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Chapter IV

FINANCIAL RE-REGULATION AND RESTRUCTURING



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FINANCIAL RE-REGULATION AND RESTRUCTURING

A. Introduction

Financial markets are supposed to mobilize resources and allow their efficient allocation for productive investment. In addition, they are expected to facilitate transactions and reduce transaction costs, as well as reduce risk by providing insurance against low probability but high-cost events. Therefore, those markets are often seen as instrumental in promoting economic growth and broad social development. However, the hard reality is that they often serve as a means of speculation and financial accumulation without directly contributing to economic development and improving living standards, and throughout history they have been fraught with crises.

The development of financial markets in modern economies dates back to the thirteenth century, when they enabled the expansion of long-distance trade, the integration of domestic markets and the rise of manufacturing. Several financial innovations contributed to this expansion of the real economy, including bills of exchange, insurance of merchant trade, public debt, joint-stock companies and stock exchanges. However, financial crises also became relatively common, Tulipmania, the South Sea Bubble and the Mississippi Bubble being early examples of the havoc that financial markets could also cause.

Financial institutions developed in different historical contexts, and in the process they acquired a variety of specific characteristics. Two main types of

financial systems can be distinguished: those based on capital markets, associated with the so-called “Anglo-Saxon” (i.e. British and American) tradition; and those based on credit, which reflected the continental European (mainly German) tradition (Zysman, 1983). In particular, continental European countries, being latecomers to the process of industrialization, relied on large banking institutions to promote initial investment and infrastructure development, from the late nineteenth century onwards (Gerschenkron, 1962).

In these latter countries, several major shareholders, usually banks, typically held a substantial share of total equity, whereas in the United Kingdom and the United States stock ownership was much more dispersed. For that reason, in the credit-based model there was a more stable relationship between banks and firms, compared with the Anglo-Saxon model, where firms relied more on internal sources of funds and on the stock market. In addition, the capital-market-based model was more prone to hostile takeovers and leveraged buyouts.

After the Great Crash of 1929 and the subsequent Great Depression, commercial banking was separated from investment banking mainly in the United States. At the same time, lender-of-last-resort functions were institutionalized, together with deposit insurance, which aimed at preventing bank runs. Moreover, in view of the destabilizing effects of speculation in

financial markets, particularly in foreign exchange markets, capital controls were introduced in the Bretton Woods Agreement of 1944.

The establishment of the World Bank, regional and national development banks contributed to diversifying the financial market and strengthening those activities that focused on enhancing investment and social welfare. In this sense, financial markets during the so-called Golden Age of Capitalism could be seen as fundamentally promoting functional and social efficiency (Tobin, 1984; *TDR 2009*). This implies that a number of important financial institutions played a key role in supporting long-term economic growth.

By the 1970s the collapse of the Bretton Woods system of fixed but adjustable exchange rates, the two oil shocks and the consequent acceleration of inflation led to what has been called the “revenge of the rentier” (Pasinetti, 1997). Financial deregulation and higher interest rates, together with growing speculation in foreign exchange markets, shifted the balance of the financial sector from activities that were socially useful, and mainly linked to the real economy, to activities that increasingly resembled those of a casino.

The increasing financialization of the world economy (strongly driven by securitization) led to the growing dominance of capital-market financial systems over bank-based financial systems – a process that strengthened the political and economic power of the rentier class. There was also an explosion of financial trading, associated with a myriad of new financial instruments aimed at short-term private profit-making. However, such trading was increasingly disconnected from the original purpose of financial markets, that of allocating resources for long-term investment (Epstein, 2005). Moreover, the financial innovations not only demolished the walls between different financial institutions, they also generated increasingly uniform financial structures around the world. In international markets, this growing hegemony of the financial sector manifested itself both in widespread currency speculation and in the increasing participation of financial investors in commodity futures markets, creating imbalances that exacerbated the potential for financial crises (UNCTAD, 2009; see also chapters V and VI of this *Report*).

A major factor that led to an increase in the number of financial crises in both developed and

developing countries was financial deregulation. Some of the most notorious crises in developed countries included the Savings and Loan Crisis, the dot-com bubble and the subprime bubble. In developing countries, notable examples of crises are the 1980s debt crisis, and the Tequila, Asian and Argentinean crises. There appears to be a consensus that deregulation was also one of the main factors behind the latest global financial and economic crisis, which began in 2007. Such deregulation was partly a response to pressure from competitive forces in the financial sector, but it was also part of a generalized trend towards the withdrawal of governments from intervention in the economy. But this ran counter to the generally accepted notion that financial markets are prone to market failures, herd behaviour and self-fulfilling prophecies.

The global financial and economic crisis has prompted a debate about re-regulation and restructuring of the financial sector so as to avoid crises in the future, or at least crises of such magnitude. To a large extent, the debate, both at national and international levels, has been about strengthening of financial regulations and improving supervision of their implementation. However, re-regulation alone will not be sufficient to prevent repeated financial crises and to cope with a highly concentrated and oversized financial sector that is dominated at the global level by a small number of gigantic institutions. In addition, it is not guaranteed that, even if the sector were to be better regulated and less prone to crisis, it would be able to drive growth and employment, particularly in low-income countries, or to make credit more easily available to small and medium-sized firms or to the population at large.

The remainder of the chapter is divided into three sections. Section B examines the malfunctioning of the financial market that led to the Great Recession. Section C analyses the issues that were left unresolved during the unfolding of the crisis, and examines the ongoing discussions on regulation of the financial sector. The final section discusses major proposals for reorganizing this sector, and emphasizes two reforms that are essential. First, public and cooperative banks need to play a more prominent role within the framework of a diversified banking sector, so that the sector caters more to the needs of the real economy in different countries around the world. Second, in order to curb the activities of the global financial casino, there needs to be a clear separation of the activities of commercial and investment banks.

B. What went wrong?

1. *Creation of risk by the financial sector*

Mainstream economic theory still suggests that liberalized financial markets can smoothly and automatically solve what it considers to be the most complex and enduring economic problem, namely the transformation of today's savings into tomorrow's investments. This assumes that, with efficient financial markets, people's savings and investment decisions pose no major problem to the economy as a whole even if those who invest face falling returns, as long as people save more (*TDR 2006*, annex 2 to chapter I). However, is the transformation of savings the only business of financial markets and do they function in the same way as the markets for goods and services? Is investment in fixed capital, intermediated by traditional banking and investment in purely financial markets, (through "investment banks", for example) a similar process? Why are the larger and more "sophisticated" financial markets more prone to failure, while investment and "sophistication" in the markets for goods and services do not pose major problems?

It is clear that investment in fixed capital is more profitable for the individual investor and beneficial to society as a whole if it increases the availability of goods and services. An innovation consisting of replacing an old machine with a new and more productive one, or replacing an old product with a new one of higher quality or with additional features is risky, because the investor cannot be sure that the new machine or the new product will meet the needs of the potential clients. If it does, the entrepreneur will gain a temporary monopoly rent until others copy the

innovation. Even if an innovation is quickly copied, this does not create a systemic problem; it may deprive the original innovator of parts of the entrepreneurial rent more quickly, but, for the economy as a whole, the rapid diffusion of an innovation is normally positive as it increases overall welfare and income. The more efficient the market is in diffusing knowledge, the higher is the increase in productivity, which could lead to a permanent rise in the standard of living, at least if the institutional setting allows for an equitable distribution of the income gains. This in turn could generate the demand that is needed to market the rising supply of products.

The accrual of rents through innovation in a financial market is of a fundamentally different character. Financial markets are mainly concerned with the effective use of informational advantages about existing assets, and not about technological advances. Temporary monopoly over certain information or correct guessing about an outcome in the market of a certain asset class provides a monopoly rent based on simple arbitrage. The more agents sense an arbitrage possibility and the quicker they are to make their transactions, the quicker the potential gain disappears. In this case, society is also better off, but in a one-off, static sense. Financial efficiency may have maximized the gains from the existing combination of factors of production and resources, but innovation in the financial sector has not shifted the productivity curve upwards; thus a new stream of income is not produced.

However, the serious flaw in financial innovation that leads to crises and to the collapse of the whole system occurs in a different way. Whenever

herds of agents on the financial markets “discover” that reasonably stable price trends in different markets (which are originally driven by events and developments in the real sector) provide an opportunity for dynamic arbitrage, which involves investing in the probability of a continuation of the existing trend, the drama begins. If many agents (investors) disposing of large amounts of (frequently borrowed) money bet on the same plausible outcomes, such as rising prices of real estate, oil, stocks or currencies, they acquire the market power to move these prices in the direction that they favour. This is the process that drives prices in financialized markets far beyond sustainable levels; indeed, it produces false prices in a systematic manner. The instrument to achieve this is the generation of rather convincing information such as rising Chinese and Indian demand for oil and food. Even if such information points in the right direction its impact on the market cannot be quantified and yet it is used to justify prices that may diverge from the “fair price” by a wide margin. If this kind of information is factored into the decisions of many market participants, and is “confirmed” by analysts, researchers, the media and politicians, betting on ever-rising prices becomes riskless for a period, and can generate profits that are completely disconnected from the real economy.

Contrary to mainstream economic views, speculation or “investment” of this kind does not have a stabilizing effect on prices in the affected markets, but quite the opposite. As the equilibrium price or the “true” price simply cannot be known in an environment characterized by uncertainty, the crucial condition for stabilizing speculation, namely knowledge of the equilibrium price, is absent. Hence the majority of the market participants can only extrapolate the actual price trend as long as convincing arguments are presented to justify those trends. As a result, everybody goes long and nobody goes short. This happens despite the fact that economies growing at single-digit rates cannot meet the expectations of herds of financial

Innovation and investment in the real economy normally increase productivity, welfare and income ...

... while in the financial sector, they frequently lead to destabilizing speculation, price distortions and misallocation of resources.

market participants. This type of behaviour ignores, at least temporarily, the lessons of the past (UNCTAD, 2009).

The bandwagon created by uniform, but wrong, expectations about long-term price trends will inevitably run into trouble, because funds have not been used for productive investment in a way that generate higher real income. Rather, what is created is the illusion of high returns and a “money-for-nothing” mentality in a zero sum game stretched over a long period of time. Sooner or later, consumers,

producers or governments and central banks will be unable to meet the exaggerated expectations of the financial markets. For instance, soaring oil and food prices will cut deeply into the budgets of consumers, appreciating currencies will drive current-account balances into unsustainable deficit, or stock prices will be disconnected from any reasonable expectations of profit. Whatever the specific reasons or shocks that trigger the turnaround, at a certain point in time more and more market participants will begin to understand that, to quote United States presidential adviser, Herbert Stein, “if something cannot go on forever, it will stop”. In this way, through herding and greed, financial markets themselves create most of the “fat-tail” risks (i.e. extreme, often severe and highly improbable events) that lead to their collapse.

That is why a reassessment of the management of financial risk has to start with the recognition that the financial system is fraught with uncertainty rather than quantifiable risk. Uncertainty is particularly high after a long period of investment, when the most important asset prices are driven far beyond their fair values by the herd behaviour of speculators or investors. The creation of risk by the financial sector is extremely costly for society at large, not only because of the bailout costs involved when crises erupt, but also because it produces price distortions and a misallocation of resources that are bigger than anything that was experienced in “normal” markets in the past (UNCTAD, 2009).

In sum, uncertainty on the asset side of a bank's balance sheet during bubbles can become so high that no capital requirement or liquidity buffer can absorb the subsequent shock. The question, then, is to what extent and under what conditions should governments step in – an issue that becomes even more serious in the case of large banks.

2. Deregulation and shadow banking

Over the past few decades, deregulation of financial markets has led to an increasing concentration of banking activities in a small number of very big institutions, as well as to the development of a largely unregulated “shadow banking system”, particularly in developed countries. At the same time, commercial banks' assets and liabilities have experienced a complete transformation. The traditional form of commercial bank lending to well-known borrowers, relying on the safety of a deposit base for their financing, gave way to the financing of these institutions by capital markets, mostly on a short-term basis, which was a much less stable source of funding. On the assets side of their balance sheets, loans were packaged in funds to be sold in the financial market to third parties, with the banks themselves retaining only a very small proportion. This was the so-called “securitization” process, leading to the “originate and distribute” system. Additionally, and particularly in the case of the largest banks, trading became almost as important as lending, with their trading books becoming a significant part of their total assets. As a result, commercial banks became closer to playing the role of broker. It was therefore no surprise that the present crisis was characterized by a “creditors' run” rather than a “depositors' run”, as the latter were largely protected by deposit insurance mechanisms.

Along with this transformation of the “regulated” system of institutions that is subject to some kinds of norms and supervised by official agencies, there emerged a large, unregulated financial system, particularly in the United States. This shadow banking system intermediated funds in ways that were

very different from the traditional banking system (McCulley, 2007). The shadow banking system involves a complex chain of intermediaries specializing in different functions, ranging from originating loans, warehousing and issuing securities – normally asset-backed securities collateralized by packages of those loans – all the way up to funding operations in wholesale markets. At each step of the chain, different entities and forms of securitization intervene. The shadow banking system experienced explosive growth in the 1980s, greatly encouraged by the weakening of regulations that had prohibited banks from intervening in securities markets, and formalized in the United States with the repeal of large sections of the Glass-Steagall Act in 1999. As a result, by early 2008, the liabilities of the shadow banking system in the United States amounted to almost \$20 trillion, while those of the traditional banking sector were less than \$11 trillion (Pozsar et al., 2010).

These changes in legislation took account of the emergence of finance companies or money market funds that placed severe competitive pressures on traditional banks. As a result, banks sought to absorb many of those specialized entities or created their own – under the umbrella of bank holding companies. The traditional banking segment began to outsource a large share of its credit intermediation functions to these associated companies. In this way, banks multiplied the use of capital while preserving their access to public liquidity and credit support, and in turn providing lender-of-last-resort (LLR) support to the rest of the group. Large holding companies with activities in many jurisdictions also became involved in geographical arbitrage, searching for the most efficient location (normally in terms of capital savings) for their different activities. Generally, the volume of activity of these groups has always been backed by too little capital.

Shadow intermediation originated in the United States, but diversified banks in Europe and Japan also got involved in several of these operations. In particular, European banks and their offshore affiliates profited from the 1996 reform of the Basel-I regime by becoming important investors in AAA-rated asset-backed securities and collateralized debt obligations

Weakening regulations resulted in the emergence of a large, deregulated and under-capitalized “shadow” banking system, intimately interlinked with the traditional one.

(CDOs) which had low capital requirements. Thus they entered a field in which they began to run into currency mismatches, funding United States dollar operations with euro resources and accessing LLR facilities only in euros. Hence, after the eruption of the latest financial and economic crisis, the United States Federal Reserve had to provide swap lines to central banks in Europe.

Another part of the shadow banking system that originated in the large investment bank holding companies is that of diversified broker dealers (DBDs). In the United States, the transformation of investment banks from partnerships into joint-stock companies was also a crucial element in the changing landscape of the financial sector. These companies have an advantage over the activities conducted by bank holding companies in that they can operate at much higher levels of leverage. As they do not own banks, their loans originate mainly from industrial loan companies and from subsidiaries of federal savings banks. Since they lack liquidity, they resort to large United States and European commercial banks that have vast deposit bases. Thus, again, the transformed banking sector has become intimately intertwined with the “shadow” one. The DBDs have been particularly important issuers of subprime and commercial mortgages. As bank holding companies, they can only seek financial assistance from the Federal Reserve and the Federal Deposit Insurance Corporation (FDIC) for their industrial loan companies and federal savings bank subsidiaries, but such support cannot be fully transferred to the rest of the group.

Another type of specialized credit intermediaries, mainly in the fields of automobile and equipment loans and other business lines, are heavily dependent on both DBDs and bank holding companies for access to bank credit and/or market access, which makes them particularly vulnerable. Finally, both bank holding companies and DBDs partly rely on private credit repositories, including insurance companies, for risk capital to enable them to qualify for triple-A ratings.

The major ultimate providers of finance for the shadow banking system are money market funds, which overtook the traditional sector in terms of the

total value of funds under their management before the crisis – \$7 trillion, compared with \$6.2 trillion worth of bank deposits (Pozsar et al., 2010). The quality and stability of different sources of funding differ between the two systems. Banks have a privileged source of funding, due to the stability of bank deposits – resulting from a well-established deposit insurance mechanism – as well as their ability to access the discount window of central banks. The shadow banking system, on the other hand, depends on wholesale funding, which is extremely unstable and renders the system very fragile, as evidenced by the crisis. This is compounded by the fact that providers of credit lines and private credit repositories are very vulnerable in times of crisis.

Indeed, the providers of wholesale funding constitute the weakest part of the system. In the same way as bank depositors, those providers expect to recover their resources at par, even though they are aware that there is hardly any capital buffer to protect them at times of asset losses. Therefore the question arises as to whether regulation will be extended to the shadow banking system and if it will allow that system to have access to LLR facilities and deposit insurance, or whether it will be banned altogether. The latter does not seem to be a realistic option. Moreover, it is likely that for each prohibition a new “shadow” entity will emerge. Therefore, what is needed is a reappraisal of the role of this financial segment and the creation of regulations based on function rather than on institutional form.

3. *The role of lender of last resort at stake*

The essence of a banking system is maturity transformation. A financial intermediary obtains its funds through short-term liabilities, such as deposits, money-market funds or commercial paper. It then invests these resources in assets of longer maturity, such as loans or different kinds of securities. Crises are associated with a shortage of liquidity (Morris and Shin, 2003). A rush for liquidity may arise from exogenous events or negative expectations in a context of asymmetric information between borrowers

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and lenders, as borrowers have more knowledge about their own situation than lenders, including the willingness and capacity to actually honour their debt. Indeed, in modern, securitized financial systems the initial provider of liquidity may be completely ignorant of the circumstances and the will of the ultimate borrower, as the chain leading from one to the other is extremely long and complex.

A shortage of liquidity is seldom limited to a single institution, which means that contagion can be widespread. On the liabilities side, this may take the form of a depositors' or a creditors' run, while on the assets side, the fall in the value of assets (due to forced sales in search of liquidity) affects the balance sheets of financial institutions or the value of the collateral that is backing those assets (e.g. real estate as collateral for mortgage lending). The system can then collapse, with extremely harmful consequences for the economy as a whole. In this context, State intervention may become the only recourse for stopping the process.

Thus an implicit accord has emerged over the past 150 years, whereby governments have played the role of lender of last resort in times of crises. And, given the recurrence of crises, governments and central banks have increasingly become involved in liquidity support, deposit insurance and, eventually, the provision of capital to prevent the collapse of individual institutions and the system at large. In return, the banks and financiers had to accept regulation of their activities. In an attempt to eliminate – or at least reduce – market failures, prudential regulation of financial activities and supervisory bodies for ensuring its application were introduced, generally at times of financial crises.

Last resort lending has been an important source of liquidity support for banks, in the United Kingdom since the nineteenth century. Deposit insurance was a response to the crisis in the 1930s, although among the industrialized countries it was initially limited only to the United States. This form of insurance for refunding depositors managed to curb, if not completely eliminate, the classical bank run. However, the development of the shadow banking system revived the risk of a depositors' (or creditors') run, since, in

principle, the entities involved had no access to this kind of insurance; moreover, they were not entitled to use the discount window of the central bank as lender of last resort.

Lender-of-last-resort actions and deposit insurance were normally subject to limits on the amount of liquidity support they could provide and other restrictions related to the solvency of the bank receiving the support. In principle, liquidity support should be granted only to solvent institutions against good-quality paper and at a “discouraging” rate of interest (Bagehot, 1873). However, those restrictions were often circumvented in times of crisis. For instance, deposit insurance, which in principle was to be limited to some modest amount, was frequently extended to cover all deposits. As a result, there was an increase in liquidity support as well as in the types of assets eligible as collateral. After some hesitation, in the United States support was extended to the shadow banking system during the global financial crisis and much riskier collateral became acceptable.

The provision of capital by the government to banks under stress has been a less common phenomenon. The United States took the lead in the 1930s with the creation of the Reconstruction

Finance Corporation. Since then, similar arrangements have been implemented in Asia, Latin America, Japan and the Scandinavian countries in response to the crises of the 1980s and 1990s, and again in a number of countries during the present crisis.

The past quarter-century has witnessed financial crises with increasing frequency in both developed and developing countries. At the same time, official support for the banking sector has become more common, increasing in amount and in the variety of instruments used. In spite of these developments, the trend of the past three decades has been to rely on the market, and consequently on deregulation. No doubt the hunger for ever rising profits and staff bonuses by banks and other financial intermediaries played a major role in such a development. However, governments also played an essential role in allowing it to happen.

Hence, regulation and LLR support have not evolved at the same pace, breaching the implicit

While government regulation has weakened, its lender-of-last-resort support to the financial system has increased, and even extends to the shadow banking system.

accord between governments and the financial system. In fact, regulatory capacity has been weakened as a result of the emergence of a “shadow regulatory system”. With a few exceptions, prudential regulations were removed from the public debate and were not subject to approval by parliamentary bodies. They were even made independent of executive powers. Supervisory agencies at the national level and informal committees of unelected officials from those same agencies at the international level led to a new

era of prudential – in fact, non-prudential – financial regulation. The framework approved by those international committees – which represented neither governments nor citizens’ elected public bodies – was also adopted by developing countries that did not participate in those committees. Therefore, governments were no longer able to rein in the trend of ever-increasing risk-taking by the financial sector. To a large extent, financial markets were allowed to self-regulate, despite evident market failures.

C. Unresolved issues in financial regulation

Leveraged financial intermediaries are by nature prone to liquidity and solvency risks. Prudential regulation has therefore largely focused on this type of banking risk, which involves individual institutions. Regulation of the banking system – for instance the capital requirements established in different Basel agreements – has tried to deal with this dimension of risk, though not always successfully. However, a second type of banking risk, which is related to the systemic dimension of banking activities, is associated with the transfer of risks from one institution to another (i.e. risk contagion). It occurs especially when very large financial institutions are involved, and a chain reaction (a “run” in banking terminology) may affect the whole system, even those institutions that had individually made provisions to avoid risk.

Another aspect of systemic risk is closely associated with developments at the macroeconomic level. This is mostly related to foreign exchange and balance-of-payments issues, as many financial crises have been triggered by currency crises, the so-called “twin crises” (Bordo et al., 2001).

There is a paradox in deciding to regulate financial markets because of market failure, and then letting the market regulate itself.

1. *Self-regulation and endogenous risk*

There has been a notable absence of a strong regulatory framework to accompany the dramatic expansion of financial activities. Instead, there has been an increasing reliance on self-regulation of financial institutions. These institutions have tended to use similar risk models that do not address the nature of systemic financial risks.

In the past few decades, extremely sophisticated models have been developed to estimate risk, based on the widely held belief that risk could be accurately measured, and that such calculations could provide a solid basis for prudential regulation. However, these risk estimation models have serious shortcomings. First, they are not designed to capture those risks that materialize very rarely – the so-called “tail risks” produced mainly by herd behaviour in the financial markets themselves – but when they do occur the consequences are catastrophic (de Grauwe, 2007). In

spite of their sophistication, the more commonly used risk models oversimplify the probability assumptions. For instance, the typical value-at-risk (VaR) models assume a normal distribution of risk events, which is symmetric with regard to potential gains and losses. This poses a serious problem, as the models do not take into account the occurrence of fat tails – the significant outlier events – which have proved to be a major problem in financial crises. Even more importantly, they do not provide an estimate of the level which the resulting losses could reach.¹

An even greater cause for concern is the acquiescence of the regulatory authorities to the use of models that are only useful for estimating small, frequent events for individual firms, for also estimating the probability of large, infrequent events. In fact, the first set of events could be subject to back-testing over some reasonable period. However, the macro application of the models to large-scale events cannot be back-tested due to lack of a sample that covers a sufficiently long period. For a normal sample period of a few decades there have not been any truly extreme events, but only small, minor crises compared with the present one. In normal times, a drop in asset prices, or even a default, could be considered an independent event that does not have systemic implications. However, in crisis situations, supposedly uncorrelated events become highly correlated (Bank of England, 2007, box 4).

From a macroeconomic perspective, the Basel regulations have introduced a procyclical bias. These regulations place an emphasis on risk-sensitive models in which risk estimates are supposed to be based as much as possible on market developments (Persaud, 2008). However, the recurrence of financial crises is proof that financial markets do not function properly. Hence, financial institutions and rating agencies are bound to wrongly estimate risks if they use models that follow the market. In this context, there is a paradox in deciding to regulate financial markets because of market failure, and then letting the market regulate itself (Buiters, 2009). In particular, the use of risk models that rely on market prices and on mark-to-market accounting rules are not reliable instruments of financial regulation (Persaud, 2008). Moreover, as these models have tended to underestimate risks, they

have led to lower bank capitalization than is necessary under the Basel framework, which bases capital requirements on risk-related weights (Danielsson, 2002; Danielsson et al., 2001).

It is essential for any prudential regulation to recognize that risk in the financial system is endogenous (i.e. it is created by the financial market itself), and that it has two dimensions: a cross-sectional and a time dimension. The first has to do with the interaction between the different financial institutions. In normal times, if the system is made up of numerous and heterogeneous institutions, their actions could approximately cancel each other out. However, experience has shown that over time different agents tend to become homogeneous and their portfolios highly

The loss of diversity of the financial system and uniformity of agents' behaviour increase the risk of a systemic crisis.

correlated. This is the result of frequent herding and the rewards that herding is able to yield in the short to medium term. Diversity has been reduced because all types of financial firms tend to move towards the same high-yield activities, so that business strategies have come to be replicated across the financial sector

(UNCTAD, 2009). The loss of diversity also makes the system more vulnerable to the second aspect of endogenous risk, which refers to the time dimension and procyclicality. Given the uniformity of the financial system, a macroeconomic shock will tend to affect all the agents at the same time in a similar way. Existing regulations, with their focus on market prices, are not curbing the tendency to assume more risk and to benefit from rising asset prices during booms, thereby accentuating the propensity for procyclicality.

In assessing financial risk and its spread across institutions, the size of the institutions is a highly relevant factor: the contribution by large institutions to systemic risk is far out of proportion to their size (BIS, 2009). The rule of thumb that has been tested repeatedly is that 20 per cent of the (largest) members of a network are responsible for 80 per cent of the spread of contagion. Therefore, regulations should be built around an “un-level playing field” contrary to Basel I and II practice. In order to make the system more resilient, higher capital and other prudential requirements should be imposed on large institutions, and indeed, Basel III appears to be moving in this direction.

2. Systemically important financial institutions

A specific issue, which is closely related to systemic risk, concerns what have come to be labelled as systemically important financial institutions (SIFIs) that have been dubbed as too big to fail.² The concentration of banking activities in a small number of very big institutions is a relatively recent development. For example, in the United States between the 1930s and 1980s, the average size of commercial banks in relation to GDP remained largely constant, and over the subsequent 20 years their size increased threefold (BIS, 2008). At the global level, by 2008, 12 banks had liabilities exceeding \$1 trillion and the ratio of liabilities to national GDP of 30 banks was larger than 50 per cent (Demirgüç-Kunt and Huizinga, 2011).

In terms of concentration, until the early 1990s the three largest banks in the United States held around 10 per cent of total assets of the commercial banking system, and between 1990 and 2007, that share had increased to 40 per cent. The share of the world's five largest banks in the assets of the world's 1,000 largest banks increased from around 8 per cent in 1998 to more than 16 per cent in 2009. Moreover, the size of the banking sector in the global economy remained almost constant since the beginning of the twentieth century until the 1970s. Thereafter, it began to increase in the 1980s. For example in the United Kingdom it increased tenfold to five times the value of the country's annual GDP (BIS, 2008).

In 2008, concentration in the banking sector was very high in most major developed countries; in Australia, Canada, France, Germany, Switzerland, the United Kingdom and the United States, between 2 and 6 institutions accounted for 65 per cent of those countries total bank assets (IMF 2010a). Moreover, "the vast majority of cross-border finance was [and still is] intermediated by a handful of the largest institutions with growing interconnections within and across borders" (IMF 2010a: 5). In order to lower costs, SIFIs switched from deposits to other funding sources, such as money market mutual funds, short-term commercial paper and repos. In the assets of

these institutions, the trading book displaced loans as the most important asset group, thereby reducing the importance of net interest income and increasing the share of trading assets in total assets.

In parallel, banks' own lines of defence against negative shocks – liquidity and capital – have fallen dramatically. Since the beginning of the twentieth century, capital ratios in the United Kingdom and the United States have fallen by a factor of five. Liquidity ratios have fallen even faster since the 1950s, to reach almost zero, while bank profitability has shot up from a stable 10 per cent return on equity per annum to a volatile level of between 20 and 30 per cent per annum (Haldane, 2010).

In the years preceding the global financial crisis, SIFIs' financial leverage (i.e. the ratio of total assets to total common equity) grew considerably. Between 2004 and 2007, this ratio went from about 27 to 33 times in Europe, and from 15 to almost 18 times in Canada and the United States. At the same time, their liquidity ratios declined, as did the share of deposits in their total resources, which increased their

Banking activities are now concentrated in a small number of very big institutions, which tend to take greater risks than smaller ones.

vulnerability. In Canada and the United States, SIFIs' liquidity, as measured by the ratio of liquid assets to non-deposit liabilities, fell from 23 per cent in 2004 to about 20 per cent in 2007, while in Europe, it plummeted from 35 to 22 per cent over the same period. Similarly, their ratio of non-deposits to total liabilities

increased from 62 to 67 per cent in Europe and from 50 to 54 per cent in Canada and the United States (IMF, 2010a, figure 1).

The problem with SIFIs is that they are "super spreaders" of crisis and of losses, as demonstrated during the recent global crisis when 18 of these large institutions accounted for half of the \$1.8 trillion in losses reported by banks and insurance companies worldwide (IMF 2010a). Furthermore, the 145 banks with assets of over \$100 billion in 2008 received 90 per cent of the total government support provided to financial institutions during the crisis starting in 2007 (Haldane, 2010). Thus, extreme concentration of the banking system implies that there are a number of institutions that pose the problem of being too big to fail, because their collapse risks bringing down the entire financial system.

Experience has shown that systemic risk is exacerbated by SIFIs, as they tend to take on risks that are far greater than those which any smaller institution would dare to take. This behaviour is based on the expectation that governments will not allow them to go under – an expectation that is also shared by credit-rating agencies. There is a significant gap (up to 4 basis points) – which has been observed to increase during crises – between ratings granted to SIFIs on a “stand-alone” basis and a “support” basis, the latter referring to potential government support. In a sample of global banks, the implicit average annual subsidy, calculated as the difference in the cost of obligations due to a better rating, reached almost \$60 billion (IMF, 2010a: 5). The annual subsidy for the 18 largest banks in the United States is estimated to be over \$34 billion (Baker and McArthur, 2009). When a crisis strikes, the sums involved can place a huge strain on government finances, particularly in countries where the size of the banking sector – and that of the large banks – in relation to GDP is very high.

Therefore, large banks survive against the logic of the market, profiting from a sizeable competitive advantage over the smaller banks. The repeated government support to these institutions in times of crisis, above and beyond what any other firm would receive, raises the question of the distribution of costs and benefits. It is a crucial issue because the public support to these financial institutions carries long-lasting consequences for public finances and for society as a whole.

3. **Volatility of capital flows and the need for capital controls**

Besides contagion, systemic risks are associated with macroeconomic shocks that affect all financial institutions simultaneously, particularly the largest ones. In the past few decades, major shocks of this kind, especially in developing and emerging market economies, have resulted from herding in currency speculation, leading to huge and volatile capital

flows. These flows have driven exchange rates away from fundamentals for many years, and thus currency markets, left to their own devices, have systematically produced wrong prices with disastrous consequences for the economies involved (*TDR 2009*).

Arbitrary changes in exchange rates may strongly affect balance sheets of financial and non-financial agents due to currency mismatches. On the other hand, fixed exchange rate regimes that misleadingly appear to eliminate all exchange rate risks, attract short-term capital flows. These inflows, in turn, tend to generate an overaccumulation of foreign-currency-denominated liabilities, financial bubbles and real exchange rate appreciation, which eventually lead to crises. Thus, a better alternative is to adopt a managed floating exchange rate regime that avoids significant swings in exchange rates and allows the targeting of a desired level of the real exchange rate (see chapter VI).

Under a managed floating exchange rate system, financial and monetary authorities should have the means to intervene in foreign exchange markets. In the absence of an international lender of last resort, and given that IMF assistance has not always been available in a timely manner, and in any case usually has undesirable conditionalities attached, countries have tried to rely on their own resources by accumulating international reserves.³

Several countries have also sought to tackle the root of the problem by setting barriers to destabilizing capital flows. For instance, until the 1980s most European economies had fairly strict capital controls, and even the United States had implemented measures to discourage capital outflows. Likewise, Switzerland granted lower interest rates on foreign-owned bank accounts in order to counter pressure for revaluation of its currency that could lead to an asset price bubble and adversely affect its export industries, including tourism.

In the 1990s, some developing countries that were integrating into the financially globalizing world introduced measures to reduce the instability of capital flows. These took the form of discouraging

In developing and emerging market economies, volatile capital flows have been a major factor contributing to systemic risk, due to their strong impact on exchange rates and macroeconomic stability.

short-term capital inflows rather than raising barriers to capital outflows. For instance, Chile and Colombia introduced taxes and froze a proportion of the inflows going into unremunerated deposits. Other countries have used more direct barriers to capital movements. For instance, Malaysia in the 1990s and Argentina after the crisis of 2001–2002 introduced measures aimed at reducing the profitability of short-term flows and extending the time frame for foreign investments.

4. Liberalization of services and prudential regulation

For macroeconomic and prudential reasons there may be circumstances in which capital controls are a legitimate component of the policy response to surges in capital inflows (Ostry et al., 2010). The IMF (2011) has proposed the development of global rules relating to macroprudential policies, capital-account liberalization and reserve adequacy. Under those rules, countries would be allowed to introduce capital controls, but only under certain conditions; for example, if capital inflows are causing the exchange rate to be overvalued, thereby affecting economic activity, and if the country already has more than enough foreign exchange reserves so it does not need to use the capital inflows to add to those reserves. Furthermore, the IMF argues that since such controls are perceived to be always distorting, they should be used only temporarily, and should not substitute for macroeconomic policy instruments such as adjusting fiscal policy and the interest rate (even though these become much more difficult to control with mobile capital flows). In any case, only controls on inflows are considered acceptable, while controls on capital outflows are still frowned upon. (IMF, 2011).

In fact the possibility of imposing capital controls was already guaranteed under Article VI, Section 3, of the IMF's Articles of Agreement: "members may exercise such controls as are necessary to regulate capital movements ...". Thus, what has been widely interpreted as a shift in the Fund's traditional opposition to capital controls, boils down to an attempt to

allow member countries to establish those controls only under certain conditions. However, if they are accepted only as an exceptional measure, to be taken as a last resort when the economy is already facing difficulties, capital controls would be of no use for macroprudential regulation – which is precisely what they are meant for.

In addition, the use of capital controls – as well as other financial reforms – may be severely circumscribed, if not banned, by bilateral or multi-lateral international agreements that countries have committed to in recent years or that are still under negotiation. The General Agreement on Trade in Services (GATS) of the World Trade Organization (WTO), many bilateral trade agreements and bilateral investment treaties (BITs) include provisions relating to payments, transfers and financial services that may severely limit not only the application of capital controls, but also other measures aimed at re-regulating or restructuring financial systems. Moreover, what could be construed as a violation of GATS obligations or specific commitments could lead to the imposition of trade sanctions. The following analysis focuses specifically on GATS,⁴ although many of the issues raised also apply to most BITs with regard to their payment and transfer clauses.

Within GATS, some provisions seem to forbid, or at least severely limit, the use of capital controls by the countries that have signed the agreement. Among its general obligations and disciplines, a specific article on payments and transfers (Article XI) establishes that, unless a serious balance-of-payments situation can be claimed, no restrictions on international transfers or payments related to a country's specific commitments are permitted. Furthermore, Article XVI (Market Access), under specific commitments, stipulates that, once a commitment of market access has been made for a specific kind of service, capital movements that are "essentially part of" or "related to" the provision of that service are to be allowed as part of the commitment.

On the other hand, other dispositions apparently authorize the use of these controls. In particular, the paragraph on domestic regulation in the Annex on Financial Services states that a member "... shall not

Capital controls are a legitimate instrument for macroprudential regulation.

be prevented from taking measures for prudential reasons". This apparent contradiction creates scope for different interpretations, leading to uncertainties regarding how the WTO will eventually apply these rules. Therefore, it will be necessary to clarify certain wording that has not been tested in dispute settlement panels. For instance, the meaning of "prudential" is not clear. From one point of view, restrictions on capital inflows and outflows are clearly macroprudential in nature, but many governments and institutions, as well as well-versed GATS scholars, have argued that only Basel-type measures could be considered "prudential", which would exclude capital controls (Wallach and Tucker, 2010). Further, this concession to national autonomy is followed by the statement that, "where such measures do not conform with the provisions of the Agreement, they shall not be used as a means of avoiding the Member's commitments or obligations under the Agreement".

Thus, if countries have already made commitments to allow certain kinds of financial activities of foreign financial institutions, they cannot impose any prudential regulations that run counter to such commitments, even when they are necessary for the stability and viability of the system.

Different interpretations may also arise concerning the possibility of applying capital controls which are explicitly allowed by the IMF's Articles of Agreement. GATS Article XI states: "Nothing in this Agreement shall affect the rights and obligations of the members of the International Monetary Fund under the Articles of Agreement of the Fund". In principle, therefore, countries could resort to Article VI, section 3 of the Fund's Articles of Agreement to impose capital controls. However, the same GATS Article XI specifies that "a member shall not impose restrictions on any capital transactions inconsistently with its specific commitments regarding such transactions, except under Article XII [i.e. under balance-of-payments difficulties] or at the request of the Fund". Hence, on the one hand, as a member of the IMF a country is free to impose capital controls; and on the other hand, under GATS it can only resort to such a measure "provided" it is not inconsistent with its commitments made under GATS, or if it faces a balance-of-payments crisis (Siegel, 2002).

Liberalization of services through GATS commitments may be an obstacle to re-regulating the financial system.

GATS may also be an obstacle for other sorts of regulations that are being proposed by several countries. For instance, the European Commission has realized that a tax on financial transactions that was greatly favoured by many of its member countries could be viewed as an indirect restriction on transfers and payments if it increases the cost of transactions, and as such would be a breach of GATS Article XI, as the EU had undertaken commitments relating to financial transactions even with third countries (Tucker, 2010). Furthermore, even the separation of commercial and investment banking,

which many see as essential for coping with financial systemic risk, could be construed as a violation of Article XVI on Market Access, which, as noted earlier, places restrictions on limitations that could be imposed on the character of institutions. The GATS market access rules prohibit government policies that limit the size or total number of

financial service suppliers in the "covered sectors" (i.e. those in which liberalization commitments have been made). Thus, if countries have already committed to certain kinds of deregulation, they cannot easily undo them, even with regard to critical issues such as bank size. Under the same rules, a country may not ban a highly risky financial service in a sector (i.e. banking, insurance or other financial services) once it has been committed under GATS rules.⁵

The situation is even more extreme for the 33 countries that in 1999 signed up to a further WTO "Understanding on Commitments in Financial Services", which states that "any conditions, limitations and qualifications to the commitments noted below shall be limited to existing non-conforming measures." These countries include almost all the OECD members, as well as a few developing countries such as Nigeria, Sri Lanka and Turkey. This Understanding established further deregulation-related commitments by specifying a "top-down" approach to financial liberalization, which means that a sector is, by default, fully covered by all of the GATS obligations and constraints unless a country specifically schedules limits to them. This effectively blocks further financial regulation of any kind. And there is no possibility of any kind of ban on specific financial products that are deemed to be too risky, such as certain derivatives, because every signatory

to the Understanding has promised to ensure that foreign financial service suppliers are permitted “to offer in its territory any new financial service.”

Summing up, the GATS multilateral framework for services (including financial services) was

negotiated at a time when most countries were convinced that financial deregulation was the best means to achieving financial development and stability. However, as a result of the crisis, many countries now favour re-regulation, but their GATS commitments may not allow this.

D. The unfinished reform agenda and policy recommendations

Proposals for financial reform have proliferated with the crisis. At the international level, in an effort to strengthen existing bodies in this field, the Basel Committee on Banking Supervision and the Financial Stability Board (FSB, formerly Financial Stability Forum) opened their membership to all G-20 countries. Following an ambitious examination of regulatory frameworks, they made some provisional proposals for change in 2009–2011.

In addition, some countries, particularly the United States, proceeded to draft new legislation on financial reform, and some changes were suggested and partially introduced in the United Kingdom and at the level of the EU. However, despite initial ambitious intentions for reform, official pronouncements have so far focused only on re-regulation aimed at strengthening some of the existing rules or incorporating some missing elements. Unlike proposals following the crisis of the 1930s, the recent proposals have paid little attention to a basic restructuring of the financial system.

This section discusses the limitations of the re-regulation efforts, and argues for a stronger re-structuring of the financial system to cope with its inherent proneness to crises. In this context, it proposes diversifying the institutional framework, giving a larger role to public, regional and community banks, and separating the activities of investment and commercial banks.

1. *Re-regulation and endogenous risk*

Financial regulations based on the Basel I and Basel II frameworks were focused on microprudential regulation. They failed to recognize the risks arising from the shadow banking system and the regulatory arbitrage pursued under that system, and completely overlooked endogenous and systemic risks. The global crisis highlighted the need for multinational and national regulatory authorities to examine these issues.

The crisis showed that the volume of transactions conducted under the shadow banking system exceeded that of the regular banking sector, that parts of this system (e.g. money market funds) were playing the same role as that of banks but without being subjected to virtually any of their regulations, and yet at the worst point of the crisis they had to be supported by central banks. Thus, in their case, the “contract” between financial intermediaries and the lender of last resort became one-sided. Proposals to fix this anomaly have varied, including bringing various parts of the shadow system into the “social contract”. Of these, the most frequently mentioned candidates are the money market mutual funds but also the asset-backed securities market financed with repos, which is involved in large and risky maturity transformation. Another priority is the need to ring fence as much as possible the commercial banking

system from what could remain of the unregulated system. For that purpose, and to improve understanding of how the “shadow” system works, there have been calls for more information about its operations (Tucker, 2010; Ricks, 2010; Adrian and Shin, 2009).

The Financial Stability Board, mandated by the G-20 summit in Seoul in November 2010, set up a task force on the shadow banking system that was supposed to present proposals by mid-2011. In the meantime, the FSB has produced a background note containing some initial proposals to cope with systemic risk and regulatory arbitrage. They fall into four categories: (i) indirect regulation via the regulated sector and its connections with the unregulated sector; (ii) direct regulation of shadow banking entities; (iii) regulation of activities, markets and instruments, rather than regulation of entities; and (iv) macroprudential measures to reduce risks of contagion (FSB, 2011).

Even though the Basel Committee remains focused mainly on microprudential regulation, it is also considering precautionary measures related to the systemic dimension of risk. For instance, it has introduced higher capital requirements for trading and derivatives as well as for complex securitizations. Additionally, some incentives are provided to use central counterparties for OTC derivatives, and the newly imposed liquidity requirements tend to curb wholesale funding. Thus, to some extent risks arising from individual exposures but with systemic consequences have been addressed (IMF 2010b; BIS, 2011). Furthermore, Basel III will incorporate the time dimension of endogenous risk – its procyclicality – through countercyclical capital buffers. However, such capital buffers may be insufficient to prevent excessive credit growth, and should be complemented by more direct regulations. Shin (2010) proposes limits on the liability side, specifically on non-deposit liabilities that have been the channel through which excessive credit growth funds itself. In addition, he suggests a leverage cap, with capital becoming a limit to excessive lending rather than a loss-absorbency tool in crisis situations.

Regarding the problem of SIFIs, international bodies have concentrated on improving regulation

and supervision (rather than on restructuring), and on considering a special resolution procedure in case of crises which would not place a burden on government resources or be disruptive to the rest of the system. A policy framework for SIFIs would impose on them a higher loss absorbency capacity, improve the financial infrastructure to reduce the risk of contagion, and subject them to more intensive supervisory oversight. Higher loss-absorbency capacity – or limits to further

expansion – could be achieved through higher capital requirements for SIFIs than for other institutions, as recently proposed by the Basel Committee. In order to improve the resilience of institutions, a range of alternatives have also been proposed by the FSB, including contingent capital instruments. Regarding improvements in infrastructure, the FSB

recommends that derivatives should be standardized, and that they should be traded on exchanges or electronic platforms and cleared through central counterparties. Additionally, with regard to the global SIFIs, there has been a proposal for the establishment of international supervisory colleges and for negotiations and international cooperation on resolution mechanisms (FSB, 2010).

At the national level, in the United States the Dodd-Frank Wall Street Reform and Consumer Protection Act points to some progress in the treatment of SIFIs. According to the Act, all institutions with assets worth more than \$50 billion are automatically considered to be SIFIs. They have to register with the Federal Reserve within 180 days, and are subject to enhanced supervision and prudential standards. The definition of an institution as a SIFI can also be decided by the Financial System Oversight Council set up by this Act. Moreover, regulators are empowered to force SIFIs to sell segments of their activities that are deemed to contribute to excessive systemic risk. In addition, mergers or takeovers that result in an institution surpassing more than 10 per cent of the total liabilities of the system will not be allowed; however, there will be no impediment to an institution exceeding that limit if it is the result of its own growth. The SIFIs are also required to produce and continuously update their own resolution regime in case a crisis erupts, and to keep regulators informed about it. The Federal Deposit Insurance Corporation (FDIC) will be responsible for any SIFI that goes

The Basel Committee is now considering precautionary measures related to the systemic dimension of risk, including procyclicality and “too-big-to-fail” problems.

bankrupt. Outside the normal bankruptcy procedures, the FDIC will have the authority to take over the institution, sell its assets, and impose losses on shareholders and unsecured creditors. Additionally, the sector as a whole will be forced to bear the costs of this procedure.

In the United Kingdom, contrary to what was widely expected, the Independent Commission on Banking – the Vickers Committee – did not recommend breaking up large institutions. Instead, its interim report advocates that institutions planning to operate in the retail banking market should establish a subsidiary with increased capital requirements: 10 per cent instead of the general rule of 7 per cent (ICB, 2011). Additionally, competition in this retail market will be imposed. This implies that Lloyds Bank, which controls 85 per cent of the retail business, will have to dispose of more than the 600 branches it was already planning to shed. Overall, the Committee’s report is oriented more towards a change in the structure of the “industry” than to enhancing regulation of the existing structure.

Indeed, the way to address the too-big-to-fail problem should go beyond the additional capital requirements or enhanced supervision recommendations coming out of international forums. For instance, the five largest United States financial institutions subject to Basel rules that either failed or were forced into government-assisted mergers had regulatory capital ratios ranging from 12.3 to 16.1 per cent immediately before they were shut down. These levels are comfortably above the required standards (Goldstein and Véron, 2011). Thus, while it is necessary to increase capital requirements and introduce liquidity standards, much more is needed.

The limitations of higher capital requirements can be overcome with four policy instruments. The first one, included in the Dodd-Frank Act, is a requirement that financial institutions produce their own wind-down plan when there is no sensible procedure for shrinking them or reducing their complexity. The second instrument – again part of the Dodd-Frank Act – would be to grant special resolution authority to avoid bankruptcy procedures that are too slow and do not take into account externalities; that authority

should be able to intervene prior to a declaration of insolvency. The third instrument would entail the imposition of stern market discipline by removing shareholders and management, paying off creditors at an estimated fair value (and not at the nominal value) and prohibiting the remaining institution from being acquired by another large one. Finally, the fourth instrument would be the introduction of size caps, which may be absolute or relative to GDP. Such caps are supported by empirical evidence that shows that beyond \$100 billion in assets there are no economies of scale (Goldstein and Véron, 2011). An additional proposal is to augment capital by issuing “bail-in” debt that would automatically convert into capital at times of crisis.

2. *Beyond re-regulation: towards a restructuring of the banking system*

The problem of negative externalities in financial markets has been evident during the latest global crisis. This has been related mainly to the actions of big banks, which generated huge costs for governments and the overall economy. The response to this problem has been almost exclusively oriented towards strengthening regulations to force banks to add more capital and liquidity and, in the case of the SIFIs, possibly adding an additional layer of requirements. However, in addition to better regulation, there needs to be a new structure of the financial sector that would not only reduce systemic risks but also improve the sector’s economic and social utility.

In addition to better regulation, the financial sector needs to be restructured in order to reduce the risk of systemic crises and to improve its economic and social utility.

One proposal for reform revolves around three aspects: modularity, robustness and incentives. Modularity would allow sections of the system to operate independently of the rest. With regard to robustness, regulation should be simple and adopt a strategy that would minimize the likelihood of the worst outcome, focusing more on the system than on behaviour inside the system. As for incentives, the presence of endogeneity poses a serious problem for regulators, which could be resolved by introducing drastic changes to the structure of financial institutions and reducing their size (Haldane, 2010).

Therefore, a possible way to restructure the banking sector would be to promote a diverse set of banking institutions, ensuring that they serve growth as well as equality. A diversity of institutions, which would cushion the system from the vagaries of the international financial markets, along with regulatory simplicity, would create a more stable banking system. Moreover, inclusive development necessitates the involvement of a variety of institutions and a different role for central banks. Central banks should not only focus on fighting inflation; they should also be able to intervene in the provision of credit, as they did in many European countries for more than a century (Gerschenkron, 1962). The present system of private banks should be restructured to establish a clear separation between those that take deposits and those engaged in investment banking, bringing many of the legitimate activities now conducted by the shadow banking system within the scope of regulation. In this framework, government-owned banks would have a more important role, not only for development purposes but also as an element of diversity and stability. Additionally, a combination of postal savings facilities and community-based banks, similar to some local savings banks in parts of Europe, could also play a larger role in the functioning of the financial sector. All this would result in a much more diverse banking system, which will be more responsive to the needs of growth and of small communities, as advocated by Minsky et al. (1993).

3. The need for a more balanced banking sector: public and cooperative banks

The ongoing financial and economic crisis, which originated in private financial institutions, has significantly undermined many of the arguments repeatedly advanced over the past few decades against publicly-owned banks. In Europe and the United States, large private banks have been subsidized based on the belief that they are too big to fail. Indeed, when the crisis struck large banks were able to survive only because they received government funding and guarantees. Whereas during the boom

period, private institutions and individuals enjoyed large profits and bonuses, during the bust, governments – or the “taxpayers” – had to bear the costs.

The criticism that only State-owned banks have the advantage of access to public resources is no longer valid. Governments generally have had full control of the operations of public banks throughout both

A more balanced and diversified banking system, which includes public and cooperative banks, will be more stable and effective in serving growth and equality.

boom and bust cycles, whereas private banks have retained their own management and control and have continued to pay themselves handsome bonuses, even when they have received large government bailouts. The allegation that State-owned banks are “loss-making machines” (Calomiris, 2011) is therefore more appropriately applicable to

large private banks. With regard to the differences in efficiency between public and private banks, the crisis revealed that even the largest private banks failed to collect and assess information on borrowers and to estimate the risks involved in lending. The latter function was transferred to rating agencies instead.

Three beneficial aspects of State-owned banks have been highlighted recently. The first one relates to their proven resilience in a context of crisis and their role in compensating for the credit crunch originating from the crisis. A second beneficial aspect of publicly owned banks is that they support activities that bring much greater social benefits than the private banks and provide wider access to financial services. Finally, they may also help promote competition in situations of oligopolistic private banking structures (Allen, 2011).

From a regulatory point of view, information asymmetries could be overcome if the authorities had complete access to information, which, at present, is often retained as confidential by private banks. In addition, it has been argued that “if private banks are making significantly higher profits than public banks, this may provide a warning signal [to regulators] that they are taking too much risk or exploiting their monopoly power” (Allen, 2011).

In spite of large-scale privatizations during the 1990s, State-owned banks continue to play an important role in the banking systems of many developing countries. In 2003, these kinds of banks accounted for

80 per cent of total assets in South Asia, more than 30 per cent in the transition economies, more than 20 per cent in Africa and slightly less than 20 per cent in Latin America. But there were large variations within each region. In Argentina and Brazil, for instance, almost a third of the banking assets were held by State-owned banks (Clarke, Cull and Shirley, 2004).

Under certain circumstances, cooperative and community development banks might also be an important component of the restructuring of the banking sector. During the global financial crisis, small savings banks, such as the Sparkassen in Germany, did not have to resort to central bank or treasury support. Moreover, these institutions may give greater attention to small businesses and other agents that do not normally have access to banking credit.

4. **Building a firewall between commercial and investment banking**

In addition to stronger public banks, a restructuring of private banks would create a more balanced banking sector. As previously discussed, the loss of diversity of the banking system has been one of the major factors behind the latest crisis. Some responsibility for this development lies with the regulatory bodies, most specifically the Basel Committee in its misguided attempt to design a “level playing field” both within and across borders.

As barriers between different institutions fell, deposit-taking banks became involved in investment banking activities, and as a consequence, they were more fragile and exposed to contagion. Since these banks play a crucial role in the payments system, their higher exposure to systemic risk had the potential to make a greater adverse impact on the entire economy. This problem could be addressed in two ways. First, deposit-taking and payment systems should be separated from investment banking operations, as was done under the Glass-Steagall Act in the United States in 1933. In other words, commercial banks should not be allowed

to gamble with other people’s money. Second, and even more ambitious, large institutions should be dismantled, to overcome the too-big-to-fail or even, as coined by Reddy (2011: 10), the “too powerful to regulate” problem.

There are many possible ways to separate deposit-taking institutions from investment banks. Some authors advocate “narrow banking” (de Grauwe, 2008), whereby financial institutions should be forced to choose between becoming a commercial bank or an investment bank. The former would be allowed to take deposits from the public and other commercial banks, and place their funds in loans that carry a longer maturity while keeping them in their balance sheets. These banks would have access to a discount window at the central bank, lender-of-last-resort facilities and deposit insurance. However, their activities would also be subject to strict regulation and supervision. On the other hand, investment banks would be required to avoid maturity mismatches, and therefore would not be able to purchase illiquid assets financed by short-term lines of credit from commercial banks.

A recent proposal that would grant commercial banks more latitude is based on the concept of “allowable activities”, along lines that also establish a separation between commercial and investment banks. Thus, deposit-taking institutions would be permitted to underwrite securities, and offer advice on mergers and acquisitions as well as on asset management. However, they would not be allowed to pursue broker-dealer activities, or undertake operations in derivatives and securities, either on their own account or on behalf of their customers. Neither would they be allowed to lend to other financial institutions or sponsor hedge funds and private equity funds (Hoenig and Morris, 2011). Separating the two activities could be an additional way to reduce the size of institutions, and would therefore address the too-big-to-fail problem. In this vein, the Governor of the Bank of England has proposed splitting banks into separate utility companies and risky ventures, based on the belief that it is “a delusion” to think that tougher regulation alone would prevent future financial crises (Sorkin, 2010). ■

In order to reduce the risk of contagion, there needs to be a clear separation between the private banks that take deposits and those engaged in investment banking.

Notes

- 1 The inability for these models to assess the risk of a financial crisis is illustrated by the fact that during 2007, events that were 25 standard deviation moves took place for several days in a row. As explained by Haldane and Alessandri (2009), assuming normal distribution of events, a much smaller deviation of 7.26 moves could be expected to happen once every 13.7 billion years, approximately the age of the universe.
- 2 See Financial Stability Board, 2010 and 2011. The expression used by the IMF (2010a) is: large and complex financial institutions (LCFIs).
- 3 In addition, some countries' central banks have established swap lines with the United States Federal Reserve and/or the Swiss National Bank in order to meet the foreign currency needs of their domestic banks arising from their own obligations or those of their customers.
- 4 However, whether the GATS rules impose restrictions on regulatory policies is not totally clear and could be open to interpretation. Article 1 subparagraph 3(b) of the Agreement excludes "services supplied in the exercise of government authority" from the definition of services, and therefore from obligations under the Agreement, including activities conducted by a central bank or monetary authority. But, as argued by Tucker (2010), not any measure conducted by these authorities would be excluded from GATS, but only those that are directly related to monetary or exchange rate management.
- 5 The relevant case law provides some indication of how these rules might be interpreted in future. A WTO tribunal has already established a precedent of this rule's strict application in its ruling on the United States Internet gambling ban – which prohibited both United States and foreign gambling companies from offering online gambling to United States consumers. The ban was found to be a "zero quota", and thus in violation of GATS market access requirements. This ruling was made even though the United States Government pleaded that Internet gambling did not exist when the original commitment was made, and therefore could not have been formally excluded from the commitment list.

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