1. Introduction to financial stability and related central banking activities

A. Defining financial stability

A.1 The Financial System

The financial system in general may be understood as the area of the economy which deals with lending and borrowing, i.e. attempts of individuals, companies and the state to exchange purchasing power across time, as income streams and desired expense streams do not match normally. For instance individuals save a part of their income during their work life to spend it later on after retirement. Entrepreneurs have ideas on projects which will allow generating additional value for society, but need to borrow the resources to launch these projects. Moreover, the financial system includes the monetary system. Money is also an economic institution that serves the intertemporal allocation of resources (it is a store of value), but it is also a means of payment. Hence, also payment systems belong to the financial system.

In intertemporal transactions, as in the case of one-date transactions, money is also normally used as intermediary. While for one-date transactions, money typically represents one leg of the transaction, for intertemporal transactions, it often constitutes both legs - a loan contract means to exchange “money today against money tomorrow”. The financial system has developed an infinity of more complex, contingent transactions which also serve risk sharing (some with optionalities, some

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1 How much the roles of money and of the financial system in general are linked is also suggested by the following quotation of Milton Friedman / John Stuart Mill, in which indeed “money” can be replaced by “financial system” (Milton Friedman, “The Role of Monetary Policy”: American Economic Review, Vol. 58, No. 1, Mar., 1968, pp. 1-17). "My own studies of monetary history have made me extremely sympathetic to the oft-quoted, much reviled, and as widely misunderstood, comment by John Stuart Mill. "There cannot...," he wrote, "be intrinsically a more insignificant thing, in the economy of society, than money; except in the character of a contrivance for sparing time and labour. It is a machine for doing quickly and commodiously, what would be done, though less quickly and commodiously, without it: and like many other kinds of machinery, it only exerts a distinct and independent influence of its own when it gets out of order". True, money is only a machine, but it is an extraordinarily efficient machine. Without it, we could not have begun to attain the astounding growth in output and level of living we have experienced in the past two centuries-any more than we could have done so without those other marvelous machines that dot our countryside and enable us, for the most part, simply to do more efficiently what could be done without them at much greater cost in labor."

2 E.g. a wheat future has only one money lag.
of which are referred to as “derivatives”), and financial intermediaries, which may be understood as nodes of various financial contracts with an associated constitution (governance) for decision making, which are regulated, and which are mapped into balance sheets the establishment of which is governed by laws. To come to a rich definition of financial stability, one may thus subdivide the financial system into:

- Money;
- Financial contracts;
- Financial markets;
- Financial intermediaries;
- Financial infrastructures (payment systems, securities settlement systems, trading systems, etc.)

It possible to imagine a world with perfect information and zero “transaction cost” in which financial intermediation would be absolutely efficient as any transaction in the neoclassical world of friction-free trading. Financial intermediaries would not be needed in this world (or they would have infinite productivity), but there would be only contracts between lenders and borrowers. All rents in the hypothetical neoclassical world from exchanging purchasing power across time would be realised.

It is also possible to imagine the opposite world, in which financial transactions are totally inefficient and in fact do not take place at all. In this stone-age world, intertemporal smoothing of expenses vis-à-vis income streams would be possible to some extent through storage and through contracts such as: “fish today against wheat tomorrow”.

The real world is somewhere in between.

- There is considerable common uncertainty on the future (both purely exogeneous events, like a meteor hitting the earth, but also various endogeneous developments which are so complex that they may as well be considered exogeneous, like the outbreak of a useless war), and how the future will be characterised in terms of the scarcity of resources, consumption wishes, technology, population numbers, etc. This explains the need for contingent contracts and implied risk sharing arrangements.
- As importantly, the world is full of asymmetric information, which creates transaction problems and failures and substantial resources to be spend on information gathering, monitoring, controlling, litigation, etc. (principal-agent problems, moral hazard, adverse selection, Meyerson-Satterthwaite theorem).
- In a world of complex strategic interaction under asymmetric information, there will be multiple co-ordination equilibriums, and there is little reason to believe that the best of these equilibriums will usually prevail.

It is in any case difficult to measure the importance or efficiency of the financial system for the economy. One first method would be to compare our well-being with the one in the stone-age world without financial transactions. Economic growth reflects a dynamic and complex interaction between technical progress, human capital accumulation, and efficient economic institutions, the latter also including financial institutions and markets. Growth takes place over centuries, and it is therefore somewhat artificial to imagine the financial system away at any given moment in time, or to try to establish what the welfare effect of the existence of the financial
system at any moment in time could be. In fact, trying this would be non-sense. Alternatively, in a second method one could imagine comparing our real world with the perfect world of full information for financial contracting and perfectly efficient transacting. One could for instance argue that the GDP share of the financial system gives an indication of resource costs, and hence of its deviation from perfection. However, if we look at much underdeveloped countries, we will see a very small financial system, but will not be able to measure the foregone opportunities from financial contracting.

A.2 Attempts to define financial stability

We start with a number of definitions one can find in the literature. Schinasi (2004, 8) proposes the following definition:

“Broadly, financial stability can be thought of in terms of the financial system’s ability: (a) to facilitate both an efficient allocation of economic resources—both spatially and especially intertemporally—and the effectiveness of other economic processes (such as wealth accumulation, economic growth, and ultimately social prosperity); (b) to assess, price, allocate, and manage financial risks; and (c) to maintain its ability to perform these key functions—even when affected by external shocks or by a build up of imbalances—primarily through self-corrective mechanisms.

A definition consistent with this broad view is as follows: A financial system is in a range of stability whenever it is capable of facilitating (rather than impeding) the performance of an economy, and of dissipating financial imbalances that arise endogenously or as a result of significant adverse and unanticipated events.”

Other examples of definitions are provided by Cihak (2006, 9). Accordingly, the Icelandic central bank’s FSR would make several references to a definition due to Andrew Crockett. This one is luckily more concrete:

“This [financial stability] requires (1) that the key institutions in the financial system are stable, in that there is a high degree of confidence that they continue to meet their contractual obligations without interruption or outside assistance; and (2) that the key markets are stable, in that participants can confidently transact in them at prices that reflect the fundamental forces and do not vary substantially over short periods when there have been no changes in the fundamentals.”

Schinasi (2004) reports in an annex various further definitions of financial stability. We restrict ourselves to report only one more, this one due to Roger Ferguson of the Board of Governors of the US Federal Reserve System (made in 2003):

“It seems useful...to define financial stability...by defining its opposite: financial instability. In my view, the most useful concept of financial instability for central banks and other authorities involves some notion of market failure or externalities that can potentially impinge on real economic activity. Thus, for the purposes of this paper, I’ll define financial instability as a situation characterized by these three basic criteria: (i) some important set of financial asset prices seem to have diverged...
sharply from fundamentals; and/or (ii) market functioning and credit availability, domestically and perhaps internationally, have been significantly distorted; with the result that (iii) aggregate spending deviates (or is likely to deviate) significantly, either above or below, from the economy’s ability to produce.”

What is striking in the definitions of financial stability above is that, apart from quite some tautological elements, stability and efficiency were often mixed up. If I try to distinguish them, I get the following matrix:

<table>
<thead>
<tr>
<th>Stable</th>
<th>Instable</th>
</tr>
</thead>
</table>
| Efficient | Ideal that central banks should help to achieve | Does not exist: instability =>$>
|             | loss of efficiency | loss of efficiency |
| Inefficient | Stone-age financial system | If an efficient stable system is destabilised it will end here (say: the euro, USD or GBP money market in 2008). |

The widespread use of the term “financial stability” may probably be explained by the fact that the upper right quadrant in the table does not really exist. Hence, supporting stability often means supporting efficiency. Still, central banks should probably not only have stability in mind, as this could in theory lead them to seek stability at the stone age level. This is by the way not even an absurd thought: in some sense, the ATTAC movement took its name from the idea that by increasing transaction cost (introducing a Tobin tax), and thus lowering efficiency, one could achieve a more stable and better world.

In view of these two dimensions, financial instability may be understood as the financial system leaving, due to some shock, of some equilibrium deemed relatively efficient under the real world circumstances, and dynamically evolving towards lower efficiency and less “rents” achievable between borrowers and lenders, a less efficient risk allocation, and higher total risk and uncertainty, possibly to get stuck in an inferior equilibrium compared to the pre-“crisis” equilibrium. There is no doubt that bank defaults play a key role in financial instability. Banks being the major contractual nodes of the financial system, their default and closure means likely domino effect, destruction of productive relationships and social capital, and freeze of the use of capital stocks (human and technical).3 Financial stability may then be defined as a low likelihood of financial instability to occur. Financial resilience may be defined as the capability to maintain financial stability also under circumstances of lager exogenous shocks.

To enrich this definition attempt, consider again the “stable and efficient” state of the four elements of the financial system, of which they dynamically fall out in case of financial instability.

3 Lehman serves as perfect illustration to this. While the final crisis had been there for one year, the real destabilization of the system followed to 15 September 2008. Maintaining financial stability thus means very often keeping banks alive: those illiquid, but unfortunately also those who are insolvent (“a bank alive is worse more for society than a dead bank, even if its net worth is negative”).
Table 2: The four elements of the financial system when efficient and stable

<table>
<thead>
<tr>
<th>Money</th>
<th>Stable consumer prices; stable capital goods (asset) prices; efficient payment infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial contracts</td>
<td>Legal certainty; rich variety; accessible to many economic agents; low transaction costs of financial contracting</td>
</tr>
<tr>
<td>Financial markets</td>
<td>Financial asset prices close to fundamentals; low bid-ask spreads; low information asymmetries; efficiency (or the weak, semi-strong, and strong form); liquidity (securities can be sold quickly with minimal loss of value)</td>
</tr>
<tr>
<td>Financial intermediaries</td>
<td>Low probability of defaulting; low cost of their services (low spreads); availability of services to many economic agents; strong monitoring technology to overcome information asymmetries</td>
</tr>
</tbody>
</table>

A.3 Financial stability indicators: some examples

A pragmatic way forward to understand what financial stability could mean is to look at what financial stability indicators have been proposed. For instance, the ECB’s financial stability reports’ statistical annex contains one section on financial market indicators, and one on financial institutions.

The financial market indicators fall in particular under the following four categories:

- **Spreads** between more and less credit risky and liquid debt instruments (high spreads mean that perceived default risk is high, and that liquidity of some assets is low, creating liquidity risk; both also indicate higher perceived information asymmetries);
- **Asset price volatilities** (volatility of asset prices may simply reflect volatility of valuation factors exogenous to the financial system; but it may also indicate volatility generated within the financial system itself);
- **Quantitative indicators of intermediation activity**;
- **Credit default swap spreads** as indicators or perceived default probability – a “default” being by definition a major event of instability (as a formerly functioning “node” of financial contracts needs to be dissolved or restructured).

Consider one example for each from the most recent financial stability review of the ECB, also illustrating the current crisis.
The financial institutions indicators consist in variables that contain indication on the financial stress of institutions, financial stress meaning the fear of failing to remain able to fulfil all contractual commitments (to not default). For example, frequency distributions at points in time for large and complex banking groups in the euro area of

(i) return on risk-weighted assets;
(ii) net interest income;
(iii) net loan impairment charges;
(iv) cost to income ratios;
(v) tier 1 capital ratios;
(vi) overall solvency ratios. Annual growth rates in loans; lending margins; write-off rates; growth rates in euro area MFI issuance of securities and shares.

B. Central banks and financial stability

B.1 What do central banks do?
A classical way to look at what central banks are doing is to review their mandates and statures.

Article 2

Objectives

In accordance with Article 105(1) of this Treaty, the primary objective of the ESCB shall be to maintain price stability. Without prejudice to the objective of price stability, it shall support the general economic policies in the Community with a view to contributing to the achievement of the objectives of the Community as laid down in Article 2 of this Treaty. The ESCB shall act in accordance with the principle of an open market economy with free competition, favouring an efficient allocation of resources, and in compliance with the principles set out in Article 4 of this Treaty.

Article 3

Tasks

3.1. In accordance with Article 105(2) of this Treaty, the basic tasks to be carried out through the ESCB shall be:
— to define and implement the monetary policy of the Community;
— to conduct foreign-exchange operations consistent with the provisions of Article 111 of this Treaty;
— to hold and manage the official foreign reserves of the Member States;
— to promote the smooth operation of payment systems.

3.3. In accordance with Article 105(5) of this Treaty, the ESCB shall contribute to the smooth conduct of policies pursued by the competent authorities relating to the prudential supervision of credit institutions and the stability of the financial system.

Financial stability related tasks are implicitly or explicitly in many of these functions.

Another way to capture what central banks are doing is which may interact with financial stability, one may look what central banks actually do. For instance the structure of the ECB’s (2007) annual report is as follows, with page numbers in brackets indicating the space devoted to the respective topic. As an alternative measure of importance, also in the brackets, the number of ECB divisions devoted to the subject is provided.

- Economic developments and monetary policy (77, 6)
- Monetary policy and investment operations (10, 6)
- Payment systems (5, 3)
- Banknotes issuance (4, 2)
- Statistics: (3, 4)
- Financial Stability, Regulation, and Supervision (6, 2)

Financial stability is somehow relevant for the first three and the last of these activities. The page allocation of the annual report suggests that macroeconomic analysis and the setting on the operational target of monetary policy, the short term interest rate, is the predominant activity of the ECB, at least in terms of accountability to the public. Obviously, monetary instability, money being the mother of all financial contracts, is pervasive for financial stability. We will see that through monetary policy operations and other financial transactions (bullet point 2), the central bank actually interacts with the real world and has a real impact (beyond interest rate setting). Finally, malfunctioning payment systems can obviously imply the failure of payments, and hence a gridlock and domino effects.
B.2 Overview of literature

We start again with an overview of some attempts in the literature to define and motivate the relationship between central banking and financial stability. In a speech made in 2003 in Jakarta, T. Padoa-Schioppa, member of the Executive Board of the ECB explained that there are five areas of responsibility of central banks with regard to financial stability:

• **First**, if public authorities are to play a successful role in safeguarding financial stability, threats to financial stability must be effectively monitored. Identifying vulnerabilities in the financial and non-financial sectors and potential shocks in these markets is a vitally important part of a central bank's work; commentators sometimes refer to this as **macro-prudential analysis/surveillance**. ...

• **Second**, the tools primarily intended for maintaining price stability, **interest rates and market operations**, can at times be used to promote financial stability. As I noted earlier, in the long run financial and monetary stability should mutually reinforce each other. But, in the short run, easing monetary conditions may be an entirely appropriate response by central banks concerned about financial fragility spilling over into system-wide problems, which in turn could disturb monetary stability. The LTCM example, when the Federal Reserve System eased monetary conditions to increase liquidity in the financial markets, is a case in point.

• **Third**, when it is an option, **micro-prudential regulation and supervision and deposit insurance** are important elements of maintaining system-wide stability. That is, by ensuring that individual institutions are financially sound, supervisors can help to maintain the stability of the system as a whole.

• **Fourth**, **emergency liquidity assistance** (or, in older terminology, lender-of-last-resort), perhaps the most traditional tool available to a central bank for dealing with financial instability, is possible. It includes both the **provision of liquidity to the financial system as a whole through market operations**, as well as emergency lending to individual banks...

• **Fifth**, central banks are often involved in **payment systems** either directly or in an oversight capacity, and can exercise influence here. The potential risks related to a disruption of the payment circuit - due to either a failing participant or an operational breakdown - are extremely serious...

• **Finally**, **communication through the public comments of public authorities** can be a powerful additional tool to influence market behaviour in a manner which can be conducive to financial stability. In particular, it may act as a way to overcome coordination failures in financial markets. Central banks’ **private communication** has proven to be an important tool in co-ordinating private sector solutions without the injection of public funds. Such interventions could be beneficial, even if authorities' information is no better than that of private market participants.

It may be remarked that the use of ELA and LOLR also for aggregate liquidity providing operations in a crisis in unusual, as most authors use them today only for **individual** liquidity support. The majority of central banks in the world has
responsibilities in micro-financial supervision. The ECB does not, and the Bundesbank shares these responsibilities with the BaFin. There are arguments in favour and against this (conflict of interests, market interaction, ELA role of central banks, etc.). One may doubt whether it is useful to mention “communication” and “macro-prudential analysis” as real responsibilities. One could say that both are derived from some actual responsibilities to act. Any public institutions that takes decisions which affect others should both analyse and communicate.

According to the **Bank of England** Financial Stability Review (Bank of England, 2008, 1, Preface), financial stability is not less than one of the two core purposes of the bank, and can be *motivated* as follows:

“*The Bank of England has two core purposes — monetary stability and financial stability. The two are connected because serious disruption in the financial system can affect the implementation and effectiveness of monetary policy, while macroeconomic stability helps reduce risks to financial stability. The Bank’s responsibility for contributing to the maintenance of the stability of the financial system as a whole derives from its responsibility for setting and implementing monetary policy, its role in respect of payment systems in the United Kingdom and its operational role as banker and supplier of liquidity to the banking system. The Bank aims to bring its expertise in economic analysis and its experience as a participant in financial markets to the assessment and mitigation of risks to the UK financial system including, as necessary, helping to manage and resolve financial crises.*”

The question why exactly the central bank has a role in financial stability, why could this not be entrusted to an independent agent, e.g. to avoid conflicts of interests, is further investigated by **Schinasi (2003, 8-9)**, who sees the following *reasons for a natural role of central banks in financial stability*:

- The central bank is the only unconstrained provider of the legal means of payment and immediate liquidity;
- Central banks ensure the smooth functioning of the national payment systems, and this is the media through which payment failures may cascade and contagion may take place;
- Monetary policy transmission takes place through banks – if banks are instable, this transmission will not work smoothly and in a predictable way.
- Financial instability implies instability of monetary aggregates. If these play a key role in the monetary policy strategy, then financial instability will hurt this strategy.

I personally do not like the last argument; I would rephrase it as follows: “Monetary instability implies financial instability as money is the mother of all financial contracts.” Also the second but last one is maybe not fully convincing: the role of banks is manifold and their importance is as well. The fact that they are also important for the central bank does not mean that banks need to be supervised and regulated by central banks. This is also a bit true for the second point.

**Osterloo and de Han (2004, 263)** distinguish between the following central bank instruments for financial stability:
In general, two broad sets of instruments for safeguarding financial stability can be distinguished: ex ante preventative instruments (regulatory and supervisory measures), which make it less likely that costly financial disturbances will occur, and reactive instruments (resolution).

The **ex ante measures** are: “the main instruments for preventing financial instability is – besides the bank’s own risk management responsibilities – a sound regulatory framework and an effective enforcement of banking supervisory measures. Besides this, more and more macro-prudential measures, including the development of early warning systems, gain importance.” Moreover, several CBs indicate that one of the most important, but often-overlooked, instrument is moral suasion.”

**Ex post** measures mentioned:
- Monetary easing;
- Aggregate liquidity supply;
- Individual bank ELA

Osterloo and de Han note that (2004, 265):
Systemic bank restructuring which aims to restore solvency and profitability, to improve the banking system’s capacity to provide financial intermediation between savers and borrowers, and to restore public confidence ..., is not considered by the CBs as a reactive instrument under their responsibility. As interventions like re-capitalizing financial institutions comes at high fiscal costs, this will be a task for the government, in co-operation with the CB and the supervisor.

Finally, Haley (2001) surveys a number of central banks from industrial and emerging economies to see which have what function relating to financial stability. We summarise her table 2.3 as follows (her sample contains Singapore, NL, IE, HK, NZ, FI, DK, SW, CA, S-Korea, AU, NO, UK (12).

<table>
<thead>
<tr>
<th>Safety net provision / crisis resolution</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ELA to the market</td>
<td>12</td>
</tr>
<tr>
<td>ELA to illiquid banks</td>
<td>12</td>
</tr>
<tr>
<td>Emergency solvency institution to banks</td>
<td>0</td>
</tr>
<tr>
<td>ELA to non-banks</td>
<td>6</td>
</tr>
<tr>
<td>Honest brokering (“facilitating or organising private sector solutions to problems)</td>
<td>11</td>
</tr>
<tr>
<td>Resolution (conducts, authorises supervises sales of assets from failed institutions)</td>
<td>3</td>
</tr>
<tr>
<td>Deposit insurance (insures deposits or other household financial assets)</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Regulation and supervision</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank regulation</td>
<td>5</td>
</tr>
<tr>
<td>Bank supervision</td>
<td>4</td>
</tr>
<tr>
<td>Non-bank financial regulation</td>
<td>3</td>
</tr>
<tr>
<td>Non bank financial supervision</td>
<td>3</td>
</tr>
<tr>
<td>Chartering and closure of banks</td>
<td>5</td>
</tr>
<tr>
<td><strong>Accounting standards</strong> (est. / participates in establ. uniform accounting conventions)</td>
<td>2</td>
</tr>
</tbody>
</table>

**B.3 My attempt to motivate the role of central banks in financial stability**
The key role of central banks for financial stability follows in three ways from the core responsibility of the central bank, namely the power to create money. As mentioned, the “mother” of all financial instruments and of the financial system is money, as probably we would not call a contract without a money leg a “financial” contract. Precisely, the three implications of the power to create money are:

- **Interest rate policy.** First, the stability of the purchasing power of money (for consumer goods and for capital goods, and for financial assets) will be a precondition for financial stability. Nobody has as much power of these price stabilities as the central bank, even if the power of the central bank is far from perfect, especially for prices of capital goods and of financial assets. The key to price stability is the setting of the short term interest rate i. I will hence call this part of central bank policies “i-policy”.

- **Monetary policy operations:** “i-policy” needs to be implemented via monetary policy operations of the central bank, via which central bank money is provided to banks. The monetary base being quite large, the technique via which it is provided to the banking system will be crucial for the liquidity resilience of the banking system.

- Second, unsurprisingly, the power over money creation will be relevant for financial stability ex post. Central banks have been entrusted with the almost unbelievable capability to create paper money and thereby purchasing power without a priori constraints. They can therefore in theory cure whatever shortage of “liquidity” (to be defined later) may occur, and may endanger financial stability, by lending freely.

The two are linked: “Lending freely” will of course have the potential to reduce the scarcity of money and thereby to create inflation. As importantly, by lending freely to some, the central bank may however also impact on the allocation of resources and thereby potentially dilute property rights and, in the ex ante stage, incentives. Central banks may also face direct financial losses.

The tension between on the one side being able to cure any liquidity problem by lending freely, and on the other side being responsible that this does not unduly lead to (i) inflation; (ii) central bank financial losses; (iii) a distortion of the allocation of resources and (iv) wrong economic incentives (“moral hazard”) should therefore be crucial for any theory of central bank financial crisis management measures.

To draw the list of main financial stability related tasks and measures of the central bank, I follow the idea of Osterloo and de Han (2004) to distinguish between ex ante and ex post measures. I am however more detailed in particular on the financial operations measures that are, it seems to me, underestimated and little understood by most of the authors mentioned above.

**(A) Ex ante tasks of central banks relevant for financial stability**

1. Maintaining price stability through interest rate policies (CPI, but also contributing to asset price stability)
2. Implementing monetary policy through monetary policy operations and more generally an operational framework (including collateral policies).
3. Micro-prudential regulation and supervision
4. Macro-prudential analysis
**Ex post tasks of central banks relevant for financial stability**

1. Interest rate policy: lowering interest rates, including medium and longer term interest rates.

2. Aggregate liquidity supply operations:
   - (i) changing the liquidity supply technique (open market operations and standing facilities);
   - (ii) extending collateral eligibility and securities lending
   - (iii) outright purchases of assets;

3. Individual bank liquidity rescue: Emergency liquidity assistance;

4. Co-ordination (a la LTCM rescue) and communication.

For the sake of completeness of financial stability actions of the State sector, one may add the three core roles of the Government:

**Governmental ex post measures**
Recapitalisation of banks, guarantees, bad bank creation.

We try to summarise these tasks also in the form of a figure, such as to provide further visual intuition about how the different concepts relate to each other. This course is mainly about the role of the financial operations of the central bank as they relate to financial stability, i.e. the oval in red in the figure.
Monetary Policy

Financial stability reports / macro-prudential analysis
Banking supervision and regulation
Oversight or management of financial infrastructures

Interest rate policy
Monetary policy operations: open market operations, standing facilities, reserve requirements, collateral framework

Aregate financial market operations: widening collateral set, changing liquidity supply technique, ...

Interest rate policy
Monetary policy operations in case of financial crisis: lower short term rate, target lowering of longer term interest rates, excess reserves policies, … (quantitative easing?)

Government measures:: guarantees, recapitalisation, bad bank

Emergency liquidity assistance
CB coordinates rescue of bank by other banks

Individual bank rescue ops

Financial transactions of the central bank

Ex ante measures

Macroeconomic policies

Macroeconomic policies in case of financial crisis: lower short term rate, target lowering of longer term interest rates, excess reserves policies, … (quantitative easing?)
C. Financial stability reviews of central banks

We now turn briefly to a central bank product relating to financial stability, namely macro-prudential analyses, which has been the most visible for some years: **Financial stability reviews**, which are published by a growing number of central banks at an annual or semi-annual basis. In view of their relative visibility, it has sometimes almost be forgotten that central banks also have an active role in financial stability.

Osterloo and de Haan, 2004 provide the following functions of financial stability reporting (“Financial Stability Reviews”):

* To contribute to the overall stability of the financial system. By informing the public on both the state of the financial system and the judgment of the CB regarding the system’s stability, publishing a FSR can promote better-informed decision-making and can contribute to the stability of the financial system.
* To strengthen co-operation on financial stability issues between the various relevant authorities.
* To increase the transparency and accountability of the financial stability function.

The last one seems to be non-applicable at least for the ECB’s Financial Stability Review, as this review does not deal with the actual financial stability measures taken by the ECB, and the “financial stability function" should somehow be seen to encompass all real measures as well.

Reasons for publishing an FSR are, according to Cihak (2006, 16):

“(i) improving the understanding of (and contributing to dialogue on) risks to financial intermediaries in the economic environment;  
(ii) alerting financial institutions and market participants to the possible collective impact of their individual actions; and  
(iii) building a consensus for financial stability and the improvement of the financial infrastructure.

An FSR can add value to work undertaken by private agents in the financial sector itself, because a central bank can draw on its macroeconomic expertise and its role in payments and settlements. Also, private agents do not have as strong an incentive to assess the systemic risks in the economic environment, as they are less interested in spillovers of their actions on to other agents.”

As revealed in Figure 1 of Cihak (2006, 11), the number of central banks publishing Financial Stability Reviews of central banks has gone from zero to 45 within 10 years.
Cihak (2006) then also discusses content, and establishes best practices, and describes weaknesses of some FSR. He does not identify one of the major weaknesses that I personally see: an absence of attempts to make a link and to study what the central bank can do about improve financial stability.

Indeed, this course will focus on something that is almost not touched at all in FSRs, namely how concretely, through its financial operations, the central bank can contribute to financial stability.

D. Wrap up questions

1. What are the main elements of the financial system? What is the main characteristic of a "financial" transaction?
2. What different definitions of financial stability can be found in the literature? What are the weaknesses of each definition?
3. What creates a strong link between central banking and financial stability?
4. What are the key functions of central banks, and what could each of those have to do with financial stability?
5. What typologies of central bank financial crisis related activities can one imagine?
6. How to understand financial stability reviews of central banks in the context of central bank tasks relating to financial stability?

Literature:


Financial stability reports by central banks and international organisations have mushroomed over the last decade. Here is a selection:

http://www.ecb.int/pub/pdf/other/financialstabilityreview200812en.pdf
(Hardcopies will be supplied in the course)

Bank of England (2008), Financial Stability review
