

C RECENT REGULATORY INITIATIVES TO ADDRESS THE ROLE OF SYSTEMICALLY IMPORTANT FINANCIAL INSTITUTIONS

The financial crisis has demonstrated the critical role played by some large and complex financial institutions in undermining financial stability. Particular attention is currently being paid by policy-makers to the question as to how systemically important financial institutions (SIFIs) should be regulated and how failures, if they occur, should be resolved.

This special feature provides an overview of the ongoing initiatives at the European and international level to deal with these institutions in the broader context of measures aimed at curbing moral hazard and institutions' contributions to systemic risk.

INTRODUCTION

The financial crisis brought to the fore the need to ensure that large and complex financial institutions are subject to regulatory and supervisory requirements commensurate to the risks they pose to the financial system and the real economy. This awareness, coupled with the sense of urgency that measures need to be put in place as a matter of priority, has provided impetus for a significant amount of work at the European and international level.

The recent events in the financial markets have shown that large and complex financial institutions do not refrain from taking on excessive risks, even if the bailout policy is not announced *ex ante* (so-called “constructive ambiguity” approach). Among market participants there is a widespread perception that a troubled SIFI would inevitably receive some form of direct or indirect financial support. The underlying rationale is that the failure of a SIFI would have major repercussions on the functioning of the financial system, which would be difficult to control.

This problem is exacerbated because countries in general, including several EU Member States, do not have adequate legal frameworks for

dealing effectively with distressed large, complex and interconnected financial institutions. An effective resolution regime would restore market discipline, so that governments would be able, on the one hand, to find a resolution for failing institutions without recourse to taxpayers' funds and, on the other, to avoid potential social disruption stemming from the interruption of banking activities.

In April 2009 the leaders of the G20, with their “Declaration on strengthening the financial system”, agreed that all systemically important financial institutions, markets and instruments should be subject to an appropriate degree of regulation and oversight. The G20 entrusted the Financial Stability Board (FSB) with the task of overseeing concrete regulatory steps and monitoring the implementation of the reform agenda. In this context, the FSB has been leading and coordinating the international work aimed at reducing systemic risk,¹ moral hazard and other consequences of the “too big to fail” concept.

THE SPECIFIC ROLE PLAYED BY SIFIS IN SYSTEMIC RISK

The starting point for gauging the special risks posed by SIFIs is the notion of systemic risk.

While the definition of systemic risk is still under debate,² it is generally accepted that systemic risk is related to a situation where the failure and distress of a significant part of the financial sector may, through various channels, adversely affect the real economy, for instance, by hampering the stable provision of credit and other essential services.

¹ As part of this wide work stream, the Basel Committee on Banking Supervision is evaluating the pros and cons of surcharges for systemically important banks, as well as considering other supervisory tools as possible options. These surcharges refer to additional capital and could be applied in the context of the supervisory review.

² A joint paper by the IMF, BIS and FSB has recently provided a definition of the related concept of a “systemic event”, defined as “the disruption to the flow of financial services that is: (i) caused by an impairment of all or parts of the financial system; and (ii) has the potential to have serious negative consequences for the real economy.” See IMF, “Guidance to assess the systemic importance of financial institutions, markets and instruments”, 2009.

Furthermore, it is acknowledged that systemic risk is endogenous to the financial system as it depends on the collective behaviour and the interconnectedness of financial institutions, financial markets and market infrastructures. It also depends on the tendency of economic agents³ to engage in excessive risk-taking and indebtedness during a boom and later exhibiting extreme risk aversion during a downswing, as well as on the complex chain of interactions between the financial system and the overall economy. In broad terms, two – interdependent – dimensions⁴ or sources of systemic risk can be identified:

- (i) The time series, vertical or aggregate dimension, i.e. the collective tendency to periodically underestimate/overestimate risks. It materialises in the pro-cyclicality of the financial system in the form of credit, liquidity and asset price cycles.
- (ii) The cross-sectional, horizontal or network dimension: this focuses on the interplay between institutions, markets and infrastructures, which materialises in the form of common (correlated) exposures, arising as a result of direct exposures to similar asset classes, liabilities interlinkages and counterparty risk.

Systemic risk can thus crystallise in the form of contagion – reflecting the various interdependencies across institutions, market infrastructures and markets – as well as the unravelling of imbalances which feed back along the multiple intersections between the financial sector and the real economy.⁵

Against this background, the role of SIFIs as major contributors to systemic risk becomes clear. Indeed, SIFIs contribute directly to the creation of cross-sectional systemic risk, leading to higher interconnectedness between financial institutions, markets and market infrastructures, thereby increasing the complexity and potential fragility of the system. They also contribute to

the time series dimension. In a boom, SIFIs may play a role in the build-up of leverage and wider maturity mismatches, while at the same time fostering recourse to complex and opaque forms of financial innovation. This mechanism is reversed during a downswing, when SIFIs have a disproportionate effect on the deleveraging process. The intensity of deleveraging, liquidity hoarding and asset fire sales is proportional to the size and interconnectedness of a SIFI's balance sheet. Furthermore, the economic losses and the deterioration of confidence triggered by the distress of a SIFI are likely to generate ripple effects that dwarf those stemming from a non-systemic institution, as the Lehmann Brothers default has dramatically clarified.

SYSTEMIC IMPORTANCE OF FINANCIAL INSTITUTIONS AND MORAL HAZARD

In order to deal with the risks posed by SIFIs, the current agenda of policy-makers includes the following issues.

First, how to assess the systemic importance of a financial institution. While the issue is still being debated, the systemic importance of a

3 Not only financial players, but households and non-financial corporations as well.

4 The Special Feature B of the December 2009 FSR characterises the phenomenon of systemic risk from an academic research perspective. See also C. Borio, "Towards a macroprudential framework for financial supervision and regulation?", *BIS Working Paper*, No 128, 2003; and Bank of England, "The role of macro-prudential policy", *Bank of England Discussion Paper*, November 2009.

5 The notion of systemic risk is closely linked to the concept of externality, meaning that each financial intermediary individually manages its own risk but does not consider the impact of its actions on the risk of the system as a whole. As a consequence, the aggregate amount of risk in the financial system can prove excessive and, on account of interdependencies, larger than the sum of the risks of individual banks in isolation. At the same time, once the system has reached a certain degree of fragility, even apparently small or localised shocks – such as the crash of the relatively small US sub-prime mortgage market in the summer of 2007 – may trigger a disruptive chain of events. In this respect, another crucial aspect of systemic risk is the non-linearity associated with the build-up of vulnerabilities along the cycle.

financial institution can be gauged on the basis of a combination of several factors⁶, notably:

- (i) size, either in absolute terms or in relative terms, as reflected by a dominant position in a specific market or product;
- (ii) interconnectedness, i.e. linkages with the rest of the system, mostly via interbank lending or a special position as counterparty in key markets (e.g. over-the-counter derivatives), a critical participant in various market infrastructures and a provider of major functions related to the risk management of market infrastructures;
- (iii) substitutability, i.e. the extent to which other components of the system can provide the same services in the event of a failure.

These basic criteria may be used for assessing the systemic importance of a financial institution, in combination with the evaluation of other relevant factors, including the institution's specific risk profile (leverage, liquidity, maturity mismatches and concentration of assets/liabilities), and its organisational/legal structure. The assessment of systemic importance is a dynamic, time-varying and forward-looking process, depending, *inter alia*, on the particular conditions of financial markets, as well as on the structure of the financial sector.⁷

In the light of these considerations, it is clear that the assessment cannot be derived solely on the basis of quantitative inputs, but should rather incorporate the qualitative judgement and knowledge of the relevant authorities.

Turning to the classification of institutions, the ultimate aim should be to achieve a continuous or at least a finely granular ranking, as opposed to a simple division of firms into either systemically relevant or not. Furthermore, it appears desirable to avoid, at any given point in time, public disclosure of a list of SIFIs, as such behaviour might unduly drive market expectations and possibly create distortions

at the boundary between institutions that are systemically important and those that are not.

Second, the rationale underlying a specific regulatory/supervisory treatment of SIFIs. An ad hoc regulatory/supervisory treatment of SIFIs is justified on the basis of their higher contribution to systemic risk when compared with the rest of the financial system. However, another related rationale can be traced back to the notion of “too big or interconnected to fail” and the associated moral hazard. The general notion of moral hazard is linked to the expectation that governments and supervisory authorities would not let an ailing SIFI fail,⁸ given the serious damage to the financial system and the economy that would follow its default.⁹ In turn, this expectation of government support translates into a funding advantage¹⁰ compared with non-systemic banks. When debt-holders do not have to consider the risk of default on their investment, they will naturally tend to require a lower rate of return¹¹ on the debt issued by systemic institutions. This lack of market discipline is by itself conducive to risk-taking:

6 See the extensive discussions in IMF, “Guidance to assess the systemic importance of financial institutions, markets and instruments”, 2009; and FSA, “The Turner Review Conference Discussion Paper”, 2009.

7 In this context, it should be noted that also a group of individually non-systemic institutions could become systemic as a whole, for instance because of a similar business model and/or sizable exposures to common sources of risk.

8 Some commentators have argued that the chain of events following Lehmann Brothers' demise was a direct consequence of the uncertainty triggered by the deviation from the “too systemic to fail” doctrine, which had been further extended to brokers/dealers in the Bear Stearns episode only a few months earlier. Virtually no other large and complex institution has been allowed to fail since, neither in the United States nor in Europe, including broker/dealer Merrill Lynch and insurance company AIG. Historically, the LTCM bail-out in 1998 is the first instance of the application of this doctrine to non-commercial banks.

9 The issue is made more complex by the casual observation that, in the heat of crisis, authorities appear to consider most institutions as SIFIs. For instance, the broker/dealer Bear Stearns was not considered systemically important before the crisis.

10 Moral hazard can persist even if a bail-out is uncertain. Even a small probability of a partial bail-out will reduce the rate of return demanded by SIFIs' creditors.

11 For attempts to measure this funding advantage, see D. Baker and T. McArthur, “The value of the ‘too big to fail’ big bank subsidy”, CEPR Issue Brief, September 2009; and JP Morgan “Global banks – too big to fail? Big can also be beautiful”, 17 February 2010.

endowed with an implicit subsidy on their cost of funding, it is economically convenient for SIFIs to engage in riskier strategies, expanding their balance sheets without appropriate price penalties. This moral hazard creates a bias towards risk-taking and is further compounded by the presence of flawed managerial compensation schemes. Under prevailing practice, the objective of management deviates from maximising the long-term performance of the bank. Rather, management strategies have become skewed towards the maximisation of short-term profitability, irrespective of the potentially negative long-term consequences on the soundness of the business model.¹²

Overall, SIFIs benefit from a double distortion to fair competition. In fact, the ex post subsidy embodied in the implicit or explicit bailout guarantee translates into an ex ante funding advantage compared with non-systemic institutions. In turn, this pervasive moral hazard exacerbates the incentives towards excessive risk-taking.

POSSIBLE WAYS TO MITIGATE THE RISKS RELATED TO SIFIS

The special risks posed by SIFIs have prompted, at the European and international level, a wide range of proposals on how to best address them. From a regulatory perspective, there are two apparent objectives to be achieved. On the one hand, regulation should aim both to increase the shock-absorbing capacity of SIFIs and to lower their contribution to systemic risk, with special reference to the potential for contagion and spillover effects. On the other hand, regulation should aim to mitigate moral hazard and the related implicit or explicit bailout guarantee, with a clear focus on reducing the burden on taxpayers.

The distinction between the two objectives, however, is cloudy at best since the systemic risk relevance of SIFIs and the moral hazard problem associated with the status of “too big or interconnected to fail” complement and reinforce each other, and it is hard to disentangle

the effect of a relevant measure according to the two above-mentioned objectives. As a result, it can be argued that actions addressing one objective are instrumental in achieving the other objective as well.

REGULATORY INITIATIVES TO STRENGTHEN THE RESILIENCE OF THE BANKING SECTOR

When considering specific measures to curb the risks associated with SIFIs, it is important not to overlook regulatory proposals that may already effectively target some key issues, despite not being specifically targeted at SIFIs.

On 17 December 2009 the Basel Committee on Banking Supervision issued its latest reform package¹³ to strengthen global capital and liquidity regulations, promoting a more resilient banking sector. The objective of the reform is to improve the banking sector’s ability to absorb shocks arising from financial and economic stress, thus reducing the risk of spillover from the financial sector to the real economy. The core of the proposal requires banks to considerably raise the quantity, the quality and the loss-absorbing capacity of capital. In turn, this has a positive effect on the resilience of banks and reduces the expected cost in case of government intervention.

Several of the new rules are likely to have relevant effects on SIFIs, including revised capital charges for the trading book, a stricter treatment of securitisations, a non-risk-based leverage ratio, enhanced requirements for counterparty credit risk and a new liquidity framework. All of these measures specifically target the cross-sectional dimension of systemic risk, with potentially far-reaching effects on the activities of large universal or investment banks with extensive wholesale activities, large derivatives exposures and great reliance on

¹² This behaviour is rational on an individual basis, given that the manager benefits on the upside but does not incur the costs of failure, which are shifted to the tax-payers.

¹³ The reform package comprises two consultative documents entitled: “Strengthening the resilience of the banking sector” and “International framework for liquidity risk measurement, standards and monitoring”.

short-term, fragile sources of funding (repos, securities financing): exactly those institutions that are most likely to attain systemic relevance. At the same time, the envisaged capital buffers above the regulatory minimum would directly address the time-series dimension of systemic risk, reducing the breadth and intensity of the leverage and risk-taking cycle. Therefore, the new Basel framework may have a significant impact on SIFIs and deserves careful analysis.

SPECIFIC REGULATORY AND SUPERVISORY APPROACHES FOR SIFIS

The centrality of SIFIs in the crisis has also revealed the need for a robust regime which specifically addresses how SIFIs should be regulated and, if they fail, how this should be resolved.

There is a common agreement that in order to reduce the probability of default of banks in general, and of SIFIs in particular, it is a prerequisite to improve supervisory regimes, both at the micro and at the macro level. These enhancements should take place both at the domestic and at the EU level.

A wide discussion is underway regarding possible rules to reduce the risk of the failure of a SIFI and/or to mitigate the consequences of such failures for the financial system as a whole. The current debate includes two broad sets of policies: (i) *ex ante* measures, aimed at reducing the probability and impact of a SIFI's default, and (ii) *ex post* measures, aimed at ensuring that the failure of a financial institution can be resolved in an orderly fashion, and that the impact of the crisis resolution on the financial system is contained.

Ex ante measures

This set of measures attempts (i) to reduce the systemic relevance of financial institutions by modifying the structure/business model so as to separate business activities, or (ii) to decrease the probability of default via additional prudential requirements.

Various proposals have been put forward to reduce the probability of failures of SIFIs by intervening in the corporate structure or business model. This avenue is also being taken by the proposals recently unveiled by the US Administration, which are commonly known as the "Volcker rule". These proposals aim to limit proprietary trading and investment in hedge funds or private equity funds, as well as the excessive growth of leverage of the largest financial institutions relative to the financial system as a whole. The Volcker rule has mainly been designed with the US financial system in mind. Its application elsewhere would require a careful assessment of important implications (e.g. in the presence of a prevailing model of universal banking, the potential distortions to the functioning of the internal market in the EU).

Another view put forward on how to address the specific risks posed by SIFIs is to introduce additional prudential requirements, for instance via capital surcharges or contingent capital instruments.

The implementation of a capital surcharge would imply that a higher capital buffer would be calibrated for SIFIs, on the basis of their contribution to the creation of systemic risk.¹⁴ A higher capital buffer could also be achieved by contingent capital: a bank issues debt instruments that would automatically convert into equity in specific circumstances, for instance when the capital ratio falls below a certain threshold. This threshold would be set such that it entails a significant dilution of pre-existing shareholdings in the event of a systemic crisis (to be appropriately defined) or in case of government recapitalisation.

Both methods may contribute to mitigating systemic risk by creating additional layers of capital, both as a going and gone concern. They

¹⁴ The contribution of each SIFI depends on its particular characteristics, so that additional prudential requirements, like a surcharge, could be better calculated in the context of the specific supervisory review of each institution, with strong guidance to avoid issues of level playing field.

could also help internalising the externality costs arising from systemic importance and decrease the expected burden on taxpayers.

Contingent capital may have the additional advantage of directly strengthening the market discipline exerted by both debt and equity-holders, who have stronger incentives to monitor management choices that may decrease the value of their claims. However, it is acknowledged that certain operational features of the contingent capital proposal still need to be refined further (e.g. triggers, conversion rates). The effectiveness of contingent capital instruments would depend crucially on their characteristics, but also on pricing and the way it would be marketed to investors.

Capital surcharges would be more costly than contingent capital, as the extra capital would be available on a permanent basis and not only in adverse circumstances; moreover, their design is heavily dependent on the availability of a precise, robust and agreed methodology to measure systemic risk and define its mapping into a charge.

More recently, in addition to the above-mentioned tools, another type of instrument – a systemic tax or levy – has featured on the reform agenda. A systemic levy, to be targeted either at the whole financial sector or at a specific set of SIFIs, would charge a financial institution on the basis of its contribution to systemic risk. Depending on its design, a levy generally has both *ex ante* and *ex post* features. In fact, to the extent that a levy is calibrated to target sources of systemic risk and improve incentives, it acts as an *ex ante* measure, similar in spirit to a capital surcharge. However, several proposals suggest that the proceeds of a levy would accrue to a resolution or crisis management fund or, alternatively, to the general government budget: from this perspective, a levy displays *ex post* features as it, in essence, raises a contribution from the financial sector to pay for the cost of financial crises.

The evaluation of these measures – contingent capital, surcharges and levies – should be framed under a comprehensive comparative analysis investigating the interaction between the proposals and their overall cumulative effects. In particular, full account should be taken of the impact of the Basel reform package on the banking system and the broader economy. This is necessary to prevent, *inter alia*, additional requirements adopted beyond the regulatory minimum standard from hampering the provision of bank credit to the non-financial private sector.

Ex post measures

These measures focus on ensuring that authorities are endowed with appropriate mechanisms to resolve the failure of a financial institution in an orderly and prompt manner, with the cost of default/restructuring falling on equity and bond-holders and no socialisation of losses.

In this context, the development of recovery¹⁵ and resolution¹⁶ plans – collectively referred to as “living wills” – is a major step towards entrenching the notion that SIFIs should no longer be perceived by the market as warranting government support in case of distress. Living wills could also contribute towards (i) reducing the market-wide impact of financial distress and (ii) enhancing the information authorities have at their disposal, as well as their preparedness to address distress, thereby favouring more effective supervision and early intervention. The need for *credible* plans is crucial. In this respect, it could be argued that the credibility of resolution plans may be inversely proportional to the complexity of the institution, which may result in the need for institutions to simplify the structure of their organisation or business model

¹⁵ Recovery or “going concern” plans include contingency funding and de-risking plans and should be prepared by the financial institutions and reviewed by competent authorities.

¹⁶ The resolution or “gone concern” plans should fall within the responsibility of competent authorities. These plans identify actions to be taken once the “going concern” plans have proven insufficient without taking into account the possibility of public support. Their focus should be on the institution maintaining the provision of its essential business operations, such as access to payment services and to insured deposits and, if this fails, on the winding-up of the institution.

in order to comply with the credibility requirement.

According to the agreement reached at the G20 Pittsburgh Summit on 25 September 2009, a crisis management and resolution framework should be in place in order to reduce to a minimum the possible burden for taxpayers arising from any crisis of financial institutions and reduce moral hazard. To reach this objective, concrete initiatives should be taken at both the EU and the national level with the aim of achieving a framework that would allow Member States to have the legal and operational means to address the failure of a cross-border SIFI and to ensure smooth cooperation with other countries involved in case of need. In this context, the recent Communication of the Commission on “An EU framework for cross-border crisis management in the banking sector”¹⁷ is a first step in this direction. The three pillars of this framework – early intervention, resolution and insolvency – involve measures to be taken in several phases of a crisis, which may involve different types of response, from different authorities, and with different funding implications.

In parallel with the Commission’s initiative, the Economic and Financial Committee – through its ad hoc working group on crisis management – has been working towards developing a comprehensive and pragmatic approach to the enhancement of the EU policy coordination framework for crisis prevention, management and resolution, including procedures for enhancing the preparedness of the EU Member States for ex post burden-sharing and procedures for the possible establishment of a resolution or bailout fund.

Overall, before coming to any policy conclusions, it is necessary to carry out further analysis about the potential effectiveness of each individual measure in terms of achieving the objectives of containing systemic risk and reducing the element of moral hazard, and to what extent the envisaged measures are alternatives or complementary.

COORDINATION AMONG COMPETENT AUTHORITIES

The measures to address the risks posed by SIFIs must be consistent, and thus require strong collaboration and coordination at the international level. In this context, global coordination would help to promote a level playing field and prevent international regulatory arbitrage. Given the differences between individual financial institutions and the structure of national financial systems, a one-size-fits-all approach is neither feasible nor desirable. Rather, the focus should be on putting a policy toolbox in place, to be used as appropriate.

Policy tools should ultimately be selected on the basis of a detailed analysis of the trade-offs between feasibility, effectiveness, enforceability and transparency, with due consideration of countries’ financial structures and legal frameworks and institutions’ specific features. While the specific measures need not be the same in all countries, it is crucial that a coordinated framework is in place, given the global scope of SIFIs’ activities. This framework should combine the need for flexibility, while adequately reflecting the degree to which individual institutions contribute to systemic risk, incorporating appropriate incentives for institutions to reduce their overall impact on the financial system and minimise the risks of international regulatory arbitrage.

CONCLUDING REMARKS

The financial crisis has revealed the scale of the potential fallout from the failure of SIFIs. In order to address, or mitigate, their potential contribution to financial instability, an overarching approach is being adopted by European and international policy-makers.

From a micro-prudential perspective, the development of a strengthened regulatory and

¹⁷ Commission Communication on “An EU Framework for Cross-Border Crisis Management in the Banking Sector”, COM(2009) 561, 20 October 2009 (available at http://ec.europa.eu/internal_market/bank/crisis_management/index_en.htm).

supervisory regime is under way in order to reduce the risk contribution of a failure of a SIFI and increase the overall resilience of the financial system.

However, the impact of systemic risk depends very much on the collective behaviour of financial institutions and their interconnectedness, as well as on the interaction between financial markets and the overall economy. The recognition of the public good aspect of financial stability, therefore, underpins the recent emphasis on a macro-prudential approach to regulation and supervision.

At the EU level, macro-prudential oversight will be the key task of the European Systemic Risk Board (ESRB). The ESRB will be expected to actively monitor the various sources of risk to financial stability across countries, financial sectors and institutions, while also taking into account global developments. This will make it possible to identify system-wide risks also for the benefit of regulatory and supervisory policies.