with the emphasis on process and incentives that is common there. The new Banking Act included a new approach to setting out a multifaceted objective in relation to actions under the special resolution regime (see the Box starting on page 31 for elaboration). This new approach lists several objectives, and requires a strategy statement (in the form of a code provided by the Treasury) that provides interpretation and prioritisation. The Banking Act also provided the Bank of England with a generic financial stability objective, and required that the Court develop a strategy for its fulfilment.[16] Such codes and strategy statements are updatable, allowing for the evolution of interpretation and prioritisation as knowledge is acquired. This model will also be adopted for the new objectives being specified for the FPC and the PRA. The Bank's overall financial stability objective will be reaffirmed, with amendment to emphasise the need for coordination with other relevant bodies. The objectives of the FPC and the PRA will be aligned with those of the Bank, while the FPC will be required to avoid impeding the PRA and FCA in their pursuit of their objectives. The Treasury will provide greater clarity on the overall approach to be taken by the FPC by submitting to Parliament a Remit that the FPC will be required to respond to publicly. The Remit thus fills a similar role to that provided by the Banking Act's code and the Court's strategy statement. In each case clarity is added to the objectives' fuzzy outlines. This approach therefore also echoes the approach taken in the United Kingdom in respect of monetary policy, where the Chancellor provides the Bank of England with detailed specifications of the target to be followed when pursuing price stability.

2.4 Is there recognition of potential policy conflicts?

Recognition of the potential for various public policy objectives to clash from time to time (see Part III for elaboration) is implicit rather than explicit in most of the new institutional arrangements. Different approaches have been taken with respect to coordination in various areas.

With respect to micro- and macroprudential policy, there are different degrees to which the macroprudential decision body will have directive power over microprudential regulators. Europe's ESRB can issue warnings and recommendations to supervisors with a comply-or-explain requirement that will add to their likely influence, although such warnings and recommendations might not be public. The United States' FSOC can also issue recommendations with comply-or-explain conditions, with additional force being provided by their public nature. In the UK the FPC will have power to direct the micro-prudential regulators, though it must take account of their objectives. The direction powers will be specified in legislation. The power to make recommendations will not be constrained other than by the Bank's own general financial stability objective. The PRA and the FCA will have some influence over the FPC's recommendations since the heads of those agencies are to be represented on the FPC, and there will be additional overlap between the memberships of the FPC and the governing body of the PRA. In addition, the FPC's specific authorities – its instruments – will be determined by Parliament, with

16 Such strategy statements are now published annually, in the Bank's Annual Report.

the result that the high-level framework for the management of overlaps will explicitly be determined by the legislature.

With respect to financial stability policy and fiscal policy, the Dodd-Frank Act explicitly provides the Executive branch with final decision authority over key matters that shape fiscal risk. The Dodd-Frank Act allows emergency lending by the Federal Reserve under Section 13(3), the provision of debt guarantees by the FDIC, and certain other emergency actions, but only with the agreement of the Treasury Secretary. These new arrangements extend the model found in the FDIC Improvement Act, whereby decisions to favour systemic risk reduction over minimum cost techniques in the course of the resolution of failed banks require Treasury assent. Furthermore, aspects of the determination of the regulatory boundary (including which entities are designated as warranting heightened regulation and supervision) also require the agreement of the Treasury Secretary. In the United Kingdom, the new arrangements preserve the decision-making authority of the Chancellor when it comes to putting taxpayer money at risk. And explicit requirements for the Bank of England to advise the Chancellor of developments that may create fiscal risk will be built into the new legislation. In continental Europe, explicit allowance for active management of potential interactions between financial stability policy and fiscal risk is less clear. The ESRB and ECB do not participate in failure management, so do not have choices to make over associated risks to the taxpayer. Nor can they legally provide financial resources in ways that have the effect of funding governments.

With respect to financial stability policy and growth and efficiency considerations, the wording of the FPC's objective statement is intended to make it clear that pursuit of the objectives does not require or authorise the FPC to take actions that, in its opinion, would damage the financial sector's ability to contribute to growth in the medium- to long term. And in the United States, the Dodd-Frank Act requires that the FSOC studies and seeks to minimise the impact on long-term growth of potential regulatory actions that are intended to reduce systemic risk.

Finally, with respect to financial stability and monetary policy, it is also worth noting that none of the new arrangements overturn the respective central bank's independent authority over monetary policy, or make monetary policy objectives subservient to financial stability ones. In this sense, an important decision has implicitly been made by the authors of the various proposals, namely to preserve the focus of monetary policy and the autonomy of central bank decision-making thereon.

2.5 Developments in the area of accountability and transparency arrangements for financial stability policy

New requirements for disclosure of policy actions in the area of financial stability are prominent parts of the reforms in both the United Kingdom and the United States.

In the United Kingdom, each regulatory institution will be subject to specific mechanisms of accountability. Within the Bank of England, the FPC and PRA will first be accountable to their own boards for performance against objectives; and second to the Court for administrative and value-for-money matters, and in that regard for performance against objectives. Externally, the FPC will be subject to numerous interlocking disclosure and accounting requirements:

- Publication of meeting records, within six weeks, summarising the Committee's deliberations and the balance of arguments underlying its actions. Any accounts of why recipients of FPC recommendations have not complied with part or all of such recommendations will be published here. Information on matters of a highly confidential or market sensitive nature need not be published immediately, but the FPC will be required periodically to reassess the sensitivity of the information, with a view to publishing it at an opportune time.

- Submission to the Treasury of all directions issued by the FPC to either the PRA or FCA, so that these can be laid before Parliament.
- Twice-yearly publication of Financial Stability Reports containing assessments of potential and actual risks to financial stability, and actions taken by the FPC (including assessments of their effectiveness) – these reports are to be laid before Parliament.
- Twice-yearly updates from the Governor to the Chancellor on developments in prudential regulation and financial stability.
- Requirements, to be determined by the Treasury, for public consultation with affected parties – for example, through policy statements issued by the FPC setting out in advance how it expects to implement regulatory measures.
- Regular hearings by the Treasury Select Committee and occasional hearings by the House of Lords.

The PRA will also be subject to enhanced accountability requirements. Parliament will hold the PRA publicly accountable for the achievement of its statutory objective and the general public will have a right to information about the operation of the system and the way the PRA exercises supervision. Legislative provision will also be made for:

- A full audit by the National Audit Office (NAO), with accountability to the Public Accounts Committee (PAC).
- The power for the Treasury to order an independent inquiry into the PRA's economy, efficiency and effectiveness.
- The power for the Treasury to order an independent inquiry into regulatory failure, carried out by a third party, as is currently provided for in the Financial Services and Market Act.
- A new requirement for the regulator to make a report to the Treasury, to be laid before Parliament, where there has been regulatory failure. This report may include the disclosure of confidential information where this would be justified in the public interest.

In the United States, the Dodd-Frank Act also increases disclosure of financial stability actions (including emergency actions; see Part II). The FSOC is required to report to Congress annually, and provide testimony when required. Alongside the annual report, each Council member is required to attest personally that they believe that the Council, the Government and the private sector are taking "all reasonable steps to ensure financial stability and prevent systemic risk", or identify the steps that need to be taken to achieve that. Various Council determinations and actions must be reported to Congress; likewise for certain Federal Reserve actions in the area of financial regulation and supervision. And annual stress tests of large or systemically important financial firms must be conducted, with summaries of the results published.

Part II: Financial stability responsibilities in times of crisis – pre-crisis arrangements and recent innovations

1. Mandates and powers as they stood before the financial crisis

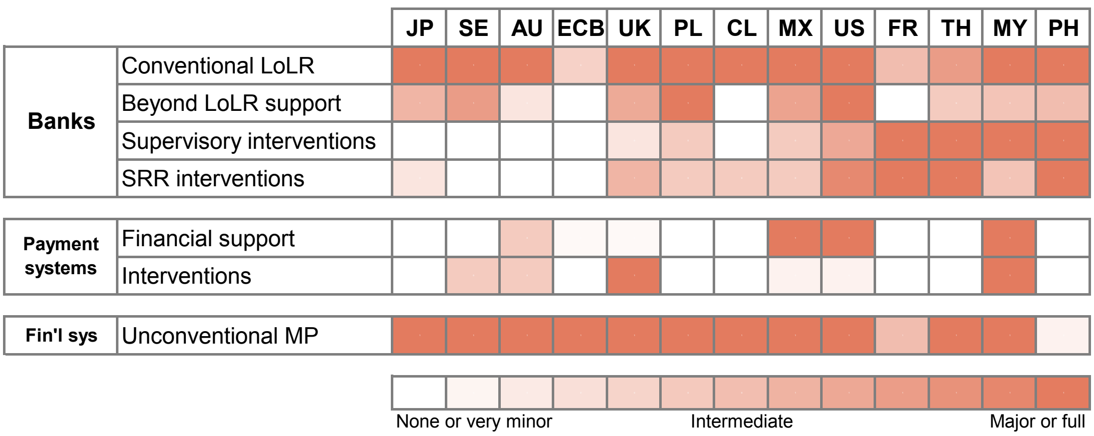
This section draws on the survey that was conducted amongst Study Group central banks, which captured arrangements for financial stability policy emergency actions as they stood before the financial crisis. This is a useful point of departure for the discussion of new arrangements in the next main section.

Using the same approach as Tables 1 and 2 in Part I, Table 4 shows the extent of central banks' financial stability related mandates in times of crisis, and Table 5 the strength of the legal grounding of these mandates, as they stood prior to the crisis. The most widespread mandates were the provision of conventional lender of last resort (LoLR) support (top row) and the ability to conduct unconventional monetary policy (bottom row). Financial support beyond conventional LoLR was a frequent mandate but often a responsibility where the central bank did not decide alone, while supervisory interventions and interventions that are part of special resolution regimes (SRR) were more common for central banks that had supervisory responsibilities in normal times than for those with little or no role in banking supervision. There were also sometimes limitations on the provision of non-conventional LoLR. For example, in Europe the Lisbon Treaty prohibits monetary financing of governments – which, on many readings, would include central bank financial support for enterprises that is quasi-fiscal in nature and unrelated to the execution of monetary policy. Mandates to support payment systems or to intervene in their activities are much less frequent than the widespread central bank oversight responsibilities for payment systems in normal times.

Table 4

Financial stability related mandates of central banks in 2009

(The darker the shading, the bigger the mandate)



Source: BIS survey of participating central banks, conducted in 2009

Recalling from Table 1 that in our sample the central bank played a major role in banking supervision only in France, Malaysia, the Philippines, Thailand and the United States, it is notable how much more widespread central bank mandates to (potentially) support banks were during crisis times. Again, this is well known, but helps explain why one survey respondent noted, "it's us (the central bank) people look to for financial stability, no matter if we have supervision or not!" Such perceptions probably matter in the public debate on (re)defining financial stability responsibilities.[17]

With the exception of crisis measures for payment systems, central bank mandates for crisis actions are typically grounded in law explicitly – at least among this set of central banks (Table 5). For central banks' role in crisis time supervisory interventions or their part in special resolution regimes, explicit legal provisions are necessary to uphold principles of justice in administering property rights in such difficult situations.

Table 5

Grounding of financial stability related mandates of central banks in 2009

(The darker the circle, the stronger the grounding of the mandate; the darker the shading of the cell, the bigger the mandate, as in Table 3)

		JP	SE	AU	ECB	UK	PL	CL	MX	US	FR	TH	MY	PH
Banks	Conventional LoLR	●	●	◑	◔	◑	●	●	●	●	◔	●	●	●
	Beyond LoLR support	●	●	◔		◔	●		●	●		●	●	●
	Supervisory interventions						●		◑	◔	●	●	●	●
	SRR interventions	●		○		●	●	●	◑	◕	●	●	●	●
Payment systems	Financial support			◑					●	●			●	
	Interventions		◑	◑		●			○	○			●	
Fin'l sys	Unconventional MP	●	●	◑	●	◑	●	●	◑	◑	●	●	●	◑

	○	○	○	◔	◔	◔	◑	◑	◕	◕	●	●

No or very weak grounding — Intermediate — Strong grounding

Source: BIS survey of participating central banks, conducted in 2009

1.1 *Lender of last resort (LoLR) and beyond*

Financial support to banks (individually or as a group) can be delivered through standing facilities that are used primarily for the central bank's monetary policy operations and can be tapped on demand by authorised financial institutions, or by the central bank granting special emergency liquidity assistance to a troubled bank. Both approaches may entail risk to the central bank's capital, with the degree of risk moderated by collateral practices and possible risk layoff arrangements (eg a guarantee provided by the government). How many categories of support one distinguishes and how one draws the line between them is impossible to decide on principle alone, and the difficulties some participants had with the – seemingly simple – scheme proposed for the survey drive home an important point: in practice, well known terms such as lender of last resort or emergency liquidity assistance are not necessarily used consistently (ie for behaviourally similar tools) across countries, and new approaches taken in the present crisis compound the need to compare approaches either with caution or in detail, or both.

[17] Do people only thank firefighters or also blame fires on the fire department, as the latter often has primary responsibility for fire safety and prevention?

To illustrate, the Sveriges Riksbank in its survey response preferred to differentiate between (i) standard lending facilities used for monetary policy operations (requiring normal collateral); (ii) emergency liquidity assistance (under the heading conventional LoLR) which would almost always be against exceptional collateral, require a solvency test and put the central bank's capital at risk; and (iii) beyond conventional LoLR support for all other support measures (eg guarantees, capital injections, etc). For others, the boundary lines for "conventional LoLR" could reasonably be drawn "earlier", ie for support implying less risk to the central bank's capital (and within the risk tolerance defined by the board, perhaps in agreement with the government), and include standing facilities that are used as a backup source of liquidity, available at a penalty rate. And for the Bank of England, the preference is to think of "market-wide liquidity insurance arrangements" alongside conventional LoLR, presumably to emphasise the systemic motive behind central banks providing such facilities.

1.2 Decision-making

The survey showed a remarkable diversity of decision-making arrangements for the provision of various types of financial support to banks, both in terms of the committee structure used at the central bank and the involvement (or not) of government or government agencies. For example, the process used at the Riksbank relied on the Executive Board as the single formal internal body where financial stability matters are discussed and decisions are taken, with advice (eg on the solvency of a troubled bank) received from the Riksbank's Financial Stability Department and the Swedish FSA. Swedish law or the MoU between the Riksbank, the Swedish Ministry of Finance, the National Debt Office and the Swedish FSA contained no details on the sequence of steps to be taken to decide on emergency financial support to a systemically important bank that puts the Riksbank's capital at risk. This may create problems in situations when time is of the essence. On the plus side, such an arrangement may leave room for arguments that make the most sense to carry the day in an exceptional situation, but it also requires great trust in the professional competence and goodwill of all concerned, not least those who will be holding decision-makers to account later on with the benefit of hindsight.

Compared to the Swedish case, the National Bank of Poland had an additional internal level in its decision-making framework: the "Financial Crisis Management Team" was chaired by the Deputy Governor and included the heads of the four departments that were directly involved in these matters. The Team was charged with recommending emergency measures the National Bank of Poland's Management Board should take when financial system stability is threatened, but the final decision on providing financial support was for the Management Board to take. A similar framework was introduced in Mexico in 2009. By contrast, the decision-making arrangement in Japan relied on the Policy Board as the principal internal body for discussion and decisions but, when support going beyond conventional LoLR is involved, the government may be involved in the decision-making process. For example, the Prime Minister and the Minister of Finance may, when they find it necessary for the maintenance of the stability of the financial system, request the Bank of Japan to provide loans. The Bank independently judges whether to provide such loans.

The institutional arrangements for emergency lending at both the Bank of England and the Federal Reserve that were in place during the crisis had quite different formal characters, but they converged somewhat in practice during the crisis. In the case of the Bank of England, decision-making on emergency lending was (and remains) the province of the Chancellor. Analysis and advice leading into such a decision was undertaken by the Bank using a Financial Stability Committee (FSC comprising the Governor and the two

Deputy Governors, and four Directors of the Bank appointed by the Chairman of Court). The Court's active involvement followed from responsibilities given by the Banking Act in 2009 and that some matters are reserved for the Court, including decisions affecting the balance sheet and the use of the resources of the Bank. In addition to the inclusion of Directors on the FSC, the Transactions Committee of Court (TC – comprised of the Chairman of the Court and two other Directors, normally the Deputy Chairman of the Court and the Chairman of the Audit Committee) would be consulted about transactions outside the normal course of the Bank's business and outside the remit of the FSC.

However, because the decision to undertake emergency lending was ultimately the decision of the Chancellor, the key body was the Standing Committee on Financial Stability (SC – chaired by the Treasury and comprising representatives of the Treasury, the Bank of England and the FSA). This tripartite committee was the principal forum for agreeing financial stability related policy, coordinating or agreeing action between the three authorities, and exchanging information on threats to financial stability.

To trace out a complex process, a financial institution's access to the Bank's market-wide liquidity insurance arrangement depended on the Bank's assessment of the institution's creditworthiness (based on publicly available information and on information from the financial institution itself[18]) and a decision on the matter by the Executive Director, Markets, insofar as the access was within documented delegated authorities. For liquidity support beyond the Bank's published facilities, the Governor would first consult the FSC on the systemic nature of the problem. The FSC could, under statute, vote on the advice it provided to the Governor (its votes not being published) and could also consider whether the question put to it exceeds its own remit, in which case it would necessarily consult with the Bank's Court. Given the advice from the FSC, the Governor would make the final decision on the Bank's view of the systemic nature of the problem and advise the Treasury via the SC (the decision not being published). The Treasury would then have ultimate responsibility for the authorisation of certain support operations. If support were authorised, the Governor could (but need not) ask the Treasury for an indemnity, and the Treasury could (but need not) provide one. Before providing support without indemnification, the Governor would consult the FSC. If the FSC concluded that the risks were acceptable and the Governor concurred, then the Bank would provide the support. If not, the Governor would turn back to the Treasury to negotiate indemnification. If the Treasury agreed to indemnification the Bank would provide the support.

In the United States, in contrast, the Federal Reserve had a large degree of autonomy in extending credit to depository and non-depository institutions. Section 10B of the Act allowed (and still allows) any Federal Reserve bank to lend to depository institutions at any time provided that the advance was limited to a term of four months or less and was secured to the satisfaction of the lending Federal Reserve bank. The Act placed no legal restrictions on the type of assets that could be pledged to secure discount window loans, but there were restrictions on lending to undercapitalised depository institutions.

Section 13(3) allowed the Board of Governors of the Federal Reserve System to authorise a Federal Reserve bank to lend in "unusual and exigent" circumstances to any individual, partnership or corporation upon approval of five members of the Board of Governors. The extension of credit had to be secured to the satisfaction of the lending Federal Reserve bank, which had to obtain evidence that adequate credit was not available to the borrower from other banking institutions. Most of the emergency lending facilities authorised by

18 The Bank of England had no statutory power to request such information but could make its provision a condition of granting access to its liquidity facilities.

the Board of Governors to address the recent financial crisis were established under Section 13(3) authority. Thus, formally, the Federal Reserve's independence to extend emergency credit greatly exceeded that of the Bank of England. In practice, however, the Federal Reserve and the Treasury were in close consultation through the financial crisis, and the Treasury Secretary openly acknowledged the existence of risks (indirectly) to the taxpayer by way of a letter acknowledging the potential for future transfers from the Federal Reserve to the Treasury to be reduced if losses were incurred.

1.3 Direct financial costs and risks of financial stability actions in which the central bank is involved

According to the definition used for the survey, conventional lender of last resort support is fully collateralised and conditional on solvency (tested or presumed). Ex ante, it is therefore not expected to result in financial costs to the central bank beyond the central bank's risk tolerance for conventional LoLR actions. All central banks in the survey would bear any realised losses that result from such limited risks with their own financial resources, at least initially. Over time, any such losses would typically be passed on to the government, via a corresponding reduction in the surplus transferred by the central bank to the government. Notably, in Poland, a temporary law (passed during the recent crisis and in force until the end of 2010) provided for the central bank to be reimbursed for 50% of any losses caused by LoLR loans that could not be repaid as a result of worsening financial conditions.

The situation was different for costs arising from beyond conventional LoLR support. The Reserve Bank of Australia was on one end of the spectrum, as its balance sheet is not available intentionally to support insolvent institutions. If the government still decided to provide support to an insolvent institution, the Reserve Bank of Australia could facilitate the transaction or take other actions, so long as its balance sheet was not at risk (eg using a government indemnity). The decision-making framework at the Bank of England (discussed above) made major threats to the Bank's capital less likely, while at the Bank of Japan the Bank's capital is not necessarily protected ex ante. However, Bank loans that serve as a bridge until a capital injection and are provided at the request of the Prime Minister and the Minister of Finance would be expected to be repaid through financial assistance for failed financial institutions by the Deposit Insurance Corporation of Japan.

It should also be noted that legal risks to the central bank can be considerable, particularly when it is involved in bank resolution. Its actions may have an impact on property rights or involve the use of public funds. Adequate legal protection for central banks and central bank officials is therefore needed.

2. New mandates and powers

The reforms undertaken in countries represented on this Study Group generally have placed greater emphasis on preventive policy than on emergency response and crisis management arrangements. Nonetheless, developments regarding such arrangements are worth noting in two areas of significance for central banks: the provision of emergency lending, and the arrangements for managing the failure of systemically important financial entities.

2.1 The provision of emergency lending

There are substantial differences across jurisdictions on the specific powers and authorities provided to the central bank to engage in emergency lending. In some countries, a central bank's independent authority to lend to the private sector is tightly constrained by explicit requirements about the nature of the security cover required, the pricing of the transactions, and the range of counterparties. In other countries, these things are not set out explicitly, and judgment is required. In yet other countries, it is clear that the government becomes involved in decision-making when non-standard operations are being considered.

Experience with the provision of emergency liquidity finance in the United States during the recent crisis has led to changes to the Federal Reserve's authority to extend emergency loans in unusual and exigent circumstances (under Section 13(3) of the Federal Reserve Act). Such emergency credit extension can now only be made under the umbrella of a broad-based eligibility programme or facility, and only with the approval of the Secretary of the Treasury. Risk mitigation and cost-recovery provisions (the former to ensure that loans are not provided to any borrower in any form of insolvency proceedings, and to ensure that collateral taken in such loans is of sufficient quality to provide protection) are also to be introduced to minimise the potential burden of emergency lending on taxpayers.

2.2 Special resolution regimes for failing banks and financial companies

Authorities in both the United Kingdom and the United States found that their ability to resolve efficiently large, complex bank and non-bank financial firms whose failure posed a threat to the stability of the financial system was severely hampered by the lack of necessary resolution powers. Special resolution regimes or powers for dealing with failing banks are in place in many countries (Australia and Japan, for example), but by no means all. The absence of such powers means that financial failures are more disruptive, more likely to threaten the financial system, more likely to induce the use of public money in rescues, and therefore more likely to create fiscal risk and contribute to moral hazard.

Following the experience with Northern Rock and the need to resort to emergency legislation in early 2008, the UK Parliament passed the Banking Act in early 2009, implementing a standing special resolution regime (SRR). That regime allows the authorities to intervene, before insolvency, to transfer all or part of a failing bank to another bank, to a bridge bank or bring it into temporary public ownership, to administer any residual business not transferred, or to close the bank, liquidate its assets and either pay out or transfer its insured depositors' accounts. The overall regime is subject to objectives specified in the Act. Further details on the potential use and application of the SRR are provided in a Code of Practice drawn up and updated as necessary by the Treasury, in consultation with the other authorities.

The legislation to be introduced in 2012 is not expected to make substantive changes to the SRR other than to take account of the respective authorities' new roles. The PRA and the Bank of England will have distinct roles and responsibilities under the SRR. The PRA will have independent authority to trigger the stabilisation options under the SRR (that is, making the assessment that the conditions specified in Section 7 of the Banking Act 2009 are met) and the Bank of England will continue to take the lead on the operation of the SRR, provide liquidity insurance to the financial sector and, where appropriate, emergency liquidity assistance (ELA). The potential coordination issues created by the existence of a system in which one organisation pulls the trigger and another carries out resolution are expected to be minimised under the Bank of England's new integrated structure in which the PRA will be part of the Bank of England group, staff are shared at the top of the organisations and information flows more freely. The microprudential function and the SRR function will report through separate lines to the Governor in order to ensure that any inclination to unwarranted forbearance amongst the supervisors does not automatically infect the resolvers.

In the United States, the Dodd-Frank Act introduced a new legal authority to resolve failing non-bank financial firms that are designated as systemically important by the FSOC. (The FDIC already has substantial resolution powers to manage failures of insured banks.) Invoking the Orderly Liquidation Authority (OLA) for a particular company will require a recommendation by the Board of Governors and the Board of Directors of the Federal Deposit Insurance Corporation (FDIC) (both by a two thirds majority vote); and a determination by the Secretary of the Treasury, in consultation with the President, that the company is in default or in danger of default, that its failure and resolution under the Bankruptcy Code would have serious adverse effects on financial stability, and that resolution under the OLA would avoid or mitigate those adverse effects. This process is similar to that used to invoke the FDIC Improvement Act's Systemic Risk Exception, and it will create a significant hurdle to the overuse of the special resolution regime.

Under the new regime, the FDIC is the primary agency for resolving troubled systemically important non-depository financial firms that are not insurance companies, and it will have powers broadly similar to those available when conducting bank resolutions. (Resolutions of systemically important insurance companies would continue to be handled under State law.)

In continental Europe, the issue of special resolution powers and procedures is bound up in discussions over the development of a pan-European framework on crisis management and resolution of financial institutions. The new regime will provide member states with flexibility in designating the authorities responsible for resolution. This implies that the landscape could end up being somewhat heterogeneous, with some central banks (especially those also responsible for supervision) taking a leading role in resolution and others being less closely involved. In Japan, where emergency powers are available to the authorities, the Bank of Japan is involved in decision-making about emergency measures. Specifically, when a serious threat to the maintenance of financial system stability is deemed to be caused by the failure of a bank, the need to implement exceptional measures, such as capital injection, is discussed at the meeting of the Financial System Management Council held at the request of the Prime Minister, of which the Governor is one of the attending members. In Australia, a review of policies and procedures available to the authorities in emergency situations is being undertaken, but within the context of existing law. The review is not expected to lead to any significant changes in the role of the central bank vis-à-vis the main regulator, the Australian Prudential Regulation Authority.

2.3 Accountability and transparency developments relevant to crisis management actions

The new legislation adopted in the United States introduced several measures that substantially enhance accountability and transparency for emergency lending actions.

The new Act requires the Federal Reserve to provide Congress with immediate notice (within 7 days of authorisation) and periodic reports (every 30 days thereafter) regarding any Section 13(3) facility, including the names of borrowers, participant-specific borrowing amounts, and information regarding collateral (although the Federal Reserve will be able to limit the availability of certain details to only the chairpersons and ranking members of the relevant Congressional committees, upon a written request).

The Federal Reserve is required to disclose information regarding participants and the amount of individual transactions in all future credit facilities established under Section 13(3), and borrowers or counterparties in discount window and open market transactions, as follows: one year after termination of a Section 13(3) facility by the Federal Reserve and eight calendar quarters after the calendar quarter in which the transactions occurred with respect to discount window and open market transactions.

The Government Accountability Office (GAO) is required to conduct a one-time audit of each of the Section 13(3) and other facilities and programmes established between 1 December 2007 and the date of enactment of the new legislation. The GAO is authorised to conduct operational audits of all future credit facilities established under Section 13(3), and of discount window and open market transactions.

In the United Kingdom, the arrangements to be introduced in 2012 will also aim at ensuring clear accountability and transparency for the performance of each regulatory entity. For the PRA – which will ultimately be responsible for triggering financial firms into the SRR – external accountability to the Government and Parliament will be delivered through the mechanisms described on page 18.

The PRA will also be fully subject to the Freedom of Information Act (FOIA). However, some additional safeguards will be put in place to ensure that information can flow freely between the Bank and the PRA without undermining the limitations on the application of FOIA to the Bank of England.

Part III: Issues to be considered as new financial stability responsibilities are taken on

This part of the report considers various issues that will be encountered in the course of designing the governance of new macroprudential policy responsibilities and ensuring their compatibility with other policy responsibilities. The essential message of the analysis is that good governance arrangements are important because it will not be straightforward to achieve financial stability goals that are yet to be fully understood, or to mesh their pursuit with other policy goals.

Governance issues around crisis management are only touched upon at the end of this part; Part IV has more to say on that subject. Part IV will also take up the various issues covered in this part, apply them to four likely configurations of macroprudential policy, and relate them to recent examples of new institutional arrangements.

1. Explicitness of the mandate – is there a need for formalisation?

While most central banks understand that they have a policy responsibility for financial stability[1] – and are seen by the public to have such a responsibility – that mandate is not always explicit. In fewer than half of central bank laws is a financial stability objective mentioned, and in many of the cases where it is, it is connected with a microprudential function – eg licensing and supervision of financial institutions. The financial stability mandate, whether formal or informal, explicit or implicit, has until recently been thought of by many as a policy function discharged mostly through the regulation and supervision of financial institutions, by ensuring the safe functioning of key components of financial infrastructure – clearing and settlement systems, standardised contract arrangements, credit bureaus and rating systems, etc – and, when things go wrong, by lender of last resort. A major lesson of the recent crisis is that this is insufficient. There is a missing macroprudential ingredient, addressing interactions among component parts of the system (including users of financial services). Most central bank laws currently do not give the central bank an explicit and comprehensive mandate for financial stability policy or specify a macroprudential function for the central bank. Does this matter? Should mandates be made explicit?

Central banks confront the issue of financial stability already, in connection with their other functions …

Central banks may derive a mandate for macroprudential policy from the relevance of financial stability to their other functions. For example, central banks act as lenders of last resort. Because of this, they may find that they are at the sharp end of public policy actions in the face of financial instability. In addition, money markets need to operate smoothly in order for central banks to implement monetary policy measures that are then transmitted by changes in financial market prices. A breakdown of market mechanisms because of financial instability will impair monetary policy's ability to influence retail and business interest rates, and hence households' and corporations' behaviour. Furthermore,

[1] All 28 OECD central bank respondents to a survey in 2006 indicated that they are responsible for maintaining overall financial stability – S Oosterloo and J de Haan (2006), "Central banks and financial stability: a survey", *Journal of Financial Stability*, No 1.

financial positions (eg balance sheet structures) themselves influence agents' behaviour and thus macroeconomic outcomes. To forecast and accurately shape those macroeconomic outcomes, a central bank will need to account both for the influence of the financial sector on monetary conditions, and for the head- or tailwinds due to the non-financial sector's desired adjustments in financial positions.

… but this may not be sufficient to establish a mandate for financial stability policy.

On the other hand, having an interest in financial stability does not by itself imply having a public policy mandate to pursue an independent financial stability goal. Two illustrations may be useful. The monetary stability mandates of central banks give them a strong interest in the evolution of fiscal policy, as clearly illustrated by current circumstances.[2] But fiscal policy does not thereby become a responsibility of the central bank (even were the central bank to have, say, the power to vary certain tax rates in a countercyclical manner[3]). Second, should a separate macroprudential authority be created, that authority would obviously have an interest in the evolution of monetary policy, since monetary conditions impact on financial behaviour. As countercyclical macroprudential instruments would influence financial conditions, it could have the power to affect monetary policy outcomes. But having an interest in such outcomes, and the power to influence them, would not imply an extension of their financial stability mandate to include monetary stability. These illustrations show that it is desirable to spell out the mandates of each agency, to understand how they overlap, and to deal with the potential inconsistencies at the boundaries.

Explicit objectives help anchor policy mandates.

A powerful way of spelling out the mandate is to establish an explicit objective for the responsible agency. Over recent decades, central banks' objectives for monetary stability have become considerably more explicit. With that has come typically more formality, as objectives have become embedded in legislation, or in high-level extra-statutory statements on the policy framework.

If they exist at all, financial stability objectives are often vaguer than monetary policy objectives. "Maintain financial stability" is less easily interpreted than "maintain price stability" since price stability can be numerically approximated in terms of a generally agreed index, whereas financial stability cannot. Further, financial stability objectives are often expressed in directional, rather than absolute terms: for example, "to promote" or "to support" or "to endeavour to achieve". No metric is available to understand how much promoting, supporting or endeavouring is intended.

Financial stability objectives may be held to be implicit in the assignment of functions and corresponding powers to the central bank. However, quite different objectives might be associated with the same function and powers. To illustrate, many central banks have responsibility for payment system oversight, sometimes with explicit objectives. Some of those objectives refer to financial stability; others refer to payment system efficiency and openness to competition. These may call for quite different actions. It helps those charged with the execution of policy to know which actions are desired and which are

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[2] See S Cecchetti, M Mohanty and F Zampolli (2010), "The future of public debt: prospects and implications", *BIS Working Paper* no 300, March.

[3] As proposed, for example, by former Reserve Bank of New Zealand Governor, Donald Brash (D Brash (2008): "Would giving the Governor power to vary the excise tax on fuel reduce the amplitude of exchange rate fluctuations?", *Asymmetric Information*, April).

not. It also helps those in the private sector that are subject to policy to be able to predict the likely direction of official actions under different scenarios.

Explicit mandates with explicit objectives may help ensure that appropriate policy actions are taken.

There is another practical reason why an explicit mandate with an explicit objective may be needed for effective execution of the financial stability function. Policy actions to constrain risk-taking that threaten financial stability – raising interest rates, raising required balance sheet buffers, applying tougher loan to value ratio limits, for example – are likely to be highly politically sensitive, not least because they will normally coincide with a rosy macroeconomic outlook. Such actions need to be robustly defensible; otherwise they might never be taken. "Preserving the health of the transmission mechanism" may not make for compelling marketing of the rationale for taking away the punch bowl.

At the same time, without an explicit mandate or an explicit objective, policy actions taken under existing authorities may be subject to ex post challenge. Without ex ante clarity, decision-makers may be caught between the rock of being held to account after the event for actions not taken, and the hard place of being criticised for seemingly unnecessary or costly actions when instability fails to materialise.

Explicit policy objectives may be needed to manage policy trade-offs ...

Generally, monetary and financial stability are mutually supportive. The effective conduct of monetary policy presupposes a stable financial system and, vice versa, stability in the financial system is supported by stable and predictable monetary policy. Stability in both dimensions aids economic efficiency, ie they promote the efficient allocation of resources and sustainable economic development over time. However, the short-term interests of monetary policy and financial stability policy may occasionally diverge – an example being a leveraged asset bubble during a period of low inflation and a pace of expansion consistent with estimates of potential growth.[4] In such situations, having explicit policy objectives will help the authorities to set the desired priorities. The frequency of a trade-off dilemma should not be exaggerated, though, and its management will be further aided if the authorities have a wide range of tools, consistent with their mandate, for dealing with financial stability matters. However, the interaction between the targets of monetary and financial stability policies depends on the nature of the macroeconomic disequilibria facing the economy, on the choice of monetary policy regime and on the structure of the financial sector. That there is interdependence is clear, but how it manifests itself in challenges for policymakers, and thus in the need for different policy tools or institutional arrangements, requires further study.

Where the central bank has policy responsibility for both monetary and financial stability, some ranking of objectives would be desirable (though it may not yet be possible in all circumstances – see next section). In the case of the ECB, for example, such a ranking exists with the primary objective being price stability. Some ranking may be particularly desirable where decision-making on financial stability policy actions is shared with other authorities. Where trade-offs exist and another party participates in decisions, without clear rules the

[4] Another example would be a central bank that defends a fixed exchange rate by raising short-term interest rates to stem capital outflows. The higher interest rates may support the nominal monetary policy anchor, but at the cost of creating strains in the financial system (inter alia, Sweden in 1992).

independence normally accorded the central bank with respect to monetary policy actions would be undermined.

... but overly ambitious attempts to place clear objectives in law may inadvertently constrain policy.

Given the current state of knowledge about what constitutes financial stability, and its main drivers, attempting to direct policy actions by way of explicit objectives may create practical difficulties. For example, it would be unfortunate if explicit objectives inadvertently ruled out policy options that turn out to be desirable. Policy effectiveness may also be hampered if, at moments where decisiveness is required, lawyers need to be engaged to assess whether the law provides the necessary authority to act. As a second example, a clear objective statement directing the policy to ensure financial stability, without indicating the limits to which the authorities are prepared to insure private agents against tail risk events, may induce more risk-taking than available policy instruments can cope with.

Another potentially important complication is the infrequency, non-linearity and hence unpredictability of financial crises. It is especially difficult to predict the circumstances in which financial stability policy actions may be required in order to forestall problems. Emerging thinking – along the lines that sharp asset price inflation coupled with a large growth in leverage is sufficient to distinguish healthy from unhealthy financial developments – may or may not turn out to cover a wide enough range of circumstances.

Extra-statutory arrangements may help provide clarity while allowing flexibility to adapt to changing circumstances.

For the reasons just discussed, it may be too early to lock down objective statements in legislation which is inherently difficult to change. However, formal extra-statutory devices – such as memoranda of understanding, exchanges of letters, formal statements of policy frameworks or policy strategies that are explicitly accepted by all relevant parties, or at least accepted by an absence of challenge over time, etc – may provide suitably formal yet flexible vehicles for enunciating objectives as clearly as can be achieved with current knowledge. Many inflation targeting arrangements are embedded in such devices. The financial stability objective for the Bank of England is subject to such a device, in the form of an annual statement of strategy from the Bank's Court. And the new objective to be established for the FPC will also be subject to such a device, in the form of an updateable remit provided by the Treasury to the FPC.

Such extra-statutory devices allow for evolving interpretations of statutory objectives, in the light of new knowledge and capabilities. Their role can be explicitly referred to in legislation, as with inflation targeting agreements/remits in New Zealand and the United Kingdom, and the examples in the financial stability area mentioned above.

To sum up ...

There is a strong case for making the financial stability mandate explicit and clear. Doing so reduces the risk of boundary disputes between agencies and the risk of defensive responses by an agency that fears being held to account for things it was not sure it was required to do, and it increases the chances that agencies (including the central bank) will take the hard decisions when needed.

Making objectives explicit and clear is a powerful way of achieving clarity about the mandate. That is not an easy thing to achieve in the area of financial stability. Various possibilities might be considered. The articulation of a financial stability strategy within a clearly specified mandate is one such possibility. This can be done, for example, by embedding the highest level objectives in statute, and then amplifying and interpreting the evolving understanding of what they imply for policy through high-level strategy statements. Such arrangements need to ensure the compatibility of financial stability operations with monetary policy responsibilities.

Box 1 The search for an operational definition of financial stability

In the search for an operational definition of financial stability – one that could serve as an objective to guide financial stability policy – numerous approaches have been taken. The following selectively paraphrases a number of these.[a] It must be stressed that the proposers of each definition listed have usually noted a degree of dissatisfaction with their suggestion, often by comparing it unfavourably with the simplicity and directness of typical definitions of price stability. At the same time, the less-than-ideal definition of financial stability has not usually been regarded as a fundamental barrier to getting on with the job.

Defining in terms of preconditions (rather than outcomes)

Defining in terms of preconditions may help point policymakers to ask the right questions, suggested Adrian Orr, Deputy Governor of the Reserve Bank of New Zealand (RBNZ), in 2006. For the RBNZ, those preconditions were that risks in the financial system are adequately identified, allocated, priced and managed.[b]

Recent events in the United Kingdom and the United States in particular suggest that these preconditions are extremely difficult to monitor and understand.

Defining in terms of outcomes: the absence of the negative

Early on, Andrew Crockett, as General Manager of the Bank for International Settlements, defined financial stability as a condition in which economic performance is not being impaired by asset price fluctuations or by an inability of financial institutions to meet obligations.[c] Roger Ferguson, as Vice Chairman of the Board of Governors of the US Federal Reserve System likewise defined financial stability as an absence of instability characterised by some combination of (a) divergence of asset prices from fundamentals (b) significant distortions in market functioning and credit availability that thereby causes (c) aggregate spending to deviate (or to threaten to deviate) from long run potential.[d] Recently, Bill Allen and Geoffrey Wood have defined financial stability as a state of affairs in which financial instability is sufficiently unlikely to occur that fear of such financial instability is not a material factor in decisions – financial instability having the distinguishing characteristics that large numbers of economic actors are simultaneously experiencing the effects of financial crisis which collectively seriously harm macroeconomic performance.[e]

For each, specific channels of harm to the economy from financial system malfunctioning are identified, with asset prices figuring in the Crockett and Ferguson perspectives, but expressly not in the Allen-Wood perspective. Allen and Wood connect their definition to the necessity that externalities exist in order to warrant policy action, but asset price variations may not involve externalities. Ferguson argued that complexity was such that financial stability was best approached in terms of its implications for the macroeconomy, not as an independent policy objective.

Defining in terms of outcomes: smooth functioning

Preferring to focus on the desired outcomes, Wim Duisenberg, as President of the European Central Bank, defined financial stability as the smooth functioning of the key elements that make up the financial system.[f] In a similar vein, for Y V Reddy, as Governor of the Reserve Bank of India, financial stability meant the smooth functioning of financial markets and institutions, but not the complete absence or avoidance of crisis.[g]

In terms of guiding policy decisions, judgments are required on what constitutes "smooth functioning" and the "key elements" of the financial system. Moreover, financial systems may function "smoothly" over an extended period while building pressures that lead to instability, as recently observed.

Defining in terms of robustness to shocks

Recognising that shocks will occur, and that complete protection against them harming financial system performance and thereby economic activity may be costly for the dynamism of the financial system, the Bank of Norway preferred to focus on the system's resilience. Thus a stable financial system would be robust to disturbances in the economy, and so able to mediate financing, carry out payments, and redistribute risk in a satisfactory manner even under stress.[h] Tommaso Padoa-Schioppa, an ECB Executive Board member, took a similar approach, defining stability as a condition in which the financial system is able to withstand shocks without giving way to cumulative processes which impair the allocation of savings to investment opportunities and the processing of payments in the economy.[i]

By focusing on resilience to shocks these definitions hint at, but do not elaborate on, a possible trade-off between assuring stability and allowing the risk-taking that might be consistent with innovation. By pointing to cumulative processes, the Padoa-Schioppa definition introduces a reference to a key non-linear dynamic of shock propagation that cannot easily be anticipated and protected against by private actors.

Defining in terms of smooth functioning and robustness to shocks

Some definitions draw attention both to smooth functioning of key elements of the financial system, and resilience in the face of shocks. The Deutsche Bundesbank, for example, defines financial stability as a steady state in which the financial system efficiently performs its key economic functions, such as allocating resources and spreading risk as well as settling payments, and is able to do so even in the face of shocks, stress, and profound structural change.[j] Recently the Bank of England has linked system resilience, system functioning and outcomes for the economy. For the Bank, the financial stability goal is to ensure the resilience of the financial system in order to maintain a stable supply of financial services – payments services, credit supply, insurance against risk – to the wider economy across the credit cycle.[k]

These approaches emphasise certain aspects of functioning that merit public policy attention, including, notably, payment services, credit supply and risk redistribution. While the Bundesbank's definition mentions efficiency, it is not clear what is intended, and how far that goes. In contrast with the Padoa-Schioppa approach, but in keeping with others, neither definition provides a sense of how stable a performance is intended – the Padoa-Schioppa definition suggests that fluctuations in system performance and delivery of services are not necessarily to be regarded as harmful, so long as they do not become self-reinforcing.

Defining an objective multidimensionally

Yet another approach is found in the new Banking Act in the UK. The Act defines five objectives for policy actions under the new special resolution regime created by the Act. They include system stability, with particular reference to continuity of service; confidence; depositor protection; fiscal protection; and property rights protection. Some may be in conflict with others, and no weighting or priority is provided. But a code that provides interpretative guidance to the responsible agencies is called for. Such a code would contain a sense of appropriate weighting and priority under different conditions.

In the context of financial stability policy in general (rather than bank resolution in particular), a multidimensional list of objectives might include: resilience, such that shocks to essential services do not become self-reinforcing; protection for naïve creditors; anticipation by informed investors of a risk of loss; protection of the fiscal position; property rights protection, conditional on avoidance of moral hazard; dynamic and productive efficiency; respect for the rights of citizens of other jurisdictions. As with the Banking Act model, an interpretative strategy statement would be called for, in order to elaborate the meaning of each component and to enunciate their relative weights – given the state of knowledge as to how welfare is affected, given what is technically feasible, and given societal preferences.

[a] Several of the examples provided are drawn from G J Schinasi (2004), “Defining Financial Stability”, *IMF Working Paper*, no 04/187.

[b] Adrian Orr, in a speech to the Institute of Professional Engineers in New Zealand, March 2006.

[c] Andrew Crockett, in an article about “The Theory and Practice of Financial Stability” in the *GEI Newsletter*, Issue No 6, July 1997.

[d] Roger Ferguson, in a 2002 paper for an IMF conference on challenges to central banking from globalised financial systems entitled “Should Financial Stability Be an Explicit Central Bank Objective?”.

[e] W A Allen and G Wood, “Defining and achieving financial stability”, *Journal of Financial Stability*, Issue 2, 2006.

[f] Wim Duisenberg, in a 2001 paper entitled “The Contribution of the Euro to Financial Stability”.

[g] Y V Reddy, from a speech at the 8th Global Conference of Actuaries held in Mumbai on 10 March 2006.

[h] From Norges Bank *Financial Stability Review*, February 2003.

[i] Tommaso Padoa-Schioppa, in a 2003 paper entitled “Central Banks and Financial Stability: Exploring the Land in Between”, published in a book edited by V Gaspar and others: *The Transformation of the European Financial System* (ECB).

[j] From Bundesbank *Monthly Report* in December 2003: “Report on the Stability of the German Financial System”.

[k] From a November 2009 *Bank of England Discussion Paper*, “The Role of Macroprudential Policy”.

III

2. The availability of information and analytical capacity to perform the mandate

Serving as lender of last resort and exercising a macroprudential mandate requires information, the knowledge necessary for effective analysis, and suitable policy instruments. This section discusses the first two. The next discusses the availability of suitable instruments. The question to be addressed in both sections is whether the explicit or implicit expansion of mandates has moved more rapidly than the acquisition of the analytical frameworks and tools needed to achieve more far-reaching financial stability objectives. Such a development would carry with it several risks.

With respect to macroprudential policy – including the evaluation of systemic threats, and of respective contributions thereto – the first task is to identify the information required. Since systemic interactions between system components are at the core of macroprudential policy, information about exposures between institutions, and of common exposures (the concentration of risk that arises from the combination of decisions by otherwise independent entities), is crucial. Much of this raw information may also need to be obtained from individual institutions. Some may be obtainable from central clearing houses and other

Financial institutions are the source of information needed for lender of last resort and macro-prudential analysis.

parts of the financial infrastructure used by the majority of market participants. If central banks operate the infrastructure, they will have direct access.[5]

Immediacy of access to information is increased and compliance costs reduced when the central bank is the microprudential supervisor. But there are alternatives.

There are three basic ways in which the central bank can obtain information on the condition of its counterparties and linkages within the financial system needed for LoLR and macroprudential decisions. If the central bank is the microprudential supervisor, it may have direct, first-hand access on an ongoing basis, through an onsite inspection power (to supplement the right to call for reports). Second, the central bank may be able to obtain bank-specific information and undertake due diligence inspections when prompted by concerns, using its own or specialised contract staff, even if it is not responsible for supervision. The central bank may be legally empowered to obtain such information or it may succeed because its actual or potential counterparties agree to provide it. Third, the central bank may obtain its information from other agencies, such as a microprudential supervisor. Such information sharing may be a legal obligation, the subject of a memorandum of understanding, or simply considered good practice. On the other hand, there are numerous examples where appropriate information has not been compiled or shared freely, or if it is, its second-hand nature limits its value. Of these three approaches, access to the information seems the most straightforward and the least likely to expand compliance burdens when the central bank is the microprudential supervisor.

Good quality emergency actions, and especially those related to special resolution regimes, may require substantial elements of first-hand information – such as that acquired by due diligence exercises – as well as first-hand experience of managing complex financial businesses. Accurately interpreting the information obtained may require business skills that are difficult to develop and maintain. The reluctance of good banks to buy troubled banks at short notice, and the variable results when they do, make it clear that even specialists in the operation of financial institutions have enormous difficulties in assessing viability – sometimes even of their own institutions.

Often the central bank relies on others to provide the assessments needed for effective emergency policy actions. If others are responsible for microprudential supervision, they may be better placed to assess information pertaining to the viability of an individual institution. Central banks may have access to the information, but may have difficulty retaining staff with the necessary analytical and business experience – a problem of maintaining the needed "wartime" skill sets during "peacetime".

Different analytical capabilities may be needed for the macroprudential task. Macroprudential policy cannot properly be conceived as a mere adding-up of microprudential concerns. For financial stability, the co-variances between institutions' positions are perhaps of greater concern than the positions themselves, though the individual exposures remain relevant. The risk of contagion and the potential for non-linear system dynamics cannot be assessed by observing individual components alone. Systems analysis is required. In

[5] Tables attached to an FSB/IMF/BIS report to G20 Finance Ministers and Governors in October 2009 provide a sense of the range of information that might be needed. See "Guidance to Assess the Systemic Importance of Financial Institutions, Markets and Instruments: Initial Considerations", a report from the staff of the International Monetary Fund and the Bank for International Settlements, and the Secretariat of the Financial Stability Board, October 2009.

addition, interaction between the non-financial business cycle and the financial sector may be a crucial consideration.

Investment is needed to build the analytical capacity required for effective preventive policy actions.

It may be that co-locating the supervisory function within an institution predominantly specialised in macroanalysis would provide a crossover of the required skills and interests. It may also be that the functions remain on separate paths, even within the same institution, or that macroprudential analysis adopts an overly microprudential orientation. But microprudential perspectives married to macroeconomic analytical skills do not directly produce systems analysis. This can be seen from the limited role financial system dynamics has played in standard central bank macroeconomic analysis, even for those central banks that are also microprudential supervisors. Many central banks issue financial stability reports that include analysis of such systemic interactions. However, these reports, and the analysis discussed therein, are of relatively recent origin. The analytical techniques remain in their infancy. Moreover, central banks responsible for microprudential supervision are less likely to have a macroprudential analysis department, and less likely to publish macroprudential analysis.[6]

The scale of that investment may be smaller for central banks than others ...

In short, while there may be useful synergies between the three analytical toolkits (macroeconomic, macrofinancial and microfinancial), recent central banking history suggests that macroprudential analysis is not automatically "natural" to those engaged in either microprudential policy or monetary policy. Macroprudential analytical capacity has to be purposefully developed. An agency, or systemic risk committee secretariat, that is not the microprudential authority or the central bank could feasibly develop such capabilities. Nonetheless, with respect to directness of access to information, to analysis of institutions, markets and the macroeconomy, and to speed of decision-making, a separate agency or committee may be at a disadvantage.

... but harnessing the synergies that may be available within central banks is not automatic.

Irrespective of the location of the function, analysis does not by itself generate policy action. Numerous financial stability reports issued by central banks contained warnings about swelling systemic risks. Such warnings might not have been taken seriously enough to lead to specific action prior to the crisis; that may change. Yet making the transition from analysis that warns of various possible dangers of unknown scale and probability to analysis that provides a specific enough basis for policy action may present considerable challenges.

Nor does good analysis directly provoke policy action.

To sum up ...

Effective macroprudential policy requires both information and analytical capability. Microprudential information about individual financial institutions is clearly relevant, but additional information will be needed for macroprudential analysis. Such information can be obtained from a variety of sources, including payment and settlement systems and the institutions themselves.

6 In a sample of 46 central banks that participate in the Central Bank Governance Network, the 20 that do not have a major role in microprudential supervision all publish financial stability reports, whereas the nine that do not publish financial stability reports all have a major role in supervision.

To sum up ... (cont.)

Co-locating micro- and macroprudential supervision may have some advantages with respect to information transfer. But because the perspectives are different, co-location is not the only possibility. Where responsibilities are distributed, solid information sharing protocols will be needed, and/or the macroprudential supervisor will need independent authority to call for reports and, if necessary, undertake inspections.

Analytical frameworks for macroprudential analysis may have more in common with macroeconomic than with microprudential analysis. However, substantial differences remain, and macroprudential analytic capability thus must be built purposefully, which in turn may provide new insights for macroeconomists.

3. The availability of suitable tools to perform the mandate

At present, there are two sets of tools the authorities have to foster macroprudential stability. The first set consists of the instruments of regulation and supervision. Several countries (in Asia in particular, but also Latin America) have used them successfully for essentially macroprudential purposes. The Central Bank of Malaysia Act, for example, now explicitly provides for the deployment of such tools for wider financial stability purposes – including circumstances where an institution's or sector's contribution to systemic risk calls for offsetting regulatory action notwithstanding that the originators of such risk are themselves well protected. The second class consists of macroeconomic tools such as fiscal policy settings and interest rates. Central banks are generally responsible for decisions that affect short-term interest rates. Even when central banks modulate these rates in order to achieve price stability, they may decide to take financial market conditions into account in their decision on the timing and size of changes in policy market rates. There have been instances where interest rate policy may have leaned against the wind of emerging financial excesses, at least to a limited extent. Monetary policy in Australia in 2003 might be an example, as might policy in Sweden from 2005 to 2007.

The basis for the suggestion that new instruments might be needed is that these examples all relate to the use of instruments designed and deployed for other purposes being used for macroprudential policy. This cross-use may lead to coordination problems and conflicts, which in turn may complicate governance arrangements. This section elaborates on these points, starting by defining some terminology.

What do we mean by macroprudential policy tools?

In principle, macroprudential instruments focus on system-wide risks that go beyond the sum of the microprudential parts. Discussions of macroprudential policy emphasise three dimensions. The cyclical dimension involves policy actions to counteract the combination of naturally occurring financial multipliers/accelerators that amplify cycles and of procyclical elements of microprudential regulation. To counteract financial accelerators, required risk buffers might be raised during the financial upswing, and lowered (released) during the downswing. Countercyclical variation of these instruments may be discretionary, or rule-based. The use of interest rate policy for financial stability objectives – "leaning against the wind" – is a (constrained) discretionary instrument belonging to the cyclical dimension.

In contrast, the cross-sectional dimension involves recognition that different institutions and actors contribute to systemic risk to different extents. This dimension of macroprudential policy would seek to apply stiffer rules, and/or charge higher systemic risk premia (for any insurance or quasi-insurance facility supplied by the state) or systemic surcharges, to those with greater contributions to systemic risk.

The third dimension is structural in nature, involving regulations and policy measures that limit risk-taking and increase the robustness of financial system infrastructure. The former includes contingent capital or other "skin in the game" requirements, competition policies that influence size and concentration in the financial industry or the range of activities financial institutions carry out, tax policies that affect decisions on leverage, and changes in the incentives of managers and the liabilities of shareholders. The latter includes the introduction of real-time gross settlement systems and central clearing arrangements.

Macroprudential risks increase as the exposures of individual institutions become more common, and as the financial system becomes lumpier (ie a few large players dominate, and/or there is high concentration). Hence the calibrations of these cross-sectional rules might ideally be state contingent, and migrate over time.[7] In that sense, there may not be a clean distinction between cyclical and cross-sectional in terms of instruments that vary through time versus those that one can "set and forget".

The foregoing classification of macroprudential instruments relates to preventive policy actions. There is a class of instruments relevant to financial stability that is reactive in nature.[8] This class includes system-wide lender of last resort (LoLR, sometimes known as emergency liquidity assistance, ELA) and special resolution regimes (SRRs) for failed or failing financial companies. Such reactive instruments might best be classified as instruments of crisis management, rather than of macroprudential (or microprudential) policy. They are however highly relevant to the discussion of the governance of the financial stability policy function.

Most specific instruments under discussion can be deployed for both micro- and macroprudential purposes. For example, changes in interest rates can have an impact on prices, economic activity and the financial condition of individual institutions. To date no instruments uniquely suited to macroprudential policy have been deployed.[9] This creates challenges for the design of optimal governance arrangements, since it is not clear how to decide on or evaluate the use of different instruments wherever an instrument can be used for more than one purpose and objectives are not perfectly aligned.

As yet, few (if any) uniquely macroprudential instruments have been deployed.

7 N A Tarashev, C Borio and K Tsatsaronis (2009): "The Systemic Importance of Financial Institutions", Bank for International Settlements.

8 As is often the case, classifications are not neat and tidy. Reactive instruments may have implications for the propensity for financial stresses to develop, through their expectational/incentive effects. Reactive instruments that do not engender moral hazard might thus have a useful preventive role.

9 Loan to value limits, dynamic provisioning requirements and other instruments that are being discussed as potential instruments of macroprudential policy are also used as microprudential instruments – enhancing the soundness and safety of individual institutions, without regular recalibration in response to system-wide developments. Capital surcharges explicitly for contributions to systemic risk are being considered, but have yet to be deployed.

Aspects of emergency lending might be able to be carved out for independent decision-making ...

... though less easily for system-wide crises.

With respect to emergency actions, it might be that there is a tighter mapping between instrument and objective than there is for preventive macroprudential instruments, providing a stronger basis for the assignment of instruments to agencies. This is the case often made for a standard central bank function – the lender of last resort. Central banks are uniquely capable of increasing or decreasing system reserves; LoLR uses that capability in systemic emergencies; and given standard operating rules that prevent LoLR operations in favour of insolvent banks, overlaps with any government choices to provide capital support (or not) can be controlled. Recent events suggest that the ability to control overlaps and thus maintain a clean assignment of instrument to objective may break down in the face of major systemic events. In particular, emergency actions may require the use of taxpayers' funds, since financial support for risky private business might be needed to avoid systemic collapse and since the public sector may act as an insurer for certain classes of financial risk (explicitly, via state-financed or state-backed deposit insurance schemes, or implicitly). (See Box 2.)

Box 2 The special character of the lender of last resort function

The lender of last resort function is generally regarded as uniquely within the capacity of the central bank. The central bank has the sole ability to create base money. However, the properties that create uniqueness are blurred in practice. These properties involve important distinctions including base money creation versus allocation, liquidity versus solvency, and secure versus risky lending.

With respect to creation versus allocation, central banks have the unique ability to create base money, but rarely control its allocation. A single bank may be temporarily unable to secure funding. Since Bagehot, the central bank has been encouraged to lend freely (on good security and at a penalty rate). Any party with the ability instantaneously to transfer funds from a central bank account to an institution at risk could act as lender of last resort. The problem arises because private parties have chosen not to. A Treasury with an ability to operate on its account at the central bank could choose to do so. The uniqueness of central bank provision of emergency loans may only be a feature of LoLR in the context of systemic liquidity problems, where system-wide demand for base money rises.

Lender of last resort policy has typically drawn on a distinction between liquidity and solvency problems, the former being the province of the central bank, the latter being the province of the government. The distinction may not be able to be sustained in some circumstances. As demonstrated forcefully in the recent crisis, in systemic events in which market liquidity sharply contracts, asset prices may also fall sharply – perhaps below the future value of their embedded cash flows. Given typical maturity mismatches, such collapses in asset prices may imply insolvency, on a mark-to-market basis, for some financial institutions. Here, liquidity may be inseparable from solvency.

Related to the distinction between liquidity and solvency is a distinction between central bank emergency lending that is secured and lending that involves taking on direct credit risk. A requirement for full collateralisation with good security is the basis for the legal authority for the central bank to undertake emergency lending in many countries. It is the basis of recent proposals for the division of responsibility between the Federal Reserve and the Treasury in the United States. However, maintaining the boundary between secured lending and lending at risk has proven difficult. The availability of information and knowledge necessary to make the credit risk assessment is the first problem. A second, and just as significant one, is that circumstances change, and often for the worse. Crucially, once it has provided credit, the central bank may not be willing to back out, since to withdraw loans would be to bring the institution down.

Additional problems arise in the context of systemic crises where (a) the availability of high grade collateral comes under pressure and (b) the policy risk calculation swings towards taxpayer support now to prevent an even bigger problem later. In such situations, continuing to insist on full collateral cover by the highest grade assets may hamper the re-emergence of normal credit intermediation because commercial counterparties may not be able to obtain sufficient high quality collateral. Insisting on high grade collateral also carries political risk, since the failure of the counterparty would leave the central bank in a preferred position relative to unsecured, potentially politically active creditors. However, accepting lower grade collateral sharply increases effective credit risk to the central bank, since realising that collateral in a highly disturbed market may not be feasible if other policy objectives are to be met.

In addition, decisions on emergency lending may constrain the future policy options available to other agencies and to the government. The provision of emergency credit to an institution whose position turns out to be worse than anticipated allows time for some creditors to flee, reducing the liquid assets available for other creditors, and harming the position of the deposit insurance agency. In addition, a revealed willingness to engage in emergency lending against weak collateral and to new classes of counterparties may change the rules of the game. The boundary of regulation needed to offset any moral hazard that arises with the availability of imperfectly priced public sector liquidity insurance may need to be extended.

Different perspectives on the separability of the lender of last resort function from wider fiscal risk and regulatory design questions lead to different governance structures in different countries. In most countries (around four fifths of a sample of 41) decisions on the lender of last resort are fully within the remit of the central bank. In others, the decision is shared through some form of consultation. In the United Kingdom the provision of last resort loans is determined by the Chancellor.

A mismatch between objectives and preventive instruments available may create difficulties.

Far-reaching objectives, not backed by sufficient instruments, can create expectations that cannot be fulfilled (see the south-west quadrant of the 2x2 matrix on the next page). If moral hazard is a problem, this may lead to excessive risk-taking (eg by unsophisticated agents). Ex post accountability will likely be harsher if expectations of what is achievable have been shaped more by objectives than by an appraisal of what is realistically achievable given the instruments available.[10] Harsh ex post accountability creates a threat to future central bank governance arrangements, as well as the key officials involved, harming recruitment and possibly inducing defensive behaviour. These issues are summarised in the matrix set out in Table 6, and discussed below. With insufficient instruments capable of meeting objectives, decision-makers will face dilemmas in selecting suitable instrument settings. Whatever the optimal degree to which interest rates can be used to lean against the build-up of financial imbalances, there is a risk that this optimum will not be achieved if the central bank lacks other instruments that can be used to promote financial stability. Moral suasion may be used more extensively than is efficient – moral suasion being a notably inefficient instrument in the first place (having allocative effects that are heavily dependent on the affected parties' political skills). Available regulatory instruments may be used in unintended ways, leading to distortions.

[10] It has been argued that financial stability objectives cannot really be understood without reference to an appraisal of what is realistically achievable, given the instrument set. (This is another factor that distinguishes financial stability from monetary stability policy.) However, it seems likely that politicians (for example) reviewing the performance of the central bank after a bout of instability will be less inclined to utilise such a methodology to aid the interpretation of the objective than would experts considering the issue ex ante.

III

Table 6

Issues that may arise under different combinations of the reach of objectives and the reach of instruments

Instruments: / Objectives:	Limited in scope and power	Far-reaching in scope and power (a full range of cross-sectional and countercyclical instruments, able to be deployed with few restrictions)
Limited (directional, in the sense of contributing to financial stability; restricted, in the sense of application to some aspects of the financial system; best endeavours)	• The match between capabilities and expectations is dependent on the clarity with which objectives are stated. Without clarity, the responsible agency may behave as if it will be held to account (ex post) for wider objectives (see below).	• Also dependent on the clarity of objectives. High expectations of the policy agency may be achievable, but only if the expectations are clear ex ante.
Far-reaching (conveying the expectation of an assurance of financial stability in all of its dimensions)	• Especially if objectives/ expectations are clear, the responsible agency may be induced to overuse the limited instruments available. Interest rate policy might be used inefficiently, creating macroeconomic instability. Regulatory instruments might be used aggressively, with costs to economic efficiency. • Officials may be reluctant to accept what is seen as an impossible task, causing staffing difficulties. • Private agents may behave as if the financial system were more stable than policy could deliver.	• Availability of instruments may outstrip our ability to understand and predict risks. Deployment of instruments may be poorly targeted to problems, leading to economic inefficiency. • Where powers and authorities (instruments) overlap, boundary disputes between different policy agencies may be prevalent.

Also, if the central bank has instruments that might be used, but does not have a mandate to use them for financial stability purposes, it may have an incentive to over-reach its authorities (the north-eastern corner) or to be overly cautious out of concern for acting ultra vires. For example, by virtue of its position in markets and payment systems, the central bank may become aware early on of a potential problem. It may also have a heightened awareness, compared with other public policy agencies, of risks to systemic stability. Inaction by the agencies formally responsible may induce the central bank to stretch boundaries as to what is permissible in terms of, say, collateral requirements, the domain of counterparties eligible for emergency liquidity support, etc. In effect, the central bank may be induced to engage in a strategic game with the government over who will blink first and take action, irrespective of formal authorities.

One option in mitigating these risks is to establish explicit objectives that take account of the limited economically efficient reach of available instruments. In some central bank laws, the pursuit of specific policy objectives is constrained by a requirement that the central bank considers the impact of its actions on economic efficiency. Laws that require policy to utilise market mechanisms go in a similar direction. Where a list of objectives relevant to financial stability policy is used, that list might contain a concern for economic efficiency. Finally, some laws add words such as "within the limits of the powers available" to objective statements.

Coordinating macroprudential policy across borders will be a challenge.

Both micro- and macroprudential policies are applied at the national level, but often with effects that reach across borders. Preventive financial stability policy measures of both the cross-section and countercyclical type raise questions of competitiveness vis-à-vis similar policies in competing jurisdictions, and thus the prospect of regulatory arbitrage. Cross-border coordination of policy structures may be feasible – though still not easy. Cross-border coordination of macroprudential policy settings is unlikely to be feasible. Cross-sectional macroprudential policy structures are in principle to be calibrated to match the contribution of individual institutions and structures to systemic risk. Those contributions are unlikely to be identical across jurisdictions. More intractably, the financial cycle will not necessarily be synchronised globally, leading to different settings of countercyclical instruments. Reactive policy actions triggered by the approach or onset of crisis raise even more difficult problems, since fiscal risks are often involved. These issues are discussed further in Box 3.

To sum up ...

Macroprudential policy can be implemented through a range of different instrument that may have alternative uses. This instrument overlap is at the heart of the governance design issues being addressed in this report.

Relatedly, financial stability policy involves other agencies and the government to a greater extent than does microprudential or monetary policy. Even the provision of support by the central bank to the financial sector can have fiscal implications when systemic liquidity crises occur.

Considerable dangers arise when macroprudential policy objectives are not matched with requisite powers and authorities. This problem may not be wholly avoidable, given that it is not yet possible to craft tightly configured objectives, and macroprudential policy instruments and capability are under development.

Many of these issues are compounded when it comes to the cross-border application of macroprudential policy – discussed next.

Box 3 Cross-border aspects

More or less all of the issues which are relevant for the governance of macroprudential analysis within a country are also relevant on a cross-border basis, albeit with a higher degree of complexity. The analysis and policymaking themselves are more difficult to conduct since more parameters and indicators are included and some of these may well go in opposite directions in the different countries involved. Additionally, the institutional setup is compounded not only by the higher number of relevant public institutions but also by national differences in legislation, regulations and policies. Nonetheless, since financial stability in most countries may be affected by developments in other countries, notably through linkages via cross-border financial groups, or through strongly linked economic sectors, macroprudential analysis cannot avoid taking into account developments abroad. This includes global and regional issues, and in particular issues concerning "closely linked countries" (for example, within the European Union).

The cross-border issues are relevant both in normal times and in crisis situations. Not surprisingly, experience shows that preparing institutional relations, mandates and instruments in normal times will facilitate information sharing and cooperation on macroprudential issues in crisis situations. For instance, both home and host countries will be more likely to understand the need for certain quantitative and qualitative data-sharing in a crisis if data issues have been discussed between the central banks already in calmer times.

The cross-border aspect does not necessarily affect the mandate of the central bank. However, it should be clear whether the objective is financial stability in the "home country" itself or in the financial system of the home country, including its significant affiliates abroad. Conversely, there is also the issue whether financial groups which are domiciled abroad but represented in another country should be included in the latter country's macroprudential mandate.

Seen from the side of a host country having a significant (systemic) presence of foreign (the parent institution is domiciled in another country) financial institutions, the mandate and the analysis would presumably take account of the financial situation and developments of those groups, including developments in their home countries and other countries which might have a significant impact on the group.

While central bank instruments are normally geared to the domestic economy, there are examples of the use of instruments which improve financial stability in other countries and thus indirectly benefit the central bank's home country. For instance, the home country central bank might provide a swap line to another country with the aim of reducing the risk of liquidity strains spreading to the home country. The potential of using such instruments would then have to be taken into account when deciding on the general size of the central bank's capital.

Issues of cross-border information sharing and cooperation are often dealt with through bilateral or multilateral MoUs, such as the EU-wide MoU for ministries of finance, financial supervisory authorities and central banks. Microinformation on individual financial groups is normally channelled through the supervisory agencies in the relevant countries, even in cases where the central bank is the ultimate recipient. To avoid unwarranted delays, in particular in crisis situations, some countries' central banks have the mandate to request such information directly from the bank's parent in the home country. There are also MoUs solely between central banks in different countries to ensure adequate information sharing and cooperation on the issues which are most relevant to central banks. In designing such MoUs, it is often advantageous if they describe in considerable detail the information that should be shared. Otherwise, it may turn out that in crisis times, the central banks involved have quite varying views on what information should be shared. If this is were to occur, the MoUs will be of limited value and may in normal times lure participating central banks into a false sense of security about the information they will receive in a crisis.

Macroprudential information on developments in the "host country" can to some extent be accessed through public sources, but for completeness and timeliness this normally needs to be supplemented through direct discussions between the central banks and, if possible, also between the home country central bank and other authorities in the host country. Such cooperation is facilitated since it is also in the interest of the host country to ensure that the financial stability assessment is founded on the best possible information. However, while the host country central bank, and other host country authorities, are often invited to comment in advance of any publication of the stability assessment regarding its own country, the final responsibility for the assessment normally rests solely with the home country.

The reason for this is that only the home country central bank is accountable for the fulfilment of this mandate. When formulating its assessment of the situation in another country, the home country central bank will be aware of the potential consequences abroad. That said, sensitivity in drafting the conclusions should not restrict the central bank from delivering a frank message to the parties concerned, if necessary by using other means than publication.

In order to increase host country involvement, and also to obtain more comprehensive and updated information, some home country central banks have found it useful to delegate the task of drafting the descriptive part, but not the assessment, of the stability situation in a host country to the central bank of the latter.

4. Synergies and conflicts in the assignment of functions to policy agencies

Governance and institutional challenges will follow as central banks acquire new macroprudential functions.[11] The scale and character of these will vary enormously, depending on the central bank's existing functional breadth.

This section of the report considers the implications for governance structures of overlaps between functions. These issues are relevant to the choices that countries make on which public policy functions are bundled together to be discharged by the same agency, and which are kept apart for separate management by different agencies. But they are not the only issues. Questions of efficiency, and availability of resources, also figure prominently.

Overlaps between monetary policy and financial stability policy instruments and objectives may give rise to trade-offs.

Most policy instruments relevant respectively to monetary policy and financial stability policy cannot be tightly focused so as to isolate their impact. For example, interest rates influence both expenditures and financial behaviour. And prudential regulations also influence expenditures – through affecting the availability and pricing of credit – as well as financial behaviour. (The overlaps in the effects of these instruments are discussed further in Box 4.)

The fact that the policy instruments have multiple effects which may change over time complicates decision-making and the design of mechanisms to hold decision-makers to account. Decision-makers will need to determine what combination of measures is optimal in view of their objectives and the information that they have at the time the decisions are made. This is true irrespective of whether the objectives are complementary or not. A wider set of instruments will generally increase the options that the authorities have when the objectives are inconsistent. For example, if the authorities have both macroprudential regulatory instruments and monetary policy tools, there will be less of a need to use the latter to promote financial stability. In order to facilitate decision-making

[11] This is not to suggest that governance and institutional challenges would be any smaller were the macroprudential function to be assigned to another agency, as will become clear during the discussion.

Box 4 The interaction of monetary and financial regulatory instruments

Monetary policy operates on the economy's borrowing and expenditure propensities by influencing the interest rates that borrowers and spenders face. A stylised view of the monetary policy transmission mechanism might be represented by the following relationship:

rm = rp + m(capreg, competition, risk)

where

rm = market real interest rates faced by households and firms

rp = policy real interest rates

m(capreg) = markups or margins in financial intermediation, being some function of capital regulation

This relationship highlights that both interest rate policy and changes in regulatory policy play a role in monetary policy transmission. The central bank needs to adjust for changes in intermediation margins when setting interest rates. (For a more expansive discussion, see, for example, S Cecchetti and L Li (2008): "Do Capital Adequacy Requirements Matter for Monetary Policy?", *Economic Inquiry*.)

and accountability, a hierarchy of objectives can be established, for example as is the case with price stability under the Maastricht Treaty.

Since financial system stability relates to the joint behaviour of actors within the financial system, a financial system made up of institutions that are all well protected by high quality risk management systems and ample balance sheet buffers may still be very fragile, if the institutions have identical business models and approaches to managing risk. Indeed, identical risk management approaches imposed by a microprudential regulator might be at odds with macroprudential interests, however well conceived risk management standards.

Potential conflicts might also arise between the triangle of macroprudential, microprudential and competition policies.

With respect to the potential for conflict between prudential and competition policies, whether true or not, speculation that competition between London and New York markets for pre-eminence affected the intensity of prudential oversight illustrates the issue. Unless both prudential regulation and financial cycles are synchronised across borders, constraining prudential policy measures – macro or micro – may raise costs of business and hamper the ability of institutions to compete internationally.

A capital ratio, or a leverage ratio, to take two examples, can be used for both micro- and macroprudential purposes. Policy settings optimised cross-sectionally for macroprudential objectives will usually imply a standard that also satisfies microprudential concerns. In effect, macroprudential regulatory "charges" would be added to most if not all institutions' microprudential regulatory "charges".[12]

The cyclical dimension of macroprudential policy may raise more issues of conflict than the cross-sectional dimension.

However, the cyclical dimension of macroprudential policy probably creates greater potential for conflict between overlapping instruments and policy purposes. In crisis times, the macroprudential regulator might prefer policy settings for the overlapping instrument that are more accommodating than required by a microprudential regulator alert to the riskier-than-normal environment.

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[12] This presumes that systemic risk charges are unlikely to be negative, either because individual institutions' risks are rarely negatively correlated with the system, or for other reasons.

In general, reactive policy actions may come into play when risks to policy structures and to the fiscal position are relatively high. The degree of coordination over decision-making for reactive policies may need to be greater. Such coordination may be able to be pre-structured, such as where the respective roles of different agencies are well spelled out in special resolution regimes.

Meanwhile, preventive macroprudential policy instruments may raise fewer issues of conflict than reactive instruments.

To sum up ...

Instruments that may be used for macroprudential policy purposes can have broad effects (for example, policies to limit credit risk-taking may dampen aggregate demand). These broad effects may give rise to important and useful synergies but also on occasion to a need to balance the short-term interests of monetary policy and financial stability policies. The balance between macroprudential and microprudential policy settings may also require attention from time to time. Carefully considered judgments would then need to be made. If a wider range of instruments are available, the likelihood of conflict between policy interests can be reduced.

How the instruments are used, and by whom, will depend on the allocation of responsibility for monetary policy and for macroprudential policy, and on whether an explicit hierarchy is assigned to the objectives for monetary policy and financial stability policy.

5. Financial risks arising from emergency actions

Central banks may face financial risk in the course of pursuing financial stability. The absence of the authority or capacity to take on risk may affect decisions; the adoption of risk may also have subsequent political repercussions that impact on the institution's workings and effectiveness. This section of the report focuses on these issues, highlighting the various mechanisms available to manage the risk of unintended constraints on sensible policy actions.

Emergency lending may result in financial risk, which may draw political attention.

Lender of last resort operations may result in financial risk, even if not intended. Emergency lending may knowingly involve credit risk, especially in the context of systemic crises that make the taking and exercising of security contrary to other public policy interests. From the perspective of the national balance sheet, variations in the central bank's net asset position "belong" (in beneficial ownership terms) to the taxpayer, through the future taxes necessary to maintain a suitable capital position for the central bank. As it is difficult to know the appropriate capitalisation of a central bank, the connection between the central bank's actions and the taxpayer is fuzzy. Nonetheless, central bank finances can be relevant in political economy terms: the temptation of seigniorage is a reason for shifting decision-making on monetary policy from politicians to the central bank. Additionally, whatever the appropriate target for central bank capital, losses mean less of it. And transfers of wealth from all taxpayers to some are ideally subject to political accountability, even where (perhaps especially where) the mechanism is opaque.

Various options are available to manage financial and political risks.

A first course of action has traditionally been for the central bank to eschew engaging in risky financial transactions in the first place – except where the risk is structural, and consistent with other arrangements (eg a structural interest rate mismatch associated with call or short-dated liabilities backed by long-term assets held to maturity; or a structural foreign exchange exposure, supported by rules that prevent paying away unrealised revaluations and by suitable capitalisation). The liquidity versus solvency distinction for LoLR is an example of an operational standard that might reduce the risk of credit risk being taken on. However, as discussed earlier (see Box 2), the distinction between liquidity and solvency can change quickly in the face of ongoing developments, and credit risk may unexpectedly arise.

Recognising the possibility of financial impairment, and in order to deal with the political risks involved at the interface between the central bank's financial position and the public purse, numerous devices have been created. These include:

- Heavy capitalisation of the central bank. This enables it to engage in activities that involve financial risk without a need to have recourse to the budget. To deal with the issue of the political legitimacy of decisions that may result in a transfer of taxpayers' money to certain individuals and corporations, the rules of engagement may (or may not) be more fully articulated.
- Risk transfer mechanisms, including transfer of the assets and liabilities associated with a given type of transaction, and indemnification arrangements. Both risk transfer and indemnification may be automatic and triggered by the central bank's decision to undertake at-risk activities; automatic and triggered by some joint decision process (involving, for example, the Treasury or the political authorities); or subject to negotiation on a case by case basis. The nature of the transfer mechanism, and the associated decision-making, are clearly important aspects of governance design.
- Recapitalisation mechanisms that wash up after the event. Similar in effect to indemnification mechanisms, recapitalisation mechanisms leave the assets and liabilities and associated income streams on the central bank's books, but fill in holes in the capital position. Such mechanisms may be automatic – based on legislated capitalisation targets or event-driven rules – or subject to ex post negotiation.
- At the other end of the spectrum, thin capitalisation and rules of the game that prevent central bank engagement in activities at financial risk.

In general, those mechanisms that do not protect the central bank's financial position, and whose use arises from decision-making within unclear rules of the game, may carry significant political risk for the central bank. For example, recapitalisation by negotiation is (by definition) after the event, and may become part of an accountability process in which political counterparts may use 20:20 hindsight in order to deflect political pressure from themselves.

To sum up ...

This discussion of the implications for governance arrangements arising from financial risks to the authorities has highlighted the following points:

Emergency lending actions can give rise to financial risks to the central bank or the government. The dividing line between pure liquidity assistance and lending that carries risk of financial loss can become blurred, especially in systemic crisis conditions, even if there is no intention that the central bank engage in risky lending.

The potential for fiscal consequences raises coordination questions about financial risk management, and about dealing with the political risks that may arise when the central bank's balance sheet has been used to manage a crisis. A number of options for pre-positioning risk transfer mechanisms, or for providing the central bank with sufficient financial capacity to absorb such risks have been considered.

6. Decision-making for crisis management

As noted at several points, policymaking during crises may call for a different configuration of decision-making than preventive policy undertaken in normal conditions, particularly if the former involves the use of exceptional powers. In particular, higher stakes may be involved, including more palpable fiscal risk, and the potential for decisions taken in the heat of the crisis to influence expectations about future policy actions and determine the nature and scope of future regulation. In addition, trade-offs between the policy interests of contributing agencies may arise, with possibly very substantial social implications. The Treasury's active participation is foreseen in the latest arrangements in the United Kingdom and the United States, and for extant arrangements in Japan and elsewhere.

Shifting between normal and crisis times, with an accompanying change in the participation of the ministry of finance, could be achieved by way of a decision escalation mechanism. The systemic risk interests of a macroprudential regulator may not always be aligned with the resolution agency's interests in high-speed minimum cost resolution. For the resolution agency to be susceptible to direction from outside could also create difficulties for the efficiency and effectiveness of the process of resolution, which may require complicated sequencing on tight time frames with considerable legal and execution risk.

Having said that, in some countries (eg the United Kingdom and the United States with respect to bank holding companies and investment banks), the absence of an effective resolution regime was perhaps the larger problem, not a threat of outside intervention slowing down resolution proceedings. In the United States, arrangements exist for providing broader authority to the FDIC (than available in normal bank resolutions) when systemic risk is a significant issue. Such arrangements, which feature clearly defined steps and limitations, and include a key role for the FDIC, have not been seen as a threat to the independence or effectiveness of the FDIC.

A conditional decision-making structure provides explicitly for changes in the decision process as conditions change. An example is the arrangement embedded in the combination of the Deposit Insurance Law and the central

Conditional decision structures allow for independent decision-making in normal times, but coordinated decision-making in exceptional circumstances.

bank law in Japan. The Bank of Japan has full and independent authority to undertake emergency lending, if the loan is conventionally collateralised. Decisions for the Bank of Japan to lend at risk, or similarly to take equity positions in a financial institution, are taken within different processes. One of the possible processes is as follows: (i) a high-level committee chaired by the Prime Minister, and staffed by the Governor, the Minister of Finance, the Minister for Financial Services, the Commissioner of the FSA and the Chief Cabinet Secretary recognises the need to implement exceptional measures such as capital injection against systemic risk, (ii) the Prime Minister and the Minister of Finance request the Bank of Japan to provide loans as a bridge until the capital injection, and (iii) the Bank independently judges whether to provide such loans. The following is another example: (i) the Bank of Japan decides on implementation of business which needs official approval, such as purchases of stocks held by financial institutions and provisions of subordinated loans, necessary to contribute to the maintenance of the stability of the financial system, and (ii) the Prime Minister and the Minister of Finance decide whether to authorise the Bank's application. The exercise of the systemic risk exception clause in the US Federal Deposit Insurance Corporation Improvement Act (FDICIA) is also an example of a conditional decision structure. Other examples include Canada (see the statutes governing the deposit insurance system and the Bank of Canada), Mexico (under legislation with provisions similar to those of the US FDICIA) and the United Kingdom (tripartite arrangements).

Decisions on the lender of last resort/emergency liquidity assistance/special resolution regime spectrum are relatively rare, and may involve a stronger imperative to coordinate, given potential fiscal and future regulatory implications. Such decisions might thus usefully be placed in a conditional decision structure, involving triggers associated with increasing fiscal and regulatory risk. While attractive in principle, such structures may not always perform well in practice, especially where it is not always clear who has the lead. The UK experience with the tripartite arrangements may be an illustration of such issues.

Conflict resolution mechanisms – used to determine trade-offs where the objectives of different decision-makers collide – also fall into this category. Thus, for example, were a macroprudential agency to be established separately from the central bank, on the rare occasions that interest rate policy and balance sheet controls were in conflict, a separate decision mechanism could be invoked. Even if the central bank were responsible for macroprudential policy, a separate decision mechanism could be invoked if major conflicts arose. That separate decision mechanism could bring in other parties, including the government, should it be regarded as appropriate to determine such trade-offs at the political level.

In a crisis, decisions need to be made quickly and with limited information. This may call for concentrating decision-making with a few individuals who have no conflicts of interest. Decisions that might have major effects on future generations, or large distributional implications, may call for the highest political involvement. Changes to authorities to use the Section 13(3) emergency lending powers of the Federal Reserve Act – changes that sharply increase the involvement of the Treasury – have been welcomed by the Federal Reserve, given the resulting improvements in clarity and the reduced potential for ex post conflicts over the emergency use of public resources. Decision-making arrangements that are optimal for normal times may not be so for crises.

To sum up ...

To summarise the issues that arise with respect to crisis management:

Heightened fiscal risks and the potential for other public policy interests to be affected make coordination across political authorities and government agencies more necessary than is the case in normal times.

Shifting between different coordination modalities is best pre-specified for a number of reasons – not the least being that decisions taken in the heat of the moment will have lasting effects on expectations and incentives. Various escalation or conditional decision-making structures are available. Examples are in place already in a number of countries but not all of them have been tested in a real crisis.

7. Autonomy and accountability considerations

Creating institutional arrangements that enable decision-making on monetary policy settings to be independent of short-term political pressures has proven useful in obtaining and maintaining price stability with favourable real economy outcomes. That independence has been achievable in part because: the monetary policy objectives have been sufficiently easy to specify; the results of policy actions have been reasonably readily observable relative to objectives; and monetary policy coordination with fiscal policy has been able to be done at arm's length.

Autonomy from day-to-day politics for decision-making on financial stability matters may be just as important as autonomy on monetary policy matters.

Delegation of decision-making authority to an autonomous agency, or under conditions that make such decision-making independent, can have important benefits where electorally sensitive issues with long-term consequences and technologically complex issues are involved. Financial stability policy decisions are likely to be just as politically sensitive as monetary policy decisions – if not more so at times. They may indeed be more sensitive to the lobbying of dedicated interest groups, since the financial services industry may collectively be neutral with respect to interest rate decisions, but collectively harmed by an enforced tightening of prudential standards. Attempts to capture the decision-making process are therefore likely to be more ardent. Accordingly, setting decision-making for financial stability policy within a process that is independent of political and interest group pressures is to be highly recommended.

An important question is whether arrangements for the conduct of financial stability policy allow retention of the gains from independence of monetary policy decisions, where the central bank is involved in the former. This may depend on whether financial stability and monetary policy decisions can come into conflict, and the nature of the conflict resolution implied by the decision process adopted (see A recap, next page).

A recap

Earlier discussion highlighted the following points that are relevant for both accountability and institutional autonomy:

Under normal circumstances, monetary and macroprudential policy objectives will motivate instrument settings that are consistent with each other. Thus in normal times, no incompatibility would result from decision-making on each function occurring under the same roof – so long as neither policy function distracted attention from the other, leading to loss of skills and/or focus. Nor would it result from decision-making on each occurring under different roofs.

Having an appropriate array of macroprudential instruments and the capacity to decide on their use permits the central bank to seek the most appropriate balance between monetary policy and financial stability instrument settings.

Decision-making arrangements need to be designed so that the full range of alternatives is clearly articulated and thoroughly evaluated. Such governance designs would facilitate accountability.

Where the decision process used for trading off policy risks on the monetary policy dimension against those on the financial stability dimensions involves the political authorities and government agencies, monetary policy decision autonomy is clearly undermined. In some jurisdictions, that may be regarded as entirely appropriate – as, for example, wherever governments are ultimate decision-makers on inflation targets. In such jurisdictions, the governance design would attempt to ensure that such decisions are not left to the central bank. In other jurisdictions, that may be regarded as inappropriate, and the governance design would seek to protect the central bank against erosion of autonomy.

Accountability goes hand in hand with decision-making autonomy, yet achieving it is difficult.

Accountability may be considered as the combination of explaining the reasons for actions (or non-actions) and being held responsible for their consequences. Not surprisingly, expectations of the outcome of the accountability process may affect the incentives shaping the actions.

Effective and fair accountability requires clarity on the mandate. Full clarity would require all three components to be explicit and well understood, ie responsibility for the function, the objectives, and the authorities available to the decision-maker. It is unreasonable to expect people to be held to account for things they do not know that they are expected to deliver – the threat of unreasonable ex post accountability may induce undesirable responses from those at risk (as discussed earlier). Yet full clarity on objectives may not yet be achievable. In contrast, clarity on decision-making responsibility can be achieved, even if such is not always the case (mandates are still often not explicit, as noted at the outset).

Accountability mechanisms may need to be altered in order to offset some of the inherent difficulties.

A further complication for the design of accountability mechanisms for the financial stability task is that in normal times, the effect of policy actions may be difficult to gauge. Success or failure in achieving price stability is easily observed. By contrast, the absence of a financial crisis may not signal policy success. The imbalances, conflicts of interest and excesses in leverage that lead to financial crises build up over time. A successful financial stability policy will need to address them well before a crisis occurs, and accountability mechanisms will need to be designed accordingly.

III

Table 7

Accountability mechanisms for financial stability actions

	Monetary policy report	Financial stability report	Normal times		Crisis times		Accountability method same or very similar for monetary & financial stability policy
	Number of issues per year		Provision of information	Review	Provision of information	Review	
Australia	4	2	Less than on monetary policy	In Parliament	Media release on conventional LoLR actions	In Parliament	Yes
Chile	4	2	Less than on monetary policy	Annual account to Minister of Finance and Senate		Annual account to Minister of Finance and Senate	Yes
ECB	–	2	Same as on monetary policy	Reporting commitment to EU Parliament, Council and Commission	Decisions generally public, unless immediate publication has adverse effects	Reporting commitment to EU Parliament, Council and Commission	Yes
France	na	1 - 2	Broad	None direct	Discretionary	None direct	Not comparable
Japan	2	2	Less than on monetary policy	In Diet (see note)	Discretionary	In Diet (see note)	Yes
Mexico	4	1	Less than on monetary policy	Reporting reqmts to federal gov't and Congress	Generally no	Reporting reqmts to federal gov't and Congress	Yes
Philippines	4	2	Full for regulations; none for supervision		Generally no		
Poland	3-4	2	Less than on monetary policy; generally no		Entirely discretionary		Yes
Sweden	3	2	Similar to monetary policy		Discretionary but typically yes		Yes
United Kingdom	4	2	Similar to monetary policy	In Parliament	Increasingly required, with the possibility of derogations	In Parliament	Yes
United States	2	–	Full for regulations; limited for supervision. Detailed reporting on discount window lending with a lag	Mandatory reports and testimony to Congress	Varies by type of action. Detailed reporting on emergency lending facilties with a lag	Mandatory reports and testimony to Congress	Yes

Notes: (1) The ECB does not publish a dedicated monetary policy report, but the Monthly Bulletin contains comparable elements. (2) In Japan, the Governor or a representative designated by the Governor frequently attends the sessions of the Diet or its Committees when requested by them, in order to explain the state of business operations and property (Art. 54(3) of the Bank of Japan Act).

Different mechanisms will suit different conditions. Table 7 (previous page) sets out some of the accountability mechanisms for the financial stability actions of the central banks participating in the study, using the distinction between actions undertaken in normal times and actions in times of crisis.

The following features of accountability mechanisms with respect to financial stability policy are worthy of note:

- In terms of broad design, the accountability mechanisms for financial stability are similar to those for monetary policy.
- There is variation even within this small sample of central banks in the specific way in which different accountability mechanisms are used. This reflects both differences in the nature of central bank financial stability mandates and differences across countries in processes and procedures for holding public policy bodies to account.
- There has been less reliance on transparency and disclosure as a mechanism for financial stability policy than for monetary policy. This is partly because of the absence of a clear metric for success or failure and partly because of the potential adverse impact on financial stability from revelations that reduce public confidence. However, that may be starting to change.

Notwithstanding their broad similarity with respect to monetary and financial stability policy, relatively speaking, accountability mechanisms for the latter that are focused on decision processes may be more effective than mechanisms focused on outcomes. Even more than is the case for monetary policy, outcomes of financial stability policy have limited observability. Coordination structures may involve formal advice being provided to the responsible agency by other experts. An audit trail of such advice, and responses to it, would thus be available. Similarly, conditional decision-making arrangements may involve observable trigger conditions that call for the decision process to shift track. An audit trail would similarly be available.

Concerns about the confidentiality of information on individual financial institutions have traditionally shaped discussions of the use of transparency and disclosure as a mechanism for accountability. Such information may be commercially sensitive, or its release could trigger a run on the institution.[13] In addition, constructive ambiguity with respect to the central bank's lender of last resort function has been considered important in stopping financial institutions becoming overly reliant on central bank support. However, it is not clear that *macroprudential* policy actions, and the underlying reasoning for them, need be less transparent than is the case for monetary policy. Most macroprudential policy actions will be targeted at the financial system as a whole, or at classes of financial institutions, rather than individual entities. And, ideally, most actions will be preventive in nature, ahead of particular concerns about imminent instability. Thus confidentiality considerations and concerns about provoking panic need not apply. Moreover, the thinking about constructive ambiguity with respect to lender of last resort facilities has moved on, recognising that ambiguity raises

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[13] For example, the disclosure that the Bank of England had provided emergency loans to Northern Rock Plc was a trigger for a run on that bank.

uncertainties and may undermine public backing without dispelling the sense of an implicit guarantee.

The considerations discussed in the last two paragraphs seem to have been present in the thinking behind the recent reforms in the United Kingdom and the United States. In both places considerable stress is being placed on ex ante explanations by macroprudential regulators of their analyses, diagnoses, and policy intentions. The FPC, for example, will be obliged to disclose in some detail its view of the appropriate setting of the instruments at its disposal, and the underlying reasoning, meeting by meeting. And under the Dodd-Frank Act, members of the FSOC must either declare at annual intervals that they are satisfied with the effectiveness of the financial regulatory regime, or identify the gaps and suggest changes.

To sum up ...

In short, achieving strong accountability for financial stability functions is more challenging than, for example, for monetary policy functions:

Limitations to our ability to tightly specify objectives make for a fuzzier yardstick for policy guidance and evaluation.

Longer time frames and the absence of a counterfactual means that ex post evaluation of policy effectiveness will always be difficult.

Nonetheless, disclosure of macroprudential policy actions and the reasoning for them is as feasible as is the case for monetary policy as long as adequate attention is given to the impact of disclosures on confidence and on the competitive conditions in the financial industry. Accordingly, as with monetary policy, the prime accountability device may be policy transparency.

There are early signs of a heightened role for policy transparency observable in recent reforms in at least two major jurisdictions.

Part IV: Alternative approaches for the governance of the macroprudential function

There are many possible configurations for the assignment of policy functions among agencies. Different assignments call for different governance arrangements. In this part of the report, we consider four likely configurations for macroprudential policy assignments. This allows us to illustrate governance arrangements – and specifically decision-making, autonomy and accountability – that may be applicable to such configurations. Most of the time is spent discussing the issues that arise when macroprudential policy responsibilities are shared among several agencies, as many of these issues also arise in the other cases.

The four example configurations discussed below relate primarily to the structure of preventive macroprudential policymaking. Preferred crisis management configurations need not be the same – especially where a suitable mechanism is found for conditional decision-making (or "decision escalation"; to be discussed later). The essential message is that each of the configurations has its strengths and weaknesses. Certain governance issues are more prominent in some than others. But because instruments and policy interests overlap, coordination involving sometimes difficult choices will be required.

1. Macroprudential policy as a shared responsibility

As already discussed, a complete range of instruments uniquely oriented to macroprudential policy has not yet been developed, let alone deployed. Tools that might be used with a systemic financial stability objective in mind include the regulatory and supervisory powers wielded for microprudential purposes, as well as interest rate policy and any direct regulatory interventions (such as reserve asset ratios) deployed for monetary policy purposes. Components of tax policy and controls on external capital movements might also have roles to play. Authority over these instruments would typically be dispersed across several agencies.

Where more than one agency implements macroprudential policy, coordination is required.

Information and analytic expertise relevant to macroprudential policy may also be housed in more than one agency. The analysis that underlies macroprudential policy shares characteristics with analysis used for microprudential policy (to understand the risk characteristics of systemically important institutions), for monetary and fiscal policy (for macroeconomic dimensions, and systems analysis), and for financial policy (to understand the implications of different financial structures). Some aspects of the analytical underpinning for macroprudential policy are also specific to the task, such as issues of financial interconnectedness, and the non-linear characteristics of financial systems.

A body may be set up for the purpose. Or decision-making may be distributed.

Any dispersion of key elements of macroprudential policy raises the issue of coordinating policy analysis and action among the different agencies. One approach is to consider macroprudential policy as a shared responsibility. How might coordination across agencies be achieved?

1.1 Decision-making within multi-agency councils

In a number of places, including Europe and the United States, macroprudential or financial system risk policy councils have been formed to coordinate the work of several agencies – the central bank, microprudential regulators, securities market regulators, deposit insurers, and the ministry of finance.

A coordinating body may have decision powers, and be able to direct agencies. Or it may exchange information, analysis and peer advice, perhaps stiffened with formal recommendation powers.

A crucial question is whether a multi-agency council is a decision-maker or a vehicle for joint analysis and peer pressure. In other words, do agencies represented on the council retain autonomy over their sphere of interest, or can the council direct policy actions by member (or even non-member) agencies? In both continental Europe and the United States, the choice has been to adopt a peer review and recommendation approach. In both cases such recommendations are hardened through a "comply-or-explain" obligation on the recipient of the recommendation. Such comply-or-explain obligations would have more force where recommendations, and any response thereto, are public. That will automatically be the case in the United States, but will require a two thirds majority decision of the ESRB in Europe.

Below, we first consider the potential impact on the main agencies for the situation where a macroprudential policy coordinating body has decision power, and then consider the issues relevant to situations where such a body has no power to regulate or direct. The analysis is intended to be general and is not a commentary on any of the recent reforms or any proposals currently under discussion.

Directives issued by a coordinating body might reduce contributing agencies' authority and autonomy. But there may be ways around this.

The key question for a joint decision-making body is the potential impact on the autonomy of participating agencies with respect to their individual spheres of policy interest. Possible constraints on independent authority would need to be carefully thought through, and aligned with desired rankings among policy objectives and with accountabilities.

- ***Directions to a microprudential regulator need not interfere with microprudential regulation or supervision***

  Could a decision-making coordination body direct a microprudential regulator or supervisor without undermining the latter's authority over microprudential policy? That would seem possible, especially in cases where the settings for the relevant microprudential instruments are supplemented by an additive macroprudential overlay.[1]

  Microprudential supervisors do not write the laws they enforce. Some, but by no means all, supervisors have the power to issue regulations. For example, in Europe the Capital Requirements Directive (CRD) is an instrument of the European Parliament (proposed by the European Commission and endorsed by the Council of Finance Ministers). Once incorporated into national legislation, national supervisors implement the CRD, with only limited scope to derogate from the standard through

[1] An additive overlay would involve the addition of an extra prudential requirement (eg to risk-adjusted capital requirements, or to a liquidity requirement) to an existing microprudential requirement. For balance sheet limits set as a minimum (eg a capital ratio), the minimum addition would be zero (at the trough of the cycle, where countercyclical variation is envisaged). For balance sheet limits set as a maximum (eg a leverage limit), the overlay would be subtracted, again with the minimum adjustment being zero. Note that such overlays could operate in the cyclical, cross-sectional, or both dimensions. An alternative way of representing such an overlay would be as the multiplication of microprudential instrument settings by a factor that captures macroprudential interests. The factor would have a lower bound of 1.0 for instruments constructed as microprudential minimums (eg a capital ratio), and an upper bound of 1.0 for instruments set as maximums (eg a leverage ratio).

the differential use of their own regulatory powers. Nonetheless, national supervisors operate independently of the European Parliament, and generally of their own governments. Analogously, a macroprudential coordinating body could set rules that the microprudential supervisor implements. Given the use of overlays that preserve the integrity of microprudential policy settings, the independence of the microprudential supervisor is unlikely to be affected.

- ***Directions to a central bank to alter monetary policy settings for macroprudential reasons may be ultra vires in some jurisdictions, but not all***

  With respect to the implementation of macroprudential policy through monetary policy instruments, the situation may be different. Independence of monetary policy choices from politicians and agencies directed by politicians has been shown to be valuable in achieving and maintaining price stability. But central bank independence with respect to monetary policy has importantly different meanings in different jurisdictions.

  In countries where the central bank has the independent authority both to determine specific monetary policy targets and to decide upon monetary policy instrument settings (as in continental Europe), inclusion of the government or other agencies in such decisions necessarily undermines central bank autonomy. In countries where the central bank is not empowered to determine its targets, the government could instruct it to change the weight accorded to financial stability. Such variations in the target for monetary policy would need to be used with care in order not to jeopardise price stability or the credibility of the monetary policy.

- ***Directions to a deposit insurer to adjust premium rates for macroprudential purposes could be separated from those for depositor protection***

  The situation of a deposit insurance agency may be similar to the situation of a microprudential regulator, at least with respect to preventive policy actions. Risk-based deposit insurance premiums could be used as a macroprudential policy instrument. It would, in principle, be possible to construct a separate macroprudential overlay, varied independently of, and additive to, an institution-specific risk-based deposit insurance premium. In short, a deposit insurance agency might be able to take macroprudential policy directions from another body without undermining its independent authority over its normal preventive deposit protection business.

- ***Tools in the hands of independent securities market regulators may be important components of financial stability policy***

  Many of the tools deployed by securities market regulators – for example, rules with respect to product disclosure, settlement arrangements, market access rights etc – are likely to be relevant to macro financial stability policy objectives. And securities markets often straddle the regulatory perimeter. While perhaps less amenable to countercyclical adjustment, these tools may have a role to play in the structural dimension of macroprudential policy. Such structural components of securities market regulation would be unlikely to be changed frequently. In that context, securities market regulators would be important members of multi-agency councils. And recommendations by such councils to securities market regulators, combined with comply-or-explain requirements on those regulators, could form the basis for effective coordination while respecting their autonomy.

- ***Relationship with government ministries***

  It is worth considering, in advance, the potential interaction between the interests of a macroprudential coordination body and the work of the government's ministries. Two policy interests may be at stake. One is the impact on the public finances of decisions about the macroprudential policy approach, and decisions on subsequent policy settings. The other concerns competition and economic development interests. The question is how much autonomy a macroprudential body could have when its actions might constrain the government's policy options in these areas.

  The delegation to selected agencies of decision authority over aspects of state policy is nothing new. It is used: where short-term electoral interests may bias policy away from longer-term societal interests; where technical complexity suggests delegation of decision-making to experts; and where significant corruption opportunities exist. All three are relevant to aspects of preventive macroprudential policy. So long as the delegation is purposeful, being clearly set out in legislation or high policy statements along with stated objectives (where feasible) and accountability requirements, it can be fully consistent with public policy governance norms.

The issues are different for coordinating bodies without decision power.

Considering now the issues for coordinating bodies that do not have decision authority, the benefit is that existing authorities are preserved and an erosion of autonomy avoided. But other issues may arise. In particular:

- Inter-agency rivalries, or fear thereof, may be more likely to hamper the effectiveness of a coordinating body when there is no requirement for decisions with consequences.
- Incentives may be to warn of crisis, even when the prospect is low (a "cry wolf" effect). Hence advisors would also need to be accountable for their advice – a reason for requiring publication of recommendations.

The addition of a requirement to comply or otherwise explain may stiffen the incentives of all parties in such arrangements. The requirement to comply or explain gives the advice considerably more force. The provider of the advice accordingly has to take greater responsibility for the outcomes, since the receiver of the advice has less freedom to go their own way – this being the intention.

1.2 Distributed decision-making

Macroprudential policy development and implementation may also be shared among several agencies and the government without the use of a coordinating body. We describe such a coordination mode for macroprudential policy decisions as "distributed decision-making". Several variations of such an arrangement are available, including arrangements involving joint decision-making – as with the use of double vetoes, optional vetoes, and requirements

Box 5 Modalities for active coordination and their different incentives

For some, group decision-making has a bad reputation, even though it is greatly favoured within central banks for decisions on monetary policy settings, and on executive management. Clearly, different situations call for different arrangements, and a variety of constructions are available, some of which allow for group decision-making but without face-to-face engagement. Relevant examples include:

- Fully joint decision-making, whether by vote or by consensus
- Joint consideration, with veto rights for one or more parties (including double veto arrangements, whereby each party must agree)
- Joint consideration, with a requirement for positive endorsement by one or more parties (including double veto with designated first mover)
- Requirements to consult with another party
- Requirements to notify another party before decision or implementation
- Requirements to provide advice to another party

These different approaches may alter the dynamics of the decision-making process, in sometimes subtle ways. Each party will clearly feel a higher degree of responsibility if they have a requirement to provide a positive endorsement than if they are merely the recipients of a mandatory notification of another's intended action. With higher responsibility comes the incentive to put time and effort into the issue at hand. Equally, a higher degree of responsibility will likely also involve a greater interest in shaping the outcome (maybe in pursuit of different objectives) and a reduced role for the others involved.

for positive endorsement (see Box 5). Questions concerning the impact on the authority, autonomy and effectiveness of the contributing agencies with respect to their specialised policy interests have been extensively discussed above, in the context of coordination within a special purpose body. For the most part, they apply also for distributed decision-making arrangements, although group dynamics might not operate as powerfully when a group is coordinating remotely. Where group think, for example, is a significant problem in decision-making, dampening the power of such influences would be valuable. At one end of the spectrum of alternatives in such distributed coordination modes, there is the option of arm's length remote coordination, involving pure information provision (see Box 6).

A potentially important issue with distributed decision-making is that limited interaction between the relevant agencies may make it more difficult for each to appreciate the expert perspective offered by the other. The distance that is good for independence may be bad for mutual understanding. Inter-agency rivalries may further increase barriers to effective interaction. Such dynamics may make voluntary cooperation difficult to achieve, requiring directive powers to be granted to the agency responsible for the policy objective that ranks highest.

To sum up ...

Macroprudential policy functions overlap with others – including microprudential regulation and supervision, macroeconomic policy, and competition policy. Some form of explicit or implicit coordination is required for any function not assigned exclusively to a single authority.

Although it is early days, the favoured choice seems to be a multi-agency council with varying degrees of authority. For the most part, the new councils will issue recommendations, strengthened to varying extents by their publication and/or comply-or-explain mechanisms. ...

To sum up ... (cont.)

To a very limited extent, the councils will have the authority to take decisions that legally bind members – thus far, only with respect to certain prudential policy actions.

An issue with councils that can issue non-binding recommendations is the possible incentive to "cry wolf". Such incentives may be tempered where the recommendations are public.

The power to direct member agencies necessarily reduces their independence. Additive macroprudential overlays to microprudential instrument settings offers an approach that could be consistent with autonomy for the microprudential policymaker. The issues are much more difficult with respect to the governance of monetary policy. Given the need to shield monetary policy decisions from short-term political pressure, it would be dangerous to introduce a governance structure that undermines the independence of monetary policy.

2. A separate macroprudential agency, with decentralised implementation

In the previous section we noted the possibility of a new, separate macroprudential agency. The fact that macroprudential policy will require both microprudential and macroeconomic analytical inputs, and will be implemented primarily through microprudential regulation and perhaps monetary policy instruments, suggested that coordination of decision-making by otherwise separate and independent agencies would be a natural approach. And indeed, this is the most common option being planned. This option does, however, give rise to a number of inter-agency coordination problems, as discussed.

An alternative that would also involve separate agencies and shared responsibilities is the creation of a specialist agency for the macroprudential function. A reduction in coordination problems may be achievable. A key point, though, is that while analysis and decision-making can be centralised, implementation cannot. Separate macroprudential policy instruments do not exist in significant scale or reach; implementation must use instruments primarily assigned to other policy objectives.

As already discussed, in principle the autonomy and accountability of microprudential supervisors need not be upset where another agency has the power to determine microprudential instrument settings. A prerequisite is that such a directive authority be expressly granted by the legislature, for a clear purpose, based on legislators' understanding of policy trade-offs and appropriate rankings. It may well be, however, that the understanding of trade-offs between monetary stability and financial stability objectives is insufficient to pre-specify rankings. Yet, as noted, there may be conflicts. This suggests not only that a separate macroprudential agency might not sensibly be given (partial) authority over interest rate settings, but that some decision-making coordination between the two policy arms may still be required.

This line of reasoning suggests that the distinction between sharing of macroprudential policy responsibilities among existing agencies – the scheme discussed as the first example – and the creation of a specialist macroprudential

Box 6 Parallels between monetary/fiscal and monetary/macroprudential coordination?

Where policy functions and objectives overlap, with actions on one front impacting decision-making on another front, some form of coordination is desirable. Joint decision-making, or negotiated outcomes, mean an active trading-off of different interests or objectives. In certain circumstances, especially where independence of decision-making on certain aspects of the overall public policy problem is desired, shared decision-making or negotiation may be regarded as inappropriate, yet actions on each policy front may still desirably take account of their impact on the other.

An example is monetary/fiscal coordination. Here, "arm's length" coordination has become commonplace, supplanting face-to-face discussion as the main coordination mechanism. Thus, if the fiscal authorities have a sufficient understanding of the monetary policy reaction function, and the monetary authorities of fiscal policy rules, each can take account of the other without the need for face-to-face engagements that may admit tacit negotiation. This has worked effectively, in normal and in the currently choppy times, provided that fiscal and monetary objectives are generally mutually supportive. Under extreme adversity (as might be characterised by Sargent's "unpleasant monetarist arithmetic"), a switch to joint decision-making could conceivably prove necessary.

Such an arm's length coordination mechanism could be considered for handling overlaps between monetary and macroprudential policy decision-making, should these policy functions be allocated to different agencies, or different decision-making bodies within the same agency. Each policy function involves decisions that may have high political sensitivity, making it useful for them to be taken independently of governments, within well agreed frameworks. Occasionally, they may involve decisions that conflict with each others' policy interests. In some views, that may make it useful for decision-making on each policy function to be independent of the other, with coordination at arm's length. Would greater clarity on financial stability objectives than currently exists be required to achieve this? Perhaps not. Fiscal policy objectives are probably no more readily specified than macroprudential policy objectives. As macroprudential policy settings would, like fiscal policy settings, typically evolve more slowly than monetary policy settings – the calibration of cross-sectional instruments would rarely be adjusted; discretionary countercyclical instrument settings might be reviewed semi-annually or annually; and rule-based countercyclical instrument settings would be approximately predictable – arm's length coordination could be feasible. Such views have been expressed by senior Bank of England officials about the likely character of coordination between the MPC and the FPC under future arrangements (see, for example, the speech given by the Deputy Governor for Financial Stability, Paul Tucker, at the 20th Annual Hymann P Minsky conference in New York on 14 April 2011, entitled "Macroprudential policy: building financial stability institutions").

agency may have less to do with solving coordination problems than with achieving a concentrated analytical and policy decision focus. A dedicated agency may simply give more attention to macroprudential issues than would a group of agencies with other prime responsibilities.

Nevertheless, a separate macroprudential agency is clearly not the favoured approach, at least in our sample of countries. While the option was canvassed in Senate discussions in the United States in the run up to the passage of the Dodd-Frank Act, it was not adopted. And in discussions in Europe, the option was apparently not even on the table.

To sum up …

To summarise the most significant governance issues for a model involving the creation of a separate macroprudential agency:

The creation of a separate macroprudential agency would raise issues with respect to the autonomy of other agencies that are similar in nature to those raised by the creation of coordinating macroprudential councils. In designing the arrangements it would be important to ensure that they do not lead to the erosion of monetary policy autonomy.

A separate agency may have advantages over a shared responsibility model with respect to the dedicated attention and focus given to macroprudential analysis. How strong such advantages might be (relative to the various costs) is hard to say. Interestingly, none of the recent institutional reforms creates such an agency.

3. Macroprudential policy as a responsibility of the central bank; separate microprudential regulator

Viewing macroprudential policy as a responsibility that is shared among several agencies may not be appealing. Shared responsibilities can become unfocused responsibilities. The coordination mechanisms can become cumbersome, or sources of friction. There may be a preference for defining a specific macroprudential policy function for which one agency is given dominant responsibility.

Macroprudential policy responsibility may fit better at the central bank than at a microprudential policy agency.

Assignment of primary responsibility to the central bank rather than to, say, a microprudential regulator could reflect two things: (1) A perceived greater difficulty of grafting macro/systemic analysis onto the dominant micro/institutional focus of a microprudential regulator than grafting micro/institutional analysis onto the central bank's dominant focus. In this regard, it is striking that central banks – such as the Federal Reserve in recent testimony – express notably more alarm at the prospect of losing access to microprudential information and perspectives than microprudential agencies have ever bemoaned the lack of a macroeconomic helpmate. (2) The consequences of a separate macroprudential agency making judgments on the cycle that are in conflict with those reached by the central bank may be perceived as worse than the consequences of differences of view between the central bank and a separate microprudential supervisor.

This may have a big impact on the relationship between the central bank and microprudential agencies …

The relationship with microprudential authorities will depend on what the performance of a macroprudential function by the central bank means. If it means that the central bank needs to lean against the wind in executing monetary policy, the need for interaction with microprudential supervisory authorities will be limited. By contrast, greater interaction will be needed if it involves regulatory measures such as determining a macroprudential overlay on capital or liquidity requirements. In essence, the central bank would then become the regulator, and the microprudential agencies the policy implementer(s).

… though there are ways to integrate micro and macroprudential policy that should allow effective inter-agency governance, good relations and effective policy.

This arrangement could trigger inter-agency rivalry problems, and complicate the independence of the microprudential regulators with respect to their spheres of policy responsibility. But, as already noted, it is by no means rare for microprudential regulators to implement policy instrument settings determined by others. Public policy determination and implementation are often deliberately separated, in order to increase accountability and reduce client capture. This would seem to be achievable when additive macroprudential overlays are used.

There are three possible alternative configurations that would not involve the central bank (as the prime authority responsible for macroprudential regulatory policy) giving directions to microprudential regulators and supervisors. First, the central bank might be authorised to deploy separate microprudential supervisory instruments for macroprudential purposes. Such an arrangement would however be fraught with coordination problems. Second, the central bank may be given responsibility for macroprudential policy without either powers to direct microprudential agencies or alternative regulatory instruments. As discussed in Part III of this report, such a mismatch of mandate and authorities/powers has many dangers. Third, the central bank might also be assigned microprudential regulation functions. This option is explored further in the next major section (page 65).

Potential conflicts between monetary and macroprudential policy objectives require special attention when trade-off management is internalised within the central bank. How that is done will probably depend on existing arrangements for monetary policy decision-making.

Modern monetary policy is characterised by independent decision-making, which is configured in essentially two alternative ways. Either the decision process for monetary policy is specifically structured to be independent of government (or other) influence; or the institution itself is made independent, such that all of its functions are operated independently from government influence. The Bank of England's MPC exemplifies the first approach: monetary policy is carved out for special treatment. The Bank of Japan and the Sveriges Riksbank exemplify the second: the Policy Board and the Executive Board respectively are responsible for all functions, including monetary policy.

If decision authority for financial stability is also fully delegated to the central bank, the model used for monetary policy decision-making may thus have a bearing on the choice for financial stability decision-making. Consistent with this, the new government in the UK has gone for a separate, dedicated decision body for the financial stability function (though the Bank of England will also become the microprudential regulator, making it an example of the fourth model to be discussed, rather than the third model currently under discussion). In contrast, in Japan the Policy Board, and in Sweden, the Executive Board, would presumably take the relevant financial stability decisions.[2]

Yet another example is provided by the Bank of France. The new supervisory agency, the Prudential Supervision Agency, is housed within the legal structure of the Bank of France, but is run as a separate entity. The Bank of Finland has a similar arrangement.[3]

These differences in existing institutional settings may have implications when it comes to the central bank's independence and accountability for financial stability actions. On the one hand, giving an independent central bank more

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2 Like the Sveriges Riksbank, the Bank of Japan has one Board, but it formally distinguishes between "monetary policy meetings" and "ordinary meetings." Monetary Policy Meetings of the Board are held regularly once or twice a month to make monetary policy decisions. Meanwhile, ordinary meetings are held regularly twice a week to discuss and make a decision on any issues except for monetary policy issues. Decisions on the financial stability issues are taken at ordinary meetings when they arise. Similarly, the ECB distinguishes between rate setting meetings and other meetings.

3 Within the Eurosystem, the national central banks may differ with respect to the scope and tasks of banking supervision.

explicit financial stability responsibilities may seem an easy reform to implement. The central bank can establish internal decision procedures to suit. In contrast, creating a new specialised independent decision process that works in parallel with the monetary policy process may seem like more work. On the other hand, it may be that in some countries the various factors discussed in Part III of this report motivate setting financial policy decisions within a less independent frame – so that, for example, fiscal and regulatory policy interests are actively considered. In this case, assigning policy responsibility to a fully independent central bank may be seen as a step too far. For such cases, the ability to calibrate the decision process to a desired degree of independence may be welcomed.

These different approaches to the internal decision-making structures within the central bank may also have important implications when it comes to dealing with conflicts and trade-offs. Where the same committee or board makes decisions on both monetary and financial stability policy, coordination costs are reduced, allowing in principle for more rapid reactions, and taking maximum advantage of synergies. If decisions of the single decision-maker are subject to disclosure requirements, it will have a need to articulate the nature of the trade-offs and the reasons for specific choices in any given situation. In the absence of such requirements, the concentration of power in single structures may require special efforts to obtain clarity on the existence of trade-offs and how they are being managed. Decision processes that are dedicated to singular functions will presumably make trade-offs more evident, since each decision-making group will relatively quickly identify the other as a barrier to success. Especially where each decision stream is subject to disclosure requirements, this would probably make the existence of difficult choices more obvious to the public.

Separate work streams and decision processes for each policy function may help the transparency of conflict management, but at the possible expense of synergies and speed.

Of course, conflicts have to be resolved in the end. This can be done within the central bank's highest ranks, or it may be escalated to a high political level. In both cases, conflicts could be resolved in private, though decisions will still need to be announced, and probably explained. Escalation to a high political level perhaps provides a stronger procedural basis for disclosure and hence transparency, since at the point of escalation the problem must be sufficiently clearly defined that its existence could no longer be denied.

To sum up ...

The discussion in this section suggests that the main issues that would arise when the central bank has prime responsibility for macroprudential policy are as follows:

The central bank would need to have the power to direct microprudential regulators and supervisors. While such an overlay is feasible and could be consistent with good public policy governance – assuming that such an arrangement is the carefully considered and clearly articulated will of the legislature – bureaucratic obstacles may be significant.

It is not possible to specify ex ante how macroprudential and monetary policy instruments may need to be combined and balanced to achieve their respective objectives. However, decision-making arrangements (eg a clear ranking of policy objectives or the organisational setup of the decision-making bodies) should provide for the explicit assessment of the implications of a wide range of different combinations. This is important both for effective policymaking and for good governance. Disclosure of such assessments helps to promote accountability.

To sum up ...

For this reason, and also for effective management of the twin functions, the choice between creating dedicated processes – including decision bodies – for each function, as opposed to unitary ones, becomes important. Dedicated processes would help achieve proper focus on each policy function, and might provide a stronger basis for recognition and disclosure of policy conflicts. At the same time, dedicated processes may create cultural silos that make potential synergies difficult to exploit. The potential to exploit such synergies is one of the prime reasons for assigning both functions to the central bank.

It is unlikely that one single approach will be suitable in all circumstances given the different range of responsibilities and powers of central banks and the different weight assigned by central banks to the pros and cons of different decision-making arrangements.

4. Central bank as macro- and microprudential policy agency; separate financial product safety regulator

The announced reforms in the United Kingdom both create a new macroprudential policy decision body with the Bank of England, and return microprudential supervision to the Bank, albeit to be housed in an operationally independent subsidiary. This appears to make the United Kingdom a showcase for the institutional arrangement being discussed in this section. But the discussion is purposefully general, and is in no way intended to be an analysis of the UK proposals.

For those countries where the central bank is the microprudential supervisor, assignment of the new macroprudential function to the central bank will mean that all of the big policy trade-offs will be managed under the same roof. This may make coordination easier and harder at the same time: easier in terms of information flows and the logistics of coordination; harder in terms of mechanisms to bring emerging policy conflicts out into the open and to hold the decision-makers to account.

Assembling financial policy functions together brings relevant information and expertise within close reach, though taking advantage of that requires effort ...

A major potential advantage of assembling the main financial policy functions within one agency is improved access to related information and expertise. Microprudential policy effectiveness is no doubt improved by access to information and analysis about interconnections between institutions, and about macroeconomic and financial conditions. Macroprudential policy effectiveness is no doubt helped by ready access to information on individual institution positioning and risk, and monetary policy effectiveness by all manner of information on the dynamic behaviour of the financial system. And good decisions on lender of last resort need information from both prudential policy arms.

Potential advantage and actual gain are not the same, however. Silos could isolate information and analysis and, more generally, different functions may imply differing intellectual frameworks that could inhibit communication. Such isolation may be reduced by bringing the functions under the same roof, but risks and management challenges remain.[4] Crossing divisional boundaries is not

[4] Chairman Bernanke recently stressed the value of the Federal Reserve's supervisory role

easy, and may indeed be inappropriate in some instances (eg with respect to commercial secrets, yet-to-be announced policy actions, etc). The same probably goes for the three functions under discussion – microprudential, macroprudential and monetary policy. It would seem from experience that systemic analysis is less natural to the balance sheet and institutional risk analysts typically employed in microprudential supervision. The limited attention given to financial factors in both formal and informal macroeconomic models also speaks to the large gaps between the training of macroeconomic and macroprudential analysts. Whether these gaps can be bridged, and silos avoided, by bringing these functions together under forceful management is an open question and outcomes may depend on the specific experience and institutional background of different countries.

... and complications grow as the number of co-located functions increases.

A further issue is the complicated governance questions that could arise when functions are bundled together. Some of these were discussed in the previous section. In addition, as more policy functions are added, the risks of management distraction and reputational contagion rise. In some countries, concerns about undermining the effectiveness and credibility of the monetary policy process play a significant role in keeping the central bank narrowly focused on a price stability objective.

Finally, it is worth noting that in some countries, the concentration of several public policy functions at a distance from the political process may offend normal understandings of the legitimising role played by checks and balances. This concern helps explain the extent and depth of the reporting and disclosure requirements being placed on the new policy bodies being created at the Bank of England. It also helps explain the retention by Parliament and the executive respectively of two key powers: determination of the macroprudential instruments and authorities available to the Bank, and detailed interpretation of the policy objectives being set out in statute and thereby the preferred treatment of any trade-offs contained therein.

To sum up ...

To summarise the distinctive issues that arise when the three main policy functions – microprudential, macroprudential and monetary – are assembled under the same roof:

The potential for extraction of synergies relating to access to relevant information and expertise is increased, but extraction of such synergies is not straightforward. While each function can obtain important insights from the others, each also has distinctive analytical frameworks that may be difficult to integrate.

With an increased range of policy responsibilities, governance design becomes more complicated. In some countries, issues around concentration of important state powers within an independent agency and the potential for adverse performance or reputational crossovers may militate against such an arrangement. In others, improved information flows, concentration of expertise, internalisation of policy conflicts and avoidance of inter-agency rivalries may make this arrangement attractive.

for its other activities, including monetary policy, lender of last resort functions and crisis management (see http://www.federalreserve.gov/BoardDocs/RptCongress/supervision/supervision_report.pdf).

5. Final comments

The present crisis has clearly raised the expectations on the authorities to deliver early warnings and also to take timely remedial action in order to prevent – or at least reduce – the impact of weaknesses in the financial system. Irrespective of the choice of ways, means or organisational setups that countries finally will decide on, a number of issues and challenges must be addressed before effective macroprudential monitoring can be conducted:

- Where multi-agency councils are used to coordinate decision-making, a choice needs to be made between non-binding recommendations and the power of the council to direct members' actions. The stronger the powers, the greater the accountability of the council; yet the more the member agencies' independence may be affected.
- A multi-agency council's ability to direct member agencies responsible for microprudential policy could be implemented in a manner consistent with good public policy governance. The issues are substantially more difficult with respect to coordination between macroprudential and monetary policy on the rare occasions when they may collide.
- A special purpose macroprudential agency may help sustain the increased focus on systemic objectives, but it may create a range of challenges. Whatever the case, such an arrangement is not currently favoured in the majority of reform proposals under active discussion.
- Where the central bank is given prime responsibility for macroprudential policy, decision-making structures or procedures will need to provide for the coordinated calibration of monetary and macroprudential policy settings.
- Similar issues arise where the central bank is also the microprudential regulator and/or supervisor. The potential for beneficial synergies increases, but so do the management challenges associated with obtaining such benefits.
- In the present document these and other challenges have been discussed and arguments for and against various alternatives have been provided but, in accordance with the mandate of this exercise, no recommendations for solutions have been presented. Indeed, no single institutional structure seems likely to be best for all economies because of differences in financial market structures, political arrangements, policy objectives and historical experiences. This is a rapidly evolving area of policymaking and much work remains to be done.

Annex: Recent reforms to governance arrangements for financial stability policy[1]

European Union

The reform of supervisory arrangements in the European Union (EU) drew largely upon the report of the de Larosière Group (DLG (2009)).

In September and October 2009, the European Commission (EC) adopted two sets of legislative proposals that saw the creation of two new pan-European authorities for microprudential and macroprudential supervision. The proposals were adopted by the European Parliament (EP) and the Economic and Financial Affairs Council (ECOFIN) on 17 November and 16 December 2010 respectively.

For normal times

With respect to microprudential supervision, regulations concerning the creation of a decentralised network of supervisors, the European System of Financial Supervisors (ESFS), were introduced on 1 January 2011. The ESFS brings together national supervisors and three new independent supranational European Supervisory Authorities (ESAs) based on the existing European advisory committees for the banking, securities, and insurance and occupational pensions sectors.[2] An overarching joint committee is charged with the promotion of coordination and cooperation among the three ESAs. Each ESA has its own board comprising representatives from national authorities.[3] Each also has its own budget and is fully accountable to the EC and the EP. Supervision continues to be nationally based.[4] Thus the new ESAs have:

- The power to issue technical standards that, upon endorsement by the Commission, will be legally binding;
- Legal powers to resolve disagreements between national supervisors, where legislation requires them to cooperate or agree;
- Responsibility for the central authorisation and supervision of rating agencies;
- The task of ensuring a coordinated response in emergency situations and the ability to adopt some emergency regulatory decisions; and
- The power to collect microprudential information.
- The task of coordinating the activities of the colleges of supervisors which are being set up for all major cross-border institutions.

With respect to macroprudential oversight, the legislation created a European Systemic Risk Board (ESRB) tasked with detecting risks to the financial system as a whole. The ESRB has no formal directive power but it has the power to issue recommendations and risk warnings to EC member states, to national supervisors and to the ESAs, all of which will be expected to comply or else explain why not. The publication of recommendations

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1 The information contained in this Annex was updated at the end of April 2011.

2 There will be a European Banking Authority (EBA), a European Insurance and Occupational Pensions Authority (EIOPA), and a European Securities and Markets Authority (ESMA).

3 Representatives from the EC, the ESRB and the ECB for the EBA are members without voting powers.

4 Cross-border institutions will be supervised by colleges of home and host supervisors.

or risk warnings will be subject to majority decision by the governing body of the ESRB. The structure and membership of the ESRB and resourcing is as follows:

- A General Board, which is a 65-member decision-making body responsible for the performance of the tasks entrusted to the ESRB. The members with voting rights include the President and the Vice-President of the ECB, the Governors of the 27 national central banks, a member of the EC, the Chairs of the three ESAs, the Chair and the two Vice-Chairs of the Advisory Scientific Committee, and the Chair of the Advisory Technical Committee. In addition, a representative of the national supervisory authority of each member state and the President of the Economic and Financial Committee (EFC) participate as non-voting members. The General Board will as a rule act by simple majority. In case it adopts a recommendation or decides to publish a recommendation or risk warning, a two thirds majority of votes is required.
- A 14-member Steering Committee, which is in charge of assisting the decision-making process by preparing the meetings of the General Board, reviews the documents to be discussed and monitors the progress of the ESRB's ongoing work. The Steering Committee comprises the Chair and Vice Chair of the ESRB, the Vice-President of the ECB, 4 other members of the General Board who are also members of the General Council of the ECB, a member of the EC, the Chairs of the 3 ESAs, the President of the EFC and the Chairs of the two advisory committees.
- The Secretariat, which is administratively part of the ECB and functionally accountable to the ESRB's Chair and its Steering Committee. The head of the Secretariat will be appointed by the ECB, in consultation with the General Board of the ESRB.
- Two advisory committees, a 65-member Advisory Technical Committee (ATC) and a 15-member Advisory Scientific Committee (ASC), provide advice and assistance on issues relevant to the work of the ESRB. The ATC is composed of representatives of the ECB, the NCBs, national and European supervisory authorities, the EC, the EFC and the ASC. The ASC comprises experts with a wide range of skills and experience in the financial sector.

For crisis situations

No major change was introduced, reflecting the political complexities of cross-border actions with national fiscal and property rights ramifications. The ESAs are charged with ensuring a coordinated response. Meanwhile, the EC is working on proposals for early intervention and deposit insurance.

France

In January 2010, the French Government finalised an administrative order ("ordonnance") that reformed some aspects of France's financial regulatory framework. The reform drew upon a white paper submitted in January 2009.[5] The main features are a consolidation of several regulators into a super-regulator within the Bank of France (BoF), the Prudential Supervisory Authority (PSA), with an explicit financial stability mandate, and a beefing-up

[5] Rapport de la mission de réflexion et de propositions sur l'organisation et le fonctionnement de la supervision des activités financières en France (the "Deletré Report").

of consumer protection under the Financial Markets Authority (FMA), which will remain independent (but will work in close cooperation with the PSA, see below).

In addition, in October 2010 the Banking and Financial Regulation Act created a Financial Regulation and Systemic Risk Council (FRSRC).[6] The FRSRC is entrusted with tasks relating to enhanced cooperation in the field of financial stability.

The new arrangements involve:

For normal times

The French financial services industry was previously overseen by five autonomous or semi-autonomous authorities: the Comité des Établissements de Crédit et des Entreprises d'Investissement (CECEI), the Commission Bancaire (CB), the Comité des Entreprises d'Assurance (CEA), the Autorité de Contrôle des Assurances et des Mutuelles (ACAM) and the Autorité des Marchés Financiers (AMF/FMA). These entities were consolidated into the PSA, which became operational in March 2010. This consolidation shifts supervision from an approach based on sectoral/institutional regulatory boundaries to one based on regulatory objectives.

The PSA's mission is to preserve financial stability, including ensuring the strength and solvency of all financial institutions, and to ensure consumer protection.

The PSA does not have its own "moral personality" but it has its own funding, which is primarily based on levies imposed on supervised entities. The PSA's staff forms an "établissement distinct" within the BoF (an autonomous entity with respect to administrative and staff issues). The PSA comprises 16 members and is chaired by the Governor of the BoF. A Vice Chairman is internally responsible for the insurance sector.

Indeed, substantially more resources are devoted to consumer protection, to the oversight of institutions' dealings with customers and to the monitoring of intermediaries. The AMF retains its independence and its existing mandate but its remit is broadened to ensure consumer protection for all types of financial services. A joint centre is being established by the PSA and the MFA to develop consistent policies on inspections and to monitor product development. A single point of contact will be offered for consumer enquiries (while preserving the division of responsibilities between the two authorities).

For crisis situations

The new framework does not explicitly address the issue of crisis situations but the consolidation of regulators should improve the management of such situations.

Mexico

On 27 July 2010, Mexico established a Financial Stability Council (FSC). The FSC comprises the Bank of Mexico, the Finance Ministry and the country's other principal regulatory agencies. Its main functions are to identify potential risks to the country's financial stability, recommend appropriate policies and actions, and coordinate their implementation by member agencies. The FSC also serves as an advisor to the President with respect to financial stability matters. It is required to publish an annual report on the country's financial stability situation and its activities in the area of financial stability.

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6 Chaired by the Minister of Finance and composed of the Governor of the Bank (also as President of the PSA), the President of the Financial Markets Authority and the President of the Accounting Standards Authority (or their respective deputies).

The Philippines

For normal times

An initiative is underway to amend provisions of the central bank law to formalise and extend the financial stability functions that the Bangko Sentral ng Pilipinas (BSP) has been discharging in recent years. In the present charter, the BSP includes "monetary stability" among the primary objectives (alongside price stability); the proposal is to clarify the focus and intent by using the term "financial stability" instead.

This proposed amendment is not merely a reaction to the call of the times. At one level, it formalises the gamut of policy actions already undertaken by the BSP with respect to monetary policy, bank supervision, oversight of the payment and settlement system as these relate to inflation control and public welfare. Beyond the formality however, when this specific amendment is related to other provisions proposed, the net effect of these is to provide the BSP with expanded avenues and more tools to address the goal of financial stability. For example, liquidity management is more effective if the LoLR facility can be extended to systemically critical non-bank institutions which are likewise under the supervisory ambit of the BSP, subject to the terms and conditions that may be prescribed by the Monetary Board to minimise potential losses to the BSP. A "bridge bank" framework is also introduced in the amendments as a more proactive bank resolution framework. This is integral to mitigating financial instability since the bridge bank preserves economic value that would otherwise have been left to the course of receivership proceedings.

For the most part, recent reviews of arrangements suggest that existing accountabilities are appropriate, and inter-agency coordination mechanisms effective (though some recent adjustments to enhance internal coordination between BSP units have been made). The BSP is the microprudential supervisor for banks, and coordinates with separate securities and insurance regulators via a Financial Sector Forum created in 2004. Over the last two years a number of steps have been taken to ensure that a systemic perspective is being taken by the BSP, consistent with the BSP's interpretation of its financial stability (ie monetary stability) mandate.

In anticipation of the coordination and policy work that will need to be undertaken, the BSP created a high-level Financial Stability Committee (FSComm) in September 2010. The FSComm is chaired by the Governor of the BSP and includes all three Deputy Governors as well as three other senior officers of the central bank. The composition of the group reflects the intent to collaborate across the existing mandates of price stability, effective supervision of banks and efficient payments systems. Formally, the committee is tasked with defining "the appropriate market vision and work plan to adequately mitigate the build-up of systemic risk under a Financial Stability policy objective".

More recently, a proposal was put forward to create a formal body that would look into systemic risks and financial stability issues. Premised on the view that many of the issues pertinent to the financial stability agenda will require close collaboration between financial regulators and the fiscal authority, the proposal is for the body to be composed of the Department of Finance, the Insurance Commission, the Philippines Deposit Insurance Corporation, the Securities and Exchange Commission and the BSP. This new grouping would not expand the scope and mandate of the existing Financial Sector Forum (FSF). It would be an entirely new body whose formal mandate would be the pursuit of financial stability. This initiative highlights the critical nexus between financial policy, fiscal policy and the channels through which systemic risks need to be identified, mitigated and managed.

It should be noted that two small barriers to BSP regulatory effectiveness may exist. One is legal entitlement to access to information about bank deposit accounts for prudential and financial stability purposes. This is expected to be fixed in upcoming legal amendments. The other is the exposure of BSP officials to legal suit in a personal capacity.

For crisis situations

The Philippines implemented a prompt corrective action framework in 1998, and in 2006 updated it to make trigger conditions more explicit. Within the context of the proposals to amend the BSP law, consideration is being given to allowing the BSP to extend the lender of last resort facility to systemically critical non-bank institutions – which would likewise be under the supervisory ambit of the BSP. A "bridge bank" framework is also being developed.

United Kingdom

The United Kingdom has been undergoing extensive reform of its financial stability arrangements in recent years. The process began with the introduction in the Banking Act 2009 of a new special resolution regime (SRR) and a statutory objective for financial stability for the Bank of England (the Bank). In July 2010 and February 2011 consultative documents containing detailed proposals for further regulatory reform were published by the Treasury. The proposed arrangements are expected to be introduced once the consultative and legislative processes come to completion, which should be towards the end of 2012.

Broadly speaking, the United Kingdom's current tripartite institutional framework will be replaced by a new framework placing the Bank at the heart of financial sector supervision. Macro- and microprudential oversight will be integrated within the Bank, with the aim of capitalising on the financial expertise of the institution and ensuring better coordination between systemic and firm-specific regulation. In addition to this change in structure, the Government intends to encourage a change in outlook to microprudential supervision whereby judgment-led and forward-looking approaches will be privileged over legal and rule-based approaches. The new framework will also encompass improved accountability and transparency arrangements for all policy functions.

For normal times

The Government's reforms focus on three key institutional changes:

- First, a new Financial Policy Committee (FPC) will be established at the Bank as a formal committee of its Court of Directors (the Court), with responsibility for delivering systemic financial stability through macroprudential regulation. Other parts of the Bank will be responsible for crisis management, including the resolution of failed or failing banks under the special resolution regime (SRR), and regulation of key financial infrastructure.
- Second, microprudential regulation will be carried out by an operationally independent subsidiary of the Bank, the Prudential Regulation Authority (PRA), which will be responsible for the oversight of the safety and soundness of banks, insurers and other prudentially significant firms.
- Third, responsibility for conduct of business regulation will be transferred to a new specialist regulator, the Financial Conduct Authority (FCA), which will have responsibility for conduct issues across the entire spectrum of financial services.

The Bank's existing financial stability objective will be amended to read:

> "1 An objective of the Bank shall be to protect and enhance the stability of the financial system of the United Kingdom (the "Financial Stability Objective")."
>
> "2 In pursuing the Financial Stability Objective, the Bank shall aim to work with other relevant bodies (including the Treasury, the Prudential Regulation Authority and the Financial Conduct Authority)."

The FPC and the PRA will each be given strategic objectives that will be underpinned by operational objectives intended to provide an elaboration of how each authority is to interpret and pursue its strategic remit. The FPC's strategic objective will be closely aligned with that of the Bank and its specific responsibilities with respect to that objective will relate primarily to the identification of, monitoring of, and taking of action to remove or reduce systemic risks with a view to protecting and enhancing the resilience of the UK financial system.

In working towards achieving its objective, the FPC will be required to have regard to the objectives of the PRA and FCA. Given the difficulty of precisely defining the concept of financial stability and the potential for trade-offs between financial stability policy and other policy objectives, the Treasury will provide greater clarity on the overall approach to be taken by the FPC by submitting to Parliament a public remit that the FPC will be required to respond to publicly.

Once it has identified and evaluated a systemic risk, the FPC will decide on the most appropriate and effective way of addressing it through the selection of appropriate levers from a toolkit to be set out in secondary legislation. These levers will also include public pronouncements and warnings, and involvement in macroprudential policymaking in Europe and internationally. However, the primary instruments will operate via, or alongside the regulatory levers of the PRA and FCA. The FPC will have two main powers over the PRA and the FCA:

- A broad power of recommendation, which will be backed up by a statutory requirement for the PRA and FCA to either comply with the recommendation as soon as practicable or explain in writing to the FPC why it has not done so; and
- A power of direction, which will allow the FPC to require the PRA or FCA to implement certain macroprudential tools. The PRA and FCA will have no choice over whether to implement a direction.

The FPC will have the flexibility to make recommendations about anything it believes relevant for financial stability, whereas the scope of the direction-making power will be narrowly defined around specific tools. However, the FPC, as a policy committee rather than a regulator, will not be supervising financial firms or markets directly. Any regulatory interventions to address systemic risk will need to be implemented by other bodies: primarily the two financial services regulators – the PRA and FCA – but also other parts of the Bank and the Treasury.

The FPC will have a total membership of 12 individuals, comprising six executives of the Bank, five members from outside the Bank and a non-voting Treasury member. The FPC will be chaired by the Governor of the Bank and include the existing Deputy Governors respectively responsible for monetary policy and financial stability, the newly created Deputy Governor for prudential regulation and two Bank executives responsible for financial stability and markets analysis respectively. The Chief Executive of the FCA will sit on the FPC, as will a further four independent external members, appointed and recruited in a similar manner to the current external members of the Monetary Policy Committee (MPC). The FPC will be required to meet at least four times a year. Perhaps, in view of the less clearly defined nature of decisions relating to financial stability, the FPC will take decisions by consensus where possible; otherwise a vote will be taken, with the Chair having a second casting vote.

The strategic objective of the PRA will be similar to that of the Bank and the FPC. It will recognise the overriding importance of financial stability as a goal of the regulatory system. The operational objective will explain how the PRA will contribute towards achieving stability by promoting the safety and soundness of firms (essentially all institutions that accept deposits or effect insurance), including in a way that does not rule out the possibility of firm failure but seeks to ensure that failure would have minimal systemic consequences.

The PRA will take a judgment-led and forward-looking approach to the firms it regulates. This approach will include an assessment of how a firm would be resolved if it were to fail and the impact this would have on both the financial system as a whole and the possible use of public funds. The PRA will draw on this analysis as part of its proactive approach to identifying weaknesses within firms, supported by intervention to require firms to address such weaknesses, where appropriate.

The location of the PRA within the Bank will bring macro- and microprudential regulation together under the auspices of a single institution and re-establish the link between the Bank's financial stability functions, on the one hand, and the prudential regulation of financial services, on the other. However the PRA will also be operationally independent in carrying out its statutory responsibilities. This independence will be supported by the Authority's legal separation as a subsidiary of the Bank and by the establishment of an independent governing board with a majority of non-executive members.

Total membership of the PRA's governing body has yet to be determined but it is already known that the Governor will be ex officio Chair and the Bank's Deputy Governor for Prudential Regulation will be its ex officio CEO. The Bank's Deputy Governor for Financial Stability and the Chief Executive of the FCA will also serve on the PRA's governing body. The board will be responsible for proposing the overall budget of the PRA for the Court's approval, the management of its resources within the budget set by the Court in an appropriate, proportionate and risk-based manner and making prudential rules. An executive committee comprising the Chairman, PRA executives and the Deputy Governor for Financial Stability will take key decisions involving major firms or other high risk issues.

The new framework also provides mechanisms for the sharing of information and coordination of activities between the groupings responsible for the various policy functions. The interactions and potential conflicts between macroprudential and monetary policies will be managed in part through cross-membership between the FPC and the MPC and a sequencing of meetings held by the two committees. The interactions between macro- and microprudential regulation will be handled through a two-way exchange of information, advice and expertise between the FPC and the PRA.

The new framework will be supported by improved accountability and transparency arrangements. Each regulatory institution will be subject to specific mechanisms of accountability:

- The FPC will be accountable to the Court for the contribution it makes to the Bank's financial stability objective (note that the Court will no longer have direct responsibility for determining and reviewing the Bank's strategy in relation to financial stability).

- The PRA, as part of the Bank group, will be accountable to the Court for administrative matters, including its budget and remuneration policy, value for money and performance against objectives. And as an operationally independent regulator, the PRA will be accountable to its own independent board for performance against its regulatory and supervisory strategy, which will be set by that board.
- The FCA, as a standalone independent regulator, will be accountable for its administrative, operational and strategic performance to its own independent board.

Those internal accountability mechanisms will be enhanced by additional channels of accountability. For the FPC, in particular, there will be:

- Twice-yearly publication of the Financial Stability Report containing an assessment of potential and actual risks to financial stability, and actions taken by the FPC (including an assessment of their effectiveness), with those reports submitted to the Treasury and laid before Parliament.
- A twice-yearly update from the Governor to the Chancellor on developments in prudential regulation and financial stability.
- A submission to the Treasury of all directions issued by the FPC to either the PRA or FCA, so that these can be laid before Parliament.
- The publication of records of the FPC's quarterly meetings within six weeks, which will summarise in broad terms the Committee's deliberations and the balance of arguments underlying its actions. The records will also contain an account of why the recipients of recommendations emanating from the FPC have not complied with part or all of such recommendations. However, the FPC will not be required to immediately publish information on matters of a highly confidential or market sensitive nature, such as liquidity operations managed by the Bank. Notwithstanding, the FPC will be required to reassess the sensitivity of the information, with a view to publishing it at an opportune time.
- A flexible mechanism to allow the Treasury to ensure, for each macroprudential tool provided to the FPC, that the most appropriate mechanisms for engagement with industry and other interested sectors apply (for example, through policy statements issued in advance by the FPC and setting out how it expects to implement regulatory measures).

The PRA will also be subject to enhanced accountability and requirements. The most immediate line of accountability for the PRA will be to the Court, which will hold it to account for budget and remuneration policy, value for money and other matters. In addition, the government envisages that Chancellors will have to satisfy themselves that the regulatory system as a whole is functioning properly. Parliament will hold the PRA publicly accountable for the achievement of its statutory objective and the general public will have a right to information about the operation of the system and the way the PRA exercises supervision.

For the PRA, external accountability to the government and Parliament will be delivered through legislative provision for:

- Full audit by the National Audit Office (NAO), with accountability to the Public Accounts Committee (PAC).
- A power for the Treasury to order an independent inquiry into the PRA's economy, efficiency and effectiveness.

- A power for the Treasury to order an independent inquiry into regulatory failure, carried out by a third party, as is currently provided for in Financial Services and Markets Act.
- A new requirement for the regulator to make a report to the Treasury, to be laid before Parliament where there has been regulatory failure. This report may include the disclosure of confidential information where this would be justified in the public interest.

With respect to public accountability, the PRA will be fully subject to the Freedom of Information Act (FOIA). However, some additional safeguards will be put in place to ensure that information can flow freely between the Bank and the PRA without undermining the limitations on the application of the FOIA to the Bank of England.

For crisis situations

The Bank group (as central bank, macro- and microprudential regulator and resolution authority) will be responsible for designing and executing most elements of the regulatory and resolution response to an emerging financial crisis, but the Treasury will remain in control of any decisions on the use of public funds.

Performing these roles effectively will require close cooperation between the Bank and the Treasury when managing a specific risk to stability. This cooperation will rely on close personal interaction between the Governor and the Chancellor. This will be achieved through two specific mechanisms:

- A regular update twice a year from the Governor to the Chancellor on developments in prudential regulation and financial stability (soon after publication of the FSR); and
- A statutory duty on the Governor to notify the Chancellor as soon as it becomes clear that there is a potential risk to public funds.

The notification set out above will only be the first stage of the crisis management process. From that point on, the Bank and the Treasury (and other relevant authorities) will be expected to work closely to develop plans that minimise the call on public funds while securing financial stability. In order to establish clear procedures for managing this, the Government will legislate to require the drafting of a statutory Memorandum of Understanding (MoU) on crisis management. This MoU will principally be between the Bank, as resolution authority and central bank, the PRA, as prudential regulator and entity responsible for triggering firms into the SRR, and the Treasury as entity responsible for the use of public funds. It will set out how the authorities will work together to identify and manage specific threats to stability. In particular, it will supplement the duty of the Governor to notify the Chancellor of risks to public funds by setting out what happens after the notification is made.

The existing SRR will not be changed substantially other than to take account of the relevant authorities' distinct roles under the SRR:

- The Bank will continue to lead on the operation of the SRR. Resolution will be managed within the Bank under the Deputy Governor for Financial Stability; and
- The PRA's operational independence in the exercise of its statutory functions will include responsibility for triggering the stabilisation options under the SRR; that is, making the assessment that the conditions specified in Section 7 of the Banking Act 2009 are met. The FCA will not have the power to pull the Section 7 trigger for the SRR.

The new arrangements are expected to create a closer working relationship between the authorities, which will be even more important in the run-up to resolution. In particular, the new arrangements should enable a freer flow of information between the PRA and the Bank's Special Resolution Unit in preparing for an exercise of the SRR stabilisation options. The potential for conflict between the various authorities is expected to be minimised by a legal allocation of responsibilities but the Government is considering whether it would be appropriate to deal with this matter explicitly in the crisis management MoU or to make specific provision in the SRR Code of Practice about managing conflicts, or both.

United States

After much debate – which included consideration of quite different proposals for the future institutional structure for financial stability policy – the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 was passed by Congress and signed into law in July 2010. The Act's main objectives were four-fold: to promote financial stability by improving accountability and transparency in the financial system, to end "too big to fail", to protect the American taxpayer by ending bailouts, and to protect consumers from abusive financial services practices.

The institutional structure that was adopted by the Act has several features:

- The distributed regulation and supervision model continues, whereby different regulatory agencies at the federal level specialise on different institutional forms and different markets, though the Office of Thrift Supervision was abolished and its reponsibilities transferred to other agencies. A new Financial Stability Oversight Council (FSOC) was created to identify systemic risks and gaps in supervision, and to recommend regulatory enhancements. It has a membership that includes the heads of the eight main federal regulatory agencies, with some smaller ones not represented. There are also numerous state-level regulators, which have some representation in FSOC, albeit in a non-voting capacity.
- The FSOC was created primarily to take a system-wide view of developments that may affect financial stability, including making certain decisions on which entities will be subject to heightened regulatory and supervisory standards because of their systemic significance. It will also act as a peer review body, serve as a referee in relation to jurisdictional disputes, and be a focal point for analysis and advice to Congress on gaps and weaknesses in regulatory frameworks.
- In several places, the Act addresses the issue of jurisdictional overlaps that result from the multiplicity of regulatory agencies that interface with multifaceted market players. In some cases, coordination mechanisms are specified. In other cases, backup arrangements are specified, whereby a secondary supervisory/regulatory agency can prompt the lead agency into action, or take action themselves.
- Decisions that involve the potential for substantial risk to the taxpayer, and some that may be particularly politically sensitive, require the assent of the Secretary of the Treasury. Such decisions include elements of both emergency actions and the definition of regulatory boundaries.
- While the Federal Reserve has just one of 10 votes on the FSOC, and has had its authority somewhat constrained in the area of emergency lending, it nonetheless now has a more prominent formal role in financial stability

matters. It has become the primary regulator for systemically important entities (expanding its supervisory role beyond large bank holding companies), or can strongly influence the supervision of such entities that are regulated by others. Recognising the importance of its financial stability responsibilities, the Act creates a new post of Vice-Chairman for Supervision at the Board (appointed by the President with the advice and consent of the Senate).

- Federal level consumer protection responsibilities relating to the financial system have been assigned to a new Bureau of Consumer Protection, to be housed at the Federal Reserve but as an autonomous Executive agency (with a Director appointed by the President and confirmed by the Senate, with its own personnel policies, and with protections from Board interference in its activities).

The institutional and governance features of the arrangements put in place by the Act are detailed further in the following sections, dealing respectively with normal and crisis times.

For normal times - ongoing supervision and regulation

This section focuses mainly on institutional features of the new regulatory structure for normal times that has been created by the Act, with a particular emphasis on systemic, macroprudential elements. While many of the details of macroprudential policy are yet to be determined – the Act calls for agencies to undertake considerable development work in a number of areas, with (by one count[7]) a need to create 243 rules and conduct 67 studies – the main feature of systemic oversight in the new arrangements is the identification of systemically important entities and the application of heightened regulatory standards to them. A new coordinating body, the FSOC, is the locus of many decisions on identification of systemically significant entities and recommendations on the specification of such heightened standards, with final decisions regarding those heightened standards largely resting with the Federal Reserve.

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Financial Stability Oversight Council (FSOC)

The FSOC is composed of ten voting members – the Treasury Secretary (who is also Chairperson of the Council); the Chairman of the Board of Governors of the Federal Reserve System (the Board); the heads of the Consumer Financial Protection Bureau, OCC, SEC, FDIC, CFTC, FHFA, and NCUA; an independent member with insurance expertise appointed by the President and confirmed by the Senate – and 5 non-voting members – the heads of the newly established Office of Financial Research and the Federal Insurance Office, and a State insurance commissioner, banking supervisor, and securities commissioner.

The FSOC's duties include determining which, if any, non-bank financial companies are systemically significant (requires a two thirds majority vote, including the affirmative vote of the Treasury Secretary) and will consequently be subject to enhanced, consolidated supervision by the Board. The FSOC's other duties include advising member agencies and Congress, monitoring markets, identifying systemic risks and gaps in supervision, recommending supervisory priorities and regulatory enhancements, facilitating collection and sharing of data for financial stability purposes, serving as a forum for agency discussion, and testifying annually before Congress.

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7 Davis Polk & Wardell LLP (2010), "Summary of the Dodd-Frank Wall Street Reform and Consumer Protection Act, Enacted into Law on July 21, 2010", July 21.

Decisions are by voting, in some cases with qualified majorities, and in some cases with the Treasury Secretary having a veto.

The Council itself has no rule-writing or enforcement authority (with certain limited exceptions for payment, clearing and settlement activities). However, the Council may recommend that:

- The Board establish or refine prudential standards applicable to the systemically identified non-bank firms supervised by the Board and to "large, interconnected" bank holding companies (BHCs) to prevent or mitigate risks to US financial stability.
- A primary Federal regulator adopt new or heightened standards for a financial activity or practice found to be systemically important by the Council to address significant liquidity, credit or other financial market risks. The appropriate Federal agency must adopt those standards or explain in writing why the agency did not follow the Council's recommendation.

While the Council may recommend heightened prudential standards for the Board to apply to those non-bank firms designated by the Council for Board supervision and to BHCs with assets of $50 billion or more, there is also an obligation for the Board to establish heightened standards. In this sense, the Council acts as a check on the Board's rule-making activities for systemically important entities, with an emphasis on recommending standards that are tight enough to reduce threats to the stability of the financial system.

The Council also has the authority to offer non-binding recommendations to settle disputes among agencies regarding jurisdiction over particular firms or financial activities. The Council is funded by the Office of Financial Research, which is itself funded for the first two years by the Federal Reserve, and thereafter by assessment on BHCs with $50 billion or more in assets and non-bank financial companies supervised by the Board. The Office of Financial Research (OFR) is a new agency housed within the Treasury, with the prime responsibility to collect, standardise, and analyse data for the Council and member agencies in connection with the Council's duties. It will have authority to collect information from any US financial company, but will be required to rely on reports and information from the member agencies to the fullest extent possible. The OFR will be headed by a director appointed by the President, with the advice and consent of the Senate.

Information acquisition and exchange for systemic policy purposes

In numerous places in the Act, there is an emphasis on ensuring that offsite and onsite inspections are sufficient to ensure a flow of information that is suitable for use by agencies other than the prime regulator, for wider policy purposes than encompassed by the prime regulator's mandate. Important examples include:

- The Council itself is a forum for sharing data for financial stability purposes.
- As noted, the OFR has been established to supply information that the Council needs in order to conduct its business. While OFR must use existing reports, it can if needed require reports directly from any US financial company.
- The FDIC – which becomes the resolution agency for systemically important entities supervised by the Board – has a new authority to conduct examinations of such entities for resolution purposes, but only if the entity is not in "a generally sound condition".

- In turn the Board has a new authority to examine and obtain reports from subsidiaries of BHCs that are supervised by another primary regulator (eg primary dealer, insurance company subsidiaries). The primary bank supervisor's or functional regulator's examinations must be relied on to the fullest extent possible. But if in the opinion of the Boards such examinations are insufficient to discharge the Board's mandate, it can conduct an examination of a subsidiary (after notifying the primary supervisor).

Ensuring the closure of regulatory gaps

To guard against the risk that the combination of a decentralised regulatory apparatus and financial innovation permits the growth of gaps in the regulatory structure, the Act takes a number of steps that in part involve directing attention to that problem, and in part involve providing mechanisms to prompt other agencies to take action within their jurisdictions.

- One of the Council's prime duties is to identify gaps in supervision and recommend supervisory priorities and regulatory enhancements. Indeed, with the submission of each annual report of the Council to Congress, every voting member must submit either (i) a signed statement indicating that the member believes the Council, the Government, and the private sector are taking "all reasonable steps to ensure financial stability and prevent systemic risk that would negatively affect the economy"; or (ii) a statement identifying what additional steps should be taken by the Council, the Government and the private sector.
- Another prime duty of the Council is to provide a forum for peer review of member agencies' regulatory activities, as they relate to the existence of systemic risks. The Council may recommend actions by member agencies, with a comply-or-explain obligation on those agencies.
- In the case of clearing entities registered with either the CFTC or SEC, with a two thirds majority the Council can require the CFTC or SEC, as applicable, to prescribe new standards.
- The Board has backup examination and enforcement authority with respect to financial institutions supervised by others where those institutions are engaged in activities relating to the provision of systemically important financial market utilities (FMUs) or payment, clearing or settlement activities that are systemically important. (The designation of such activities as systemically important is a task of the Council, with a two thirds majority required). A backup examination and enforcement power may act as a prompt for the primary regulator.
- The aforementioned new powers of the FDIC to examine BHCs and other systemically important entities for resolution purposes, and of the Board to examine BHC subsidiaries regulated by others – under prescribed conditions, in both cases – are further examples of backup powers that may help keep regulatory gaps to a minimum.
- In another example of backup powers, in certain circumstances the OCC or FDIC may recommend that the Board conducts examinations of particular types of non-bank subsidiaries of BHCs that the Board supervises, or take specific enforcement actions, with these agencies being able to conduct the examinations themselves, or take the recommended enforcement action directly, if the Board does not follow through.

For crisis situations

The Dodd-Frank Act also makes some important changes with respect to emergency actions, many of which relate to governance and institutional matters. Chief amongst these are the creation of a special resolution regime (the Orderly Liquidation Authority), the authority for the FDIC to provide guarantees under certain conditions where the liquidity of the financial system is severely threatened, and the allocation of final decision authorities to the Treasury where substantial taxpayer resources may be at stake. Changes in audit arrangements for the Federal Reserve, primarily but not wholly focused on emergency actions, are also noteworthy.

Orderly Liquidation Authority

The Act establishes a new, optional framework for the resolution of non-bank "financial companies", defined to include bank holding companies, securities broker-dealers, or any other US company that derives at least 85% of its annual revenues from financial activities (including revenues from any depository institution subsidiaries). Insured depository institutions, insurance companies, and the GSEs are excluded from coverage under the new regime.

The regime would be used in situations where, in the opinion of two thirds of the Boards of the Federal Reserve and the FDIC (or SEC where appropriate), and with the concurrence of the Secretary of the Treasury (in consultation with the President):

- The company is in default or in danger of default;
- The company's failure and resolution under the Bankruptcy Code would have serious adverse effects on financial stability; and
- Resolution under the new regime would avoid or mitigate these adverse effects.

The FDIC is at the centre of resolution proceedings. The decision-making procedure for triggering the OLA is similar to that used for the Systemic Risk Exception provisions of the FDIC Improvement Act. Other similarities to the bank resolution arrangements include that the FDIC acts as receiver.[8] The Act directs the FDIC to ensure that (i) creditors and shareholders bear losses, and (ii) directors and management responsible for the firm's failure are removed. Priorities are similar to those under the bank resolution process, except that all claims of the United States have priority after administrative expenses of the FDIC and have priority over any liabilities that count as regulatory capital.

Temporary funding for any FDIC loans would be obtained by borrowing from the Treasury rather than from an ex ante resolution fund. Such FDIC borrowing from the Treasury is limited by the Act, and is dependent on Treasury agreement on an orderly liquidation plan for the failed company.

Section 13(3) Emergency Lending Authority under the Federal Reserve Act

The Act eliminates the previous authority of the Federal Reserve to extend credit to a specific individual, partnership, or corporation in "unusual and exigent circumstances" under Section 13(3) of its Act. Now, the Board may authorise credit under Section 13(3)

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[8] The FDIC can provide loans or guarantees to help stabilise the company, although equity funding is prohibited; sell the assets or operations of the company; transfer assets, liabilities, and operations of the company, including qualified financial contracts ("QFCs") to which the company is a party to a bridge financial company established by the FDIC to continue the firm's operations; wipe out shareholders and haircut unsecured creditors of the company in accordance with the priorities established by the Act.

only under a programme or facility with broad-based eligibility, and only with the approval of the Secretary of the Treasury.

The Act further requires that the Board, in consultation with the Secretary of the Treasury, promulgates rules to establish policies and procedures for Section 13(3) lending, as soon as practicable after the Act's passage. These policies and procedures must ensure that collateral received is of sufficient quality to protect taxpayers from losses; credit is extended to provide liquidity to the financial system and not to assist a failing financial company; and the Reserve Bank assigns a lendable value, consistent with sound risk management practices, to all collateral received under a broad-based Section 13(3) programme or facility for purposes of determining that the Reserve Bank is secured to its satisfaction. The Board also must establish procedures to ensure that Section 13(3) loans are not made to any borrower that is in bankruptcy, resolution, or another form of insolvency proceeding.

FDIC-related emergency liquidity provisions

The Act authorises the FDIC, subject to a variety of conditions, to establish a debt guarantee programme like the Temporary Liquidity Guarantee Program ("TLGP") during periods of financial stress. To establish such a programme, the Treasury Secretary must request, and the Board and the FDIC Board of Directors must (upon a vote of two thirds of the members of each) make a written determination, that a liquidity event warranting the implementation of a TLGP-like guarantee programme exists. Such determination must include an evaluation that a liquidity event exists, that failure to act would seriously harm the US economy or financial stability, and that implementation of a guarantee programme is necessary to mitigate or avoid such consequences. Such a programme must be widely available, and may only commence if Congress adopts a joint resolution, on an expedited schedule, authorising the FDIC to issue the debt guarantees.

The Secretary of the Treasury would set the maximum size of the programme, subject to Congressional approval. The cost of the programme would be fully borne by participants in the programme. The Act also prohibits the FDIC from using the systemic risk exception in the FDI Act to establish a TLGP-like programme.

GAO audits of Federal Reserve credit facilities

The Act provides for certain Government Accountability Office (GAO) audits of Federal Reserve facilities established during the financial crisis, focused on operational integrity, accounting, financial reporting, internal controls, neutrality in selection and treatment of counterparties, and effectiveness in risk mitigation. The GAO is also authorised by the Act to conduct operational audits, with the same focus, of new credit facilities established under Section 13(3), and of all discount window and open market transactions.[9]

[9] Accountability with respect to the matters covered by GAO audits is also to be buttressed by new reporting requirements, whereby the Federal Reserve will be required to disclose information regarding participants in all future credit facilities established under Section 13(3) (including amounts), and borrowers and counterparties in discount window transactions and open market operations. Disclosure is delayed by one year from termination of the relevant Section 13(3) facility, and 8 calendar quarters from the discount window and open market operation transactions.