Consolidating supervisory architecture and mitigating systemic risk
The Role of Central Banks

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Abstract:

This paper argues that the role of central banks within financial markets should be increased. If central banks are to be responsible for financial stability, they should retain some supervisory capacity. There are synergies between the supervisory function and its capacity to act as lender of last resort. Payment and settlement systems are also essential to reduce systemic risk. This paper also addresses mitigation of systemic risk, which was not appropriately managed during the crisis. An integrated supervisory approach is appropriate to deal with financial conglomerates and the parallel banking system. In order to improve the mechanisms and adequately diminish the likelihood of systemic risk, central banks need useful tools, including the power to regulate and supervise financial markets. Overall, the best approach for a developing country with a small financial sector is to adopt a single entity structure, preferably with the central bank in charge.

1. INTRODUCTION

The recent financial crisis has had a profound effect on regulators. It served as a reminder that the national and international regulations in place prior to the crisis to ensure global financial stability were far from adequate.[1]

Lack of coordination is often cited as one of the most significant regulatory failures. This was the case in the United Kingdom – where the tripartite arrangement was deeply criticised. These events have raised many questions about central banks. Eventually, regulators asked themselves whether central banks should be provided with stronger powers in order to become not only mere observers of the markets, but also regulators and supervisors.

This paper analyses the position of central banks within financial markets mainly in relation to financial stability and systemic risk. The concept of financial stability is inextricably linked to central banks. Today, it seems that almost all central banks around the world embrace financial stability as a main objective.

In the words of Black, 'we know there will be another crisis, but do not know where it will come from. The question is whether the regulatory structures being created are building in sufficient capacity for regulators and others to anticipate future crises, and sufficient resilience to withstand them when anticipation fails.'[2]

There is evidence that institutional structure matters. A properly designed regulatory architecture can achieve higher levels of efficiency and contribute to financial stability and the mitigation of systemic risk. There are various models. However, no regulatory structure is superior. The consolidation of the regulatory architecture is subject to a wide range of circumstances within a given country.

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[1] Chris Brummer, *Soft Law and the Global Financial System. Rule Making in the 21st Century* (Cambridge University Press 2012) 266

[2] Julia Black, *Restructuring Global and EU Financial Regulation: Capacities, Coordination and Learning.* (LSE Law, Society and Economy Working Papers 2010) 2

This paper argues that the role of central banks within financial markets should be increased. Central banks should be allowed to monitor and supervise financial markets, and be prepared to efficiently deal with issues triggered by financial crises. In doing so, central banks will be situated in a robust position to deal with the next financial crisis. The main purpose of this particular goal is to preserve financial stability.

This paper also addresses mitigation of systemic risk, which was not appropriately managed during the crisis. The failure of supervisors to develop efficient macro-prudential tools (especially for major complex institutions) was a significant flaw. Therefore, in order to improve the mechanisms and adequately diminish the likelihood of systemic risk, central banks need useful tools, including the power to regulate and supervise financial markets. By doing so, central banks will be in a stronger position so as to cope with the next financial crisis more efficiently. After all, central banks are always involved in any financial downturn, given their role as liquidity providers and their responsibility to preserve financial stability.

2. THE NEED FOR REGULATION: DIFFERENT PATTERNS GOVERNING THE REGULATORY ARCHITECTURE

Julia Black describes regulation as a 'messy, complex, and often thankless task. In theoretical terms, the regime for financial regulation provides a clear illustration of a complex polycentric regime operating in a complex and dynamic environment.'[3]

The current conception of regulation can be traced to the regulatory responses to the excesses of the 1920s, especially in the United States. In response to these failings, the federal and state governments were forced to design some regulatory reforms.[4]

Llewellyn points out that 'the rationale for regulation and supervision in finance are based on various market imperfections and failures which potentially compromise consumer welfare and systemic stability.'[5] Danielsson complements this assertion by explaining that 'banking has traditionally been the most heavily regulated part of the economy, often justified by the presence of market power, the importance of externalities and the information asymmetry among market participants.'[6] A distinction between regulation and supervision is made by de Larosière:

> Regulation can take different forms, ranging from information requirements to strict measures such as capital requirements. On the other hand, supervision is the process designed to oversee financial institutions in order to ensure that rules and standards are properly applied. In practice, regulation and supervision are intertwined and will therefore, in some instances, have to be assessed together.[7]

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3 Black (n 2) 44
4 Brummer (n 1) 7
5 David Llewellyn, *Institutional Structure of Financial Regulation and Supervision: the basic issues* (Paper presented at a World Bank seminar Aligning Supervisory Structures with Country Needs 2006) 17
6 Jon Danielsson (*GLOBAL FINANCIAL SYSTEMS FM 447 SLIDES*, London School of Economics 2011)
7 Jacques de Larosière, High-Level Group on Financial Supervision in the EU Report. Chaired by Jacques de Larosière (Brussels 2009) 13

Normally, a distinction in regulation is drawn among banking, insurance and securities trading. Another usual manner of categorising regulation is by 'institution' (i.e., the safety and soundness of institutions), by 'functions' (i.e., activities) or by 'objectives' (i.e., macro-prudential supervision, micro-prudential supervision, etc.).

One school of thought argues that regulation by objectives is the soundest approach. Two main reasons support this idea: First, agencies might be most effective when they have clearly defined objectives and when their mandate is precise. In addition, accountability might be more effective and transparent when it is clear which agencies are responsible for a given regulatory function.[8]

These advantages are normally seen in the 'Twin Peak' structure, which is an approach to regulation and supervision based upon the objectives of regulation. Taylor (1995), Goodhart (1996) and Goodhart et al. (1999) have all recommended this model, which basically involves the creation of two separated integrated agencies for prudential and conduct-of-business regulation and supervision.[9] Apart from the Twin Peak structure, there are several other models such as Monolithic, Himalaya and other hybrid models.

'Territoriality' is another parameter used to label regulatory structures. In this particular case, Brummer clarifies that 'authority is demarcated between the national and local (or regional) levels of governance, or national regulators may share power with local states and political organizations.'[10]

In principle, the regulatory process is mainly domestic. At a more international level, several organizations exert different degrees of influence by imposing standards and best practices. Organizations such as the International Monetary Fund and the World Bank 'leverage their experience in economic development and

[8] Llewellyn (n 5) 26
[9] ibid 27
[10] Brummer (n 1) 27

stability to exercise oversight in financial regulation as observers of policy compliance.'[11]

Financial innovation and the emergence of complex figures appear as a rather challenging task for regulators, given the dynamic nature of markets. Llewellyn shows some concern about the fact that 'in many countries, the structure of regulatory agencies was devised for a different structure of the financial system that exists now.'[12]

It is convenient to periodically rethink and redesign the regulatory architecture. Most structural changes take place in the middle of massive financial crises and are probably not well schematized so as to deal with the problems properly. On the contrary, a gradual process of regulatory reform is ideal.

Generally speaking, the 'institutional' feature plays a relevant part. As Goodhart underlines, 'the institutional structure of regulatory agencies has significance beyond simple bureaucratic tidiness.'[13] A rather visible example of the implications related to the institutional form can be observed in the case of the United Kingdom, where the government adopted a radical reform of the regulatory architecture in 1997 and left the Bank of England with no supervisory powers, a strategy that proved to be vulnerable.

Successful consolidation of any regulatory framework relies on a number of external elements: 'Differences in institutional structure are the result of several factors: historical evolution, the structure of the financial system, political structures and traditions, and the size of the country and financial sector.'[14]

At any rate, academics widely agree that there is no superior model, although some structures have their advantages.

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[11] ibid 69
[12] Llewellyn (n 5) 9
[13] Charles Goodhart and others, *Financial Regulation. Why, How and where now?* (Routledge 1999) 147
[14] ibid 145

3. THE CASE FOR "INTEGRATION". THE EMERGENCE OF FINANCIAL CONGLOMERATES AND THE INCREASING COMPLEXITY OF FINANCIAL INSTRUMENTS

Prior to the financial crisis, regulatory entities were generally organized on a consolidated solo-basis separate from the central bank. As detailed by Davies and Green:

> The trend, especially since the creation of the United Kingdom's Financial Services Authority, had been toward regulatory consolidation, and where regulatory responsibilities had been consolidated in a single entity that entity was typically outside the central bank, except in some smaller jurisdictions.[15]

Normally, having a single regulator in place is associated with a number of benefits: 'Transactions costs could be significantly diminished. The smaller the number of agencies the lower should be the institutional costs, since conflicts could be resolved internally.'[16] Overall, compliance could be simplified since supervised firms would just need to direct their efforts towards one single authority rather than having to distribute the task among several agencies. The removal of superfluous duplication of roles is often cited as another reason for favoring a single entity scheme.

Finally, and most importantly, a single entity could diminish the likelihood of regulatory arbitrage and contradictory norms. Otherwise, it is argued, 'a multiple agency might create opportunities for "regulatory arbitrage" and "inconsistent regulation" between different institutions conducting the same type of businesses.'[17] A report by the Group of Thirty (2009) recommended that 'countries should reevaluate their regulatory structures with a view to eliminating

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[15] Howard Davies and David Green, *Banking on the Future: The Fall and Rise of Central Banking* (Princeton University Press 2010) 70

[16] Llewellyn (n 5) 12

[17] ibid 13

unnecessary overlaps, gaps in coverage and complexity, removing the potential for regulatory arbitrage and improving regulatory coordination.'[18]

The need for coordination among supervisors is crucial when supporting the single-entity model. Lack of information was repeatedly cited as one of the causes of the recent crisis. As reported by de Larosière, 'information flow among supervisors was far from being optimal, especially in the build-up phase of the crisis. This has led to an erosion of mutual confidence among supervisors.'[19]

Brummer provides a specific example of multiple-agency complexity:

> [S]uch divisions have important implications for managing coordination. When, for example, the United States and the United Kingdom sought during the crisis to regulate derivatives, the British financial authority, the Financial Services Authority, had to meet not only with the SEC, the agency responsible for disclosure tied to many derivatives products, but also with the Commodities Futures Trading Commission (CFTC), the US agency primarily responsible for derivatives trading, and even the Financial Industry Regulatory Authority (FINRA), an SRO for US securities dealers.[20]

On the contrary, a single regulator may shorten distances between regulatory authorities and might find itself in a position where coordination can be more easily accomplished.

A number of countries have adopted models whereby separated agencies were responsible for banking, insurance, and securities, respectively. Naturally, the rationale behind this theory was that specialist regulators could cope with each single sector more effectively. However, Taylor (1996) argues that 'a regulatory system which presupposes a clear separation between banking, securities and

[18] Erlend Nier, *Financial Stability Frameworks and the Role of Central Banks*: *Lessons from the Crisis* (International Monetary Fund Working Paper 2009) 23
[19] de Larosière (n 7) 41
[20] Brummer (n 1) 28

insurance is no longer the best way to regulate a financial system in which these distinctions are increasingly irrelevant.'[21]
Today, the boundaries between banking, insurance and securities are excessively blurred: nowadays, risks are all over the markets. To make things even more intricate, the rapid proliferation of financial conglomerates has also added challenges to the regulatory architecture.

As de Larosière observes, 'the emergence over the last few years of financial conglomerates who are very large in size and active in many different business segments (including in proprietary trading) throughout the world represents a particular supervisory challenge.'[22]

In this particular case, an integrated scheme, which is well suited to the supervision of financial conglomerates, is highly beneficial. Llewellyn supports this argument on the grounds that:

> An integrated agency enables a group-wide picture of the risks of an institution to be more clearly observed and supervised. As a result, a more rapid response to emerging group-wide problem should be possible. A single, integrated supervisor might be able to monitor the full range of institutions' business more effectively and be better able to detect potential solvency risks emanating from different parts of the business.[23]

The European Union has considered regulatory reforms aimed at financial conglomerates, mainly reflected in a consolidated supervision of banking and insurance groups. In addition, there is a supplementary calculation under the Financial Conglomerates Directive (FCD) where banking and insurance parts are both substantial. To reinforce this strategy, colleges of supervisors were established with the CEBS/CEIOPS (now the European Banking Authority (EBA)/European Insurance and Occupational Pensions Authority (EIOPA)) issuing

[21] Llewellyn (n 5) 19
[22] de Larosière (n 7) 62
[23] Llewellyn (n 5) 18

a number of consultative papers on cooperation among supervisors, including where the consolidating supervisor can take decisions.[24]

Cihak and Podpiera (IMF) reported a number of advantages emanating from integrated regulators. The method used in their assessment of regulators' ability regarded international regulatory standards (as analysed by the IMF and the World Bank in their Financial Sector Assessment Programs, FSAP). The authors concluded that 'integrated supervision may be associated with substantial benefits, particularly in terms of increased supervisory consistency and quality.'[25]

There is no superior model to prevent a crisis from arising. However, a single entity responsible for regulating and supervising financial markets seems to be the most comprehensive system for attaining greater levels of efficiency.

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[24] Roel Theissen (*LL484 Regulation of Financial Markets Slides,* London School of Economics 2012)
[25] Davies and Green (n 15) 74

4. THE ROLE OF CENTRAL BANKS IN PRESERVING FINANCIAL STABILITY. THE POSITIONS OF PARAGUAY, THE UNITED KINGDOM AND THE UNITED STATES REGARDING FINANCIAL STABILITY

As Cranston points out, 'financial stability is one of the main objectives of central banks, for without a sound financial system the bank's monetary policy, such as price stability, will not be effective. Aspects of financial stability include efficient system for payment and settlement, efficient and reliable financial markets, and sound financial intermediaries.'[26]

What is odd, however, is that academics and regulators do not agree on the concept of financial stability. After examining the Bank of England´s role in 2004, Charles Goodhart confirmed that '[t]here is currently no good way to define, nor certainly to give a quantitative measurement of, financial stability.'[27] As reported by Allen and Wood, the term was used by the Bank of England for the first time in 1994 to 'denote those of its objectives which were not to do with price stability or with the efficient functioning of the financial system.'[28]

A survey conducted by Haan and Oosterloo reported that only a small number of central banks have a clear duty to pursue financial stability. The authors found out that 'only in Portugal was financial stability incorporated in statute, though a number of countries have recently been given new mandates in the area.'[29]

In his report, de Larosière emphasized that 'in order for central banks to fully play their role in preserving financial stability, they should receive an explicit formal mandate to assess high-level macro-financial risks to the system and to issue warnings where required.'[30]

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[26] Ross Cranston, *Principles of Banking Law* (2nd edition Oxford 2002), 120
[27] Davies and Green (n 15) 54
[28] ibid
[29] ibid 59
[30] de Larosière (n 7) 44

Therefore, it is convenient to have a legal framework where central banks are given explicit powers to cope with financial stability. After all, a vast majority of central banks contribute to financial stability 'through their influence on banking regulation relating to liquidity and capital. G10 central banks have always been members of the Basel Committee on Banking Supervision, whether or not they have direct responsibility for institutional supervision in their own country.'[31]

Several attempts have been made to determine what financial stability amounts to. A rather interesting definition is that suggested by Padoa-Schioppa, who signalled that the term could be deemed as *'…a "land in between" monetary policy and prudential supervision…'*[32] This definition certainly emerges as a first reminder of the interactions between monetary and financial stability, and the need for central banks to have some supervisory powers at their disposal.

In that sense, the definition proposed by Michael Foot is also useful. In his opinion, four conditions are required for a financial system to be considered stable: '(a) monetary stability; (b) employment levels close to the economy's natural rate; (c) confidence in the operation of the generality of key financial institutions and markets in the economy; and (d) where there are no relative price movements of either real or financial assets within the economy that will undermine (a) or (b).'[33]

Davies and Green accentuate the relevance of Foot's definition in a sense that it 'has the additional virtue of bridging the worlds of monetary and financial stability'[34]

Typically, the conduct of monetary policy is one of the key roles of any central bank. Thus, monetary and financial stability cannot be entirely separated; it is therefore essential for an optimal regulatory structure to synchronize both functions.

[31] Davies and Green (n 15) 69
[32] Davies and Green (n 15) 53
[33] ibid
[34] ibid 57

Monetary policies exert significant influence on financial markets. On the other hand, financial participants rely on several economic events and depend on economic outcomes. For this reason, Davies and Green firmly conclude that the 'need is to integrate the core functions of the central bank so that the two forms of stability can be seen as interconnected.'[35]

In order to properly conduct both monetary and financial stability, central banks need to develop strategies whereby monetary policies can contribute to diminish the negative impact of financial imbalances. In other words, central banks need to develop suitable macro-prudential mechanisms in order to cope with economic cycles, alongside other tools such as interest rates. Nier explains that:

> As a result no doubt of the recent experience, central banks are reviewing the contribution that monetary policy can make to counter the build-up of financial imbalances, by thinking through how monetary policy can take greater account of developments in credit, leverage and asset prices.[36]

In addition, the implementation of macro-prudential tools might reduce the costs associated with monetary policies. Where this is not the case, 'monetary policy may need to take a bigger burden in countering the build-up of imbalances in financial markets, with attendant cost for the central bank's other objectives, such as price stability.'[37]

There is a significant degree of interaction between monetary and financial stability. However, both elements can also collide. As Danielsson explains, 'for instance, increasing liquidity in crisis can be inflationary.'[38] It is often claimed that central banks will be prone to loosen monetary policy during periods of financial difficulties.

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[35] ibid 88
[36] Nier (n 18) 7
[37] ibid 9
[38] Danielsson (n 6)

In cases where monetary and financial stability are not connected, narrowing the breach between these two components should be a priority. This was suggested by de Larosière: 'Overall cooperation between monetary and regulatory authorities will have to be strengthened, with a view to defining and implementing the policy-mix that can best maintain a stable and balanced macro-economic framework.'[39]
It was previously established that legislation should expressly determine what is understood by financial stability. Nonetheless, such a dynamic concept clearly requires a considerable degree of flexibility.

Therefore, it is important to define financial stability in legislation. However, regulators and lawmakers should be cautious about setting such a rigid concept. Presumably, the most adequate approach is to define financial stability in a rather general manner and give regulatory authorities the power to adapt prospective definitions to continuous developments.

Otherwise, the law becomes too restrictive and might encounter difficulties in the future, especially given the fast-moving nature of financial markets. This point was emphasized by the Financial Stability Assessment conducted in Paraguay by the IMF and the World Bank in 2010, stating that 'the legal framework should be overhauled so that laws will establish principles and general requirements, while leaving to the Central Bank of Paraguay the responsibility for establishing the specific requirements and technical details.'[40]

In Paraguay, both Law 489/95 ('*Ley Organica del Banco Central del Paraguay*') and Law 861/96 *('Ley General de Bancos, Financieras y otras Entidades de Credito'*) clearly stipulate the mandate, accountability and supervisory capacity of the Central Bank of Paraguay. They also establish that one of the core objectives of the Central Bank of Paraguay is to preserve financial stability. However, financial stability is not defined in legislation.

[39] de Larosière (n 7) 15
[40] 2011 International Monetary Fund IMF Country Report No. 11/198 Paraguay: Financial System Stability Assessment—Update (July 2011)

In the United Kingdom, the authorities issued a consultation paper after the collapse of Northern Rock, which concluded that the role of the Bank of England regarding financial stability needed to be enhanced by giving it statutory responsibilities. The Banking Act 2009 emerged as the main legal response to the crisis. However, Campbell and Lastra criticized this Act on the grounds that 'the important notion of "financial stability" was not defined even though it is the key objective.'[41]

In June 2011, the UK's Treasury launched a White Paper, 'A new approach to financial regulation: the blueprint for reform', which identified that one of the main weaknesses before the financial crisis was 'the lack of a single, focused body with responsibility for protecting the stability of the financial system as a whole.'[42]

To consolidate financial stability in the United Kingdom, the proposed solution was to employ a new regulatory body within the Bank of England: the Financial Policy Committee, with 'the expertise to monitor the financial system and identify risks to its stability; the authority to make recommendations and offer advice to institutions responsible for day-to-day oversight and policy; and the power to intervene to ensure appropriate action is taken where needed to ensure stability.'[43] In addition to the Financial Policy Committee, the Bank of England retained some roles within the financial stability framework, including holding 'responsibility for dealing with crisis situations, building on its responsibility for operating the special resolution regime for banks.'[44]

The Prudential Regulatory Authority was also established 'as a subsidiary of the Bank in order to conduct prudential regulation of firms which manage significant balance sheet risk as a core part of their business – banks, insurers and the larger,

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[41] Andrew Campbell and Rosa Lastra, *Revisiting the Lender of Last Resort- The Role of the Bank of England* in Iain MacNeil and Justin O'Brien (eds), *The Future of Financial Regulation* (Hart Publishing 2010) 162

[42] United Kingdom HM Treasury, *A new approach to financial regulation: A blueprint for reform* (2011) 1.25

[43] HM Treasury Blueprint (n 43) 1.24

[44] ibid 1.30

more complex investment firms.'[45] The fact that the Prudential Regulation Authority is located within the Bank of England evidences the importance of its role for the purpose of financial stability. As stated in the White Paper, 'its core objective will be to promote the safety and soundness of the firms it regulates.'[46]

In the United States, the Federal Reserve System 'is the central bank, responsible for supervising and regulating banking institutions to ensure the safety and soundness of the nation's banking and financial system and to protect the credit rights of consumers; maintaining the stability of the financial system and containing systemic risk that may arise in financial markets.'[47]

[45] ibid 1.31

[46] ibid 1.32

[47] The Federal Reserve System: Purposes and Functions <http://www.federalreserve.gov/>

5. THE CENTRAL BANK SHOULD BECOME AN ESSENTIAL PART WITHIN THE REGULATORY ARCHITECTURE

Central banks have always been concerned with the development and soundness of financial systems given its extraordinary influence over the economic structure.

The central banks' high degree of involvement contributed to achieve systems where some central banks turned into direct supervisors. Davies and Green present an historical background: 'In some cases, as with the Bank of England that evolved into direct oversight of their balance sheets, carried out through the Discount Office, in which other banks discounted their bills.'[48]

Llewellyn adds that 'in the vast majority of countries, the central bank has historically been responsible for both systemic stability and the prudential regulation and supervision of banks. In a very small minority, it has also been responsible for the supervision of non-bank financial institutions.'[49]

One of the lessons taught by the crisis was that central banks' roles, especially their capacity to provide liquidity, play an essential part in any major financial crisis. Campbell and Lastra clarify that:

> Central banks provide liquidity, not capital. Though the crisis moved beyond the liquidity squeeze phase some time ago, and concerns about liquidity have mutated into concerns about solvency, the provision of central bank liquidity remains a key instrument to confront the crisis.[50]

If central banks are to become providers of liquidity during financial collapses, then it makes sense to give them access to information about solvency and liquidity of banks at all times. 'Surely, the argument runs, for the financial stability responsibility of a central bank to carry any weight, the bank must itself be the

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[48] Davies and Green (n 15) 69
[49] Llewellyn (n 5) 28
[50] Campbell and Lastra (n 42) 162

supervisor of the banking sector, which allows it both to acquire superior insights into the system´s vulnerabilities and to act directly on concerns it might have about, for example, the amount of capital in the system.'[51]

In an IMF consultation paper, Nier claims that the role of central banks should be expanded, which 'may come to increase the effectiveness of financial regulation.'[52] Llewellyn also supports this argument. He casts doubt over the real capability of central banks to effectively perform its responsibilities regarding payment systems, liquidity assistance to markets and systemic stability without prudential supervisory powers.[53]

Danielsson claims that 'in order to preserve "systemic stability" central banks should maintain some regulatory and supervisory functions in order to limit moral hazard incentives.'[54]

Given that in a vast majority of countries central banks are responsible for preserving systemic and financial stability, then it is almost paradoxical to conceive the notion of an absolute powerless central bank in terms of regulatory and supervisory functions. The common perception is that, when a financial crisis arrives, central banks will act as some sort of 'fire brigade' to restore confidence. Therefore, it is reasonable to assert that central banks should also monitor and regulate financial markets during quiet times and not only when the crisis has already begun. In the words of Campbell and Lastra, 'central banks and public authorities can claim that if they are to assist an institution on a "rainy day" they should regulate that institution on a "sunny day".'[55]

Empirical evidence has demonstrated that central banks cannot merely rely on monetary policies and ignore supervision. In this sense, Davies and Green warn that 'a central bank that begins to behave like a monetary policy institute, as the Bank of England had arguably begun to do, risks finding itself dangerously behind

[51] Davies and Green (n 15) 86
[52] Nier (n 18) 4
[53] Llewellyn (n 5) 35
[54] Danielsson (n 6)
[55] Campbell and Lastra (n 42) 178

the game when a crisis strikes.'[56] Danielsson provides a similar view by indicating that 'when central banks neglect financial stability, as was common before the crisis, they can be woefully ill–prepared when a financial crisis happens.'[57]

As stated in the Turner Review, 'the Bank of England tended to focus on monetary policy analysis as required by the inflation target, and while it did some excellent analytical work in preparation for the Financial Stability Review, that analysis did not result in policy responses (using either monetary or regulatory levers) designed to offset the risks identified.'[58]

The de Larosière Report also emphasised on the privileged position of central banks from the point of view that 'the role of central banks which are by essence well placed to observe the first signs of vulnerability of a bank is of crucial importance.'[59]

These opinions lean towards an expanded role for central banks, mainly in terms of supervisory and regulatory powers. A more expanded role may 'enhance the overall effectiveness of financial regulation, allowing synergies to be exploited between existing and new regulatory tools to mitigate systemic risk.'[60]

By having supervisory powers, central banks gain access to information about supervised firms more easily. This, in turn, would permit to adequately foresee market vulnerabilities. Categorically, central banks 'need first-hand knowledge of systemically important institutions, focusing on their liquidity, funding and capital adequacy. It should equip itself to obtain that knowledge'[61] As explained by Danielsson, 'supervisory information is valuable for forecasting key macroeconomic variables and thus implementing monetary policy and for the mitigation of systemic risk.'[62]

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[56] Davies and Green (n 15) 86
[57] Danielsson (n 6)
[58] The Turner Review, *A regulatory response to the global banking crisis* (The Financial Services Authority 2009) 2.6
[59] De Larosiere (n 7) 33
[60] Nier (n 18) 4
[61] Davies and Green (n 15) 87
[62] Danielsson (n 6)

Where a central bank is not given full responsibility for prudential supervision, it should be provided with 'a formal review role with respect to proposed changes in key prudential policies, especially capital and liquidity policies and margin arrangements; and a supervisory role in regard to the largest systemically-significant firms, and critical payment and clearing systems.'[63]

This opinion is in line with Llewellyn's, who believes that 'in practice, no bank regulator could, or should, ever be totally independent from the central bank. Any serious banking problems are bound to lead to calls for the central bank to use its reserve-creating powers.'[64] Therefore, in countries where supervision is not in the hands of the central bank 'a close collaboration must be ensured between supervisors and central banks.'[65]

Public confidence is one more reason why central banks should be given supervisory powers. Central banks generally enjoy great reputation and are well known for their independence. Public confidence could be enhanced if the central bank is the regulatory authority. The rationale lying behind this proposition is that a different regulatory authority may not achieve such a level of credibility.

Legitimacy plays a fundamental role in financial regulation. As Brummer indicates, 'financial regulation has always been the subject of considerable criticism from the standpoint of legitimacy, largely because of the foundation upon which authority and power stands.'[66] Moreover, the author warns that 'the absence of legitimacy can be viewed as a potential source of systemic risk in the global financial system.'[67]

The adoption of *ex ante* corrective actions constitutes another valuable feature supporting the position of central banks with supervisory powers. As Nier points out 'perceived costs are likely to be larger when the central bank becomes involved

[63] Nier (n 18) 24
[64] Llewellyn (n 5) 32
[65] de Larosière (n 7) 33
[66] Brummer (n 1) 209
[67] ibid 209

only *“ex post”* and *“de facto”* rather than in response to a formal mandate that may reduce these costs.’[68]

Unquestionably, it is far more convenient to set up a legal framework establishing clear roles and responsibilities in order for central banks to intervene when the time comes. As indicated by Campbell and Lastra, ‘the importance of a clear mandate and a set of enabling rules for the Bank with regard to financial stability, in particular with regard to its “lender of last resort” operations, contribute positively to safeguard confidence and have a positive reputational effect.’[69] The authors realise that, ‘in times of extreme uncertainty and volatility, market participants want little ambiguity from their central bank.’[70]

There are several advantages associated with the expansion of central banks’ roles. As a whole, the symbiosis between monetary policies and prudential policies could be bolstered to a significant extent. In turn, this could enhance the efficiency of the regulatory architecture.

Central banks require all the necessary tools, including the power to actively supervise the financial system. There is a visible need for connecting these two basic functions in order to allow central banks to be in and stronger position to deal with financial crises. Where this is not possible, they should be provided with a formal review role and play a part in the regulatory design.

[68] Nier (n 18) 19
[69] Campbell and Lastra (n 42) 178
[70] ibid 177

6. WEAKNESSES OF CENTRAL BANKS HOLDING SUPERVISORY POWERS

In order to achieve a more comprehensive analysis, it is also necessary to review a number of ideas against central banks acting as supervisors of financial markets.

First, it is claimed that central banks in charge of supervision may be biased and could tend to offer only a positive image of the financial system. This assumption is based on the idea that central banks would not want to show a deteriorated image of financial markets because that could be seen as a consequence of poor policies (previously adopted). Davies and Green present the following example:

> An external review of the Norwegian FSR in 2003 produced support for this argument. The reviewers noted that the government had been obliged to intervene to bailout insurance companies in Norway in 2001, yet only in 2002 did the FSR recognize that the sector had gone through a turbulent period. While the problems were being addressed, the central bank's financial stability function was silent.[71]

Brummer asserts that accountability tools are needed in order to deter regulatory authorities from concealing previous, flawed decisions. In the absence of such a set of tools 'financial authorities may find it relatively easy to hide their own policy failures.'[72]

Second, central banks may accumulate too much power if, besides their already established role in monetary policies, they are also assigned regulatory functions. This 'concentration of power' is not beneficial to financial markets.

Third, moral hazard could be increased since the public would realise that the central bank's safety net would be covering a wider range of financial institutions:

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[71] Davies and Green (n 15) 66

[72] Brummer (n 1) 185

> Including securities firms and insurance companies within the jurisdiction of a systemic regulator (e.g. the central bank) could have the effect of spreading the coverage of the safety net and thus extending the associated moral hazard. If insurance companies were prudentially regulated by the same agency that is responsible for systemic regulation, the regulator could experience pressure to act also as lender of last resort to insurance companies. The regulator might find it difficult to separate the two types of firms with respect to access to the safety net, as noted by the Lamfalussy Report (1992).[73]

Fourth, a 'conflict of interests' could arise between monetary and financial stability. This is in the belief that 'a central bank with responsibility for preventing systemic risk is more likely to loosen monetary policy on occasions of difficulty.'[74] However, empirical evidence has challenged this theory, especially Goodhart and Schoenmaker, (1995), who 'identified few cases where the concern of a central bank for the solvency of its banks has been a major factor in an excessively expansionary monetary policy.'[75]

Finally, some academics believe that the supervisory role could collide with that of lender of last resort. Davies and Green explain that these two roles should be kept separate, on the grounds that 'a lender of last resort that is responsible for ongoing supervision may be tempted to intervene in support of an institution in part to cover up the inadequacy of its own supervision.'[76]. This idea is counteracted by the fact that it would be far more convenient for central banks to conduct their role of lenders of last resort while also holding supervisory powers. As Nier points out, 'supervisory information helps gauge the systemic impact of failure as well as the impact of last resort lending on the central bank's balance sheet.'[77]

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[73] Goodhart and others (n 13) 162
[74] Llewellyn (n 5) 29
[75] ibid 29
[76] Davies and Green (n 17) 76
[77] Nier (n 18) 15

7. REGULATORY FAILURES IN THE UNITED KINGDOM AND THE UNITED STATES: REOPENING THE QUESTION ABOUT CENTRAL BANKS

The Bank´s reputation was affected after the collapse of BCCI and Barings:

> The Bank's punishment was the setting up of the Financial Services Authority and the transfer of the supervision of banks away from Threadneedle Street to Canary Wharf, the home of the new regulator. However, the Bank retained responsibility for overall financial stability while the FSA was given supervision and HM Treasury was responsible for the institutional structure.[78]

McCormick adds that, during the financial crisis,[79] 'there were a number of potential targets for criticism, including the so-called "tripartite" regulatory system as a whole (comprising the FSA, the Bank of England and the Treasury).'[80]

The collapse of Northern Rock bank left the adverse sensation that the authorities performed with hesitation, thus provoking an undesirable atmosphere of indecision and lack of confidence. The United Kingdom had not experienced a bank run since the failure of Overend, Gurney & Company in 1866. There was a strong perception that the Bank of England, the Financial Services Authority and the Treasury did not act in a coordinated manner. Basically, the public was not fully aware of which authority was 'in charge'.

The fragility of the tripartite structure was described in the Treasury Blueprint for Reform (2011):

> No single institution had responsibility, authority or powers to oversee the financial system as a whole. Before the crisis, the Bank of England had nominal responsibility for financial stability but lacked the tools to put this into effect; the Treasury, meanwhile, had

[78] Roger McCormick, *Legal Risk in the Financial Markets* (2nd ed. Oxford University Press 2010) 75
[79] Danielsson (n 6)
[80] McCormick (n 79) 75

> no clear responsibility for dealing with a crisis which put billions of pounds of public funds at risk. All responsibility for financial regulation was in the hands of a single, monolithic regulator, the Financial Services Authority, and there was clearly, in the run-up to the financial crisis, too much reliance on 'tick-box' compliance.[81]

The main consequence of the Northern Rock affair was that 'the question of central bank responsibility for supervision was reopened.'[82] Various academic opinions disapproved the regulatory attitude embraced by the UK Government when the Bank of England was stripped of its supervisory powers. According to Davies and Green, 'it was perceived that the Bank had, in the previous few years, moved too far away from financial markets.'[83]

Lastra presents a contrast between the United Kingdom's regulatory approach and that adopted in the United States:

> Comparisons between the US and the UK have been made, to the detriment of the UK, following the speedy rescue package the Federal Reserve Bank of New York arranged for Bear Stearns in March 2008, which contrasted with the lengthy, slow and rather inefficient resolution procedure for Northern Rock.[84]

The view of American regulators was that the Federal Reserve's ability to deal with financial stability was particularly robust (as opposed to that of the Bank of England) mainly due to the Federal Reserve's supervisory functions.

> Shortly after his appointment as chairman of the Federal Reserve, Ben Bernanke articulated a trenchant defence of the Fed's role, with explicit reference to the British Government's decision to separate supervision from the Bank of England. He argued that 'the Fed's

[81] HM Treasury Blueprint (n 43) 1.24
[82] Davies and Green (n 15) 78
[83] ibid 79
[84] Rosa Lastra, *Northern Rock, UK bank insolvency and cross-border bank Insolvency,* Journal of Banking Regulation. Vol. 9, 3 165–186 Palgrave Macmillan Ltd 2008) 167

> ability to deal with diverse and hard to predict threats to financial stability depends critically on the information, expertise and powers that it holds by virtue of being a bank supervisor and a central bank.'[85]

According to Ben Bernanke, 'the Fed's supervisory activities provide it with a window onto financial institutions that it does not regulate and onto developments in broader financial markets.'[86]

In the United States, the Federal Reserve 'has long argued that it is essential for a central bank to maintain a role in banking supervision, even though its own role has in fact covered only a part of the banking system.'[87] This position was reflected in a paper published by the Federal Reserve Bank of Boston in 1997, which asserts that 'confidential supervisory information on bank ratings significantly improves forecast accuracy of variables critical to the conduct of monetary policy, which supports the argument that central banks should have bank supervision responsibility.'[88]

In relation to its 'provision of liquidity' role during the crisis:

> The Federal Reserve benefited from its knowledge of liquidity management practices of key institutions, their funding positions, and their financial conditions, as well as from its ability to evaluate the collateral provided by institutions requesting funds. This information and expertise, gained in part through its supervisory role, allowed the Fed to supply the needed liquidity efficiently and without undue risk.[89]

Nonetheless, the 2007-2009 crisis also generated profound concerns about the regulatory framework in the United States. Its government was also subject to

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[85] Davies and Green (n 15) 72
[86] Davies and Green (n 15) 72
[87] ibid 71
[88] ibid (n 17) 71
[89] ibid (n 17) 72

criticism and scrutiny and was forced to take urgent measures to improve the regulatory architecture. As Brummer describes:

> The crisis showed with painful clarity that even the United States – from its unregulated credit default swaps to toxic subprime securities to the Bernie Madoff scandal – can suffer momentous lapses in regulatory oversight and accordingly generate consequences for the global economy far greater than those once imagined with emergent markets.[90]

[90] Brummer (n 1) 2

8. REGULATORY RESPONSES IN THE UNITED KINGDOM: RETURNING TO THE BANK OF ENGLAND. EMPHASIS ON FINANCIAL STABILITY AND SYSTEMIC APPROACH

In the United Kingdom, 'the Banking Act 2009 was the most important legislative response to the issues raised by the Crisis. It replaced and extended the Banking (Special Provisions) Act 2008, which was introduced as a temporary, emergency measure in the wake of the Northern Rock crisis.'[91]

After the crisis, the Turner Review had suggested that 'the new regulatory approach should be more intrusive and more systemic.'[92] The Conservative party decided to implement a radical reform by moving banks and insurance companies back under the supervision of the Bank of England and by creating a Financial Policy Committee (FPC) (within the Bank of England) in order to 'monitor and respond to systemic risks, transferring responsibility for prudential regulation to a focused new regulator, the Prudential Regulation Authority (PRA), established as a subsidiary of the Bank of England; and creating a focused new conduct of business regulator, the Financial Conduct Authority (FCA).'[93]

The Prudential Regulatory Authority was established 'as a subsidiary of the Bank to conduct prudential regulation of firms which manage significant balance sheet risk as a core part of their business – banks, insurers and the larger, more complex investment firms.'[94] As stated in a White Paper, its core objective is to 'promote the safety and soundness of the firms it regulates.'[95] On the other hand, the Financial Conduct Authority will be in charge of protecting consumers and promoting confidence in financial services and markets.

Overall, it seems that the current regulatory architecture in the UK appropriately addresses the issues of financial stability and systemic risk by setting a structure with the Bank of England as the leading authority responsible for the overall

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[91] McCormick (n 79) 86
[92] Turner (n 59) 2.7
[93] HM Treasury Blueprint (n 43) 1.14
[94] ibid 1.31
[95] ibid 1.32

stability of the system, whereas the Financial Policy Committee contributes to monitor and identify systemic events. Furthermore, the fact that the prudential regulator (PRA) is also comprised within the Bank of England's structure also contributes to attain financial stability.

9. REGULATORY RESPONSES IN THE UNITED STATES: STRENGTHENING THE ROLE OF THE FEDERAL RESERVE

As a reaction to the financial crisis, the US Treasury launched the 'Blueprint for a modernized financial regulatory structure' (March 2008). Davies and Green highlight that one of its goals would be to implement a new focus on regulation, concentrating 'on what the firm did, and the potential for it to create systemic risk, and not on its legal form.'[96]

Therefore, under the Blueprint, the Federal Reserve was due to become the 'market stability regulator', and was given 'responsibility for the consolidated supervision of all companies that owned a bank and of all large, interconnected firms, whose failure could threaten the stability of the system.'[97]

The Federal Reserve was conferred formal responsibility to preserve financial stability and mitigate systemic risk. Moreover, the institution was to be assigned a wider role in the design of payment systems, allowing it to design a suitable device to take systemically-relevant elements into account.

As stated in the US Federal Reserve's official website:

> The institution is responsible for supervising and regulating banking institutions to ensure the safety and soundness of the financial system and to protect the credit rights of consumers. Maintaining the stability of the financial system and containing systemic risk that may arise in financial markets are clearly defined within its goals.[98]

The Federal Reserve gives special emphasis to the supervisory process.

[96] Davies and Green (n 15) 84
[97] ibid 85
[98] The Federal Reserve System: Purposes and Functions (n 48)

> The supervisory process intends to evaluate the over-all safety and soundness of the banking organization. This evaluation includes an assessment of the organization's risk-management systems, financial condition, and compliance with applicable banking laws and regulations. The supervisory process entails both on-site examinations and inspections and off-site surveillance and monitoring. The Federal Reserve also has supervisory and regulatory responsibility for the international operations of member banks (that is, national and state member banks) and bank holding companies.[99]

The supervisory scope of the Federal Reserve is extended to a wide range of institutions (state-chartered banks that are members of the Federal Reserve System, and bank holding companies, companies that control banks), the foreign activities of member banks, the US activities of foreign banks, and Edge Act and agreement corporations (limited-purpose institutions that engage in foreign banking business). This supervisory power is shared with other federal agencies (in charge of some commercial banks): the Office of the Comptroller of the Currency and the Federal Deposit Insurance Corporation (responsible for national banks); and the Federal Deposit Insurance Corporation (which supervises state banks that are not members of the Federal Reserve System).[100]

In the US, the Federal Reserve adopted the position of preserving – at least to a certain extent – supervisory powers. This provides several benefits and is adequate to achieve financial stability. Although it is only partially responsible for supervision, this allows the Federal Reserve to have access to 'first-hand' knowledge related to the liquidity of individual institutions and other significant data, which in turn allows the central bank to assess market situations more clearly.

[99] ibid
[100] ibid

Moreover, the creation of the Financial Stability Oversight Council has contributed to settle the process for identifying non-bank financial firms that will get supervisory attention from the Federal Reserve.

10. THE PARTICULAR CASE OF PARAGUAY: THE REGULATORY STRUCTURE. FINANCIAL STABILITY AND SYSTEMIC RISK UNDER PARAGUAYAN BANKING LEGISLATION

The Paraguayan financial system remained erratic during the nineties with a chain of bank failures taking place from 1995 onwards. However, the banking sector has experienced a substantial boost over the last years and is currently considered a resilient and stable market.

> Paraguay's financial system suffered a long string of bank failures during the period 1995-2003 when it was one of the most volatile and unstable financial systems in Latin America. Today, the picture is completely different, with Paraguayan banks among the fastest-growing and most profitable in the region. Even during the financial crisis 2008-2009, Paraguayan banks remained profitable and saw loan expansion.[101]

The Central Bank of Paraguay is in charge of supervising banks and financial institutions. Under article 4, Law 489/95 (*'Organica del Banco Central del Paraguay'*), it is responsible for the efficacy and stability of the financial system. The Superintendency of Banks exerts control over individual banks and financial institutions (article 102, Law 896/96 '*General de Bancos, Financieras y otras Entidades de Credito'*). Furthermore, the Superintendency of Insurance Companies supervises insurance companies. Although the supervisory process is distributed between these two separate wings, inconsistencies or contradictory decisions are circumvented since both superintendencies are under the authority of the Board of Directors of the Central Bank. To a significant extent, this structure ensures a significant degree of unification in the 'decision-making' process.

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[101] Oxford Analytica 2012 "Strong growth boosts buoyant banks in Paraguay" (Monday, February 20, 2012)

In addition, an autonomous body, the INCOOP (*Instituto Nacional de Cooperativismo*) is responsible for regulating and supervising financial intermediation undertaken by cooperatives. From this perspective, it is often claimed that the Paraguayan financial system is under a 'dual supervisory scheme'. The lack of central bank oversight of cooperatives (which also receive deposits from the public) is a major concern: 'the country's many cooperatives are not under the supervision of the banking regulator (the Central Bank of Paraguay) and their rules are less stringent than those of commercial banks.'[102] This is extremely relevant from a systemic perspective, given that a failure of cooperatives could eventually trigger a systemic scenario and affect the banking sector.

Today, it is acknowledged that the regulatory framework in Paraguay has improved substantially. The last FSAP mission (IMF/World Bank) conducted in 2010 highlighted that 'the enforcement of corrective actions has been improved by using suasion and regularization plans instead of punitive measures. Punitive measures, including fines, are available to the central bank under the central bank law.'[103] Overall, 'this progress has translated into enhanced compliance with international standards and a significant improvement of financial sector soundness, supported also by favourable macroeconomic conditions.'[104]

Regarding consolidate supervision and financial conglomerates, Paraguayan legislation (Law 861/96 '*General de Bancos, Financieras y otras Entidades de Credito'*) 'recognizes important powers to the Central Bank of Paraguay to deal with formal or *de facto* banking groups. The Superintendency of Banks has the authority to issue regulation for consolidating accounting statements for credit institutions that are deemed to operate as a unified decision-making entity.'[105]

The Paraguayan legal framework offers several mechanisms to deal with banks and financial institutions facing complications. The Central Bank of Paraguay has early corrective actions at its disposal in order to avoid larger crises from arising. A

[102] Oxford Analytica 2012 (n 102)
[103] FSAP Paraguay (n 41) 22
[104] FSAP Paraguay (n 41) 6
[105] FSAP Paraguay (n 43) 45

Resolution Regime is also in place to complement a well-equipped set of tools. The figure of the lender of last resort is expressly contemplated in Law 489/95 and a deposit insurance scheme is available (under the aegis of the Central Bank).

For a small, developing country like Paraguay, having a single entity responsible for supervision is far more convenient than in the case of large, developed countries with a complex financial market.

> Externally imposed rules and ratios should be relatively more important in developing countries, since less reliance can be placed on internal mechanisms. So, there is a greater need for the relevant authority (preferably the central bank) to monitor and to supervise the banks, and to authorise all new deposit-taking institutions.[106]

Goodhart and others add that 'depending on the size of the financial system, if there are economies of scale in regulation, then a single agency might be appropriate for a small country.'[107]

This opinion supports the argument that, in the case of Paraguay, a small, developing country with a small financial system, having the Central Bank as the single regulatory and supervisory authority is the most suitable approach. In fact, the Central Bank of Paraguay has proven to be an efficient prudential regulator, achieving positive outcomes, mainly reflected in the robust image of the current Paraguayan banking sector.

[106] Goodhart and others (n 13) 199
[107] ibid 145

11. THE NEED FOR CENTRAL BANKS TO MITIGATE SYSTEMIC RISK. THE FORMER REGULATORY SCENARIO: LACK OF MACRO-PRUDENTIAL REGULATION AND THE SIGNIFICANCE OF THE 'PARALLEL BANKING SYSTEM'

Mitigation of systemic risk is one of the main reasons to support the idea that financial markets should be subject to regulation. If an individual bank fails, the consequences could be devastating for other financial institutions and to the economy as a whole. The risk of contagion can severely undermine confidence (a crucial element in financial markets).

In the words of Cranston, 'part of the conventional wisdom in banking is that default by one institution can spread to undermine other institutions. This is systemic risk.'[108] McCormick clarifies that 'panic may not be confined to bank customers… it may also affect providers of wholesale funding, resulting in seize-up of the inter-bank market and an evaporation of liquidity.'[109]

Danielsson defines systemic risk as 'the risk that the entire financial system may collapse, as opposed to risk associated with an individual part of the system.'[110] Cranston provides a remarkable statistical background by saying that 'there is now firm empirical evidence that if systemic risk becomes a reality, and there is a banking crisis, the costs of its resolution and output loss in the economy can become 15-20 per cent of GDP.'[111]

Central banks need to impede systemic risk from becoming a major threat. Early corrective actions are pivotal to prevent this. Nier justifies the need to regulate systemic risk on the assumption that 'individual institutions may not internalize the costs of these impacts in their risk choices.'[112]

[108] Cranston (n 26) 66
[109] McCormick (n 78) 22
[110] Danielsson (n 6)
[111] Cranston (26) 66
[112] Nier (n 18) 24

Systemic risk is costly for central banks. Of course, this serves as a substantial incentive to 'reduce the frequency of systemic crises, using macro-prudential tools to reduce macro-systemic risks and micro-prudential tools to reduce the frequency and impact of crises at individual systemic institutions.'[113]

It is claimed that, once the crisis arrived, regulatory authorities were not assigned clear responsibilities to deal with systemic risk. In the United Kingdom, the 'Run on the Rock' report concluded that the Financial Services Authority 'was guilty of a "systematic failure of duty" over the Northern Rock crisis and that it should have spotted the bank's "reckless" business plan. In its own internal audit of 26 March, 2008, the FSA admits failures in its supervision of Northern Rock (mea culpa).'[114]

Turner acknowledges that 'the FSA focused too much on the supervision of individual institutions, and insufficiently on wider sectoral and system-wide risks.' He adds that 'there was inadequate focus on the analysis of systemic risk and of the sustainability of whole business models and a failure to design regulatory tools to respond to emerging systemic risks.'[115] According to de Larosière, 'regulators and supervisors focused on the micro-prudential supervision of individual financial institutions and not sufficiently on the macro-systemic risks of a contagion of correlated horizontal shocks.'[116]

Persaud explains that macro-prudential regulation is associated 'with the stability of the financial system as a whole. By contrast, micro-prudential regulation is concerned with the stability of individual entities and the protection of individuals.'[117]

Therefore, a core objective of the regulatory reform was the need for a systemic approach.

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[113] ibid 14
[114] Lastra (n 85) 174
[115] Turner (n 59) 2.1
[116] de Larosière (n 7) 29
[117] Avinash Persaud, *Macro-prudential regulation* in Iain MacNeil and Justin O'Brien (eds), *The Future of Financial Regulation* (Hart Publishing 2010) 446

> The future approach to banking regulation and supervision needs to be rooted in the fact that the risks involved in performing bank or bank-like functions are different not only from those involved in non-financial activities, but also from those which arise in performing non-bank financial activities, such as life insurance.[118]

The following question should be raised: Which institutions need to be regulated in order to guarantee effective levels of systemic-risk prevention?

To provide a suitable answer, it is appropriate to begin by referring to the so-called 'parallel banking system'.

> It is advisable to look into the activities of the 'parallel banking system' (encompassing hedge funds, investment banks, other funds, various off-balance sheet items, mortgage brokers in some jurisdictions). The Group considers that appropriate regulation must be extended, in a proportionate manner, to all firms or entities conducting financial activities which may have a systemic impact (i.e. in the form of counterparty, maturity, interest rate risks…) even if they have no direct links with the public at large.[119]

Goodhart supports the idea of implementing a systemic regulator capable of considering the 'big picture' and taking financial conglomerates into account.

> Clearly, the systemic regulator must consider the totality of the institution; therefore, the systemic regulator's approach to regulating banks that have securities and insurance business may differ from its approach to regulating banks that do not. The solo-plus approach is the most appropriate way of handling diverse

[118] Turner (n 59) 2.1
[119] de Larosière (n 7) 23

> conglomerates, with different facets of their business requiring different approaches to regulation.[120]

Alexander suggested that financial regulation in the UK will need to 'expand its focus to include not only individual financial institutions and investor and depositor protection, but also the broader financial system. This means that UK supervisors will have to manage and control systemic risk in the financial system by monitoring the aggregate levels of leverage in the financial system.'[121]

The new regulatory structure in the United Kingdom will contribute to attain a more systemic view, especially with the creation of the Financial Policy Committee focusing on systemic events and by setting a prudential regulator (PRA) as a subsidiary of the Bank of England.

In the Euro area, the same concern was raised by the de Larosière, who claimed that there was an 'urgent need to upgrade macro-prudential supervision in the EU for all financial activities.'[122] The importance of European Central Banks was also highlighted.

> Within the EU, the ECB, as the heart of the ESCB, is uniquely placed for performing this task: i.e. identifying those macro-prudential risks which all national supervisors should take account of. The ECB/ESCB therefore should be able to require from national supervisors all the information necessary for the discharge of this responsibility.[123]

MacNeil and O'Brien assert that the European Central Bank has demonstrated during the crisis that it has 'an important role to play in supplying liquidity to the

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[120] Goodhart and others (n 13) 164

[121] Kern Alexander, Banking Crisis: Regulation and Supervision in Iain MacNeil and Justin O'Brien (eds), *The Future of Financial Regulation* (Hart Publishing 2010) 437
[122] De Larosiere (n 7) 44
[123] de Larosière (n 7) 44

markets, but it is ultimately limited in its role by the fact that it is not a regulator.'[124]

Davies and Green explain that in the euro area, 'developments took a different course, though the preservation of a strong role for the central bank in supervisory policy was a common element. A European Systemic Risk Board (under the aegis of the European Central Bank) was created as proposed by Jacques de Larosiere.'[125]

Regarding the specific issue of systemic risk, McCormick adds that 'concerns about systemic risk underlie relatively recent EU directives on settlement finality and financial collateral which are specifically directed to market stability and reduction of systemic risk.'[126]

In the United States, the regulatory structure also presents a systemic approach by focusing on financial conglomerates and bank holding companies. The Federal Reserve performs the specific task of supervising bank holding companies and has the duty to 'review and assess the consolidated organization's operations, risk-management systems, and capital adequacy to ensure that the holding company and its nonbank subsidiaries do not threaten the viability of the company's depository institutions.'[127] It is often said that, by performing this role, the Federal Reserve acts as an 'Umbrella Supervisor' of the consolidated organization.

In addition, a group of senior regulators (the Financial Stability Oversight Council, FSOC) was implemented in order to recognize non-bank financial firms that will fall within the Federal Reserve´s sphere of supervision (in order for the Fed to reach private equity firms, hedge funds, mutual funds and industrial companies, etc).

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[124] Iain MacNeil and Justin O'Brien, *The Future of Financial Regulation*. (Hart Publishing, 2010) 21
[125] Davies and Green (n 13) 85
[126] McCormick (n 79) 21
[127] The Federal Reserve System: Purposes and Functions (n 48)

In the case of Paraguay, a particular issue with potential systemic relevance is that cooperatives (acting as deposit takers) are not supervised by the Central Bank and are not subject to any deposit insurance scheme. As detailed in the FSAP 2010 mission conducted in Paraguay, 'some cooperatives are larger than banks (e.g., the eleventh largest financial institution in Paraguay is a financial cooperative with about 3 per cent of total system financial assets).'[128] In line with this opinion, it was claimed that 'assets of the cooperatives amounted to 15% of GDP (as reported in 2010) and could obviously pose a systemic risk under highly adverse conditions.'[129]

[128] FSAP Paraguay (n 41) 18
[129] Oxford Analytica 2012 (n 102)

12. A SUGGESTED APPROACH TO NEUTRALIZE SYSTEMIC RISK: REGULATION SHOULD FOCUS ON ECONOMIC SUBSTANCE NOT LEGAL FORM

In the words of Persaud, 'not all financial institutions pose systemic risks. Regulation should acknowledge that some banks are systemically important and others less so.'[130] In order to cope with systemic risk, some central banks have preferred to adopt a list of companies with potential 'systemic relevance'.

Within that process, Lastra points out that the definition of what is 'systemically important' should be made at the national level in consultation with the European Central Bank (ECB).'[131] This is consistent with the Financial Stability Board's opinion, organization that, along with the Basel Committee secretariat, the Bank for International Settlements and the IMF, has analysed the best way to define 'systemically important', concluding that such a determination 'would depend on a nation's particular macroeconomic situation, an institution's size, interconnectedness, and client base, and the application of the definition (regulatory prudential oversight or crisis management).'[132]

Identifying and listing 'systemically-important' institutions could be, in principle, a reliable technique. However, it might disregard the fact that there are other institutions that could potentially generate a systemic crisis. Recent examples have shown that 'small bank' failures can be just as frightening. Davies and Green signal that, when applied to a firm, 'the term systemic is a contingent not an absolute qualifier.'[133] The same authors underline that 'we now have it on the authority of the U.S. Treasury that a system based on the legal form a firm takes has many drawbacks, and the earlier defenses of the U.S. system by successive Fed chairmen have been abandoned.'[134] Turner provides a similar view by asserting that 'the "essential" principle which needs therefore to be agreed and implemented

[130] Persaud (n 118) 452
[131] Lastra (n 85) 170
[132] Ernest Patrikis, *Higher Minimum Capital Standards: Basel Committee On Banking Supervision Crowns Common Equity King* (Bureau of National Affair's Banking Report 2010) 8
[133] Davies and Green (n 15) 58
[134] ibid 86

internationally is that regulation should focus on economic substance not legal form.'[135]

Brummer explains that the strategies vary depending on each single regulator.

> Although considerable work has aimed at identifying SIFIs that are themselves often 'too big to fail', regulators have had difficulty in agreeing on 'ex ante' criteria for judging either how big financial institutions should be allowed to become or what kinds of activities any given institution should be permitted to participate in. As a result, each national regulator has its own approach, which can differ widely from that of other countries. Under the 'Volcker rule' promulgated under Dodd-Frank, the US Congress instructed regulators to ban deposit-taking institutions from trading securities on their own account and from investing more than 3 per cent of their Tier 1 capital in hedge funds and private equity firms.[136]

Various strategies have been developed to classify 'systemically-relevant' firms. The 'too big to fail' approach is perhaps the most important. However, several other aspects need to be taken into account when categorising institutions that could pose systemic risk.

Davies and Green allude to the theory developed by Allen and Wood, whereby 'a distinguishing feature of episodes of financial instability is that innocent bystanders get hurt.'[137] According to Davies, 'the rescues of Northern Rock in 2007 and Bearn Stearns in 2008, neither of which would necessarily have been regarded before the crisis as systemically significant institutions, can only be justified by reference to such a test.'[138] Lastra shows sympathy with this

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[135] Turner (n 59) 2.3
[136] Brummer (n 1) 250
[137] Davies and Green (n 15) 58
[138] ibid 58

interpretation, asserting that, in the case of Northern Rock, 'the test applied was that of "too inter-connected" rather than "too big to fail".'[139]
Persaud points out that, 'today, interconnectivity also includes institutions that behave in a highly correlated manner even if individually they appear small relative to the size of the financial system.'[140]

The most comprehensive approach when categorising 'systemically-relevant' institutions is probably to concentrate on economic substance on the grounds that firms that in theory might not be deemed as 'too big to fail' could eventually generate systemic risk. Therefore, regulators should avoid putting too much emphasis on the legal form.

The 'too interconnected' is another valuable test when assessing the likelihood of an event with systemic proportions. In this sense, Lastra suggests that 'extended LLR facilities have to be made available in light of the higher levels of inter-connection and dependence created by the disintegration of the distinctions between traditional financial sectors and the emergence of complex groups.'[141]

[139] Lastra (n 85) 172
[140] Persaud (n 118) 452
[141] Lastra (n) 199

13. MECHANISMS CENTRAL BANKS HAVE AT THEIR DISPOSAL TO MANAGE SYSTEMIC RISKS

Cranston mentions that the techniques available to regulators when addressing systemic risk are 'as varied as ensuring that banks are prudently run, with adequate capital and liquidity, to restricting their activities and operations.'[142] In addition, once a financial crisis has begun, there are other alternatives such as deposit insurance safety nets and regulatory rescues.

The recent financial collapse highlighted the importance of these mechanisms. Most importantly, the crisis revealed the leading role central banks have as providers of liquidity, as well as the weight of early corrective actions.

> When crises occur, it is national central banks which have to provide lender-of-last-resort (LOLR) support and national governments that provide fiscal support, and that if there is a failure, bankruptcy procedures are national and it matters with which specific legal entity a creditor has their claim.[143]

Walker goes even further when he claims for the need of conferring extra capacities (systemic inspections) to the supervisory authority. Moreover, he also refers to additional tools such as private transfers and the so-called 'bridge banks':

> In addition, a complete set of tools should include the ability to conduct 'systemic inspections' and issue 'systemic directions' based on the earlier 'systemic returns' referred to. A full range of bank transfer options must be available, including private transfers, regulatory ('bridge bank') transfers and public transfers (nationalisation).[144]

[142] Cranston (n 26) 67
[143] Turner (n 59) 1.3

[144] George A. Walker, *The Global Credit Crisis and Regulatory Reform* in Iain MacNeil and Justin O'Brien (eds), *The Future of Financial Regulation*. (Hart Publishing 2010) 200

These tools are utilised in the United Kingdom, the United States and in Paraguay as follows.

- Provision of Systemic Liquidity

The role of central banks as providers of liquidity in interbank markets is well known. The financial crisis saw huge liquidity injections by central banks (AIG, Fannie Mae and Freddie Mac, Citigroup, in USA and Northern Rock, RBS, Lloyds TSB in the UK)

Campbell and Lastra distinguish two types of situations where emergency liquidity assistance is essential.

> The first is the case of a general liquidity dry up leading to a widespread and generalised questioning of the liquidity of different sorts of financial institutions. Open market operations are the classic instrument in this type of crisis. The second, the classic case of Lender of Last Resort assistance refers to collateralised loans to an illiquid banking sector.[145]

The 'lender of last resort' role inherent to central banks (originally proposed by Henry Thorton and revised by Walter Bagehot) presents several benefits. Due to its 'immediacy', this mechanism is probably the most appropriate channel to achieve a rapid solution once the deterioration of a single institution threatens the entire financial market. It has a considerable advantage over other options available to contain a crisis.

> Neither deposit insurance nor bank insolvency proceedings can achieve this. By their very nature they are lengthy and complicated processes which take into account the interests of many stakeholders and are subject to legal constraints. They are both

[145] Campbell and Lastra (n 42) 162

> necessary and valuable, but cannot provide immediate assistance to prevent a crisis worsening.[146]

Offering a last resort facility normally constitutes the first step towards an eventual involvement of central banks in the resolution of systemically-important institutions that are subject to liquidity problems. Recent events have shown that this mechanism has protected deposit-taking institutions and has also been expanded to comprise systemically-relevant companies (e.g., AIG or Bearn Stearns).

The fact that central banks act as 'lenders of last resort' serves as a reminder that central banks should play a part in the supervision of financial markets. After all, central banks will always be involved in any serious financial scenario, given the nature of its role as liquidity providers.

Moreover, if central banks possess supervisory powers, they might be in a position to detect eventual impacts in a timely manner. This, in turn, can be a significant factor to 'form a judgment on whether or not to intervene.'[147] Nier cites important synergies between supervision and the role of lender of last resort:

> Evidence suggests that difficulties in gauging systemic impact of institutions have been observed in the cases of Bearn Stearns, Lehman and AIG; moreover, central banks might have a real interest to be in charge of regulating and supervising systemically important institutions to avoid losing reputation.[148]

Campbell and Lastra are in line with this opinion:

> The central bank will assess whether what it faces is a situation of illiquidity or insolvency and will also consider whether the failure of the institutions involved would be likely to trigger contagion

[146] ibid 165
[147] Nier (n 18) 12
[148] ibid 12

> within the marketplace, bringing with it the danger of the failure of other institutions. This is also good to avoid moral hazard which would exist should the central bank be obliged to lend in all cases.[149]

In the case of Paraguay, legislation grants explicit powers to the Central Bank in order to act as lender of last resort (article 66, Law 489/95). However, the IMF noted that the Central Bank of Paraguay's ability to act as a lender of last resort could be limited by its negative capital. The recommendation was to implement a Central Bank capitalization law in order to strengthen the capacity of the institution to act as a LOLR.[150]

In the United Kingdom, the role of lender of last resort falls under the scope of the Bank of England, whereas the Federal Reserve serves as lender of last resort in the United States.

Campbell and Lastra also mention another valuable tool known as the 'Discount Window Facility' which allows banks to swap securities for either government securities or, in some cases, cash. This facility is explicitly designed to help contain system stress by providing financing against assets that may become illiquid in stressed conditions.[151]

- Oversight of Payment and Settlement Systems

Central banks are typically involved with the supervision of payment and settlement systems. A well-designed settlement system could help to reduce counterparty risk to a significant extent. As Alexander points out, 'the regulation of the structure of the financial system – in particular clearing and settlement – is another source of systemic concern.'[152]

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[149] Campbell and Lastra (n 42) 166
[150] FSAP Paraguay (n 40) 29
[151] Campbell and Lastra (n 42) 174
[152] Alexander (n 122) 441

According to Danielsson, 'one way to mitigate the systemic risk imposed by the interconnectedness of "too big to fail" banks is to create a central counterparty. This is at the risk that the central counterparty creates potential new systemic risks. Overall, this mechanism should be capable of eliminating asymmetric information and should not be allowed to fail.'[153] Brummer adds that 'along with risk weight, the international regulatory community has acted to directly address derivatives trading and transparency, as well as their impact on trading systems. A key element of these efforts has been to increase the use of central counterparties to reduce risk.'[154]

As can be read in the United States Federal Reserve's website:

> The U.S. payments system is the largest in the world. Each day, millions of transactions, valued in the trillions of dollars, are conducted between sellers and purchasers of goods, services, or financial assets. The Federal Reserve therefore performs an important role as an intermediary in clearing and settling interbank payments. Moreover, as the U.S. central bank, the Federal Reserve is immune from liquidity problems — not having sufficient funds to complete payment transactions — and credit problems that could disrupt its clearing and settlement activities.[155]

In the United Kingdom, the 'Blueprint for Reform' (2011) recognised the intention of the government to transfer the responsibility for regulating settlement systems and recognised clearing houses to the Bank of England, alongside its existing responsibility for the regulation of recognised payment systems under Part 5 of the Banking Act 2009.[156]

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[153] Danielsson (n 6)
[154] Brummer (n 1) 238
[155] The Federal Reserve System: Purposes and Functions (n 48)
[156] HM Treasury Blueprint (n 43) 2.32

In Paraguay, the 2010 FSAP mission concluded that Paraguay had a 'rudimentary payment system'.[157]

> The payment system is still based on the use of checks for both retail and large value payments, which are cleared manually at the three existing Central Bank-sponsored clearing houses on a daily basis, and settled the following day on banks' accounts at the Central Bank of Paraguay.'[158]

The FSAP mission concluded that 'to eliminate the risks and substantial settlement costs posed by the current payment system, it is critical to seek the prompt approval of the draft Law on the Payment Systems.'[159]

Fortunately, the Paraguayan government has finally passed new legislation implementing the new payment system (Law 4595/12 *'Sistemas de Pagos y Liquidacion de Valores'*). This is highly satisfactory from the systemic point of view since the new scheme might contribute to diminish the chances of a major systemic event.

- Special Resolution Regimes

Special resolution regimes are instrumental to reduce systemic risk. It is widely agreed upon that the bankruptcy of a single institution, 'can create panic in the marketplace, strangle the provision of credit in an entire financial system and cause investors to pull hundreds of billions of dollars from an economy overnight.'[160]

Patrikis underlines the significance of resolution regimes as follows:

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[157] FSAP Paraguay (n 41) 19
[158] ibid 19
[159] ibid 21
[160] Brummer (n 1) 2

> Resolution schemes are resolved to eliminate the moral hazard risks that nations and their supervisors were forced to navigate in the face of 'too big to fail'. For that purpose, the G-20 tasked the FSB with developing a framework to reduce the probability or at the least 'the contagion risks' of a systemic institution failure.[161]

As remarked by Hadjiemmanuil, to ensure an effective resolution procedure, it is vital that 'the scope and objectives of each resolution-related procedure are precisely delineated in the law and that the relative priority of procedures and objectives is clearly understood.'[162]

In the United Kingdom, the Banking Act 2009 introduced a new Special Resolution Regime which 'includes powers for the authorities to take action in relation to "failing" financial institutions before they are formally insolvent. It consists of three "stabilisation" options, a bank insolvency procedure and a bank administration procedure.'[163]

The core objectives of the new regime are to 'protect and enhance the stability of the financial systems of the UK, to protect and enhance public confidence in the stability of the banking systems of the UK, to protect depositors, [and] to protect public funds.'[164] It is important to observe that the Banking Act 2009, apart from creating new procedures with relation to bank insolvency and bank administration, also 'gives the Treasury power to make new regulations regarding the insolvency of investment banks.'[165]

In the United States, the legal framework regarding resolution regimes can be summarized in this manner:

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[161] Ernest Patrikis, *Higher Minimum Capital Standards: Basel Committee On Banking Supervision Crowns Common Equity King* (Bureau of National Affair's Banking Report 2010) 9
[162] Christos Hadjiemmanuil, *Bank Resolution Policy and the Organization of Bank Insolvency Proceedings: Critical Dilemmas.* David G. Mayes & Aarno Liuksila (eds), *Who Pays for Bank Insolvency?* (Palgrave, 2004) 10
[163] McCormick (n 79) 87
[164] ibid 90
[165] ibid

> The special resolution is within the scope of the US Federal Deposit Insurance Corporation (FDIC) in relation to insured depositary institutions and the new orderly liquidation authority (OLA) under the Dodd-Frank Act, covering a wide range of entities, including financial companies designated by Treasury Secretary, bank holding companies, broker dealers, insurance companies, [and] financial companies supervised by Fed.[166]

In order to initiate the resolution procedure, the Dodd-Frank Act lists a number of conditions, namely: that the failure has had a serious adverse effect on financial stability; that there is no viable private sector alternative to the proceeding; and that the proceeding is appropriate with regards to adverse impact on financial stability. Most importantly, the action must be recommended by the Federal Reserve and, depending on the case, the FDIC, the SEC or the insurance regulator.[167]

In Paraguay, 'the bank resolution framework is adequate for a non-systemic crisis situation although quick valuation of assets and quick asset to deposit information remain a challenge.'[168] Under Law 2334/03 ('*Ley de Garantía de Depósitos y Resolución de Entidades Financieras*'), the Central Bank of Paraguay is conferred the exclusive right to request the bankruptcy of any individual bank or financial institution from the Paraguayan financial sector. Prior to this step (in case a member institution is financially deteriorated), this institution would be submitted to a Regularization Plan (*'Plan de Regularizacion'* as named in the Law 2334/03). If this attempt is not successful and the institution cannot overcome its difficulties, then the Central Bank declares the commencement of the Resolution Regime.

In relation to the Paraguayan legal framework concerning resolution regimes, the last FSAP mission particularly criticized the fact that 'the legal framework for systemic crisis situations has some features that can exacerbate moral hazard,

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[166] *Sea of Change. Regulatory reforms to 2012 and beyond May 2011. Bank resolution regimes comparative analysis* (Clifford Chance May 2011) <http://www.scribd.com/doc/62421543/Final-Bank-Resolution-Regimes-6011032>
[167] ibid
[168] FSAP Paraguay (n 41) 25

since the "declaration of systemic risk", included in the Paraguayan law, includes a contingency plan prepared by the CBP, but does not require the removal of the troubled banks' managers when needed.'[169]

Another fragility of Paraguayan legislation is to ignore the figure of the 'bridge bank'. Nowadays, it is commonly agreed on that bridge banks constitute an attractive alternative to provide a rather prompt solution at the initial phase of any crisis.

- Deposit Insurance Schemes

Cranston provides an interesting introduction to this mechanism by explaining that 'deposit insurance was designed to prevent instability through the mass withdrawal of funds from the banking system in the first place. If depositors were generously protected, the argument ran, they should not be a source of systemic risk because there was no reason for them to panic.'[170]

Deposit insurance schemes could achieve some balance between big and small financial institutions; in addition, they could help to mitigate the likelihood of a bank run and, most importantly, could effectively protect depositors. On the other hand, it is often claimed that deposit insurance 'has undermined the incentive of depositors to monitor excessive risk-taking by banks. Bank managers are thus free to pursue excessively risky strategies since depositors simply rely on the safety net. The economists call this "moral hazard".'[171]

In the UK, there was a substantial debate over the deposit insurance scheme that was in place before 2007. This mechanism (which is run by the Financial Services Compensation Scheme) gave a 90 per cent protection of up to £35,000. Nowadays, this amount has been raised to £85,000 with a full coverage.

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[169] ibid 25
[170] Cranston (n 26) 78
[171] ibid

In the United States, the US Federal Deposit Insurance Corporation (FDIC) is in charge of the deposit insurance scheme, with a limit of up to $250,000.

In Paraguay, the insurance deposit scheme is managed by the *'Fondo de Garantia de Depósitos'* (created by Law 2334/03 *'Ley de Garantía de Depósitos y Resolución de Entidades Financieras'*). In short, the mechanism is based on an explicit, limited, compulsory, and onerous deposit guarantee regime with public and private funding.

The Deposit Insurance System partially protects public savings in the domestic financial system. Deposits are subject to protection of up to the equivalent of seventy-five (75) monthly minimum wages. The guarantee applies to both natural and legal persons. The large size of coverage was criticized by the FSAP mission, which concluded that 'additional contingent funding for the deposit insurance fund is necessary given the large size of coverage.'[172]

- Countercyclical Capital Buffers

Alexander refers to capital adequacy requirements in the following terms: 'It is usually claimed that regulation seeks to internalise those externalities in the behaviour of such institutions. One of the main tools regulators use to do this is capital adequacy requirements.'[173]

The primary goals of these tools are to address procyclicality and permit individual institutions to store sufficient capital that could be utilized in periods of stress.

Nier signals that there is a need to 'encourage the build-up of buffers in good times so that they can be drawn upon in bad times. This not only helps reining in the growth of credit and leverage as financial imbalances build up; it also protects the core of the financial system when such imbalances unwind.'[174]

[172] FSAP Paraguay (n 41) 26
[173] Alexander (n 122) 446
[174] Nier (n 18) 8

A mixture of stringent rules and flexibility is required. In that way, a regulator could foresee the eventual fluctuations of financial markets.

> Efficient capital adequacy requirements need to provide regulators with a combination of rules and discretion, and the rules need to provide reference points or guidelines for regulators. This means that there needs to be a balance between rules and discretion. However, a rules-based capital adequacy regime needs some supervisory discretion to provide flexibility for the regulator to adopt different rules and practices when market conditions change.[175]

Such a degree of elasticity can be observed in the Paraguayan banking sector, where the regulator (the Central Bank of Paraguay) has defined the Composition of Primary and Complementary Capital (Basel Tiers 1 and 2), establishing the creation of capital buffers to strengthen individual institutions' capital in order to preserve some that could eventually be drawn up in periods of stress (Res. 1, 11 July 2011).

- Early Corrective Actions

Lastra specifies that 'as regards the official responses, when confronted with failed or failing banks, public authorities have at their disposal prompt corrective actions and other preventive measures (including supervision).'[176]

Current Paraguayan legislation offers some tools that serve as early corrective actions. Probably, the most relevant device is the so-called 'Regularization Regime' ('Régimen de Regularización'), by which the Central Bank can employ a regularization mechanism when an individual institution displays weak signals. This mechanism seeks to avoid further deterioration of the individual institution

[175] Alexander (n 122) 438
[176] Lastra (n 85) 166

and is characterized by its discretionary nature (provided that the Central Bank has a wide range of powers to activate the procedure). In all cases, 'distribution of dividends and expansion of activities are automatically suspended, but the other specific features of the regularization plan are commensurate with the gravity of the situation. Thus, the plan may involve, among other actions, limits on operations, removal of managers and board members, and the establishment of a program to sell or merge the bank with a stronger institution.'[177]

Generally, all other measures at the disposal of the Central Bank of Paraguay are considered penalties. In terms of enforcement, it is often criticized that these procedures are not very strong, given that the corrective measures are subject to appeal (the so-called '*Recurso de Reconsideracion'* in Spanish), which automatically suspends the effects of the imposed penalty (article 107, Law 489/95 *'Organica del Banco Central del Paraguay'*).

The 2010 FSAP mission noticed that this was a substantial flaw.

> Although compliance with corrective measures is mandatory, in practice there is no effective way to enforce compliance, as corrective actions are subject to appeal and their effects are suspended while the proceedings last. Basically, sanctions and fines can be suspended by appeal and the 'due process' may involve long judicial procedures. Therefore, there is a real limitation to the supervisor's ability to enforce sanctions and penalties because they are suspended while appeal process is in course.[178]

After all, it seems that the Regularization Plan emerges as the most efficient mechanism to deal with supervised institutions facing financial difficulties on the assumption that other corrective actions are likely to be suspended. The ensuing judicial discussion, taking place in Paraguayan courts, could last several years.

[177] FSAP Paraguay (n 41) 26
[178] ibid 40

- Conduct of Business Regulation (and its connection with systemic risk)

Another main objective of financial regulation is consumer protection. For the purpose of this paper, this topic is relevant because of its link with systemic risk. In some cases, complementarities may arise between these two regulatory goals. In other cases, however, both objectives could also collide. Actions adopted by the regulator to protect consumers could simultaneously trigger a systemic risk scenario.

For instance, Nier is concerned about the fact that 'measures taken to improve access to retail mortgages can increase macro-systemic risk, especially when these measures are taken in good times. Measures that are intended to protect depositors, such as requiring higher levels of bank capital, can reduce the availability of credit to the economy, especially in bad times when banks face funding constraints.'[179]

Consequently, conduct of business regulation could also possibly have 'systemic' significance. For this reason, it is important for central banks to get involved in the conduct of business regulation in order to avoid the implementation of contradictory regulatory measures that could potentially trigger systemic risk.

[179] Nier (n 18) 26

CONCLUSION

Inevitably, another financial crisis will take place in the future. Therefore, governments, regulators and policymakers should concentrate on building up a stronger and more resilient regulatory scheme.

There is no superior model to ensure a fool proof plan. However, there is evidence that an integrated approach presents several advantages. An integrated structure could reduce costs, facilitate compliance, remove unnecessary duplication of roles and, most importantly, impede regulatory arbitrage and contradictory decisions. This structure is also well suited to deal with financial conglomerates and the 'parallel banking system'.

Central banks should become essential participants within this scheme. If central banks are to be responsible for financial stability, they should retain some supervisory capacity. Monetary stability is another key point for central banks and is inextricably linked with financial stability. Central banks cannot only focus on monetary policies and disregard regulatory aspects. In doing so, a central bank might find itself far behind the scene when the crisis has already begun.

Central banks need access to essential information about supervised financial institutions in order to assess their liquidity, funding position and capital adequacy. This, in turn, will enhance the capability of central banks when implementing monetary policies and adopting measures to mitigate systemic risk.

A central bank plays a crucial part during any financial crisis. Its capacity as liquidity provider and the wide range of tools at its disposal constitute an essential means to diminish the risk of contagion. This is why central banks cannot remain separated from the supervisory structure. There are synergies between the supervisory function and its capacity to act as lender of last resort. Payment and settlement systems (usually conducted by central banks) are also essential to reduce systemic risk.

Overall, central banks will be more efficiently prepared to deal with the next crisis if they are assigned supervisory and regulatory roles. Implementing *ex ante* corrective measures is less costly for central banks than being forced to intervene once the crisis has already begun. In addition, public confidence in the financial markets could be enhanced given that central banks enjoy credibility and are well known for their independence and reputation.

Furthermore, it is important to link central banks with conduct of business regulation since measures adopted in that particular field could potentially have systemic consequences. When categorizing systemically important institutions, regulators should focus on economic substance, not legal form. The 'too big to fail' is not the only test to be applied. Smaller firms can be just as threatening. The 'too interconnected' theory has proven to be very useful too.

In the United Kingdom, the Bank of England was left outside the regulatory scheme. The 'tripartite arrangement' proved vulnerable during the crisis and the Bank of England has now recovered some supervisory powers. The new regulatory approach aims to address the previous lack of a systemic view (e.g. with the implementation of the Financial Policy Committee and the Prudential Regulatory Authority).

In the United States, the Federal Reserve has always retained supervisory powers, although this task is conducted with several other agencies. In the words of its Chairman, Ben Bernanke, the fact that the Fed had supervisory capacity was fundamental to conduct its role as provider of liquidity in a more suitable manner. The Blueprint for Reform in the United States also argued that the Federal Reserve should become a market stability regulator.

Academic opinions suggest that the best approach for a developing country with a small financial sector is to adopt a single entity structure, preferably with the central bank in charge. This is probably well reflected in the case of Paraguay, where the Central Bank has proven to be capable of supervising the financial sector, currently considered a strong and stable market.

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