

# “Financial Stability Issues at Central Banks”

<b>AUTHORS</b>	Peter Spicka
<b>ARTICLE INFO</b>	Peter Spicka (2007). Financial Stability Issues at Central Banks. <i>Banks and Bank Systems</i> , 2(3)
<b>RELEASED ON</b>	Wednesday, 03 October 2007
<b>JOURNAL</b>	"Banks and Bank Systems"
<b>FOUNDER</b>	LLC “Consulting Publishing Company “Business Perspectives”



NUMBER OF REFERENCES

0



NUMBER OF FIGURES

0



NUMBER OF TABLES

0

© The author(s) 2026. This publication is an open access article.

# FINANCIAL STABILITY ISSUES AT CENTRAL BANKS

Peter Spicka\*

## Abstract

In the second half of the 1990s, the concept of financial stability began to gain prominence among central banks, much like price stability had done in the decade before. Today, preserving the value of money is still the pre-eminent objective of most central banks, but contributing to financial stability is recognised explicitly as a major responsibility of central banks as well. At a number of central banks, the growing emphasis given to financial stability has led to organisational changes, such as the creation of committees to coordinate activities across units and the establishment of departments dedicated to financial stability. The Financial Stability Reports now published by a significant number of central banks also bear witness to these changes.

This article brings together some facts on the role of financial stability for central banks and the various approaches that are being taken. Section I focuses on the increased role of financial stability for central banks and international policy makers. Section II defines terms and organisational approaches: what is meant by financial stability? How do central banks organise their financial stability function? Finally, in section III some conceptual issues of drafting a Financial Stability Report are discussed.

**Key words:** Financial stability, financial stability analysis, central banks, financial crisis.

**JEL Classification:** E00, F00, G00.

## I. Putting Financial Stability in Focus

### *Why is so Much More Attention Being Given to Financial Stability Issues?*

From a historical perspective, two significant periods of banking crises can be highlighted: the financial disasters of the late 1920s and the early 1930s, as well as the banking crises starting in the late 1980s. In an empirical study of 21 countries, Bordo, Eichengreen, Klingebiel and Martinez-Peria (2001) found out that there has only been one banking crisis in the 25 years after 1945, but 19 crises since 1970.<sup>1</sup>

Financial crises are episodes of high volatility in the financial markets, liquidity problems and insolvency of significant financial market participants that can give rise to real economic effects. A financial crisis can occur as a result of destabilising developments at the macroeconomic level, for example, owing to payment imbalances or unsustainable exchange rate regimes. Information asymmetries between individual market participants or destabilising patterns of behaviour, such as herding, also pose threats to the stability of the financial system.

In fact, a large number of financial crises have been recorded in industrial countries and emerging market economies since the late 1980s. The financial crises that occurred in emerging market economies have proven that deregulation and liberalisation of the financial system need to go hand-in-hand with the development of an appropriate regulatory framework. In recent years, financial systems in industrial countries have had to weather a wide range of shocks, such as the bursting of the "new economy" bubble, the terrorist attacks of 11 September 2001 and gross irregularities in the accounting practices of some major enterprises as well as the "sub-prime crisis" starting in the 2nd half of 2007.

---

\* Bundesbankdirektor, Deutsche Bundesbank, Germany.

The views expressed in this essay are my own and do not necessarily represent the official views of the Deutsche Bundesbank.

<sup>1</sup> See Bordo, Eichengreen, Klingebiel and Martinez (2001).

Market turbulence and crises between the late 1980s and early 2000s	
Late 1980s/1990s	Japans's lost decade of the 1990s → Collapse of real estate and stock prices in the late 1980s
1992	Exchange rate crisis (Italy, UK)
1994-95	Mexican (tesobono) crisis Failure of Barings
1997	U.S. Equity market correction
1997-98	Asian crisis (Thailand, Indonesia, Korea)
1998	Russian default LTCM crisis
1999	Argentina and Turkey crises
2000	Global bursting of equity price bubble
2001	Corporate governance problems (e.g. Enron, WorldCom) September 11 terrorist attacks
2001-2002	Argentina crisis and default

### *Implications of Country Experience*

The extent and nature of banking crises vary substantially. A common observation is that financial crises often spread to the real sphere of the economy. And they can lead to significant reductions in output growth. Financial instability is expensive, in terms of both output and fiscal cost. Output losses during a financial crisis can amount to 15 to 20% of the GDP<sup>1</sup>.

The reasons for financial crises are not always clear. For example, opinions still diverge greatly on the determinants of the Asian currency crises. On the one hand, many argue that the fundamental economic data of those economies prior to the outbreak of the crisis were no cause for concern and that the crises were more likely to be attributable to speculative movements completely detached from macroeconomic factors. On the other hand, rising current account deficits were pointing to increasing competitive problems. However, as long as the excessively booming securities and real-estate markets of those countries and the – in some cases – foreign-exchange-rate oriented domestic monetary policy were ensuring ample inflows of foreign capital, ‘bankrolling’ those deficits did not appear a problem. However, the short-term nature of the incoming capital from abroad also magnified the danger of setbacks and sudden capital withdrawals<sup>2</sup>.

### *Empirical Research on Financial Crises*

The identification of economic crises and the selection of possible factors for explaining the outbreak of a crisis have also attracted a lot of attention from the academia. A number of research papers have therefore proposed identifying turbulence in the foreign exchange markets using an indicator relying on the unknown symptoms of such episodes of currency turbulence<sup>3</sup>.

A classical study in this field was carried out by Kaminsky and Reinhart, who focused on twin crises (the simultaneous occurrence of currency and banking crises). Their investigation covered 20 industrial and emerging countries between 1970 and 1995. They found out that in the run-up to the crises there were often macroeconomic misalignments, such as extensive money and credit growth, a low export and output growth or an appreciating real exchange rate. Therefore, macroeconomic variables can provide useful ex ante information for the likelihood of a financial crisis. However, individual banking crises are different and not all identified indicators work to the same extent in all cases of banking crises; this harbours the risk of misinterpretations<sup>4</sup>.

<sup>1</sup> See, for instance, Hoggarth and Saporta (2001), who measure costs in terms of output foregone, and the references therein.

<sup>2</sup> See Deutsche Bundesbank (1999).

<sup>3</sup> See again Deutsche Bundesbank (1999) and the references therein.

<sup>4</sup> See Kaminsky and Reinhart (1999) for a detailed analysis.

### ***Implications for International Policymakers and Central Banks***

International policy makers and central banks have reacted at an early stage to the increasing number of financial turbulences in the financial markets. In 1999 the Financial Stability Forum was set up and in the late 1990s the Financial Sector Assessment Program (FSAP) was started, a joint IMF and World Bank effort. At the same time, some central banks started developing Financial Stability Reports as a means for presenting an analysis of threats to financial stability (e.g. Bank of England, Sveriges Riksbank).

The Financial Stability Forum (FSF) was convened in April 1999 to promote international financial stability through information exchange and international co-operation in financial supervision and surveillance. On a regular basis the Forum brings together national authorities responsible for financial stability in significant international financial centres, international financial institutions, sector-specific international groupings of regulators and supervisors, and committees of central bank experts. The Financial Stability Forum seeks to co-ordinate the efforts of these various bodies in order to promote international financial stability, improve the functioning of markets and reduce systemic risk<sup>1</sup>.

The FSAP aims to increase the effectiveness of efforts to promote the soundness of financial systems in member countries of the IMF and the World Bank and is supported by a range of experts from national agencies and standard-setting bodies. Work under the Financial Sector Assessment Program seeks to identify the strengths and vulnerabilities of a country's financial system<sup>2</sup>.

### ***International Cooperation***

In a highly integrated international financial system, financial stability cannot be achieved if nations act alone. Apart from the Financial Stability Forum and the IMF's Financial Sector Assessment Program, there are other international forums to discuss and analyse financial stability developments. The Committee on the Global Financial System of the G10 central banks (CGFS) monitors developments in global financial markets for the central bank Governors of the G10 countries. It has a mandate to identify and assess potential sources of stress in global financial markets, to further develop the understanding of the structural underpinnings of financial markets and to promote improvements to the functioning and stability of these markets. It fulfils this mandate by way of quarterly monitoring discussions among CGFS members, through coordinated longer-term efforts, including working groups involving central bank staff, and through the various reports that the CGFS publishes.

The CGFS, formerly known as the Euro-currency Standing Committee, was established in 1971 with a mandate to monitor international banking markets. Its initial focus was on the monetary policy implications of the rapid growth of off-shore deposit and lending markets, but attention increasingly shifted to financial stability questions and to broader issues related to structural change in the financial system.

The Financial Stability Table of the EU's Financial and Economic Committee assesses the stability of the financial markets on a regular basis. It is comprised of representatives of the EU Commission, ministries of finance and central banks. The Banking Supervision Committee of the European Central Bank regularly analyses the stability and structure of the European banking system and publishes reports on the stability of the EU banking system on an annual basis.

### ***Reasons for a Stronger Involvement of Central Banks***

Safeguarding the stability of financial systems at a national and an international level is an important issue for central banks, owing to the potentially major costs of disruptions to financial systems. Central banks' interests in fully functioning financial systems originate in the key role that financial systems, especially banks, play in monetary policy. Disruptions in the financial system

---

<sup>1</sup> In the current debate about hedge funds and their role for financial stability, the Financial Stability Forum has published only recently an update of its recommendations to market participants and supervisors to address potential financial systemic risks. See Financial Stability Forum (2007).

<sup>2</sup> See IMF (2000) and IMF (2005).

can delay or hamper the transmission of monetary policy impulses to the real economy. Asset price bubbles or a credit boom can undermine the basis for price stability in the mid to long term. Therefore, confidence in the currency and in the functional viability of the financial system go hand-in-hand but are independent from each other.

Finally, a central bank is also interested in the development of the financial system because the need of individual financial market participants for liquidity can rise suddenly and sharply in the face of shocks and imbalances. In integrated financial markets, such shortages of liquidity can be transmitted quickly and, especially if they reach systemically important market participants, have a negative effect on the financial system as a whole. As the sole source of central bank money, the central bank may therefore have to play a prominent role in resolving banking crises<sup>1</sup>.

## II. How Central Banks Define and Organise their Financial Stability Function

### *Mandatory and Power Issues*

Central banks' mandates regarding financial stability and their powers to pursue this mandate tend to be more diverse and less well understood than their mandates and powers concerning price stability. It can be a challenge to separate, and prioritise among, monetary policy and financial stability considerations. It is widely acknowledged that central banks only contribute to maintaining financial stability in concert with other institutions, such as the treasury, supervisory authorities outside the central bank and deposit insurance institutions. Furthermore, the breadth of mandates of the central bank differs substantially from country to country and this can have a strong bearing on the weight an individual central bank accords to financial stability.

Keeping this in mind, however, safeguarding the stability of the financial system is today a primary task of central banks. The EC Treaty (Article 105, paragraph 5), for example, clearly assigns a share in the responsibility for financial stability to the European System of Central Banks (ESCB) and therewith to the other national central banks of the ESCB. Many other central banks also assign a certain responsibility to the central bank with regard to financial stability in their respective central bank law (e.g. Bank of Japan, Reserve Bank of Australia).

Some countries even go a step further. The law on the Czech National Bank (CNB) assigns a clear role to the central bank in maintaining financial stability (Act. No. 6/1993 Coll.). The CNB, however, is even obliged to submit a Financial Stability Report to the Chamber of Deputies for information at least once a year.

### *Definition of Financial Stability*

Formulating a working definition of financial stability might be considered the most important building block for an analytical framework designed to measure, monitor and safeguard the stability of the financial system. There has emerged a broad academic discussion about defining financial stability<sup>2</sup>.

In fact, there is a lack of a widely agreed definition of financial stability. Thus, financial stability can be defined negatively as the absence of financial instability. However, a positive definition can be useful to give guidance on the extent of monitoring performed.

A definition of financial stability should comprise several key elements. Thus, the inter-temporal allocation of resources from savers to investors should be facilitated efficiently and smoothly. Financial risks should be assessed and priced with a reasonable degree of accuracy and efficiently managed using a forward-looking approach. Furthermore, the financial system should be in a position to comfortably absorb both financial and real economic shocks.

A number of central banks, such as the Bank of England, moved to a broad definition of financial stability: *Responsibility for financial stability means identifying risks in the financial system and*

---

<sup>1</sup> For more details see Deutsche Bundesbank (2006).

<sup>2</sup> See Schinasi (2004).

*working to mitigate them*<sup>1</sup>. Having such a definition can help reduce reputation risks and moral hazard problems arising from misperceptions about the central bank's mandates and powers regarding financial stability.

The ECB has developed the following working definition: *Financial stability can be defined as a condition in which the financial system – comprising of financial intermediaries, markets and market infrastructure – is capable of withstanding shocks and the unravelling of financial imbalances, thereby mitigating the likelihood of disruptions in the financial intermediation process which are severe enough to significantly impair the allocation of savings to profitable investment opportunities*<sup>2</sup>.

A similar, broad approach is used by the Deutsche Bundesbank: *Financial stability broadly describes a steady state in which the financial system efficiently performs its key functions, such as allocating resources and spreading risk as well as settling payments, and is able to do so even in the event of shocks, stress situations and periods of profound structural change*<sup>3</sup>.

Such a broad definition comprises as key elements the financial intermediaries, the financial markets and the financial infrastructure. It contains both an open-ended agenda for financial stability and gives an operational focus to this work, in order to ensure that it produces clear results. As a consequence, threats to financial stability can arise not only from shocks but also from disorderly adjustments of imbalances built up in the past as a result of over-optimistic expectations about future returns of the mis-pricing of risks.

#### ***Practical Implications of a Broad Definition of Financial Stability***

In contrast to price stability, there is not yet an unequivocal unit of measurement for financial stability. Developments with regard to financial stability cannot be summarised in a single quantitative factor. This reflects the multifaceted nature of financial stability, as it relates to both the stability and resilience of financial institutions and to the smooth functioning of financial markets and settlement systems.

Assessing financial stability should not only take stock of disturbances as they emerge, but also indicate the risks and vulnerabilities that could lead to such disturbances in the future. Therefore, a forward-looking approach is needed to establish the build-up of risks and imbalances and to take account of the transmission lags in policy instruments. The challenge is that financial crises are inherently difficult to predict because of many factors, such as contagion effects and nonlinearities in the relationships between the constituent parts of finance. In addition, risks to financial stability often reflect the far-reaching consequences of unlikely events. This means – in statistical terms – that the focus of attention should not be the mean, median, or mode of possible outcomes, but the entire distribution of them, and particularly the 'left tail'<sup>4</sup>.

#### ***Overview of Organizational Approaches***

The internal organisation of the financial stability function of central banks has been shaped by a number of factors. In some cases it was the result of a response to a major financial crisis; in some cases it reflected the consequence of a loss of one major mandate and efforts to find areas where it could make a substantial new contribution, and in some cases it was motivated by the strong desire to undertake focused and forward-looking work on mitigating risks in the financial system. Therefore, the organisational approaches vary from central bank to central bank.

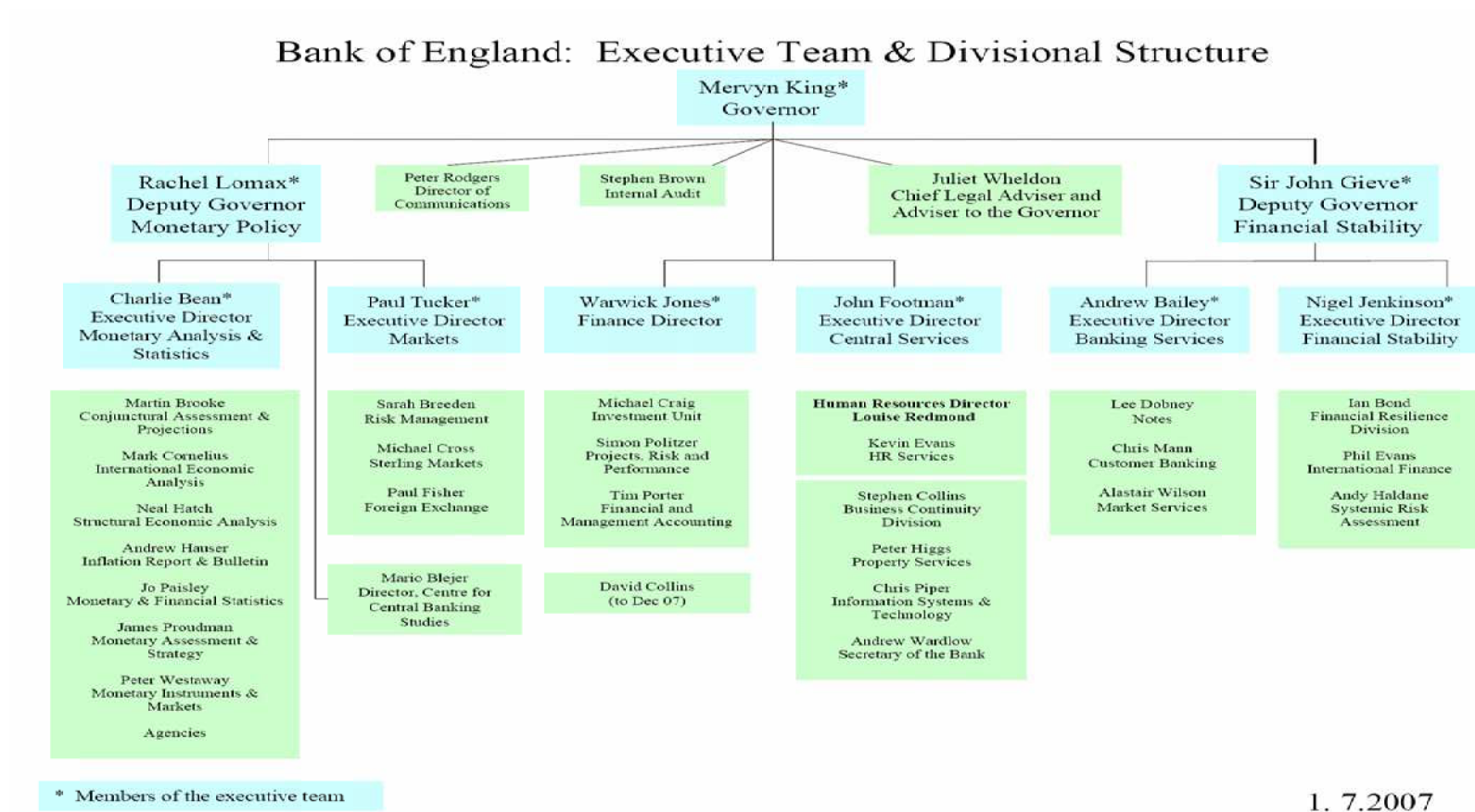
---

<sup>1</sup> See Bank of England (2007).

<sup>2</sup> See ECB (2007).

<sup>3</sup> See Deutsche Bundesbank (2006).

<sup>4</sup> See Schinasi (2006).



Source: Bank of England.

Fig. 1. Organisational chart of the Bank of England

Three main approaches to the organisation of the financial stability function of central banks can be identified.

- ◆ Establishment of a financial stability department/division/unit in which all activities related to financial stability are conducted. There are manifold variants of this approach, ranging from rather small specialised analytical units to complete departments or financial stability wings in which financial stability issues are analysed, sometimes in combination with other supervisory functions.
- ◆ Setting-up of cross-departmental committees to coordinate and manage all kinds of activities with regard to financial stability in various divisions or units and with the relevant expertise within the central bank.
- ◆ Reliance on the existing organisational arrangements that have proven to be efficient in dealing with all sorts of financial stability issues.

Financial stability departments/units have become the most common approach and have been created in a number of ways. The most prominent example is the Bank of England, which has both a monetary policy wing and a financial stability wing. The organisational chart of the BoE shows the clear differentiation between the monetary stability and the financial stability functions (Fig. 1).

The ECB has set up a (smaller) financial stability division within its directorate “Financial stability and supervision”. In other central banks, particularly in smaller ones, the financial stability function is dedicated to smaller organisational units. Often you can find financial stability units, comprising five to ten staff, as part of a research department (e.g. Czech National Bank).

Some central banks have established internal committees to deal with financial stability issues. The Deutsche Bundesbank takes such an interdisciplinary approach to carrying out its activities in the area of financial stability. Representatives of the Banking and Financial Supervision, International Relations, Markets, Economics and Payment and Securities Settlement Systems departments work closely together and collate their analyses, data and experience to gauge an overall picture of the stability situation in the German financial system (Fig. 2).

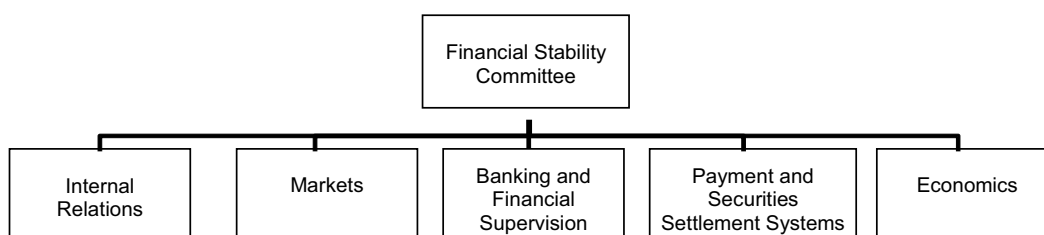


Fig. 2. Deutsche Bundesbank – Financial Stability Committee

Financial stability committees do not have the same or similar decision-making powers as monetary policy committees or councils. Their intension is to take an integral view of developments that may have a bearing on financial stability and to coordinate further action by specialised departments.

Finally, there are central banks that rely on the organisational structure that has proven worth. At the Federal Reserve System, for example, financial stability issues are dealt within the existing committees and organisational units. In particular, the Federal Open Market Committee deals with financial stability matters in the course of discharging its monetary policy responsibilities. The market intelligence and other financial information relevant for assessing vulnerabilities to the financial system may then be extracted from its operations, rather than being collected by a separate unit or a financial stability department.

There is no specific pattern for how central banks organise their financial stability function. Rather, the specific approach also depends on other responsibilities, such as the role of a central

bank in monetary policy or its involvement in banking and financial supervision. The annex presents an overview of how central banks organise their financial stability activities.

### *Communication of Financial Stability Issues*

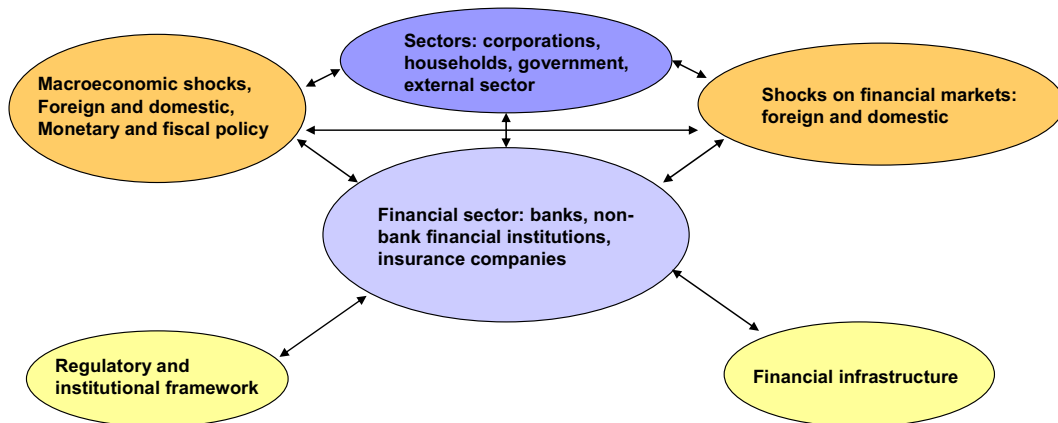
Today a substantial number of central banks – and certainly many more institutions than a few years ago - publish regular reports dedicated to financial stability issues. These reports are entitled Financial Stability Report or Financial Stability Review and are typically published once or twice a year.

The Deutsche Bundesbank publishes the results of its ongoing analysis once a year in the Financial Stability Review. In addition to the ongoing analysis of the stability situation, research projects, generally conducted by the Bundesbank's Research Centre, refine analysis methods, such as stress tests, and examine special aspects in more detail. The results of the research pertaining to financial stability are published in the Discussion Papers.<sup>1</sup>

## III. Conceptual Issues of Central Banks' Financial Stability Analysis

### *Basic Principles*

The main objective of assessing financial stability is the analysis of risks and systemic risks of the financial system, as well as the analysis of the interactions between and within the single components of the financial system.



Source: Czech National Bank, Financial Stability Report 2004.

Fig. 3. Logic of the Approach to Analysing Financial Stability

The financial sector operates in an environment shaped by external and domestic macroeconomic developments, developments in the financial markets, and developments in the corporate and in the private household sector. Shocks arriving from this environment in the form of changes in market and credit risks affect the stability of the financial sector. Destabilising factors can take the form of contagion stemming from the problems of a single financial institution, if this institution presents a systemic risk.

The success with which financial institutions cope with external and internal shocks and eliminate the potential adverse effects depends on their efficiency, effectiveness and capital strength. A crucial aspect is their ability to manage risks. The regulatory framework and the supervision of financial institutions are important. The smooth operation of the financial infrastructure, including payment and securities settlement systems, also has an influence on financial stability.<sup>2</sup>

<sup>1</sup> The annex presents also an overview of the published work of central banks in the field of financial stability.

<sup>2</sup> See Czech National Bank (2005).

### ***Risk Indicators and Risk-Bearing Capacity Indicators***

The structure of the Financial Stability Report follows the above approach to analysing financial stability. At the beginning of a three-step-approach an assessment of the overall stability of the financial system is made, taking into account the endogenous sources of risks. This is followed by the identification of the main sources of exogenous risks and vulnerabilities to financial stability and an evaluation of their probability. Finally, the ability of the financial system to absorb shocks is evaluated – based on the outcome of the assessment undertaken before.

Financial stability can be interpreted in a simplified form as the ‘difference’ between the risk situation and the risk-bearing capacity of the financial system. Thus, the analysis is based on a comparison of risk indicators and risk-bearing capacity indicators of the financial system. The macro-prudential analysis of the risk situation starts with the identification of risk factors and possible shocks by the real economy and by the financial markets. Risk indicators can generally be categorised as indicators for credit risk, market risk and other risks and take effect on the financial system and the financial intermediaries via a diversity of transmission channels.<sup>1</sup>

The risk-bearing capacity of the financial system can be defined as the ability of the financial intermediaries to absorb temporary losses. Thus, the risks which credit institutions take on are to be measured against their risk-bearing capacity, for example, against the buffers that are created to absorb negative shocks. In the first instance, these buffers include current earnings, risk provisions and capitalisation. Interbank protection agreements and guarantee schemes are a second line of defence.

The appropriateness of the indicators depends on the institutional set-up of the financial system, in particular the relative importance of markets and institutions. Bank-based financial systems might require a different composition of indicators from market-dominated financial systems.

Stress testing exercises on the resilience of the financial system are a complimentary part of any financial stability analysis. Macro stress tests, for example, assess the extent to which economic shocks affect the quality of a credit portfolio and whether they threaten banks’ stability<sup>2</sup>.

### ***Contributions by Banking and Financial Supervision***

In addition to their financial stability function, some central banks also have responsibilities in banking and financial supervision. Thus, the micro and macro-prudential analyses of the financial system are complementary perspectives of financial stability.

The banking and financial supervision conducted by the Deutsche Bundesbank, for example, makes a significant contribution to safeguarding the stability of the financial system. Owing to the role that it plays in supervision and the regulatory framework of the banking system, the Bundesbank also shares the responsibility for continually adjusting regulations to new developments in the banking sector. As a micro-prudential task, its operational supervision activities are aimed at ensuring the stability and functioning of the financial sector, which is especially sensitive to fluctuations in confidence, thereby ensuring systemic creditor protection. In addition, the data and findings gained from operational supervision form an indispensable basis for the macro-prudential analysis of stability. The information gained from its role as a supervisor might help a central bank to develop a kind of ‘fine feeling’ for assessing the quality of financial stability.

## **IV. Challenges and outlook**

Today a growing number of central banks have in place robust approaches for a profound and solid analysis of financial stability. An example is the approach of the Deutsche Bundesbank, which is based on an assessment of the conditions of the financial system, the sources of risks that

---

<sup>1</sup> A broad overview of indicators is given by Mörntinen et al. (2005).

<sup>2</sup> See Weber (2007) and Gonzáles-Páramo (2007).

could arise and the ability of the system to handle these risks. The framework for undertaking this analysis has at its centre a set of indicators which, in turn, draw on a variety of different sources of data.

In recent years, much progress has been made by central banks in developing an appropriate conceptual and statistical framework. However, at the present time, an analytical framework for financial stability purposes, like the one available for monetary stability purposes, is still lacking. Analytical efforts in the domain of financial stability are still in their infancy, although they have made marked progress in recent years. Nevertheless, there are undeniable conceptual difficulties inherent in this field. As yet, there is no widely accepted set of measurable indicators of financial stability. The increasing complexity and interdependencies of financial systems may complicate the interpretation of the existing financial stability indicators, making it necessary to improve and expand the existing statistical framework.

So far relatively simple indicators have been developed for assessing the soundness of banks and great care is required when interpreting these indicators. Excessive reliance on any single indicator without taking into account the need for a broader assessment of economic and financial conditions on the basis of a comprehensive set of measures may lead to a potentially unsound assessment of financial stability. Continued efforts are necessary to improve the theoretical framework and the information dataset underpinning the financial stability assessment. An absolute “single number” for the assessment of financial stability seems elusive for the time being.

The ongoing process of financial development and integration as well as a wave of financial innovation, especially in credit markets, are posing challenges for the assessment of financial stability. Central bankers must remain responsive to the impact of a number of factors related to globalisation, market developments and integration as well as innovation in the financial systems.<sup>1</sup>

The financial stability reports open the central bank’s analysis of financial stability matters to debate and criticism by the press and the academia. It serves as a background for discussions with the financial institutions.

On the one hand, enhanced public understanding of what financial stability is, and what the central bank can contribute to it, seems desirable. On the other hand, if the public takes the central bank’s efforts to contribute to such understanding as a sign that the central bank’s powers in preserving financial stability (naively defined) are as broad as those concerning price stability, these communication efforts may lead to public expectations that are well beyond the powers of the central bank.

There is no doubt that the financial stability functions of central banks have contributed to a periodic surveillance and assessment of financial stability. The publication of its financial stability analysis has alerted financial institutions and market participants to the possible collective impacts of their individual actions. Financial stability reports have proved to be an instrument for initiating fruitful discussions on financial stability matters among the public and the academia.

## References

1. Bank of England: Financial Stability Report, April 2007.
2. Bordo M. and B. Eichengreen, D. Klingebiel, M. Martinez-Peria: “Is the crisis problem growing more severe?”, *Economic Policy*, No. 32, 2001.
3. Czech National Bank: “Financial Stability Report 2004”, January 2005.
4. Deutsche Bundesbank (1999). “The role of economic fundamentals in the emergence of currency crises in emerging markets”, *Monthly Report*, April 1999.
5. Deutsche Bundesbank: “Die Deutsche Bundesbank”, April 2006.
6. Deutsche Bundesbank: Financial Stability Review, November 2006.

---

<sup>1</sup> See also González-Páramo (2007).

7. European Central Bank: Financial Stability Review, June 2007.
8. Financial Stability Forum: "Update of the FSF Report on Highly Leveraged Institutions", May 2007.
9. González-Páramo, J. "Progress towards a framework for financial stability assessment", Speech at the OECD World Forum on 'Statistics, Knowledge and Policy' on 28 June 2007
10. Hoggarth, G. and V. Saporta (2001): "Costs of banking system instability: some empirical evidence", Bank of England Financial Stability Review, Issue 10, June 2001.
11. IMF: "Financial Sector Assessment Program", 27 November 2000.
12. IMF: "IMF Executive Board reviews experience with the Financial Sector Assessment Program", 6 April 2005.
13. Kaminsky, G. and C. Reinhart: "The twin crises: the causes of banking and balance-of-payments problems", Board of Governors of the Federal Reserve System, International Finance discussion Papers, Number 544, March 1996.
14. Mörntinen, L. and P. Poloni, P. Sandars, J. Vesala: "Analysing banking sector conditions – how to use macro-prudential indicators", ECB Occasional Paper, No. 26/2005.
15. Schinasi, G. "Defining financial stability", IMF Working Paper, WP/04/187, October 2004.
16. Schinasi, G. "Safeguarding financial stability", IMF 2006.
17. Weber, Axel. "Bankenaufsicht und die Sorge für die Stabilität des Finanzsystems – zwei komplementäre Perspektiven", in: Zeitschrift für das gesamte Kreditwesen, Nr. 08/2007.

**ANNEX: Central banks and their organisation and published work in the field of financial stability (illustrative list)**

Central bank	Organisation of financial stability	Name of the publication	Frequency/ number of pages of the publication	Other publications with reference to financial stability
Australia	Financial Stability Department within Financial system Group	Financial Stability Review (since 2004)	Bi-annual, ~ 50-75 pages	
Austria	Financial Stability and Bank Inspections Department	Financial Stability Report (since 2001)	Bi-annual, ~ 160 pages	
Belgium	Financial Stability Committee	Financial Stability Report, (since 2002)	Annual, ~ 130 pages	Recent developments in the Belgian financial system
Brazil	A series of key departments	Financial Stability Report (since 2002)	Bi-annual, ~ 170 pages	
Canada	Editorial Committee	Financial System Review, since 2002	Bi-annual, ~ 80 pages	
China	Financial Stability Bureau, Financial Stability Group	Financial Stability Report (since 2006)	Annual, ~ 180 pages	
Croatia	-	-	-	Macroprudential analysis report
Cyprus	Licensing and Financial Stability Section within the Banking Supervision Department	-		
Czech Republic	Financial Stability Unit (within Economic Research Department)	Financial Stability Report (since 2005)	Annual, ~ 100 pages	
Denmark	Financial Institutions and Financial Stability Division (within Financial Markets Department)	Financial Stability Report (since 2002)	Annual, ~ 120 pages	
Estonia	Financial Stability Department	Financial Stability Review (since 2003)	Bi-annual, ~ 70 pages	
<i>European Central Bank</i>	Financial Stability Division (within Directorate Financial Stability and Supervision)	Financial Stability Review (since 2004)	Bi-annual, ~ 230 pages	EU banking sector stability, Articles in the Monthly Bulletin, Research papers
Finland	Division (within Financial Markets and Statistics Department)	Financial Stability (since 2003)	Annual, ~ 90 pages	
France	Coordination Committee ('Financial Stability Coordination')	Financial stability Report, (since 2002)	Bi-annual, ~ 200 pages	
Germany	Financial Stability Committee	Financial Stability Report (since 2003)	Annual, ~ 130 pages	Discussion papers (Banking and Financial Studies), Articles in the Monthly Report
India	-	-	-	Annual report
Italy	-	-	-	Annual Report
Japan	Financial Systems and Bank Examination Department	Financial System Report (since 2006)	Annual, ~ 50 pages	

<b>Central bank</b>	<b>Organisation of financial stability</b>	<b>Name of the publication</b>	<b>Frequency/ number of pages of the publication</b>	<b>Other publications with reference to financial stability</b>
Korea	Financial System Stability Department	Financial Stability Report (since 2005)	Bi-annual, ~ 110 pages	
Latvia	Group within Monetary Policy Department	Financial Stability Report (since 2003)	Bi-annual, ~ 40 pages	
Netherlands	Financial Stability Department	Financial Stability Overview (since 2004)	Bi-annual, ~ 30 pages	
New Zealand	Financial Stability Department	Financial Stability Report (since 2004)	Bi-annual, ~ 50 pages	
Norway	Financial Stability Department	Financial Stability Report (since 2000)	Bi-annual, ~ 50 pages	
Portugal	Economic Research Department	Financial Stability Report (since 2004)	Annual, ~ 200 pages	
Russia		Financial Stability Review (since 2005)	Annual, ~ 50 pages	
Slovenia	Financial Stability Department	Financial Stability Review (since 2003)	Annual, ~ 160 pages	Expert Papers
South Africa	Financial Stability Committee, Financial Stability Department	Financial Stability Review (since 2004)	Bi-annual, ~ 40 pages	
Spain	Financial Stability Division	Financial Stability Report (since 2002)	Bi-annual, ~ 50 pages	
Sweden	Financial Stability Department	Financial Stability Report (since 1997)	Bi-annual, ~ 100 pages	
Switzerland	Financial Stability and Oversight Division	Financial Stability Report (since June 2003)	Annual, ~ 60 pages	
United Kingdom	Financial Stability Department	Financial Stability Report (since 1996)	Bi-annual, ~ 150-180 pages	
United States	-	-	-	Quarterly Bulletin