

## CHAPTER 41

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# REGULATION AND FINANCIAL STABILITY IN THE AGE OF TURBULENCE

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Possibly one of the most perplexing puzzles of the global financial crisis is the fact that nobody saw it coming. Gale-force winds, yes. A storm, perhaps. But neither policy makers, market participants nor experts anticipated the tsunami that ravaged financial markets. Given the plethora of safeguards, a collapse of the global financial system seemed unthinkable. Yet still, “how could this happen?” asks the Bank for International Settlements (BIS) disarmingly in its most recent annual report (BIS, 2009). Not since its own foundation during the Great Depression had a crisis of similar proportions engulfed the global economy, leaving vast segments of the financial system dysfunctional.<sup>1</sup> This chapter illustrates how the crisis has pushed financial (in)stability to the very top of the agenda for policy reforms and discusses how it has come to constitute the litmus test for effective regulation.

### ANATOMY OF A CRISIS

From a historic perspective, one can broadly distinguish between three types of financial instability. First, there is volatility-based instability, such as the ERM crises in 1980s and 1990s, the 1987 stock market crash, the 1994 emerging market bond market instability, the 1998 Russian default, the Argentinean default in 2001, and, in part, the US sub-prime crisis that started in 2007. A second type

of instability is stress-based instability, usually triggered by the default of an individual institution such as the insolvency of Credit-Anstalt in 1931, the collapse of Bankhaus Herstatt in 1974, the folding of BCCI in 1991, the Barings scandal in 1995, the failure of LTCM in 1998 and the most recent string of institutional failures, from Northern Rock to Bear Stearns, Lehman Brothers and AIG. Lastly, there are instances of crisis-based financial instability the causes of which usually emanate from the real economy or the financial system. Costly bank insolvencies and major adjustments in the level of asset prices tend to follow. During this type of financial instability, there is often a very strong (reinforcing) interaction between the financial sector and the real economy, with strong contagion effects both domestically and internationally.

### **A Minskian meltdown**

Together with the Great Depression and the Asian financial crisis, the current global financial crisis displays all the hallmarks of this last category: A “perfect storm” in financial markets triggered a massive global credit crunch which was soon followed by a global recession. This in turn deepened the credit crunch as demand and employment fell, and credit losses of financial institutions surged. What started as a “non-bank banking crisis” in mid-2007 had developed into the “mother of all currency crises” by the second half of 2008 (Krugman, 2009). Indeed, within 12 months an unlikely Minskian scenario had become unsettling reality: The intensifying process of financialisation across the global economy had led to an increase in the amplitude of its cyclical fluctuations, culminating in the current episode of financial instability (Minsky, 1991).

### **Diagnosing the causes**

The causes of the current crisis can be divided into two broad categories: macroeconomic and microeconomic. The macroeconomic causes are twofold: problems associated with the build-up of imbalances in international claims and difficulties created by the long period of low real interest rates. The microeconomic causes can be grouped into three areas: incentives, risk measurement and – the focus of this chapter – regulation. In this context, financial institutions found it relatively easy to move activities outside the regulatory perimeter. Worse still, financial regulation was not equipped to see the risk concentrations and flawed incentives behind the financial innovation boom. The perimeter of regulation was poorly drawn in most countries, leaving large risk concentrations and leverage buildups out of regulators’ sight. Financial supervisors were preoccupied with the formal banking sector, not with the risks building in the shadow financial system.

At the same time, other critical microprudential issues, such as overall leverage, and macroprudential aspects, such as the impact of the economic cycle on systemic risks, were ignored. Macroeconomic policies did not take into account the build-up of systemic risks in the financial system and in housing markets. Lastly, the global financial architecture still only encompasses a fragmented surveillance system which compounded the inability to see growing vulnerabilities and links. After all,

despite an increasingly integrated global financial system, much of its institutional governance structure still hinges on national institutions.

## IN SEARCH OF FINANCIAL STABILITY

Over the last decade or so, addressing financial instability has become a policy priority. The current crisis serves as a painful reminder how far policymakers are still away from developing a satisfactory operational framework. To some extent, progress remains constrained by the “fuzziness” with which financial (in)stability can be measured (Borio and Drehmann, 2009).

Consensus with regard to the definition of monetary stability is well established, with notions ranging from stability of the (anticipated) value of money to price level stability or low levels of inflation. Monetary stability is a vital ingredient for sustainable economic growth and its unique institutional responsibility resides with the central bank.

### Definitions matter

The story for financial stability, however, is somewhat different; there is a much broader spectrum of definitions and consensus only seems to exist in so far as financial stability is deemed a “good thing” and that it is mostly noticed by its absence.<sup>2</sup>

Broadly speaking, one can distinguish between a systems approach – primarily linking financial stability to a well-functioning financial system<sup>3</sup> – and a more narrow definition relating to the (excess) volatility of an observable financial variable, such as asset price volatility or interest rate smoothness. The debate around finding a suitable definition is more than a semantic one, particularly since any given definition predetermines the role assigned to monetary policy in contributing to financial stability.

From the perspective of policy makers, however, it is clear that some of the elements that might potentially harbour a threat to financial stability are actually very desirable for achieving the goal of monetary stability. Financial innovation, for example, has been key to making the transmission mechanism for monetary policy more effective.

### A trade-off between monetary and financial stability?

In the sense of Tinbergen (1956), if monetary authorities only have control over one policy instrument, namely monetary policy, they can only achieve one independent goal, e.g. price stability. By delegating the broader objective of financial stability to a regulatory or supervisory body, time inconsistency complications of a direct trade-off between the two goals can be avoided. In turn, this raises the challenge for policy makers to identify suitable trade-offs between monetary and financial stability.<sup>4</sup>

The mainstream policy consensus is highly skeptical concerning the existence of such a trade-off. Monetary instability is regarded as the main threat to financial stability, because inflation distorts perceptions about future return possibilities.

Price stability is thus deemed a sufficient condition for financial stability. In this sense, central banks should not focus on gauging the effects of asset price inflation on core inflation, but instead they should place their focus on capital requirements that increase with the growth of credit and are collateralised by inflated assets.<sup>5</sup>

More recently, as inflation rates have reached historic lows in most industrialised economies, a new school of thought has emerged which suggests that low and stable inflation can make financial system even more vulnerable due to the threat of asset price bubbles and the associated irrational exuberance of market participants. Indeed, the current crisis seems to be a very powerful case in point in favour of this so-called new environment hypothesis.<sup>6</sup>

In an attempt to reconcile these conflicting views, Issing (2003) concludes that the strict systems-based definition of financial stability excludes any trade-off between monetary and financial stability by definition. The key to solving this apparent contradiction lies in shifting the focus to the role of the policy horizon: A short-term conflict between monetary and financial stability may indeed be possible, as long as it is optimal for the authorities to deviate from desired rate of inflation to maintain price stability over medium run. With a clear definition of an appropriate horizon to which policy objectives should apply, the conflict disappears.<sup>7</sup>

The institutional responsibilities for financial stability are traditionally shared across different institutions, namely finance ministries, the central bank and regulators. While clearly defined accountabilities for each of these institutions is a sine-qua-non, the actual goal of financial stability can only be brought about by an effective coordination of their efforts. This is the role of the so-called Basel Process which is illustrated in figure 41.1.

## REGULATORY CHALLENGES IN THE AGE OF TURBULENCE

Implicitly or explicitly, the promotion of both monetary and financial stability has been a key goal for national authorities in developed economies for much of the post-Bretton Woods era. From the inflationary scares of the late 1970s well into the 1990s, the policies of the “Washington Consensus” implied a near-exclusive focus by central banks on monetary stability. Central banks’ budgetary and institutional independence from political processes became the dominant governance paradigm. At the same time, several bouts of financial instability leading up to the Asian financial crisis demonstrated the importance of independence of regulatory and supervisory agencies for financial stability (Quintyn and Taylor, 2002). In parallel, the move towards unified financial sector supervision became more pressing.

### Governance and regulatory best practice

Indeed, the systemic banking crises of the last 30 years can largely be attributed to weak, fragmented and ineffective regulation which was shaped by the political interference of special interests. The current crisis should be no different. As in previous episodes of instability, it is the highly toxic cocktail of investor exuberance and regulatory complacency that brought the mighty global financial system crashing to its knees this time.

Today, a vast majority of the world's financial supervisory agencies are separate stand-alone agencies, while most bank supervisors are still part of a central bank. Most of these agencies now have operational independence, yet bank supervisors are still unique in viewing financial stability as part of their mandate (Seelig and Novoa, 2009). After almost two years of global financial market upheaval, this much seems clear today: best practice with regard to the governance structure and the prudential mandate of national financial supervisors are at best a necessary, and by no means sufficient conditions for financial stability.<sup>8</sup>

In his aptly entitled memoirs-cum-economic treatise, Alan Greenspan, the former Chairman of the Federal Reserve, offers some rules of thumb as guidance for the (re)design of regulation in a globalized financial system (Greenspan, 2007, pp.374–375). First, 'regulation approved in a crisis must be subsequently fine-tuned' and second, 'regulations outlive their usefulness and should be renewed periodically'.

### **Financial stability as a public good**

The rationale for financial regulation rests ultimately on two objectives: the desire to maintain financial stability by mitigating systemic risk and the desire to protect consumers (investors). Consumer protection and mitigation of systemic risk are mostly complementary, but they can also conflict. The current crisis has shown that measures taken to protect particular market participants (e.g. home owners in the U.S. or depositors in the U.K.) may sometimes have unintended consequences, increasing systemic risk.

Financial stability carries all the textbook hallmarks of a public good: first, it is non-rival as its benefits to one consumer are not limited by the simultaneous consumption by other consumers. Second, financial stability is non-excludable as its benefits are available to all economic agents, even to those who do not pay for it (i.e. entities that are not regulated). Lastly, individual agents cannot actively withdraw themselves from the influence of financial stability.

Public finance theory has long established that the private-sector production of public goods yields an under-supply with respect to its optimal quantity. For this very reason, financial stability has traditionally been produced by and provided by national governments. Globalization, however, has brought about a partial shift in the optimal locus of production, since financial stability is no longer a fully spatially delineated public good. This has considerably raised the stakes in the ordoliberal challenge for well-coordinated international policy co-operation in the age of turbulence.

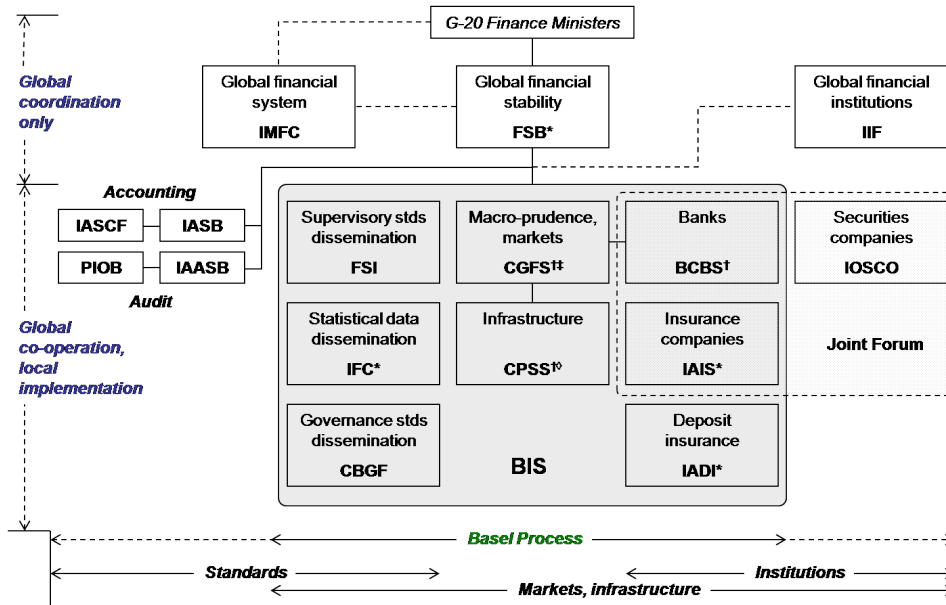
### **Global change, local challenge**

As the financial landscape of the post-Bretton Woods era has changed, and banks, insurers, and securities firms have begun to offer similar or even identical products, central banks and regulatory authorities have recognised the growing need for a central vehicle for coordinating their efforts. The various regulatory and supervisory initiatives of the Basel-based committees and their working groups form the core institutional building blocks of this global coordination exercise. This global

framework which is aimed at harmonising regulatory and supervisory processes and standards is collectively known as the Basel Process.

Figure 41.1 gives a schematic overview of the Basel Process and highlights that much of the international regulatory system still operates on a sectoral level, despite the fact that the global financial system is increasingly interlinked.<sup>9</sup>

Figure 41.1 Global regulatory system and the Basel Process



Notes: A list of abbreviations for all committees and regulatory bodies is given in table 41.1 below. † indicates permanent committees hosted at the BIS, originally established by the G10 central banks. The BCBS, CGFS and CPSS are relatively autonomous from the BIS with regard to setting their agendas and activities. ‡ including the Markets Committee (formerly the Gold and Foreign Exchange Committee). ◇ also handles the secretariat functions for the Central Bank Counterfeit Deterrence Group. \* indicates independent organisations with secretariats that are hosted by the BIS, but do not directly report to the BIS or its member central banks. Source: Reproduced with permission from Bieri (2009).

## REGULATORY LESSONS AND OUTLOOK

The economic theory of regulation pioneered by Stigler (1971) stipulates that regulation often induces changes in behaviour which go against the very effects that regulation intended in the first place. During periods of investor exuberance and comparative regulatory complacency, these adverse effects of regulation are very likely to be muted if not invisible altogether. Any new regulation, such as Basel II, will bring with it the so-called boundary problem of regulation, i.e. the problem that institutions in the regulated sector and those in the unregulated sector face

different incentives.<sup>10</sup> Supervisors must thus attempt to learn how the regulated are seeking to avoid the constraints placed upon them. During the Great Moderation in the run-up to the crisis, the boundary problem profoundly misaligned incentives in the financial sector. This induced large-scale regulatory capital arbitrage, e.g. in the form of securitisation, which offset some or all of the intended regulatory effects. Regulation failed to take account of the risks that can emerge from the interaction between regulated and unregulated institutions, activities, and markets. In particular, bank regulation did not reflect risks from off-balance-sheet vehicles, monoline insurance companies, or loan originators with weak underwriting standards. Equipped with the analysis from ratings agencies, even sophisticated investors could not be relied on to assess risk accurately on more complex financial products.

In very broad terms – as the global economy no longer stares into the abyss of a financial market fallout and the first green shoots of an tentative recovery are visible – the principal regulatory lesson is twofold. First, at a micro-prudential level, the regulatory perimeter needs to be strengthened and extended. Indeed, it was excessive risk taking by global financial actors outside this very perimeter that lies at the origin of current crisis. Going forward, this implies both expanding the scope of regulation of institutions (improved disclosure, limits on leverage, liquidity requirements, governance standards) and a tighter regulation for markets and individual financial products (Carvajal et al., 2009). At the same time, macro-prudential regulation ought to incorporate the fact that systemic risk is an endogenous component of the the global financial system; the seamless monitoring of the growing interconnectedness of its various institutional building blocks forms a central part of this new regulatory paradigm. The new financial supervisory framework for the European Union which was endorsed in June 2009, consisting of a micro- and a macro-prudential pillar which includes the creation of the European Systemic Risk Board, represents a first comprehensive supranational attempt in this direction (cf. Bini Smaghi, 2009 and Masciandaro et al., 2009).

Yet better regulation will not be enough; complementary adjustments to macroeconomic policy frameworks are equally essential. These adjustments would call for a more symmetric response to the build-up and unwinding of financial imbalances. The BIS (2009) sees a need to explore how to incorporate credit and asset price booms and the associated risk-taking more meaningfully in monetary policy frameworks. Likewise, additional consideration to the possible role of fiscal policy, including that of the tax system and fiscal balances, seem inevitable.

## Notes

<sup>1</sup>Unprecedented global bank write-downs in excess of \$1.2 trillion (or 12% of US GDP) and the massive policy interventions are just some of the superlatives of the current crisis. Policy rates in the US and Europe are at historic lows. With nominal rates at or close to zero, central banks are employing alternative policy tools at a large scale to combat the crisis. E.g. in the six months between October 2008 and April 2009, the Federal Reserve expanded its balance sheet from around \$850 billion to just over \$2 trillion. In addition, the Fed committed a further \$1.75 trillion to the purchase of large quantities of longer-term Treasury debt, to help bring down corporate bond and other rates that are linked to Treasury yields by the end of 2009.

<sup>2</sup>One of the earliest definitions of financial stability is given by Bagehot (1873): “[It is . . .] not a situation when the Bank of England is the only institution in which people have confidence.”

More recently, at the 1997 Jackson Hole conference dedicated to “Maintaining Financial Stability in a Global Economy”, Crockett (1997) introduces the distinction between two types of financial instability: that of institutions and that of markets.

<sup>3</sup>Mishkin (1992) offers a systems-based definition, describing a stable financial system as one which ensures “[...] without major disruptions an efficient allocation of savings to investment decisions”.

<sup>4</sup>If financial stability is indeed defined as interest rate smoothness, a trade-off with price stability immediately follows from the result of Poole (1970) whereby in the face of an aggregate demand shock monetary authorities need to choose the degree to which they want to stabilise interest rates or output and inflation.

<sup>5</sup>See Schwartz (1995, 2002) for one of the most prominent proponents of this school of thought.

<sup>6</sup>Borio et al. (2003) provide an overview of how the new environment hypothesis relates to the “continuity” view.

<sup>7</sup>In a more radical interpretation of the issue, Laidler (2004) argues that the authorities should stick to basic task of targeting inflation, while holding the lender of last resort powers in reserve. Consequently, policy makers should not be tempted by any form of trade-off, simply for the sake of achieving financial stability.

<sup>8</sup>Nier (2009) discusses four types of regulation and the two main examples of regulatory structures that are comprised of two agencies (in addition to the treasury and a deposit insurance fund) are the single integrated regulator model and the twin-peaks model.

<sup>9</sup>As a complement to this section, I recommend to the interested reader a very comprehensive guide by Davies and Green (2008) that covers the inner workings of the international regulatory system in a level of detail that is well beyond the scope of what is possible here. With regard to the Basel Process, Bieri (2009) contains a detailed overview of its place in the global financial system and its role for financial stability.

<sup>10</sup>Brunnermeier et al. (2009) offer a more detailed discussion on the boundary problem of financial regulation.

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**Table 41.1** List of entities related to the Basel Process

Acronym	Full name	Scope	Reporting entity	Location*
BCBS	Basel Committee on Banking Supervision	Banks	G10 Governors	BIS, Basel
CBBCDG	Central Bank Counterfeit Deterrent Group	Bank notes	G10 Governors	BIS, Basel
CBGF	Central Bank Governance Forum	Operation and governance	BIS	BIS, Basel
CGFS	Committee on the Global Financial System	Financial markets	G10 Governors	BIS, Basel
CPSS	Committee on Payment and Settlement Systems	Markets infrastructure	G10 Governors	BIS, Basel
FSB <sup>†</sup>	Financial Stability Board	Global financial stability	G20 Ministers and Governors	BIS, Basel
FSI	Financial Stability Institute	Supervisory standards	BIS	BIS, Basel
IAASB	International Auditing and Assurance Standards Board	Audit standards	PIOB, IFAC	New York
IADI	International Association of Deposit Insurers	Deposit insurance	Member agencies	BIS, Basel
IAIS	International Association of Insurance Supervisors	Insurance supervision	Member agencies	BIS, Basel
IASB	International Accounting Standards Board	Accounting standards	IASCF	London
IASCF	IASC Foundation	Accounting standards	Member institutions	London
IFC	Irving Fisher Committee on Central Bank Statistics	Statistical issues	Central bank members	BIS, Basel
IIF	International Institute of Finance	Financial institutions	Member institutions	Washington, DC
IOSCO	International Organisation of Securities Commissions	Securities regulation	Member agencies	Madrid
JF	Joint Forum	Financial conglomerates <sup>‡</sup>	BCBS, IOSCO, IAIS	–
PIOB	Public Interest Oversight Board	Audit standards	IFAC	Madrid

Notes: \* The location either indicates the seat of an organisation's headquarters, i.e. where its most important functions are concentrated or the location of a committee's permanent secretariat. The BIS Quarterly Review regularly provides an overview of most recent activities of the Basel-based committees and the FSF. These activities are also reviewed in the BIS Annual Report, e.g. BIS (2009, pp. 153–186). <sup>†</sup> In April 2009 the membership of the Financial Stability Forum (FSF) was enlarged to include the current FSF member jurisdictions plus the rest of the G-20, Spain and the European Commission. In addition, the expanded FSF was re-established as the Financial Stability Board (FSB) with a broadened mandate to promote financial stability. <sup>‡</sup> This term is used by the Joint Forum to denote "any group of companies under common control whose exclusive or predominant activities consist of providing significant services in at least two different financial sectors (banking, securities, insurance)." Source: Reproduced with permission from Bieri (2009).